



High-Speed Steel Morse Taper Shank Countersink

Stock Code	System Code	Size	Morse Taper	Head Angle	Uom	Brand
SM5113	A0013645	16 mm	MTS 1	60°	EA	Somta
SM5114	A0013646	20 mm	MTS 2	60°	EA	Somta
SM5119	A0013647	31.5 mm	MTS 2	90°	EA	Somta
SM5121	A0013648	40 mm	MTS 3	90°	EA	Somta
SM5122	A0013649	50 mm	MTS 3	90°	EA	Somta
SM5123	A0013650	63 mm	MTS	90°	EA	Somta



A0013645

High-Speed Steel Parallel Shank Countersink

Stock Code	System Code	Size	Head Angle	Uom	Brand
SM5100	A0013635	8 mm	60°	EA	Somta
SM5102	A0013637	12.5 mm	60°	EA	Somta
SM5103	A0013638	16 mm	60°	EA	Somta
SM5106	A0013641	8 mm	90°	EA	Somta
SM5101	A0013636	10 mm	90°	EA	Somta
SM5108	A0013642	12.5 mm	90°	EA	Somta
SM5109	A0013644	16 mm	90°	EA	Somta
SM5104	A0013639	20 mm	90°	EA	Somta
SM5105	A0013640	25 mm	90°	EA	Somta



A0013635

HSS Broach Cutter-M2 STD Series (Long Series, HSS CO8 & TCT Available on Request)

Stock Code	System Code	Size	Uom	Brand
PB0200	A0016333	12 x 30 mm	EA	Magtron
PB0201	A0016334	14 x 30 mm	EA	Magtron
PB0203	A0016335	16 x 30 mm	EA	Magtron
PB0205	A0016336	18 x 30 mm	EA	Magtron
PB0207	A0016337	20 x 30 mm	EA	Magtron
PB0208	A0016338	21 x 30 mm	EA	Magtron
PB0209	A0016339	22 x 30 mm	EA	Magtron

HSS Broach Cutter-M2 STD Series (Long Series, HSS CO8 & TCT Available on Request)

Stock Code	System Code	Size	Uom	Brand
PB0211	A0016340	24 x 30 mm	EA	Magtron
PB0215	A0016341	32 x 30 mm	EA	Magtron
PB0217	07-M1036	36 x 30 mm	EA	Magtron
PB0218	07-M1037	37 x 30 mm	EA	Magtron
PB0219	07-M1038	38 x 30 mm	EA	Magtron

Cobalt Broach Cutters-CO8, M42 (Long Series, TCT & Special Sizes on Request)

Stock Code	System Code	Size	Uom	Brand
PB0000	A0016284	12 x 30 mm	EA	Magtron
PB0024	A0016307	13 x 30 mm	EA	Magtron
PB0001	A0016285	14 x 30 mm	EA	Magtron
PB0002	A0016286	15 x 30 mm	EA	Magtron
PB0003	A0016287	16 x 30 mm	EA	Magtron
PB0004	A0016288	17 x 30 mm	EA	Magtron
PB0005	A0016289	18 x 30 mm	EA	Magtron
PB0006	A0016290	19 x 30 mm	EA	Magtron
PB0007	A0016291	20 x 30 mm	EA	Magtron
PB0008	A0016292	21 x 30 mm	EA	Magtron
PB0009	A0016293	22 x 30 mm	EA	Magtron
PB0010	A0016294	23 x 30 mm	EA	Magtron
PB0011	A0016295	24 x 30 mm	EA	Magtron
PB0022	A0016305	26 x 30 mm	EA	Magtron

Cobalt Cutter Broach-Co8, M42 (Long Series, TCT & Special Sizes on Request)

Stock Code	System Code	Size	Uom	Brand
PB0013	A0016296	29 x 30 mm	EA	Magtron
PB0014	A0016297	30 x 30 mm	EA	Magtron
PB0015	A0016298	32 x 30 mm	EA	Magtron
PB0023	A0016306	34 x 30 mm	EA	Magtron
PB0016	A0016299	35 x 30 mm	EA	Magtron
PB0017	A0016300	36 x 30 mm	EA	Magtron
PB0018	A0016301	37 x 30 mm	EA	Magtron
PB0019	A0016302	38 x 30 mm	EA	Magtron
PB0020	A0016303	39 x 30 mm	EA	Magtron
PB0021	A0016304	40 x 30 mm	EA	Magtron



A0016296



Long Cobalt Broach Cutters-CO8, M42				
Stock Code	System Code	Size	Uom	Brand
PB0030	A0016308	12 x 55 mm	EA	Magtron
PB0031	A0016309	13 x 55 mm	EA	Magtron
PB0032	A0016310	14 x 55 mm	EA	Magtron
PB0033	A0016311	15 x 55 mm	EA	Magtron
PB0034	A0016312	16 x 55 mm	EA	Magtron
PB0035	A0016313	17 x 55 mm	EA	Magtron
PB0036	A0016314	18 x 55 mm	EA	Magtron
PB0037	A0016315	19 x 55 mm	EA	Magtron
PB0038	A0016316	20 x 55 mm	EA	Magtron
PB0039	A0016317	21 x 55 mm	EA	Magtron
PB0040	A0016318	22 x 55 mm	EA	Magtron
PB0041	A0016319	23 x 55 mm	EA	Magtron
PB0042	A0016320	24 x 55 mm	EA	Magtron
PB0043	A0016321	25 x 55 mm	EA	Magtron
PB0044	A0016322	26 x 55 mm	EA	Magtron
PB0045	A0016323	27 x 55 mm	EA	Magtron
PB0046	A0016324	28 x 55 mm	EA	Magtron
PB0047	A0016325	29 x 55 mm	EA	Magtron
PB0048	A0016326	30 x 55 mm	EA	Magtron
PB0049	A0016327	31 x 55 mm	EA	Magtron
PB0050	A0016328	32 x 55 mm	EA	Magtron
PB0053	A0016331	34 x 55 mm	EA	Magtron
PB0051	A0016329	36 x 55 mm	EA	Magtron
PB0055	A0016332	38 x 55 mm	EA	Magtron
PB0052	A0016330	40 x 55 mm	EA	Magtron



A0016308

Pilot Pins				
Stock Code	System Code	Size	Uom	Brand
PB0061	A0016098	30 mm	EA	Magtron
PB0060	A0016097	55 mm	EA	Magtron



A0016097

Carbon Steel Die Nuts						
Stock Code	System Code	Size	Thread	Pitch	Uom	Brand
WA0181	A0015166	1/4"	BSP	19TPI	EA	Somta
WA0183	A0015167	1/2"	BSP	14TPI	EA	Somta
WA0084	A0015115	1/4"	BSW	20TPI	EA	Somta
WA0087	A0015116	7/16"	BSW	14TPI	EA	Somta
WA0090	A0015117	5/8"	BSW	11TPI	EA	Somta
WA0091	A0015118	3/4"	BSW	10TPI	EA	Somta



A0015166



Carbon Steel Die Nuts

Stock Code	System Code	Size	Thread	Pitch	Uom	Brand
WA0261	A0015177	MF8	Metric Fine	1 TPI	EA	Somta
WA0263	A0015178	MF10	Metric Fine	1.25 TPI	EA	Somta
WA0268	A0015179	MF14	Metric Fine	1.5 TPI	EA	Somta
WA0269	A0015180	MF16	Metric Fine	1.5 TPI	EA	Somta
WA0270	A0015181	MF18	Metric Fine	1.5 TPI	EA	Somta
WA0271	A0015182	MF20	Metric Fine	1.5 TPI	EA	Somta
WA0272	A0015183	MF22	Metric Fine	1.5 TPI	EA	Somta
WA0273	A0015184	MF24	Metric Fine	1.5 TPI	EA	Somta
WA0052	A0015100	M4	Metric	0.7 TPI	EA	Somta
WA0053	A0015101	M5	Metric	0.8 TPI	EA	Somta
WA0054	A0015102	M6	Metric	1 TPI	EA	Somta
WA0056	A0015103	M8	Metric	1.25 TPI	EA	Somta
WA0058	A0015104	M10	Metric	1.5 TPI	EA	Somta
WA0060	A0015105	M12	Metric	1.75 TPI	EA	Somta
WA0061	A0015106	M14	Metric	2 TPI	EA	Somta
WA0062	A0015107	M16	Metric	2 TPI	EA	Somta
WA0063	A0015108	M18	Metric	2.5 TPI	EA	Somta
WA0064	A0015109	M20	Metric	2.5 TPI	EA	Somta
WA0065	A0015110	M22	Metric	2.5 TPI	EA	Somta
WA0066	A0015111	M24	Metric	3 TPI	EA	Somta
WA0067	A0015112	M27	Metric	3 TPI	EA	Somta
WA0068	A0015113	M30	Metric	3.5 TPI	EA	Somta
WA0070	A0015114	M36	Metric	4 TPI	EA	Somta
WA0210	A0015170	1/4"	UNC	20 TPI	EA	Somta
WA0214	A0015171	1/2"	UNC	13 TPI	EA	Somta
WA0216	A0015172	5/8"	UNC	11 TPI	EA	Somta
WA0217	A0015173	3/4"	UNC	10 TPI	EA	Somta
WA0202	A0015168	3/8"	UNF	24 TPI	EA	Somta
WA0203	A0015169	7/16"	UNF	20 TPI	EA	Somta



A0015177



A0015105

High Speed Steel Die Nut

Stock Code	System Code	Size	Thread	Pitch	Uom	Brand
SM3000	A0013338	M3	Metric Coarse	0.5 TPI	EA	Somta
SM5000	A0013619	M4	Metric Coarse	0.7 TPI	EA	Somta
SM3002	A0013339	M5	Metric Coarse	0.8 TPI	EA	Somta
SM5003	A0013620	M6	Metric Coarse	1 TPI	EA	Somta
SM5005	A0013621	M8	Metric Coarse	1.25 TPI	EA	Somta
SM5720	A0013768	M10	Metric Coarse	1.5 TPI	EA	Somta
SM5009	A0013622	M12	Metric Coarse	1.75 TPI	EA	Somta
SM5010	A0013623	M14	Metric Coarse	2 TPI	EA	Somta
SM5011	A00136124	M16	Metric Coarse	2 TPI	EA	Somta
SM5014	A0013626	M18	Metric Coarse	2.5 TPI	EA	Somta
SM5012	A0013625	M20	Metric Coarse	2.5 TPI	EA	Somta
SM5015	A0013627	M24	Metric Coarse	3 TPI	EA	Somta
SM5016	A0013628	M27	Metric Coarse	3 TPI	EA	Somta



A0013338



High Speed Steel Die Nuts						
Stock Code	System Code	Size	Thread	Pitch	Uom	Brand
SM5017	A0013629	M30	Metric Coarse	3.5 TPI	EA	Somta
SM5018	A0013630	M33	Metric Coarse	3.5 TPI	EA	Somta
SM5019	A0013631	M36	Metric Coarse	4 TPI	EA	Somta
SM5035	A0013632	M42	Metric Coarse	4.5 TPI	EA	Somta
SM5125	A0013651	1/8"	BSP	28 TPI	EA	Somta
SM5126	A0013652	1/4"	BSP	19 TPI	EA	Somta
SM5127	A0013653	3/8"	BSP	19 TPI	EA	Somta
SM5128	A0013654	1/2"	BSP	14 TPI	EA	Somta
SM5129	A0013655	5/8"	BSP	14 TPI	EA	Somta
SM5130	A0013656	3/4"	BSP	14 TPI	EA	Somta
SM5131	A0013657	1"	BSP	11 TPI	EA	Somta
SM5152	A0013658	1/4"	BSW	20 TPI	EA	Somta
SM5153	A0013659	5/16"	BSW	18 TPI	EA	Somta
SM5154	A0013660	3/8"	BSW	16 TPI	EA	Somta
SM5155	A0013661	7/16"	BSW	14 TPI	EA	Somta
SM5156	A0013662	1/2"	BSW	12 TPI	EA	Somta
SM5158	A0013663	5/8"	BSW	11 TPI	EA	Somta
SM5159	A0013664	3/4"	BSW	10 TPI	EA	Somta
SM5160	A0013665	7/8"	BSW	9 TPI	EA	Somta
SM5161	A0013666	1"	BSW	8 TPI	EA	Somta
SM5200	A0013667	1/4"	UNC	20 TPI	EA	Somta
SM5202	A0013669	5/16"	UNC	18 TPI	EA	Somta
SM5203	A0013670	3/8"	UNC	16 TPI	EA	Somta
SM5201	A0013668	7/16"	UNC	14 TPI	EA	Somta
SM5204	A0013671	1/2"	UNC	13 TPI	EA	Somta
SM5205	A0013672	9/16"	UNC	12 TPI	EA	Somta
SM5206	A0013673	5/8"	UNC	11 TPI	EA	Somta
SM5207	A0013674	3/4"	UNC	10 TPI	EA	Somta
SM5208	A0013675	7/8"	UNC	9 TPI	EA	Somta
SM5209	A0013676	1"	UNC	8 TPI	EA	Somta
SM5213	A0013677	1/4"	UNF	28 TPI	EA	Somta
SM5214	A0013678	5/16"	UNF	24 TPI	EA	Somta
SM5215	A0013679	3/8"	UNF	24TPI	EA	Somta
SM5216	A0013680	7/16"	UNF	20 TPI	EA	Somta
SM5217	A0013681	1/2"	UNF	20 TPI	EA	Somta
SM5218	A0013682	9/16"	UNF	18 TPI	EA	Somta
SM5220	A0013683	3/4"	UNF	16 TPI	EA	Somta
SM5221	A0013684	7/8"	UNF	14 TPI	EA	Somta
SM5222	A0013685	1"	UNF	12 TPI	EA	Somta



A0013629



A0013670

Die Stocks					
Stock Code	System Code	Size	Reference	Uom	Brand
SM8523	A0013852	25 x 9 mm	No. 3	EA	Somta
SM8524	A0013853	30 x 11 mm	No. 4	EA	Somta

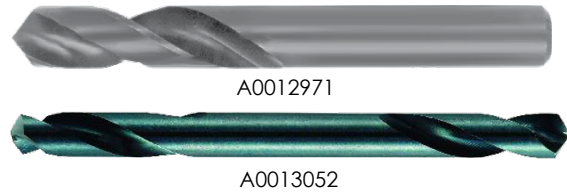


A0013852



***Blind Rivet Drill Size**

High Speed Steel Single End Stub Drills				
Stock Code	System Code	Size	Uom	Brand
SM0908	A0012971	2.50 mm*	EA	Somta
SM0913	A0012972	3 mm	EA	Somta
SM0915	A0012973	3.20 mm	EA	Somta
SM0916	A0012974	3.30 mm*	EA	Somta
SM0917	A0012975	3.40 mm	EA	Somta
SM0918	A0012976	3.50 mm	EA	Somta
SM0919	A0012977	3.60 mm	EA	Somta
SM0921	A0012978	3.80 mm	EA	Somta
SM0924	A0012980	4.10 mm*	EA	Somta
SM0925	A0012981	4.20 mm	EA	Somta
SM0928	A0012982	4.50 mm	EA	Somta
SM0931	A0012983	4.80 mm	EA	Somta
SM0932	A0012984	4.90 mm*	EA	Somta
SM0933	A0012985	5 mm	EA	Somta
SM0934	A0012986	5.20 mm	EA	Somta
SM0937	A0012987	5.50 mm	EA	Somta
SM0943	A0012988	6 mm	EA	Somta
SM0949	A0012990	6.50 mm	EA	Somta
SM0950	A0012991	7 mm	EA	Somta
SM0945	A0012989	8 mm	EA	Somta
SM0956	A0012993	8.50 mm	EA	Somta
SM0958	A0012994	9 mm	EA	Somta
SM0962	A0012995	10 mm	EA	Somta
SM0067	A0012998	10.50 mm	EA	Somta
SM0966	A0012997	11 mm	EA	Somta
SM0970	A0012999	12 mm	EA	Somta
SM0971	A0013000	12.50 mm	EA	Somta
SM0972	A0013001	13 mm	EA	Somta
SM0973	A0013002	16 mm	EA	Somta



High Speed Steel Double Ended Stub Drills				
Stock Code	System Code	Size	Uom	Brand
SM1105	A0013052	2.80 mm	EA	SDS
SM1106	A0013053	3 mm	EA	SDS
SM0975	A0013003	3.20 mm	EA	SDS
SM0976	A0013004	3.30 mm*	EA	SDS
SM1109	A0013056	3.50 mm	EA	SDS
SM1110	A0013057	3.80 mm	EA	SDS
SM0979	A0013005	4 mm	EA	SDS
SM0980	A0013006	4.10 mm*	EA	SDS
SM0981	A0013007	4.20 mm	EA	SDS
SM0982	A0013008	4.50 mm	EA	SDS
SM0983	A0013009	4.80 mm	EA	SDS
SM1116	A0013063	4.90 mm	EA	SDS
SM0984	A0013063	4.90 mm*	EA	SDS
SM0985	A0013010	5 mm	EA	SDS
SM0986	A0013011	5.20 mm	EA	SDS
SM0987	A0013012	5.50 mm	EA	SDS
SM0989	A0013013	6 mm	EA	SDS
SM0991	A0013014	6.50 mm*	EA	SDS
SM0992	A0013015	7 mm	EA	SDS
SM0994	A0013016	8 mm	EA	SDS



SDS Masonry Drill			
Stock Code	System Code	Size	Uom
SD0005	A0012314	5 x 110 mm	EA
SD0006	A0012315	6 x 100 mm	EA
SD0014	A0012316	8 x 100 mm	EA
SD0015	A0012317	8 x 150 mm	EA
SD0021	A0012318	10 x 110 mm	EA
SD0022	A0016108	10 x 150 mm	EA
SD0023	A0012319	10 x 160 mm	EA
SD0026	A0012320	10 x 400 mm	EA
SD0033	A0012321	12 x 150 mm	EA
SD0034	A0012322	12 x 200 mm	EA
SD0036	A0012323	12 x 450 mm	EA
SD0043	A0012324	14 x 150 mm	EA
SD0055	A0012326	16 x 150 mm	EA
SD0056	A0012327	16 x 160 mm	EA
SD0120	A0012328	20 x 400 mm	EA

SDS Plus Drills			
Stock Code	System Code	Size	Uom
SM1600	A0013153	4 x 110 mm	EA
SM1601	A0013154	4 x 160 mm	EA
SM1602	A0013155	5 x 110 mm	EA
SM1603	A0013156	5 x 160 mm	EA
SM1604	A0013157	5 x 210 mm	EA
SM1605	A0013158	5.5 x 110 mm	EA
SM1606	A0013159	5.5 x 160 mm	EA
SM1610	A0013163	6.5 x 110 mm	EA
SM1611	A0013154	6.5 x 160 mm	EA
SM1612	A0013165	6.5 x 210 mm	EA
SM1613	A0013166	6.5 x 260 mm	EA
SM1607	A0013160	6 x 160 mm	EA
SM1608	A0013161	6 x 210 mm	EA
SM1609	A0013162	6 x 260 mm	EA
SM1614	A0013167	7 x 110 mm	EA
SM1615	A0013168	7 x 160 mm	EA
SM1616	A0013169	7 x 210 mm	EA



A0013170



A0013211



SDS Plus Drills			
Stock Code	System Code	Size	Uom
SM1617	A0013170	7 x 260 mm	EA
SM1618	A0013171	8 x 110 mm	EA
SM1619	A0013172	8 x 160 mm	EA
SM1620	A0013173	8 x 210 mm	EA
SM1621	A0013174	8 x 260 mm	EA
SM1622	A0013175	8 x 310 mm	EA
SM1623	A0013176	9 x 160 mm	EA
SM1624	A0013177	9 x 210 mm	EA
SM1625	A0013178	10 x 210 mm	EA
SM1626	A0013179	10 x 260 mm	EA
SM1627	A0013180	10 x 310 mm	EA
SM1628	A0013181	10 x 350 mm	EA
SM1629	A0013182	10 x 400 mm	EA
SM1630	A0013183	10 x 450 mm	EA
SM1631	A0013184	11 x 160 mm	EA
SM1632	A0013185	11 x 210 mm	EA
SM1633	A0013186	11 x 260 mm	EA
SM1634	A0013187	11 x 310 mm	EA
SM1635	A0013188	11 x 350 mm	EA
SM1636	A0013189	11 x 450 mm	EA
SM1637	A0013190	12 x 160 mm	EA
SM1638	A0013191	12 x 210 mm	EA
SM1639	A0013192	12 x 350 mm	EA
SM1640	A0013193	12 x 400 mm	EA
SM1641	A0013194	12 x 450 mm	EA
SM1642	A0013195	13 x 160 mm	EA
SM1643	A0013196	13 x 210 mm	EA
SM1644	A0013197	13 x 260 mm	EA
SM1645	A0013198	13 x 310 mm	EA
SM1646	A0013199	13 x 350 mm	EA
SM1647	A0013200	13 x 450 mm	EA
SM1648	A0013201	14 x 160 mm	EA
SM1649	A0013202	14 x 210 mm	EA
SM1650	A0013203	14 x 260 mm	EA
SM1651	A0013204	14 x 310 mm	EA
SM1652	A0013205	14 x 350 mm	EA
SM1653	A0013206	14 x 400 mm	EA
SM1654	A0013207	14 x 450 mm	EA
SM1655	A0013208	14 x 600 mm	EA
SM1656	A0013209	15 x 160 mm	EA
SM1657	A0013210	15 x 210 mm	EA

SDS Plus Drills			
Stock Code	System Code	Size	Uom
SM1658	A0013211	15 x 260 mm	EA
SM1663	A0013216	16 x 350 mm	EA
SM1659	A0013212	16 x 160 mm	EA
SM1660	A0013198	16 x 210 mm	EA
SM1661	A0013214	16 x 260 mm	EA
SM1662	A0013215	16 x 310 mm	EA
SM1664	A0013217	16 x 400 mm	EA
SM1665	A0013218	16 x 450 mm	EA
SM1666	A0013219	16 x 600 mm	EA
SM1667	A0013220	18 x 210 mm	EA
SM1668	A0013221	18 x 260 mm	EA
SM1669	A0013222	18 x 310 mm	EA
SM1670	A0013223	18 x 350 mm	EA
SM1671	A0013224	18 x 400 mm	EA
SM1672	A0013225	18 x 450 mm	EA
SM1673	A0013226	18 x 600 mm	EA
SM1674	A0013227	19 x 210 mm	EA
SM1675	A0013228	19 x 260 mm	EA
SM1676	A0013229	19 x 310 mm	EA
SM1677	A0013230	19 x 350 mm	EA
SM1678	A0013231	19 x 450 mm	EA
SM1679	A0013232	20 x 210 mm	EA
SM1680	A0013233	20 x 260 mm	EA
SM1684	A0013235	20 x 600 mm	EA
SM1687	A0013236	22 x 260 mm	EA
SM1688	A0013237	22 x 350 mm	EA
SM1689	A0013238	22 x 400 mm	EA
SM1690	A0013239	22 x 600 mm	EA
SM1694	A0013240	24 x 400 mm	EA
SM1698	A0013241	25 x 310 mm	EA
SM1700	A0013242	25 x 400 mm	EA
SM1701	A0013243	25 x 450 mm	EA
SM1702	A0013244	25 x 600 mm	EA
SM1703	A0013245	26 x 210 mm	EA
SM1704	A0013246	26 x 260 mm	EA
SM1705	A0013247	26 x 310 mm	EA
SM1706	A0013248	26 x 350 mm	EA
SM1707	A0013249	26 x 400 mm	EA
SM1708	A0013250	26 x 450 mm	EA
SM1709	A0013251	26 x 600 mm	EA

High Speed Steel Morse Taper Shank Drill Sets					
Stock Code	System Code	Size	Set	Uom	Brand
SM0900	A0012969	13-25 mm	13 Pc	Set	Somta
SM0901	A0012970	13-25 mm Complete with Sleeve 0-1,1-2,2-3	16 Pc	Set	Somta



CUTTING, DRILLING AND THREADING



A0009738



A0009733



A0012777



A0012776



A0012778



A0012779



A0012775



A0012811

High Speed Steel Jobber Drill Sets

Stock Code	System Code	Size	Set	Finish	Uom	Brand
MC0250	A0009738	3-13 mm	11 Pc	Masonry, Carbide Tip	Set	Somta
MC0150	A0009733	1-13 mm x 0.5 mm	25 Pc	Bright Finish	Set	Somta
SM0251	A0012777	1-10 mm x 0.5 mm	19 Pc	Blue Finish	Set	Somta
SM0250	A0012776	1-10 mm x 1.0 mm	10 Pc	Blue Finish	Set	Somta
SM0253	A0012779	1-13 mm x 0.5 mm	26 Pc	Blue Finish	Set	Somta
SM0252	A0012778	1-13 mm x 1.0 mm	13 Pc	Blue Finish	Set	Somta
SM0249	A0012775	1-7 mm x 0.5 mm	13 Pc	Blue Finish	Set	Somta
SM0450	A0012811	1-13 mm x 0.5 mm	25 Pc	Blue Band-TiAlN Coated	Set	Somta
SM0451	A0012812	1-13 mm x 0.5 mm	25 Pc	NDX Heavy-Duty Gold Oxide	Set	Somta

High Speed Steel Centre Drills (Form B)

Stock Code	System Code	Size	Uom	Brand
SM1226	A0013085	4 mm	EA	Somta
SM1227	A0013086	5 mm	EA	Somta



A0013085

High Speed Steel Centre Drills (Form A)

Stock Code	System Code	Size	Uom	Brand
SM1201	A0013069	1 mm	EA	Somta
SM1202	A0013070	1.60 mm	EA	Somta
SM1203	A0013071	2 mm	EA	Somta
SM1204	A0013072	2.50 mm	EA	Somta
SM1205	A0013073	3.15 mm	EA	Somta
SM1206	A0013074	4 mm	EA	Somta
SM1207	A0013075	5 mm	EA	Somta
SM1208	A0013076	6.30 mm	EA	Somta
SM1209	A0013077	8 mm	EA	Somta
SM1211	A0013078	BS1	EA	Somta
SM1212	A0013079	BS2	EA	Somta
SM1213	A0013080	BS3	EA	Somta
SM1214	A0013081	BS4	EA	Somta
SM1215	A0013082	BS5	EA	Somta
SM1216	A0013083	BS6	EA	Somta
SM1217	A0013084	BS7	EA	Somta



A0013069



High Speed Steel Morse Taper Shank Drills					
Stock Code	System Code	Size	Morse Taper	Uom	Brand
SM0654	A0012850	3 mm	No. 1	EA	Somta
SM0660	A0012852	3.50 mm	No. 1	EA	Somta
SM0662	A0012853	4 mm	No. 1	EA	Somta
SM0664	A0012854	4.50 mm	No. 1	EA	Somta
SM0668	A0012856	5 mm	No. 1	EA	Somta
SM0670	A0012858	5.50 mm	No.1	EA	Somta
SM0672	A0012859	6 mm	No. 1	EA	Somta
SM0674	A0012860	6.50 mm	No. 1	EA	Somta
SM0676	A0012861	6.80 mm	No. 1	EA	Somta
SM0678	A0012862	7 mm	No. 1	EA	Somta
SM0682	A0012863	8 mm	No. 1	EA	Somta
SM0684	A0012864	8.50 mm	No. 1	EA	Somta
SM0688	A0012866	9 mm	No. 1	EA	Somta
SM0690	A0012867	9.50 mm	No. 1	EA	Somta
MC0310	A0009744	10 mm	No. 1	EA	Somta
MC0312	A0009745	10.50 mm	No. 1	EA	Somta
MC0313	A0009746	11 mm	No. 1	EA	Somta
MC0315	A0009747	11.50 mm	No. 1	EA	Somta
MC0316	A0009748	12 mm	No.1	EA	Somta
MC0318	A0009750	12.50 mm	No. 1	EA	Somta
MC0319	A0009751	13 mm	No. 1	EA	Somta
MC0320	A0009752	13.50 mm	No. 1	EA	Somta
MC0321	A0009753	14 mm	No. 1	EA	Somta
MC0325	A0009754	14.50 mm	No. 2	EA	Somta
MC0326	A0009755	15 mm	No. 2	EA	Somta
MC0327	A0009756	16 mm	No. 2	EA	Somta
MC0329	A0009758	17 mm	No. 2	EA	Somta
MC0330	A0009759	17.50 mm	No. 2	EA	Somta
MC0331	A0009760	18 mm	No. 2	EA	Somta
MC0332	A0009761	18.50 mm	No. 2	EA	Somta
MC0333	A0009762	19 mm	No.2	EA	Somta
MC0335	A0009764	20 mm	No. 2	EA	Somta
MC0337	A0009766	20.50 mm	No. 2	EA	Somta
MC0338	A0009767	21 mm	No. 2	EA	Somta
MC0339	A0009768	21.50 mm	No. 2	EA	Somta
MC0340	A0009769	22 mm	No. 2	EA	Somta



A0012850



High Speed Steel Morse Taper Shank Drills					
Stock Code	System Code	Size	Morse Taper	Uom	Brand
MC0341	A0009770	22.50 mm	No. 2	EA	Somta
MC0342	A0009771	23 mm	No. 2	EA	Somta
MC0343	A0009772	23.50 mm	No. 3	EA	Somta
MC0346	A0009774	24 mm	No. 3	EA	Somta
MC0347	A0009775	24.50 mm	No. 3	EA	Somta
MC0348	A0009776	25 mm	No. 3	EA	Somta
MC0349	A0009777	25.50 mm	No. 3	EA	Somta
MC0350	A0009778	26 mm	No.3	EA	Somta
MC0351	A0009779	26.50 mm	No. 3	EA	Somta
MC0352	A0009780	27 mm	No. 3	EA	Somta
MC0353	A0009781	28 mm	No. 3	EA	Somta
MC0354	A0009782	29 mm	No. 3	EA	Somta
MC0355	A0009783	30 mm	No. 3	EA	Somta
SM9787	A0013986	33.50 mm	No.4	EA	Somta
MC0356	A0009784	35 mm	No. 4	EA	Somta
MC0357	A0009786	48 mm	No. 4	EA	Somta
MC0358	A0009786	60 mm	No. 5	EA	Somta



High Speed Steel Blue Finish Chip Breaker Morse Taper Shank Drills					
Stock Code	System Code	Size	Morse Taper	Uom	Brand
SM0700	A0012868	10 mm	No. 1	EA	Somta
SM0702	A0012870	10.25 mm	No. 1	EA	Somta
SM0703	A0012871	10.50 mm	No. 1	EA	Somta
SM0706	A0012872	11 mm	No. 1	EA	Somta
SM0709	A0012873	11.50 mm	No. 1	EA	Somta
SM0712	A0012874	12 mm	No. 1	EA	Somta
MC0317	A0009749	12.20 mm	No. 1	EA	Somta
SM0715	A0012875	12.50 mm	No. 1	EA	Somta
SM0716	A0012876	12.75 mm	No. 1	EA	Somta
SM0718	A0012877	13 mm	No. 1	EA	Somta
SM0721	A0012878	13.50 mm	No. 1	EA	Somta
SM0729	A0012883	14 mm	No. 2	EA	Somta
SM0726	A0012880	14.25 mm	No. 2	EA	Somta
SM0727	A0012881	14.50 mm	No. 2	EA	Somta
SM0728	A0012882	14.75 mm	No. 2	EA	Somta
SM0730	A0012884	15 mm	No. 2	EA	Somta
SM0731	A0012885	15.50 mm	No. 2	EA	Somta
SM0733	A0012886	16 mm	No. 2	EA	Somta
MC0328	A0009757	16.25 mm	No. 2	EA	Somta
SM0735	A0012887	16.50 mm	No. 2	EA	Somta
SM0736	A0012888	16.75 mm	No. 2	EA	Somta
SM0737	A0012889	17 mm	No. 2	EA	Somta
SM0738	A0012890	17.25 mm	No. 2	EA	Somta
SM0739	A0012891	17.50 mm	No.2	EA	Somta
SM0741	A0012892	18 mm	No. 2	EA	Somta
SM0742	A0012893	18.25 mm	No. 2	EA	Somta
SM0743	A0012894	18.50 mm	No. 2	EA	Somta
SM0744	A0012895	18.75 mm	No. 2	EA	Somta



CUTTING, DRILLING AND THREADING



High Speed Steel Blue Finish Chip Breaker Morse Taper Shank Drills					
Stock Code	System Code	Size	Morse Taper	Uom	Brand
SM0745	A0012896	19 mm	No. 2	EA	Somta
SM0746	A0012897	19.25 mm	No. 2	EA	Somta
SM0747	A0012898	19.50 mm	No. 2	EA	Somta
SM0748	A0012899	19.75 mm	No. 2	EA	Somta
SM0749	A0012900	20 mm	No. 2	EA	Somta
SM0751	A0012901	20.50 mm	No. 2	EA	Somta
SM0753	A0012902	21 mm	No. 2	EA	Somta
SM0755	A0012903	21.50 mm	No. 2	EA	Somta
SM0757	A0012904	22 mm	No. 2	EA	Somta
SM0758	A0012905	22.25 mm	No. 2	EA	Somta
SM0759	A0012906	22.50 mm	No. 2	EA	Somta
SM0761	A0012907	23 mm	No. 2	EA	Somta
SM0763	A0012908	23.50 mm	No. 3	EA	Somta
SM0764	A0012909	23.75 mm	No. 3	EA	Somta
SM0765	A0012910	24 mm	No. 3	EA	Somta
SM0767	A0012911	24.50 mm	No. 3	EA	Somta
SM0769	A0012912	25 mm	No. 3	EA	Somta
SM0770	A0012913	25.50 mm	No. 3	EA	Somta
SM0771	A0012914	26 mm	No. 3	EA	Somta
SM0772	A0012915	26.50 mm	No. 3	EA	Somta
SM0773	A0012916	27 mm	No. 3	EA	Somta
SM0774	A0012918	27.50 mm	No. 3	EA	Somta
SM0775	A0012919	28 mm	No. 3	EA	Somta
SM0776	A0012920	28.50 mm	No. 3	EA	Somta
SM0777	A0012920	29 mm	No. 3	EA	Somta
SM0778	A0012921	29.50 mm	No. 3	EA	Somta
SM0779	A0012922	30 mm	No. 3	EA	Somta
SM0780	A0012923	30.50 mm	No. 3	EA	Somta
SM0781	A0012924	31 mm	No. 3	EA	Somta
SM0782	A0012925	31.50 mm	No. 3	EA	Somta
SM0784	A0012927	32 mm	No. 4	EA	Somta
SM0785	A0012928	32.50 mm	No. 4	EA	Somta
SM0786	A0012929	33 mm	No. 4	EA	Somta
SM0787	A0012930	33.50 mm	No. 4	EA	Somta
SM0788	A0012931	34 mm	No. 4	EA	Somta
SM0790	A0012932	35 mm	No. 4	EA	Somta
SM0792	A0012933	36 mm	No. 4	EA	Somta
SM0793	A0012934	36.50 mm	No. 4	EA	Somta
SM0794	A0012935	37 mm	No. 4	EA	Somta
SM0795	A0012936	37.50 mm	No. 4	EA	Somta
SM0796	A0012937	38 mm	No. 4	EA	Somta
SM0798	A0012938	39 mm	No. 4	EA	Somta
SM0800	A0012939	40 mm	No. 4	EA	Somta
SM0801	A0012940	40.50 mm	No. 4	EA	Somta
SM0804	A0012941	42 mm	No. 4	EA	Somta
SM0806	A0012942	43 mm	No. 4	EA	Somta
SM0808	A0012943	44 mm	No. 4	EA	Somta
SM0809	A0012944	44.50 mm	No. 4	EA	Somta
SM0810	A0012945	45 mm	No. 4	EA	Somta
SM0811	A0012946	45.50 mm	No. 4	EA	Somta
SM0812	A0012947	46 mm	No. 4	EA	Somta



A0012896



High Speed Steel Blue Finish Chip Breaker Morse Taper Shank Drills

Stock Code	System Code	Size	Morse Taper	Uom	Brand
SM0814	A0012948	47 mm	No. 4	EA	Somta
SM0816	A0012949	48 mm	No. 4	EA	Somta
SM0818	A0012950	49 mm	No. 4	EA	Somta
SM0820	A0012951	50 mm	No. 4	EA	Somta
SM0821	A0012952	50.50 mm	No. 4	EA	Somta
SM0826	A0012953	53 mm	No. 5	EA	Somta
SM0827	A0012954	54 mm	No. 5	EA	Somta
SM0831	A0012955	56 mm	No. 5	EA	Somta
SM0835	A0012956	58 mm	No. 5	EA	Somta
SM0837	A0012957	59 mm	No. 5	EA	Somta
SM0839	A0012958	60 mm	No. 5	EA	Somta
SM0841	A0012959	62 mm	No. 5	EA	Somta
SM0842	A0012960	63 mm	No. 5	EA	Somta
SM0844	A0012961	65 mm	No. 5	EA	Somta
SM0846	A0012962	67 mm	No. 5	EA	Somta
SM0847	A0012963	68 mm	No. 5	EA	Somta
SM0850	A0012964	71 mm	No. 5	EA	Somta
SM0851	A0012965	72 mm	No. 5	EA	Somta
SM0853	A0012966	74 mm	No. 5	EA	Somta
SM0854	A0012967	75 mm	No. 5	EA	Somta
SM0855	A0012968	76 mm	No. 5	EA	Somta



High Speed Steel Bright Finish Jobber Drills

Stock Code	System Code	Size	Uom	Brand
MC0000	A0009619	0.40 mm	EA	Somta
MC0005	A0009621	1 mm	EA	Somta
MC0007	A0009623	1.20 mm	EA	Somta
MC0009	A0009625	1.50 mm	EA	Somta
MC0012	A0009627	1.80 mm	EA	Somta
MC0014	A0009628	2 mm	EA	Somta
MC0016	A0009629	2.20 mm	EA	Somta
MC0018	A0009631	2.40 mm	EA	Somta
MC0019	A0009632	2.50 mm	EA	Somta
MC0020	A0009633	2.60 mm	EA	Somta
MC0022	A0009635	2.80 mm	EA	Somta
MC0024	A0009637	3 mm	EA	Somta
MC0025	A0009638	3.10 mm	EA	Somta
MC0026	A0009639	3.20 mm	EA	Somta
MC0027	A0009640	3.30 mm	EA	Somta
MC0029	A0009642	3.50 mm	EA	Somta
MC0030	A0009643	3.60 mm	EA	Somta
MC0031	A0009644	3.70 mm	EA	Somta
MC0032	A0009645	3.80 mm	EA	Somta
MC0034	A0009648	4 mm	EA	Somta
MC0035	A0009649	4.10 mm	EA	Somta
MC0036	A0009650	4.20 mm	EA	Somta
MC0038	A0009652	4.40 mm	EA	Somta
MC0039	A0009653	4.50 mm	EA	Somta

High Speed Steel Bright Finish Jobber Drills

Stock Code	System Code	Size	Uom	Brand
MC0040	A0009654	4.60 mm	EA	Somta
MC0042	A0009655	4.80 mm	EA	Somta
MC0043	A0009656	4.90 mm	EA	Somta
MC0044	A0009657	5 mm	EA	Somta
MC0046	A0009659	5.20 mm	EA	Somta
MC0047	A0009660	5.30 mm	EA	Somta
MC0048	A0009661	5.40 mm	EA	Somta
MC0049	A0009662	5.50 mm	EA	Somta
MC0050	A0009663	5.60 mm	EA	Somta
MC0052	A0009665	5.80 mm	EA	Somta
MC0054	A0009667	6 mm	EA	Somta
MC0056	A0009669	6.20 mm	EA	Somta
MC0058	A0009670	6.40 mm	EA	Somta
MC0059	A0009672	6.50 mm	EA	Somta
MC0060	A0009673	6.60 mm	EA	Somta
MC0063	A0009675	6.80 mm	EA	Somta
MC0065	A0009677	7 mm	EA	Somta
MC0066	A0009678	7.10 mm	EA	Somta
MC0067	A0009679	7.20 mm	EA	Somta
MC0068	A0009680	7.30 mm	EA	Somta
MC0070	A0009682	7.50 mm	EA	Somta
MC0072	A0009684	7.80 mm	EA	Somta
MC0073	A0009685	7.90 mm	EA	Somta
MC0074	A0009686	8 mm	EA	Somta



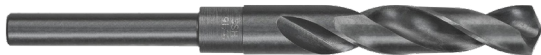
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High Speed Steel Bright Finish Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
MC0077	A0009688	8.30 mm	EA	Somta
MC0078	A00096879	8.40 mm	EA	Somta
MC0079	A0009690	8.50 mm	EA	Somta
MC0080	A0009691	8.60 mm	EA	Somta
MC0081	A0009692	8.70 mm	EA	Somta
MC0083	A0009694	9 mm	EA	Somta
MC0088	A0009699	9.50 mm	EA	Somta
MC0091	A0009702	9.80 mm	EA	Somta
MC0093	A0009704	10 mm	EA	Somta
MC0095	A0009705	10.20 mm	EA	Somta
MC0098	A0009707	10.50 mm	EA	Somta



A0009708

High Speed Steel Bright Finish Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
MC0100	A0009708	10.75 mm	EA	Somta
MC0102	A0009710	11 mm	EA	Somta
MC0104	A0012736	11.25 mm	EA	Somta
MC0105	A0009711	11.50 mm	EA	Somta
MC0110	A0009714	12 mm	EA	Somta
MC0112	A0009716	12.30 mm	EA	Somta
MC0113	A0009717	12.50 mm	EA	Somta
MC0115	A0009718	12.70 mm	EA	Somta
MC0117	A0009719	13 mm	EA	Somta
MC0128	A0009727	17.50 mm	EA	Somta
MC0129	A0009728	18 mm	EA	Somta



A0013123

High Speed Steel Reduced Shank Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
SM1441	A0013123	12 mm	EA	Somta
SM1443	A0013125	13.50 mm	EA	Somta
SM1444	A0013126	14 mm	EA	Somta
SM1445	A0013127	14.50 mm	EA	Somta
SM1446	A0013128	15 mm	EA	Somta
SM1447	A0013129	15.50 mm	EA	Somta
SM1448	A0013130	16 mm	EA	Somta
SM1450	A0013131	16.50 mm	EA	Somta
SM1451	A0013132	17 mm	EA	Somta
SM1070	A0013049	17.50 mm	EA	Somta



A0013133

High Speed Steel Reduced Shank Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
SM1452	A0013133	18 mm	EA	Somta
SM1453	A0013134	18.50 mm	EA	Somta
SM1073	A0013050	19 mm	EA	Somta
SM1456	A0013136	19.50 mm	EA	Somta
SM1457	A0013137	20 mm	EA	Somta
SM1458	A0013138	20.50 mm	EA	Somta
SM1461	A0013140	22 mm	EA	Somta
SM1462	A0013141	22.50 mm	EA	Somta
SM1465	A0013143	24 mm	EA	Somta



A0012608

High Speed Steel Straight Shank Blue Finish Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
SM0006	A0012608	0.40 mm	EA	Somta
SM0010	A0012609	0.50 mm	EA	Somta
SM0022	A0009620	0.80 mm	EA	Somta
SM0024	A0021207	0.85 mm	EA	Somta
SM0027	A0012613	0.92 mm	EA	Somta
SM0028	A0012616	0.95 mm	EA	Somta
SM0030	A0012616	1 mm	EA	Somta
SM0031	A0012617	1.05 mm	EA	Somta
SM0032	A0012618	1.10 mm	EA	Somta
SM0034	A0012619	1.20 mm	EA	Somta
SM0035	A0012620	1.25 mm	EA	Somta
SM0036	A0012621	1.30 mm	EA	Somta
SM0038	A0012622	1.40 mm	EA	Somta



A0012623

High Speed Steel Straight Shank Blue Finish Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
SM0039	A0012623	1.45 mm	EA	Somta
SM0040	A0012624	1.50 mm	EA	Somta
SM0041	A0012625	1.55 mm	EA	Somta
SM0042	A0012626	1.60 mm	EA	Somta
SM0045	A0012627	1.75 mm	EA	Somta
SM0046	A0012628	1.80 mm	EA	Somta
SM0047	A0012629	1.85 mm	EA	Somta
SM0049	A0012630	1.95 mm	EA	Somta
SM0050	A0012631	2 mm	EA	Somta
SM0051	A0012632	2.05 mm	EA	Somta
SM0052	A0012633	2.10 mm	EA	Somta
SM0054	A0012634	2.20 mm	EA	Somta
SM0055	A0012635	2.25 mm	EA	Somta
SM0056	A0012636	2.30 mm	EA	Somta
SM0058	A0012637	2.40 mm	EA	Somta
SM0059	A0012638	2.45 mm	EA	Somta



A0012639



A0012684

High Speed Steel Straight Shank Blue Finish Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM0060	A0012639	2.50 mm	EA	Somta
SM0061	A0012640	2.55 mm	EA	Somta
SM0062	A0012641	2.60 mm	EA	Somta
SM0063	A0012642	2.65 mm	EA	Somta
SM0064	A0012643	2.70 mm	EA	Somta
SM0065	A0012644	2.75 mm	EA	Somta
SM0066	A0012645	2.80 mm	EA	Somta
SM0068	A0012646	2.90 mm	EA	Somta
SM0069	A0012647	2.95 mm	EA	Somta
SM0070	A0012648	3 mm	EA	Somta
SM0071	A0012649	3.10 mm	EA	Somta
SM0072	A0012650	3.20 mm	EA	Somta
SM0073	A0012651	3.25 mm	EA	Somta
SM0074	A0012652	3.30 mm	EA	Somta
SM0076	A0012653	3.50 mm	EA	Somta
SM0077	A0012654	3.60 mm	EA	Somta
SM0078	A0012655	3.70 mm	EA	Somta
SM0079	A0012656	3.75 mm	EA	Somta
SM0080	A0012657	3.80 mm	EA	Somta
SM0081	A0012658	3.90 mm	EA	Somta
SM0082	A0012659	4 mm	EA	Somta
SM0083	A0012660	4.10 mm	EA	Somta
SM0084	A0012661	4.20 mm	EA	Somta
SM0085	A0012662	4.25 mm	EA	Somta
SM0086	A0012663	4.30 mm	EA	Somta
SM0087	A0012664	4.40 mm	EA	Somta
SM0088	A0012665	4.50 mm	EA	Somta
SM0090	A0012666	4.70 mm	EA	Somta
SM0091	A0012667	4.75 mm	EA	Somta
SM0092	A0012668	4.80 mm	EA	Somta
SM0093	A0012669	4.90 mm	EA	Somta
SM0094	A0012670	5 mm	EA	Somta
SM0095	A0012671	5.10 mm	EA	Somta
SM0096	A0012672	5.20 mm	EA	Somta
SM0097	A0012673	5.25 mm	EA	Somta
SM0099	A0012674	5.40 mm	EA	Somta
SM0100	A0012675	5.50 mm	EA	Somta
SM0101	A0012676	5.60 mm	EA	Somta
SM0102	A0012677	5.70 mm	EA	Somta
SM0103	A0012678	5.75 mm	EA	Somta
SM0104	A0012678	5.80 mm	EA	Somta
SM0105	A0012680	5.90 mm	EA	Somta
SM0106	A0012681	6 mm	EA	Somta
SM0107	A0012682	6.10 mm	EA	Somta
SM0108	A0012683	6.20 mm	EA	Somta

High Speed Steel Straight Shank Blue Finish Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM0109	A0012684	6.25 mm	EA	Somta
SM0110	A0012685	6.30 mm	EA	Somta
SM0111	A0012686	6.40 mm	EA	Somta
SM0112	A0012687	6.50 mm	EA	Somta
SM0113	A0012688	6.60 mm	EA	Somta
SM0114	A0012689	6.70 mm	EA	Somta
SM0115	A0012690	6.75 mm	EA	Somta
SM0116	A0012691	6.80 mm	EA	Somta
SM0117	A0012692	6.90 mm	EA	Somta
SM0118	A0012693	7 mm	EA	Somta
SM0119	A0012694	7.10 mm	EA	Somta
SM0120	A0012695	7.20 mm	EA	Somta
SM0122	A0012697	7.40 mm	EA	Somta
SM0123	A0012698	7.50 mm	EA	Somta
SM0124	A0012699	7.60 mm	EA	Somta
SM0127	A0012700	7.80 mm	EA	Somta
SM0128	A0012701	7.90 mm	EA	Somta
SM0129	A0012702	8 mm	EA	Somta
SM0130	A0012703	8.10 mm	EA	Somta
SM0131	A0012704	8.20 mm	EA	Somta
SM0132	A0012705	8.25 mm	EA	Somta
SM0133	A0012706	8.30 mm	EA	Somta
SM0134	A0012707	8.40 mm	EA	Somta
SM0135	A0012708	8.50 mm	EA	Somta
SM0137	A0012709	8.70 mm	EA	Somta
SM0138	A0012710	8.75 mm	EA	Somta
SM0139	A0012711	8.80 mm	EA	Somta
SM0141	A0012712	9 mm	EA	Somta
SM0142	A0012713	9.10 mm	EA	Somta
SM0143	A0012714	9.20 mm	EA	Somta
SM0144	A0012715	9.25 mm	EA	Somta
SM0147	A0012716	9.50 mm	EA	Somta
SM0148	A0012717	9.60 mm	EA	Somta
SM0150	A0012718	9.75 mm	EA	Somta
SM0151	A0012719	9.80 mm	EA	Somta
SM0152	A0012720	9.90 mm	EA	Somta
SM0153	A0012721	10 mm	EA	Somta
SM0155	A0012723	10.20 mm	EA	Somta
SM0156	A0012724	10.25 mm	EA	Somta
SM0157	A0012725	10.30 mm	EA	Somta
SM0158	A0012726	10.40 mm	EA	Somta
SM0159	A0012727	10.50 mm	EA	Somta



A0012728

High Speed Steel Straight Shank Blue Finish Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
SM0160	A0012728	10.60 mm	EA	Somta
SM0161	A0012729	10.70 mm	EA	Somta
SM0162	A0012730	10.75 mm	EA	Somta
SM0163	A0012731	10.80 mm	EA	Somta
SM0164	A0012732	10.90 mm	EA	Somta
SM0165	A0012733	11 mm	EA	Somta
SM0166	A0012734	11.10 mm	EA	Somta
SM0167	A0012735	11.20 mm	EA	Somta
SM0168	A0012736	11.25 mm	EA	Somta
SM0169	A0012737	11.30 mm	EA	Somta
SM0170	A0012738	11.40 mm	EA	Somta
SM0171	A0012739	11.50 mm	EA	Somta
SM0172	A0012740	11.60 mm	EA	Somta
SM0173	A0012741	11.70mm	EA	Somta
SM0174	A0012743	11.75mm	EA	Somta
SM0175	A0012743	11.80 mm	EA	Somta
SM0176	A0012744	11.90 mm	EA	Somta
SM0177	A0012745	12 mm	EA	Somta
SM0179	A0012747	12.20 mm	EA	Somta



A0012748

High Speed Steel Straight Shank Blue Finish Jobber Drills				
Stock Code	System Code	Size	Uom	Brand
SM0180	A0012748	12.25 mm	EA	Somta
SM0181	A0012749	12.30 mm	EA	Somta
SM0182	A0012750	12.40 mm	EA	Somta
SM0183	A0012751	12.50 mm	EA	Somta
SM0185	A0012753	12.70 mm	EA	Somta
SM0186	A0012754	12.75 mm	EA	Somta
SM0187	A0012755	12.80 mm	EA	Somta
SM0189	A0012757	13 mm	EA	Somta
SM0195	A0012761	13.5 mm	EA	Somta
SM0201	A0012763	14 mm	EA	Somta
SM0205	A0012765	15 mm	EA	Somta
SM0206	A0012766	15.25 mm	EA	Somta
SM0207	A0012767	15.50 mm	EA	Somta
SM0209	A0012767	16 mm	EA	Somta
SM0211	A0012770	17 mm	EA	Somta
SM0212	A0012771	17.50 mm	EA	Somta
SM0213	A0012772	18 mm	EA	Somta
SM0215	A0012773	19 mm	EA	Somta
SM0217	A0012774	20 mm	EA	Somta



A0012783

Heavy-Duty High Speed Steel Gold Oxide Finish NDX Jobber CO5 Drills				
Stock Code	System Code	Size	Uom	Brand
SM0305	A0012783	2 mm	EA	Somta
SM0306	A0012784	2.50 mm	EA	Somta
SM0315	A0012785	3.00 mm	EA	Somta
SM0320	A0012788	3.50 mm	EA	Somta
SM0325	A0012790	4.00 mm	EA	Somta
SM0330	A0012791	4.50 mm	EA	Somta
SM0335	A0012793	5 mm	EA	Somta
SM0340	A0012794	5.50 mm	EA	Somta
SM0345	A0012795	6 mm	EA	Somta
SM0350	A0012796	6.50 mm	EA	Somta
SM0352	A0012797	6.70 mm	EA	Somta
SM0355	A0012798	7 mm	EA	Somta



A0012799

Heavy-Duty High Speed Steel Gold Oxide Finish NDX Jobber CO5 Drills				
Stock Code	System Code	Size	Uom	Brand
SM0360	A0012799	7.50 mm	EA	Somta
SM0365	A0012800	8 mm	EA	Somta
SM0370	A0012801	8.50 mm	EA	Somta
SM0375	A0012802	9 mm	EA	Somta
SM0380	A0012803	9.50 mm	EA	Somta
SM0385	A0012804	10 mm	EA	Somta
SM0390	A0012805	10.50 mm	EA	Somta
SM0395	A0012806	11 mm	EA	Somta
SM0400	A0012807	11.50 mm	EA	Somta
SM0405	A0012808	12 mm	EA	Somta
SM0410	A0012809	12.50 mm	EA	Somta
SM0415	A0012810	13 mm	EA	Somta



A0012813



A0013146

High Speed Straight Shank, Blue Finish Long Series Steel Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM0465	A0012813	2.50 x 95 mm	EA	Somta
SM0491	A0012814	5 x 132 mm	EA	Somta
SM0496	A0012815	5.50 x 139 mm	EA	Somta
SM0499	A0012816	5.80 x 139 mm	EA	Somta
SM0515	A0012817	7.50 x 156 mm	EA	Somta
SM0520	A0012818	8 x 165 mm	EA	Somta
SM0529	A0012819	10 x 184 mm	EA	Somta

High Speed Straight Shank Blue Finish Extra Long Series Steel Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM1503	A0013146	3 x 125 mm	EA	Somta
SM1509	A0013147	4 x 160 mm	EA	Somta
SM1518	A0013148	5 x 250 mm	EA	Somta
SM1523	A0013149	5.50 x 250 mm	EA	Somta
SM1526	A0013150	6.50 x 250 mm	EA	Somta
SM1536	A0013151	8 x 400 mm	EA	Somta
SM1546	A0013152	10 x 400 mm	EA	Somta



A0012827



A0012836

High Speed Straight Shank Blue Finish Steel Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM0603	A0012827	3/32"	EA	Somta
SM0604	A0012828	7/64"	EA	Somta
SM0605	A0012829	1/8"	EA	Somta
SM0606	A0012830	9/64"	EA	Somta
SM0607	A0012831	5/32"	EA	Somta
SM0608	A0012832	11/64"	EA	Somta
SM0609	A0012833	3/16"	EA	Somta
SM0612	A0012834	15/64"	EA	Somta
SM0613	A0012835	1/4"	EA	Somta

High Speed Straight Shank Blue Finish Steel Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM0614	A0012836	17/64"	EA	Somta
SM0615	A0012837	9/32"	EA	Somta
SM0616	A0012838	19/64"	EA	Somta
SM0617	A0012839	5/16"	EA	Somta
SM0618	A0012840	21/64"	EA	Somta
SM0620	A0012841	23/64"	EA	Somta
SM0621	A0012842	3/8"	EA	Somta
SM0622	A0012843	25/64"	EA	Somta
SM0623	A0012844	13/32"	EA	Somta
SM0625	A0012845	7/16"	EA	Somta
SM0627	A0012846	15/32"	EA	Somta
SM0628	A0012847	31/64"	EA	Somta



A0013088



A0013099

High Speed Green Band NDX Steel for Drilling Carbon Steel CO5 Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM1255	A0013088	2 mm	EA	Somta
SM1260	A0013089	2.50 mm	EA	Somta
SM1265	A0013090	3 mm	EA	Somta
SM1270	A0013092	3.50 mm	EA	Somta
SM1275	A0013092	4 mm	EA	Somta
SM1280	A0013093	4.50 mm	EA	Somta
SM1285	A0013094	5 mm	EA	Somta
SM1290	A0013095	5.50 mm	EA	Somta
SM1295	A0013096	6 mm	EA	Somta
SM1300	A0013097	6.50 mm	EA	Somta
SM1305	A0013098	7 mm	EA	Somta

High Speed Green Band NDX Steel for Drilling Carbon Steel Co5 Jobber Drills

Stock Code	System Code	Size	Uom	Brand
SM1310	A0013099	7.50 mm	EA	Somta
SM1315	A0013100	8 mm	EA	Somta
SM1320	A0013101	8.50 mm	EA	Somta
SM1325	A0013102	9 mm	EA	Somta
SM1330	A0013103	9.50 mm	EA	Somta
SM1335	A0013104	10 mm	EA	Somta
SM1340	A0013105	10.50 mm	EA	Somta
SM1345	A0013106	11 mm	EA	Somta
SM1350	A0013107	11.50 mm	EA	Somta
SM1355	A0013108	12 mm	EA	Somta
SM1360	A0013109	12.50 mm	EA	Somta
SM1365	A0013110	13 mm	EA	Somta



Standard Length Tungsten Tips Masonry Drills				
Stock Code	System Code	Size	Uom	Brand
SM1000	A0013017	3 mm	EA	Somta
SM1001	A0013018	3.50 mm	EA	Somta
SM1002	A0013019	4 mm	EA	Somta
SM1003	A0013020	4.50 mm	EA	Somta
SM1004	A0013021	5 mm	EA	Somta
SM1005	A0013022	5.50 mm	EA	Somta
SM1006	A0013023	6 mm	EA	Somta
SM1007	A0013024	6.50 mm	EA	Somta
SM1008	A0013025	7 mm	EA	Somta
SM1009	A0013026	8 mm	EA	Somta
SM1010	A0013027	8.50 mm	EA	Somta
SM1011	A0013028	9 mm	EA	Somta
SM1012	A0013037	9.50 mm	EA	Somta
SM1013	A0013030	10 mm	EA	Somta
SM1014	A0013031	11 mm	EA	Somta
SM1015	A0013032	12 mm	EA	Somta
SM1016	A0013033	13 mm	EA	Somta
SM1017	A0013034	14 mm	EA	Somta
SM1018	A0013035	15 mm	EA	Somta
SM1019	A0013036	16 mm	EA	Somta
SM1020	A0013037	18 mm	EA	Somta

Long Series Tungsten Tip Masonry Drills				
Stock Code	System Code	Size	Uom	Brand
SM1021	A0013038	19 mm	EA	Somta
SM1022	A0013038	20 mm	EA	Somta
SM1023	A0013040	22 mm	EA	Somta
SM1024	A0013041	24 mm	EA	Somta
SM1025	A0013042	25 mm	EA	Somta
MC0360	A0009787	6. x 300 mm	EA	Somta
SM1033	A0013045	13. x 330 mm	EA	Somta
SM1034	A0013046	16. x 330 mm	EA	Somta
MC0365	A0009791	19. x 330 mm	EA	Somta
MC0226	A0009735	24. x 160 mm	EA	Somta
MC0227	A0009736	25. x 160 mm	EA	Somta
SM1038	A0013047	25. x 330 mm	EA	Somta



A0013048

Extra Long Series Tungsten Tip Masonry Drills				
Stock Code	System Code	Size	Uom	Brand
SM1042	A0013406	25 x 450 mm	EA	Somta



A0013255

High Speed Steel Armour Piercing Morse Taper Shank Drill, CO8				
Stock Code	System Code	Size	Uom	Brand
SM1729	A0013255	14 mm	EA	Somta
SM1731	A0013256	16 mm	EA	Somta
SM1733	A0013257	18 mm	EA	Somta
SM1735	A0013258	20 mm	EA	Somta
SM1737	A0013259	22 mm	EA	Somta
SM1739	A0013260	25 mm	EA	Somta
SM1740	A0013261	26 mm	EA	Somta
SM1743	A0013262	32 mm	EA	Somta



A0014981

Step Drills				
Stock Code	System Code	Size	Uom	Brand
UB0004	A0014981	4-22 mm	EA	Tork Craft
UB0005	A0014982	5-35 mm	EA	Tork Craft



A0013392



A0013412

High Speed 2 Flute Regular Steel Threaded Endmill (CO8E)

Stock Code	System Code	Size	Uom	Brand
SM3151	A0013392	2 mm	EA	Somta
SM3152	A0013393	2.50 mm	EA	Somta
SM3153	A0013394	3 mm	EA	Somta
SM3154	A0013395	3.50 mm	EA	Somta
SM3155	A0013396	4 mm	EA	Somta
SM3156	A0013397	4.50 mm	EA	Somta
SM3157	A0013398	5 mm	EA	Somta
SM3158	A0013399	6 mm	EA	Somta
SM3160	A0013401	7 mm	EA	Somta
SM3163	A0013402	8 mm	EA	Somta
SM3165	A0013403	9 mm	EA	Somta
SM3167	A0013405	10 mm	EA	Somta
SM3169	A0013406	11 mm	EA	Somta
SM3171	A0013407	12 mm	EA	Somta
SM3173	A0013408	14 mm	EA	Somta
SM3174	A0013409	15 mm	EA	Somta
SM3175	A0013410	16 mm	EA	Somta

High Speed 2 Flute Regular Steel Threaded Endmill (CO8E)

Stock Code	System Code	Size	Uom	Brand
SM3176	A0013412	17 mm	EA	Somta
SM3177	A0013413	18 mm	EA	Somta
SM3178	A0013414	19 mm	EA	Somta
SM3179	A0013415	20 mm	EA	Somta
SM3180	A0013416	22 mm	EA	Somta
SM3181	A0013417	24 mm	EA	Somta
SM3182	A0013418	25 mm	EA	Somta
SM3183	A0013419	26 mm	EA	Somta
SM3184	A0013420	28 mm	EA	Somta
SM3185	A0013421	30 mm	EA	Somta
SM3186	A0013422	32 mm	EA	Somta
SM3187	A0013423	35 mm	EA	Somta
SM3188	A0013424	36 mm	EA	Somta
SM3189	A0013425	38 mm	EA	Somta
SM3191	A0013426	42 mm	EA	Somta
SM3192	A0013427	45 mm	EA	Somta
SM3193	A0013428	50 mm	EA	Somta



A0013374



A0013385

High Speed 2 Flute Regular Steel Threaded Endmill

Stock Code	System Code	Size	Uom	Brand
SM3103	A0013374	2 mm	EA	Somta
SM3104	A0013375	3 mm	EA	Somta
SM3105	A0013376	4 mm	EA	Somta
SM3107	A0013377	5 mm	EA	Somta
SM3109	A0013378	6 mm	EA	Somta
SM3113	A0013379	8 mm	EA	Somta
SM3117	A0013380	10 mm	EA	Somta
SM3118	A0013381	11 mm	EA	Somta
SM3121	A0013382	12 mm	EA	Somta
SM3123	A0013383	14 mm	EA	Somta
SM3125	A0013384	16 mm	EA	Somta

High Speed 2 Flute Regular Steel Threaded Endmill

Stock Code	System Code	Size	Uom	Brand
SM3127	A0013385	18 mm	EA	Somta
SM3129	A0013386	20 mm	EA	Somta
SM3130	A0013387	22 mm	EA	Somta
SM3031	A0013354	24 mm	EA	Somta
SM3033	A0013355	26 mm	EA	Somta
SM3034	A0013356	28 mm	EA	Somta
SM3138	A0013388	30 mm	EA	Somta
SM3139	A0013389	32 mm	EA	Somta
SM3141	A0013390	36 mm	EA	Somta
SM3146	A0013391	45 mm	EA	Somta



A0013431



A0013435

Long Series 2 Flute High Speed Steel Threaded Endmill (CO8E)

Stock Code	System Code	Size	Uom	Brand
SM3250	A0013431	2 mm	EA	Somta
SM3252	A0013432	3 mm	EA	Somta
SM3254	A0013433	4 mm	EA	Somta
SM3256	A0013434	5 mm	EA	Somta

Long Series 2 Flute High Speed Steel Threaded Endmill (CO8E)

Stock Code	System Code	Size	Uom	Brand
SM3258	A0013435	6 mm	EA	Somta
SM3260	A0013436	7 mm	EA	Somta
SM3262	A0013437	8 mm	EA	Somta
SM3264	A0013438	9 mm	EA	Somta



A0013439

Long Series 2 Flute Threaded Shank HSS End Mill Slot Drills (CO8E)				
Stock Code	System Code	Size	Uom	Brand
SM3266	A0013439	10 mm	EA	Somta
SM3267	A0013440	11 mm	EA	Somta
SM3268	A0013441	12 mm	EA	Somta
SM3269	A0013442	13 mm	EA	Somta
SM3270	A0013443	14 mm	EA	Somta
SM3271	A0013444	15 mm	EA	Somta
SM3272	A0013445	16 mm	EA	Somta
SM3273	A0013446	17 mm	EA	Somta



A0013447

Long Series 2 Flute Threaded Shank HSS End Mill Slot Drills (CO8E)				
Stock Code	System Code	Size	Uom	Brand
SM3275	A0013447	19 mm	EA	Somta
SM3276	A0013448	20 mm	EA	Somta
SM3277	A0013449	22 mm	EA	Somta
SM3278	A0013450	24 mm	EA	Somta
SM3280	A0013451	26 mm	EA	Somta
SM3281	A0013452	28 mm	EA	Somta



A0013461

Long Series 2 Flute HSS Threaded Shank End Mill Slot Drills				
Stock Code	System Code	Size	Uom	Brand
SM3360	A0013461	8 mm	EA	Somta
SM3364	A0013462	10 mm	EA	Somta
SM3366	A0013463	12 mm	EA	Somta
SM3370	A0013464	14 mm	EA	Somta
SM3372	A0013465	16 mm	EA	Somta



A0013263

High Speed 2 Flute Regular Steel Flatted Shank End Mill Drills (CO8E)				
Stock Code	System Code	Size	Uom	Brand
SM1805	A0013263	5 mm	EA	Somta
SM1806	A0013264	6 mm	EA	Somta
SM1814	A0013265	14 mm	EA	Somta
SM1816	A0013266	16 mm	EA	Somta
SM1819	A0013267	19 mm	EA	Somta
SM1820	A0013268	20 mm	EA	Somta
SM1824	A0013269	24 mm	EA	Somta



A0013518

High Speed 2 Flute Regular Steel Threaded End Mill Drills				
Stock Code	System Code	Size	Uom	Brand
SM3807	A0013518	1/4"	EA	Somta



A0013457

High Speed 2 Flute Regular Steel Ball Nose Threaded End Mill Drills (CO8E)				
Stock Code	System Code	Size	Uom	Brand
SM3304	A0013457	6 x 52 mm	EA	Somta
SM3306	A0013458	8 x 61 mm	EA	Somta
SM3308	A0013459	10 x 63 mm	EA	Somta



A0013504

High Speed Multi-Flute Regular Steel Threaded End Mill Drills				
Stock Code	System Code	Size	Uom	Brand
SM3515	A0013504	10 mm	EA	Somta
SM3517	A0013506	12 mm	EA	Somta
SM3519	A0013508	14 mm	EA	Somta
SM3521	A0013510	16 mm	EA	Somta



A0013429

High Speed Multi-Flute Long Series Steel Threaded End Mill (CO8E)				
Stock Code	System Code	Size	Uom	Brand
SM3205	A0013429	8 mm	EA	Somta
SM3207	A0013430	10 mm	EA	Somta



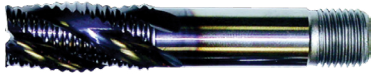
A0013469

High Speed Multi-Flute Regular Steel Threaded End Mill Drills				
Stock Code	System Code	Size	Uom	Brand
SM3403	A0013469	4 mm	EA	Somta
SM3405	A0013471	5 mm	EA	Somta
SM3407	A0013473	6 mm	EA	Somta
SM3411	A0013477	8 mm	EA	Somta
SM3415	A0013481	10 mm	EA	Somta
SM3418	A0013484	12 mm	EA	Somta

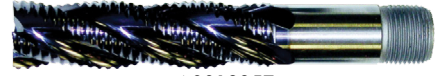


A0013486

High Speed Multi-Flute Regular Steel Threaded End Mill Drills				
Stock Code	System Code	Size	Uom	Brand
SM3420	A0013486	14 mm	EA	Somta
SM3422	A0013488	16 mm	EA	Somta
SM3423	A0013489	18 mm	EA	Somta
SM3425	A0013491	20 mm	EA	Somta
SM3426	A0013492	22 mm	EA	Somta
SM3427	A0013493	24 mm	EA	Somta



A0013340



A0013357

High Speed Roughing Regular Steel (TiAlN Coated) End Mill Drills (CO8E)

Stock Code	System Code	Size	Uom	Brand
SM3003	A0013340	12 x 70 mm	EA	Somta
SM3004	A0013341	14 x 73 mm	EA	Somta
SM3005	A0013342	16 x 77 mm	EA	Somta
SM3007	A0013343	20 x 83.5 mm	EA	Somta
SM3022	3162200	22 x 98.5 mm	EA	Somta
SM3009	3162500	25 x 101.5 mm	EA	Somta
SM3010	3162800	28 x 104.5 mm	EA	Somta
SM3011	3163000	30 x 104.5 mm	EA	Somta
SM3012	3163200	32 x 112.5 mm	EA	Somta
SM3013	3163500	35 x 116 mm	EA	Somta
SM3014	3163800	38 x 116 mm	EA	Somta
SM3015	A0013350	40 x 117.5 mm	EA	Somta
SM3016	3164500	45 x 119 mm	EA	Somta
SM3017	3165000	50 x 127 mm	EA	Somta

High Speed Long Series Roughing Steel (TiAlN Coated) End Mill Drills (CO8E)

Stock Code	System Code	Size	Uom	Brand
SM3040	A0013357	10 x 82.5 mm	EA	Somta
SM3041	A0013358	12 x 95 mm	EA	Somta
SM3042	A0013359	14 x 103.5 mm	EA	Somta
SM3043	A0013360	16 x 108.5 mm	EA	Somta
SM3044	3181800	18 x 115 mm	EA	Somta
SM3045	A001313362	20 x 121.5 mm	EA	Somta
SM3046	3182200	22 x 143 mm	EA	Somta
SM3047	3182500	25 x 157 mm	EA	Somta
SM3048	3182800	28 x 157 mm	EA	Somta
SM3049	3183000	30 x 157 mm	EA	Somta
SM3050	3183200	32 x 163.5 mm	EA	Somta
SM3051	3183500	35 x 163.5 mm	EA	Somta
SM3052	3183800	38 x 163.5 mm	EA	Somta
SM3053	3184000	40 x 163.5 mm	EA	Somta
SM3054	3184500	45 x 163.5 mm	EA	Somta
SM3055	3185000	50 x 163.5 mm	EA	Somta



A0011072



A0004533



A0014229



A0004532

Holesaw Sets

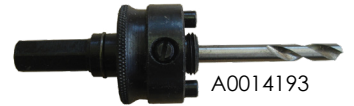
Stock Code	System Code	Size	Quantity	Uom	Brand
MX0360	A0011072	16-50 mm	7 Pc	Set	Maxpower
ST0100	A0014227	16-51 mm	6 Pc	Set	Starrett
BH0075	A0014533	16, 20, 25, 32, 40, 51 mm	9 Pc	Set	Bahco
ST0101	A0014228	22-64 mm	9 Pc	Set	Starrett
BH0070	A0014532	51, 76, 86, 111 mm	6 Pc	Set	Bahco
BH0085	A0014535	16, 19, 22, 25, 30, 35, 41, 51, 67 mm	11 Pc	Set	Bahco
ST0103	A0014229	19-76 mm	11 Pc	Set	Starrett
BH0080	A0014534	16, 22, 25, 29, 32, 41, 51, 73, 83 mm	11 Pc	Set	Bahco

Arbor Spare Pilot Drill Accessories				
Stock Code	System Code	Type	Uom	Brand
ST0021	A0014194	A2	EA	Starrett



Arbor Holesaws				
Stock Code	System Code	Size	Uom	Brand
ST0019	A0014192	14-30 mm	EA	Starrett
ST0022	A0014195	14-30 mm	EA	Starrett
ST0041	A0014209	32-152 mm	EA	Starrett
ST0020	A0014193	32-210 mm	EA	Starrett

Complete with an Arbor				
Stock Code	System Code	Size	Uom	Brand
BW0700	A0005210	20 mm	EA	Hellermann
BW0702	A0005211	22 mm	EA	Hellermann
BW0705	A0005212	25 mm	EA	Hellermann
BW0712	A0005213	32 mm	EA	Hellermann



High Speed Steel Holesaw without Arbors				
Stock Code	System Code	Size	Uom	Brand
ST0001	A0014175	16 mm	EA	Starrett
ST0002	A0014176	17 mm	EA	Starrett
ST0003	A0014177	19 mm	EA	Starrett
ST0004	A0014178	20 mm	EA	Starrett
ST0005	A0014179	21 mm	EA	Starrett
ST0006	A0014180	22 mm	EA	Starrett
ST0007	A0014182	24 mm	EA	Starrett
ST0008	A0014183	25 mm	EA	Starrett
ST0009	A0014184	27 mm	EA	Starrett
ST0010	A0014185	29 mm	EA	Starrett
ST0011	A0014186	30 mm	EA	Starrett
ST0012	A0014187	32 mm	EA	Starrett
ST0013	A0014188	33 mm	EA	Starrett
ST0014	A0014189	35 mm	EA	Starrett

High Speed Steel Holesaw without Arbors				
Stock Code	System Code	Size	Uom	Brand
ST0016	A0014189	38 mm	EA	Starrett
ST0017	A0014190	40 mm	EA	Starrett
ST0018	A0014191	44 mm	EA	Starrett
ST0023	A0014196	51 mm	EA	Starrett
ST0024	A0014197	52 mm	EA	Starrett
ST0026	A0014198	57 mm	EA	Starrett
ST0028	A0014199	60 mm	EA	Starrett
ST0029	A0014200	64 mm	EA	Starrett
ST0030	A0014201	67 mm	EA	Starrett
ST0032	A0014202	70 mm	EA	Starrett
ST0034	A0014203	76 mm	EA	Starrett
ST0036	A0014204	83 mm	EA	Starrett
ST0037	A0014205	89 mm	EA	Starrett
ST0042	A0014210	102 mm	EA	Starrett

Tungsten Carbide Tipped Holesaw with Arbors				
Stock Code	System Code	Size	Uom	Brand
MX0300	A0011015	16 mm	EA	Maxpower
MX0301	A0011016	17 mm	EA	Maxpower
MX0302	A0011017	18 mm	EA	Maxpower
MX0303	A0011018	19 mm	EA	Maxpower
MX0304	A0011019	20 mm	EA	Maxpower
MX0305	A0011020	21 mm	EA	Maxpower
MX0306	A0011021	22 mm	EA	Maxpower
MX0307	A0011022	23 mm	EA	Maxpower
MX0308	A0011023	24 mm	EA	Maxpower
MX0309	A0011024	25 mm	EA	Maxpower
MX0310	A0011025	26 mm	EA	Maxpower
MX0311	A0011026	27 mm	EA	Maxpower
MX0312	A0011027	28 mm	EA	Maxpower
MX0313	A0011028	29 mm	EA	Maxpower
MX0314	A0011029	30 mm	EA	Maxpower



Tungsten Carbide Tipped Holesaw with Arbors				
Stock Code	System Code	Size	Uom	Brand
MX0315	A0011030	31 mm	EA	Maxpower
MX0316	A0011031	32 mm	EA	Maxpower
MX0317	A0011032	33 mm	EA	Maxpower
MX0318	A0011033	34 mm	EA	Maxpower
MX0319	A0011034	35 mm	EA	Maxpower
MX0320	A0011035	36 mm	EA	Maxpower
MX0321	A0011036	37 mm	EA	Maxpower
MX0322	A0011037	38 mm	EA	Maxpower



Tungsten Carbide Tipped Holesaw with Arbors

Stock Code	System Code	Size	Uom	Brand
MX0323	A0011038	39 mm	EA	Maxpower
MX0324	A0011039	40 mm	EA	Maxpower
MX0325	A0011040	41 mm	EA	Maxpower
MX0326	A0011041	42 mm	EA	Maxpower
MX0327	A0011042	43 mm	EA	Maxpower
MX0328	A0011043	44 mm	EA	Maxpower
MX0329	A0011044	45 mm	EA	Maxpower
MX0330	A0011045	46 mm	EA	Maxpower
MX0331	A0011046	47 mm	EA	Maxpower
MX0332	A0011047	48 mm	EA	Maxpower
MX0333	A0011048	49 mm	EA	Maxpower
MX0334	A0011049	50 mm	EA	Maxpower
MX0335	A0011050	51 mm	EA	Maxpower
MX0336	A0011051	52 mm	EA	Maxpower
MX0337	A0011052	53 mm	EA	Maxpower
MX0338	A0011053	54 mm	EA	Maxpower
MX0339	A0011054	55 mm	EA	Maxpower
MX0340	A0011055	56 mm	EA	Maxpower
MX0341	A0011057	57 mm	EA	Maxpower
MX0342	A0011058	58 mm	EA	Maxpower



A0011059

Tungsten Carbide Tipped Holesaw with Arbors

Stock Code	System Code	Size	Uom	Brand
MX0343	A0011059	59 mm	EA	Maxpower
MX0344	A0011060	60 mm	EA	Maxpower
MX0345	A0011063	61 mm	EA	Maxpower
MX0346	MX0346	62 mm	EA	Maxpower
MX0347	MX0347	63 mm	EA	Maxpower
MX0348	A0011064	64 mm	EA	Maxpower
MX0349	A0011065	65 mm	EA	Maxpower
MX0350	A0011066	70 mm	EA	Maxpower
MX0351	A0011067	76 mm	EA	Maxpower
MX0352	A0011068	80 mm	EA	Maxpower
MX0353	A0011068	85 mm	EA	Maxpower
MX0354	A0011069	90 mm	EA	Maxpower
MX0355	A0011070	95 mm	EA	Maxpower
MX0356	A0011070	100 mm	EA	Maxpower



A0013701



A0013692

High Speed Steel Reamer Machine Parallel Morse Taper Shanks

Stock Code	System Code	Size	Shank	Uom	Brand
SM5306	A0013701	6 mm	No. 1	EA	Somta
SM5308	A0013702	7 mm	No. 1	EA	Somta
SM5310	A0013703	8 mm	No. 1	EA	Somta
SM5312	A0013704	9 mm	No. 1	EA	Somta
SM5314	A0013705	10 mm	No. 1	EA	Somta
SM5318	A0013706	12 mm	No. 1	EA	Somta
SM5322	A0013707	14 mm	No. 1	EA	Somta
SM5326	A0013708	16 mm	No. 2	EA	Somta
SM5328	A0013709	17 mm	No. 2	EA	Somta
SM5330	A0013710	18 mm	No. 2	EA	Somta
SM5333	A0013711	19.5 mm	No. 2	EA	Somta
SM5334	A0013712	20 mm	No. 2	EA	Somta
SM5346	A0013713	26 mm	No. 3	EA	Somta
SM5348	A0013714	27 mm	No. 3	EA	Somta
SM5350	A0013715	28 mm	No. 3	EA	Somta
SM5354	A0013716	30 mm	No. 3	EA	Somta
SM5356	A0013717	32 mm	No. 4	EA	Somta
SM5359	A0013718	35 mm	No. 4	EA	Somta

High Speed Steel Reamer Machine Parallel Morse Taper Shank

Stock Code	System Code	Size	Shank	Uom	Brand
SM5258	A0013692	3/8"	No. 1	EA	Somta
SM5262	A0013693	1/2"	No. 1	EA	Somta
SM5264	A0013694	9/16"	No. 2	EA	Somta
SM5266	A0013695	5/8"	No. 2	EA	Somta
SM5270	A0013696	3/4"	No. 2	EA	Somta
SM5274	A0013697	7/8"	No. 2	EA	Somta
SM5278	A0013698	1"	No. 3	EA	Somta
SM5282	A0013699	1.1/4"	No. 3	EA	Somta
SM5286	A0013700	1.1/2"	No. 4	EA	Somta



A3313734



A0013746

High Speed Steel Reamer Hand Taper Pins

Stock Code	System Code	Size	Uom	Brand
SM5455	A0013734	5 mm	EA	Somta
SM5456	A0013735	6 mm	EA	Somta
SM5457	A0013736	8 mm	EA	Somta
SM5458	A0013737	10 mm	EA	Somta
SM5459	A0013738	12 mm	EA	Somta
SM5460	A0013739	13 mm	EA	Somta
SM5461	A0013740	14 mm	EA	Somta
SM5462	A0013741	16 mm	EA	Somta
SM5463	A0013742	20 mm	EA	Somta
SM5464	A0013743	25 mm	EA	Somta

High Speed Steel Reamer Machine Chucking Morse Taper Shanks (CO5)

Stock Code	System Code	Size	Shank	Uom	Brand
SM5473	A0013744	7 mm	No. 1	EA	Somta
SM5475	A0013745	9 mm	No. 1	EA	Somta
SM5480	A0013746	14 mm	No. 1	EA	Somta
SM5482	A0013747	16 mm	No. 2	EA	Somta
SM5488	A0013748	22 mm	No. 2	EA	Somta
SM5491	A0013749	25 mm	No. 3	EA	Somta
SM5495	A0013750	30 mm	No. 3	EA	Somta



A0013979



A0013721

Standard Sorger for Drilling Wood

Stock Code	System Code	Size	Shank	Uom	Brand
SM9008	A0013979	16 mm	With Flat	EA	Somta
SM9024	A0013980	17.50 mm	With Flat	EA	Somta

High Speed Steel Reamer Machine Taper Bridge Morse Taper Shanks

Stock Code	System Code	Size	Shank	Uom	Brand
SM5409	A0013721	14 mm	No. 2	EA	Somta
SM5412	A0013722	17 mm	No. 3	EA	Somta
SM5413	A0013723	18 mm	No. 3	EA	Somta
SM5414	A0013726	19 mm	No. 3	EA	Somta
SM5416	A0013726	21 mm	No. 3	EA	Somta
SM5417	A0013727	22 mm	No. 3	EA	Somta
SM5418	A0013728	23 mm	No. 3	EA	Somta
SM5420	A0013730	25 mm	No. 3	EA	Somta
SM5421	A0013731	26 mm	No. 3	EA	Somta
SM5425	A0013732	30 mm	No. 3	EA	Somta
SM5431	A0022561	40 mm	No. 4	EA	Somta



A0011339

Reamer Taper Bridge Morse Taper Shanks

Stock Code	System Code	Size	Uom	Brand
OC0029	A0011339	16 mm	EA	Octo
OC0030	A0011340	18 mm	EA	Octo
OC0031	A0011341	22 mm	EA	Octo
OC0032	A0011342	24 mm	EA	Octo
OC0033	A0011343	26 mm	EA	Octo
OC0034	A0011344	28 mm	EA	Octo
OC0035	A0011345	30 mm	EA	Octo
OC0036	A0011346	32 mm	EA	Octo



A0013759



A0013761



A0013762



A0013618

Tap & Die Cased Sets

Stock Code	System Code	Size	Material	Set	Uom	Brand
SM5600	A0013759	M2-M6	Carbon Steel	12 Pc	Set	Somta
SM5620	A0013761	1/4-1"	Carbon Steel	23 Pc	Set	Somta
WA0237	A0015175	1/4"-1"	Carbon Steel	23 Pc	Set	Somta
SM5625	A0013762	M2-M12	Carbon Steel	25 Pc	Set	Somta
WA0230	A0015174	M6-M24	Carbon Steel	31 Pc	Set	Somta
SM4903	A0013618	M3-12	High Speed Steel	14 Pc	Set	Somta
SM5610	A0013760	M6-M24	High Speed Steel	31 Pc	Set	Somta



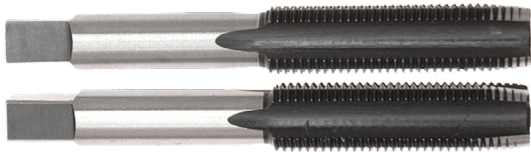
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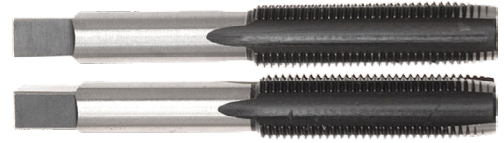
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High Speed Steel Short Hand Metric Coarse Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM2009	A0013272	M2	0.4	Set	Somta
SM2008	A0013271	M2.5	0.45	Set	Somta
SM2010	A0013273	M3	0.5	Set	Somta
SM2011	A0013274	M4	0.7	Set	Somta
SM2013	A0013275	M5	0.8	Set	Somta
SM2014	A0013276	M6	1	Set	Somta
SM2015	A0013277	M7	1	Set	Somta
SM2016	A0013278	M8	1.25	Set	Somta
SM2017	A0013279	M9	1.25	Set	Somta
SM2018	A0013280	M10	1.5	Set	Somta
SM2019	A0013281	M11	1.5	Set	Somta

High Speed Steel Short Hand Metric Coarse Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM2020	A0013282	M12	1.75	Set	Somta
SM2021	A0013283	M14	2	Set	Somta
SM2022	A0013284	M16	2	Set	Somta
SM2023	A0013285	M18	2.5	Set	Somta
SM2024	A0013286	M20	2.5	Set	Somta
SM2025	A0013287	M22	2.5	Set	Somta
SM2026	A0013288	M24	3	Set	Somta
SM2027	A0013289	M27	3	Set	Somta
SM2028	A0013290	M30	3.5	Set	Somta
SM2030	A0013291	M36	4	Set	Somta
SM2035	A0013292	M42	4.5	Set	Somta
SM2040	A0013294	M48	5	Set	Somta



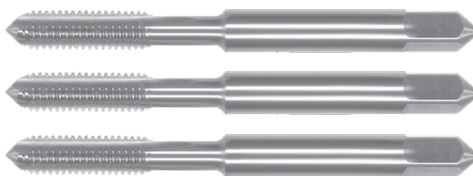
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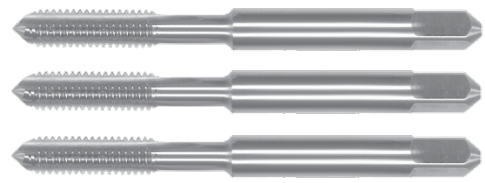
A0013611

High Speed Steel Short Hand Metric Fine 2 Piece Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4227	A0013593	M6	0.75	Set	Somta
SM4230	A0013594	M8	1	Set	Somta
SM4233	A0013595	M10	0.75	Set	Somta
SM4234	A0013596	M10	1	Set	Somta
SM4235	A0013597	M10	1.25	Set	Somta
SM4239	A0013598	M12	1	Set	Somta
SM4240	A0013599	M12	1.25	Set	Somta
SM4241	A0013600	M12	1.5	Set	Somta
SM4244	A0013602	M14	1.25	Set	Somta
SM4243	A0013601	M14	1.5	Set	Somta
SM4248	A0013603	M16	1.5	Set	Somta

High Speed Steel Short Hand Metric Fine 2 Piece Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4264	A0013611	M18	1.5	Set	Somta
SM4252	A0013604	M18	2	Set	Somta
SM4253	A0013605	M20	1.5	Set	Somta
SM4254	A0013606	M20	2	Set	Somta
SM4255	A0013607	M22	1.5	Set	Somta
SM2036	A0013293	M24	1	Set	Somta
SM4259	A0013609	M24	1.5	Set	Somta
SM4260	A0013610	M24	2	Set	Somta
SM4265	A0013612	M27	2	Set	Somta
SM4268	A0013613	M30	1	Set	Somta
SM4270	A0013615	M36	1.5	Set	Somta
SM4269	A0013614	M36	3	Set	Somta



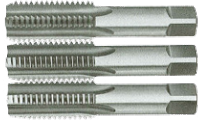
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A0013532

High Speed Steel Short Hand BA Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4032	A0013529	No. 4	0.66	Set	Somta
SM4033	A0013530	No. 3	0.73	Set	Somta
SM4034	A0013531	No. 2	0.81	Set	Somta

High Speed Steel Short Hand BA Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4035	A0013532	No. 1	0.9	Set	Somta
SM4036	A0013533	No. 0	1	Set	Somta



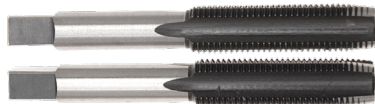
A0013546

High Speed Steel Short Hand BSW Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4075	A0013546	1/8"	40 TPI	Set	Somta
SM4077	A0013547	3/16"	24 TPI	Set	Somta
SM4079	A0013548	1/4"	20 TPI	Set	Somta
SM4080	A0013549	5/16"	18 TPI	Set	Somta
SM4081	A0013550	3/8"	16 TPI	Set	Somta
SM4082	A0013551	7/16"	14 TPI	Set	Somta
SM4083	A0013552	1/2"	12 TPI	Set	Somta
SM4084	A0013553	9/16"	12 TPI	Set	Somta
SM4085	A0013554	5/8"	11 TPI	Set	Somta
SM4087	A0013555	3/4"	10 TPI	Set	Somta
SM4088	A0013556	7/8"	9 TPI	Set	Somta
SM4089	A0013557	1"	8 TPI	Set	Somta
SM4090	A0013558	1.1/8"	7 TPI	Set	Somta
SM4091	A0013559	1.1/4"	7 TPI	Set	Somta



A0013573

High Speed Steel Short Hand UNF Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4156	A0013573	1/4"	28 TPI	Set	Somta
SM4157	A0013574	5/16"	24 TPI	Set	Somta
SM4158	A0013575	3/8"	24 TPI	Set	Somta
SM4159	A0013576	7/16"	20 TPI	Set	Somta
SM4160	A0013577	1/2"	20 TPI	Set	Somta
SM4161	A0013578	9/16"	18 TPI	Set	Somta
SM4162	A0013579	5/8"	18 TPI	Set	Somta
SM4163	A0013580	3/4"	16 TPI	Set	Somta
SM4164	A0013581	7/8"	14 TPI	Set	Somta
SM4165	A0013582	1"	12 TPI	Set	Somta
SM4166	A0013583	1.1/8"	12 TPI	Set	Somta
SM4167	A0013584	1.1/4"	12 TPI	Set	Somta
SM4150	A0013571	No. 4	48 TPI	Set	Somta
SM4152	A0013572	No. 6	40 TPI	Set	Somta



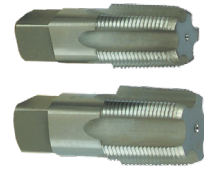
A0013587

High Speed Steel Hand Taper Pipe BSPT Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4200	A0013587	1/8"	28 TPI	Set	Somta
SM4201	A0013588	1/4"	19 TPI	Set	Somta
SM4202	A0013589	3/8"	19 TPI	Set	Somta
SM4203	A0013590	1/2"	14 TPI	Set	Somta
SM4204	A0013591	3/4"	14 TPI	Set	Somta
SM4205	A0013592	1"	11 TPI	Set	Somta



A0013560

High Speed Steel Short Hand UNC Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4106	A0013560	1/4"	20 TPI	Set	Somta
SM4107	A0013561	5/16"	18 TPI	Set	Somta
SM4108	A0013562	3/8"	16 TPI	Set	Somta
SM4109	A0013563	7/16"	14 TPI	Set	Somta
SM4010	5411270	1/2"	13 TPI	Set	Somta
SM4111	A0013564	9/16"	12 TPI	Set	Somta
SM4112	A0013565	5/8"	11 TPI	Set	Somta
SM4115	A0013567	3/4"	10 TPI	Set	Somta
SM4114	A0013566	7/8"	9 TPI	Set	Somta
SM4015	A0013567	1"	8 TPI	Set	Somta
SM4116	A0013568	1.1/8"	7 TPI	Set	Somta
SM4117	A0013569	1.1/4"	7 TPI	Set	Somta
SM4121	A0013570	2"	4.1/2 TPI	Set	Somta



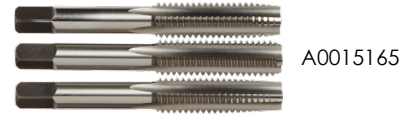
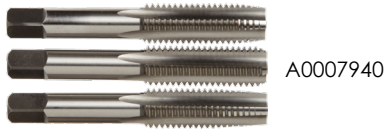
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High Speed Steel BSP-G Parallel Pipe 2 Piece Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4050	A0013534	1/8"	28 TPI	Set	Somta
SM4051	A0013535	1/4"	19 TPI	Set	Somta
SM4052	A0013536	3/8"	19 TPI	Set	Somta
SM4053	A0013537	1/2"	14 TPI	Set	Somta
SM4054	A0013538	5/8"	14 TPI	Set	Somta
SM4055	A0013539	3/4"	14 TPI	Set	Somta
SM4056	A0013540	7/8"	14 TPI	Set	Somta
SM4057	A0013541	1"	11 TPI	Set	Somta
SM4058	A0013542	1.1/4"	11 TPI	Set	Somta
SM4059	A0013543	1.1/2"	11 TPI	Set	Somta
SM4061	A0013544	2"	11 TPI	Set	Somta
SM4063	A0013545	2.1/2"	11 TPI	Set	Somta



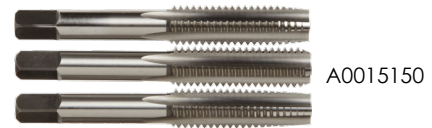
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High Speed Steel Taper Pipe NPT 2 Piece Tap Set					
Stock Code	System Code	Size	Pitch	Uom	Brand
SM4000	A0013520	1/8"	27 TPI	Set	Somta
SM4001	A0013521	1/4"	18 TPI	Set	Somta
SM4002	A0013522	3/8"	18 TPI	Set	Somta
SM4003	A0013523	1/2"	14 TPI	Set	Somta
SM4004	A0013524	3/4"	14 TPI	Set	Somta
SM4005	A0013525	1"	11.1/2 TPI	Set	Somta
SM4007	A0013526	1.1/2"	11.1/2 TPI	Set	Somta



Short Hand BSW Carbon Steel Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
GR0917	A0007940	1/8"	40 TPI	Set	Groz
WA0100	A0015119	1/8"	40 TPI	Set	Somta
GR0919	A0007941	3/16"	24 TPI	Set	Groz
WA0102	A0015120	3/16"	24 TPI	Set	Somta
GR0921	A0007942	1/4"	20 TPI	Set	Groz
WA0104	A0015122	1/4"	20 TPI	Set	Somta
GR0923	A0007943	5/16"	18 TPI	Set	Groz
WA0105	A0015123	5/16"	18 TPI	Set	Somta
GR0924	A0007944	3/8"	16 TPI	Set	Groz
WA0106	A0015124	3/8"	16 TPI	Set	Somta
WA0103	A0015121	7/16"	14 TPI	Set	Somta
GR0926	A0009745	1/2"	12 TPI	Set	Groz
WA0108	A0015126	1/2"	12 TPI	Set	Somta
WA0109	A0015127	9/16"	12 TPI	Set	Somta
WA0110	A0015128	5/8"	11 TPI	Set	Somta
GR0930	A0007946	3/4"	10 TPI	Set	Groz
WA0111	A0015129	3/4"	10 TPI	Set	Somta
WA0112	A0015130	7/8"	9 TPI	Set	Somta
GR0934	A0009747	1"	8 TPI	Set	Groz
WA0107	A0015125	1"	8 TPI	Set	Somta
WA0115	A0015131	1.1/4"	7 TPI	Set	Somta

Short Hand BA Carbon Steel Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
WA0178	A0015165	No. 6	0.53	Set	Somta
WA0177	A0015164	No. 5	0.59	Set	Somta
WA0176	A0015163	No. 4	0.66	Set	Somta
WA0175	A0015162	No. 3	0.73	Set	Somta
WA0174	A0015161	No. 2	0.81	Set	Somta
WA0173	A0015160	No. 1	0.9	Set	Somta



Short Hand UNF Carbon Steel Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
WA0160	A0015150	1/4"	28 TPI	Set	Somta
WA0161	A0015151	5/16"	24 TPI	Set	Somta
WA0162	A0015152	3/8"	24 TPI	Set	Somta
WA0163	A0015153	7/16"	20 TPI	Set	Somta
WA0164	A0015154	1/2"	20 TPI	Set	Somta
WA0165	A0015155	9/16"	18 TPI	Set	Somta
WA0166	A0015156	5/8"	18 TPI	Set	Somta
WA0167	A0015157	3/4"	16 TPI	Set	Somta
WA0168	A0015158	7/8"	14 TPI	Set	Somta
WA0169	A0015159	1"	12 TPI	Set	Somta



Short Hand Metric Fine Carbon Steel 2 Piece Tap Set					
Stock Code	System Code	Size	Pitch	Uom	Brand
WA0036	A0016127	M6	0.75	Set	Somta
WA0037	A0015091	M8	1	Set	Somta
WA0041	A0015092	M12	1	Set	Somta
WA0042	A0015093	M12	1.25	Set	Somta
WA0043	A0015094	M12	1.5	Set	Somta
WA0044	A0015095	M14	1.25	Set	Somta
WA0045	A0015096	M14	1.5	Set	Somta
WA0046	A0015097	M16	1.5	Set	Somta
WA0049	A0022705	M22	1.5	Set	Somta
WA0050	A0015099	M24	1.5	Set	Somta

Short Hand Metric Coarse Carbon Steel Tap Sets					
Stock Code	System Code	Size	Pitch	Uom	Brand
WA0000	A0015069	M2	0.4	Set	Somta
WA0002	A0015070	M3	0.5	Set	Somta
GR1002	A0007948	M4	0.7	Set	Groz
WA0004	A0015071	M4	0.7	Set	Somta
GR1003	A0007949	M5	0.8	Set	Groz
WA0005	A0015072	M5	0.8	Set	Somta
GR1004	A0007950	M6	1	Set	Groz
WA0006	A0015073	M6	1	Set	Somta
WA0007	A0015074	M7	1	Set	Somta
GR1006	A0007951	M8	1.25	Set	Groz
WA0008	A0015075	M8	1.25	Set	Somta
WA0025	A0015089	M9	1.25	Set	Somta
GR1008	A0007952	M10	1.5	Set	Groz
WA0009	A0015076	M10	1.5	Set	Somta
WA0010	A0015077	M10	1	Set	Somta

* Spark Plug
Conduit

CUTTING, DRILLING AND THREADING



A0015079

Short Hand Metric Coarse Carbon Steel 3 Piece Tap Sets

Stock Code	System Code	Size	Pitch	Uom	Brand
WA0012	A0015079	M11	1.5	Set	Somta
GR1010	A0007953	M12	1.75	Set	Groz
WA0013	A0015080	M12	1.75	Set	Somta
GR1011	A0007954	M14	2	Set	Groz
WA0014	A0015081	M14	2	Set	Somta
GR1012	A0007955	M16	2	Set	Groz
WA0015	A0015082	M16	2	Set	Somta
WA0016	A0015083	M18	2.5	Set	Somta
GR1014	A0007956	M20	2.5	Set	Groz
WA0018	A0015084	M20	2.5	Set	Somta
WA0019	A0015085	M22	2.5	Set	Somta
GR1016	A0007957	M24	3	Set	Groz
WA0021	A0015087	M27	3	Set	Somta
GR1018	A0007958	M30	3.5	Set	Groz
WA0022	A0015088	M30	3.5	Set	Somta

Short Gun Nose Machine Metric Coarse Taps (HSSE V3)

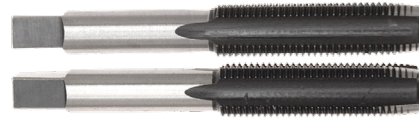
Stock Code	System Code	Size	Pitch	Uom	Brand
SM2250	A0013324	M3	0.5	EA	Somta
SM2253	A0013326	M4	0.7	EA	Somta
SM2254	A0013327	M5	0.8	EA	Somta
SM2255	A0013328	M6	1	EA	Somta
SM2257	A0013329	M8	1.25	EA	Somta
SM2259	A0013330	M10	1.5	EA	Somta
SM2261	A0013331	M12	1.75	EA	Somta
SM2262	A0013332	M14	2	EA	Somta
SM2263	A0013333	M16	2	EA	Somta
SM2264	A0013334	M18	2.5	EA	Somta
SM2265	A0013335	M20	2.5	EA	Somta
SM2267	A0013336	M24	3	EA	Somta



A0013298

15° Spiral Flute Short Machine Metric Coarse Taps (HSSE V30)

Stock Code	System Code	Size	Pitch	Uom	Brand
SM2052	A0013298	M3	0.5	EA	Somta
SM2053	A0013299	M4	0.7	EA	Somta
SM2054	A0013300	M5	0.8	EA	Somta
SM2055	A0013301	M6	1.0	EA	Somta
SM2057	A0013302	M8	1.25	EA	Somta
SM2059	A0013303	M10	1.5	EA	Somta
SM2061	A0013304	M12	1.75	EA	Somta
SM2062	A0013305	M14	2.0	EA	Somta
SM2063	A0013306	M16	2.0	EA	Somta
SM2064	A0013307	M18	2.5	EA	Somta
SM2065	A0013308	M20	2.5	EA	Somta
SM2066	A0013309	M22	2.5	EA	Somta
SM2067	A0013310	M24	3.0	EA	Somta



A0015132

Parallel Pipe, BSP, Carbon Steel 2 Piece Tap Sets

Stock Code	System Code	Size	Pitch	Uom	Brand
WA0120	A0015132	1/8"	28 TPI	Set	Somta
WA0121	A0015133	1/4"	19 TPI	Set	Somta
WA0122	A0015134	3/8"	19 TPI	Set	Somta
WA0123	A0015135	1/2"	14 TPI	Set	Somta
WA0124	A0015136	5/8"	14 TPI	Set	Somta
WA0125	A0015137	3/4"	14 TPI	Set	Somta
WA0126	A0015138	1"	11 TPI	Set	Somta



A0015139

Carbon Steel UNC 3 Piece Set Tap Sets

Stock Code	System Code	Size	Pitch	Uom	Brand
WA0140	A0015139	1/4"	20 TPI	Set	Somta
WA0141	A0015140	5/16"	18 TPI	Set	Somta
WA0142	A0015141	3/8"	16 TPI	Set	Somta
WA0143	A0015142	7/16"	14 TPI	Set	Somta
WA0144	A0015143	1/2"	13 TPI	Set	Somta
WA0145	A0015144	9/16"	12 TPI	Set	Somta
WA0146	A0015145	5/8"	11 TPI	Set	Somta
WA0147	A0015146	3/4"	10 TPI	Set	Somta
WA0148	A0015147	7/8"	9 TPI	Set	Somta
WA0149	A0015148	1"	8 TPI	Set	Somta



A0013311

35° Spiral Flute Short Machine Metric Coarse Taps (HSSE V30)

Stock Code	System Code	Size	Pitch	Uom	Brand
SM2080	A0013311	M4	0.7	EA	Somta
SM2081	A0013312	M5	0.8	EA	Somta
SM2082	A0013313	M6	1	EA	Somta
SM2083	A0013314	M8	1.25	EA	Somta
SM2084	A0013315	M9	1.25	EA	Somta
SM2085	A0013316	M10	1.5	EA	Somta
SM2086	A0013317	M12	1.75	EA	Somta
SM2087	A0013318	M14	2.0	EA	Somta
SM2088	A0013319	M16	2.0	EA	Somta
SM2089	A0013320	M18	2.5	EA	Somta
SM2090	A0013321	M20	2.5	EA	Somta
SM2091	A0013322	M22	2.5	EA	Somta
SM2115	A0013323	M24	3	EA	Somta



Complete Pipe Die Heads

Stock Code	System Code	Size	Thread	Model Number	Uom	Brand
RG0610	A0012125	1/4"	BSPT	00-R	EA	Ridgid
RG0612	A0012126	1/2"	BSPT	00-R	EA	Ridgid
RG0613	A0012127	3/4"	BSPT	00-R	EA	Ridgid
RG0614	A0012128	1"	BSPT	00-R	EA	Ridgid
RG0615	A0012129	3/4"	BSPT	11-R	EA	Ridgid
RG0623	A0012130	1/2"	BSPT	12-R	EA	Ridgid
RG0624	A0012131	3/4"	BSPT	12-R	EA	Ridgid
RG0625	A0012132	1"	BSPT	12-R	EA	Ridgid
RG0626	A0012133	1.1/4"	BSPT	12-R	EA	Ridgid
RG0627	A0012134	1.1/2"	BSPT	12-R	EA	Ridgid
RG0628	A0012135	2"	BSPT	12-R	EA	Ridgid



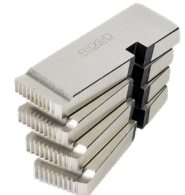
A0012128

Drop Dies Head Threaders

Stock Code	System Code	Size	Thread	Model Number	Material Type	Uom	Brand
RG0702	A0012148	3/8"	BSPT	R-200	Alloy	Set	Ridgid
RG0703	A0012149	1/2"	BSPT	R-200	Alloy	Set	Ridgid
RG0704	A0012150	3/4"	BSPT	R-200	Alloy	Set	Ridgid
RG0705	A0012151	1"	BSPT	R-200	Alloy	Set	Ridgid
RG0706	A0012152	1.1/4"	BSPT	R-200	Alloy	Set	Ridgid
RG0707	A0012153	1.1/2"	BSPT	R-200	Alloy	Set	Ridgid
RG0708	A0012154	2"	BSPT	R-200	Alloy	Set	Ridgid
RG0713	A0012155	1/2"	BSPT	12-R	Alloy	Set	Ridgid
RG0714	A0012156	3/4"	BSPT	12-R	Alloy	Set	Ridgid
RG0715	A0012157	1"	BSPT	12-R	Alloy	Set	Ridgid
RG0725	A0012161	1"	BSPT	12-R	High Speed	Set	Ridgid
RG0716	A0012158	1.1/4"	BSPT	12-R	Alloy	Set	Ridgid
RG0717	A0012159	1.1/2"	BSPT	12-R	Alloy	Set	Ridgid
RG0718	A0012160	2"	BSPT	12-R	Alloy	Set	Ridgid



A0012148



A0012160

Threading Machine Die Heads

Stock Code	System Code	Size	Series	Uom	Brand
RG0640	A0012136	1/4"-1"	531	EA	Ridgid
RG0641	A0012137	1.1/4"-2"	532	EA	Ridgid
RG0642	A0012138	1/8"-2"	811A	EA	Ridgid



A0012138

Pipe Dies for Machine Die Heads

Stock Code	System Code	Size	Thread	Model Number	Material Type	Uom	Brand
RG0732	A0012164	1/4"-3/8"	BSPT	504A-811A-815A-856-911-913	Alloy	Set	Ridgid
RG0730	A0012162	1/2"-3/4"	BSPT	504A-811A-815A-856-911-913	Alloy	Set	Ridgid
RG0731	A0012163	1"-2"	BSPT	504A-811A-815A-856-911-913	Alloy	Set	Ridgid
RG0750	A0012165	1"-2"	BSPT	504A-811A-815A-856-911-913	High Speed	Set	Ridgid
RG0752	A0012166	1/2"-3/4"	BSPP	504A-811A-815A-856-911-913	High Speed	Set	Ridgid
RG0753	A0012167	1"-2"	BSPP	504A-811A-815A-856-911-913	High Speed	Set	Ridgid

Right Hand Speed Bolt Dies for Die Heads						
Stock Code	System Code	Size	Thread	Pitch	Uom	Brand
RG0802	A0012168	M8	Series A, Metric	1.25	Set	Ridgid
RG0804	A0012169	M10	Series A, Metric	1.5	Set	Ridgid
RG0806	A0012170	M12	Series A, Metric	1.75	Set	Ridgid
RG0807	A0012171	M14	Series A, Metric	2	Set	Ridgid
RG0808	A0012172	M16	Series A, Metric	2	Set	Ridgid
RG0809	A0012173	M18	Series A, Metric	2.5	Set	Ridgid
RG0810	A0012174	M20	Series A, Metric	2.5	Set	Ridgid
RG0811	A0012175	M22	Series A, Metric	2.5	Set	Ridgid
RG0812	A0012176	M24	Series A, Metric	3	Set	Ridgid
RG0813	A0012177	M25	Series A, Metric	3	Set	Ridgid
RG0815	A0012178	M27	Series A, Metric	3	Set	Ridgid
RG0816	A0012179	M30	Series A, Metric	3.5	Set	Ridgid
RG0818	A0012180	M36	Series A, Metric	4	Set	Ridgid



A0012168

Universal Wheel & Tray Stands				
Stock Code	System Code	Description	Uom	Brand
RG0827	A0012183	For Threading Machines 1822, 535 & 1224	EA	Ridgid
RG0826	A0012182	For Ridgid® 300 Compact, 1233, 535 & 1224	EA	Ridgid



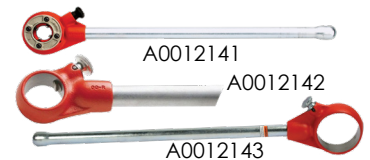
A0012183

Spare Jaws					
Stock Code	System Code	Type	Model	Uom	Brand
RG1120	A001216	Inset	E-1666535	Set	Ridgid
RG1122	A0012197	Faw for Chuck	300D838X	Set	Ridgid



A0012194

Ratchet & Handle Assemblies				
Stock Code	System Code	Description	Uom	Brand
RG0680	A0012141	For Model 11-R / R-200	EA	Ridgid
RG0681	A0012142	For Model 00-R	EA	Ridgid
RG0683	A0012143	For Model 12-R	EA	Ridgid



A0012141

A0012142

A0012143

Exposed Threader Ratchets (BSPT)					
Stock Code	System Code	Size	Model Number	Uom	Brand
RG0660	A0012140	1/2"-2"	12-R	EA	Ridgid



A0012140

Manual Pipe Threaders					
Stock Code	System Code	Size	Thread	Uom	Brand
RG1000	A0012189	1/2"-2"	BSPT	EA	Ridgid



A0012189

Threading Machine Folding Stands				
Stock Code	System Code	Description	Uom	Brand
RG0693	A0012146	For 300 Compact & 1233	EA	Ridgid



A0012144

Deburring Tools (3 Blade)					
Stock Code	System Code	Size	Blades	Uom	Brand
MS1065	A0010482	3.2 mm	3	EA	Noga
MS1066	A0010483	3.2 mm	3	EA	Noga



A0010482

CUTTING, DRILLING AND THREADING

TA HSS Centre Drills



A0021727

System Code	Point	Body Ø	Overall Length
	mm	mm	mm
A0021727	1.0	3.15	31.5
A0021765	1.6	4.0	35.5
A0021716	2.0	5.0	40.0
A0021716	2.5	6.3	45.0
A0021718	3.15	8.0	50.0
A0021719	4.0	10.0	56.0
A0021720	5.0	12.5	63.0
A0021721	6.3	16.0	71.0

System Code	Point Ø	Body Ø	Overall Length
	mm	mm	mm
A0021727	1.0	3.15	31.5
A0021717	2.0	5.0	40.0
A0021716	2.5	6.3	45.0
A0021718	3.15	8.0	50.0
A0021719	4.0	10.0	56.0
A0021720	5.0	12.5	63.0
A0021721	6.3	16.0	71.0

mayke **HSS Centre Drills**
DIN 333 Form A
120° Point Angle Bright Finish

Range of Applications

Centre drill for the production of centre holes according to DIN 332 sheet 1, form A (without a protective chamfer)



A0025240

System Code	Point Ø	Body Ø	Overall Length
	mm	mm	mm
A0025240	1.0	3.15	31.5
A0025242	1.6	4.0	35.5
A0025244	2.0	5.0	40.0
A0025233	2.5	6.3	45.0
A0025245	3.15	8.0	50.0
A0025246	4.0	10.0	56.0
A0025247	5.0	12.5	63.0
A0025248	6.3	16.0	71.0

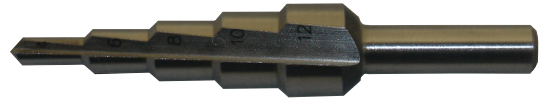
ILIX **British Standard HSS Centre Drills -**
Right Hand
No.6142 B.S. 328 A (1950)



A0021431

System Code	Point Ø	Body Ø	Overall Length
	mm	mm	mm
A0021431	1.19	3.17	38.0
A0021432	1.59	4.76	44.0
A0021433	2.38	6.35	51.0
A0021434	3.17	7.94	57.0
A0021435	4.76	11.11	63.0
A0021436	6.35	15.87	76.0
A0013084	7.94	19.05	89.0

TA HSS Stepped Sheet Metal Drills



A0021758

System Code	Capacity	Diameter Range	No. of Steps	Shank Ø	Overall Length
	mm	mm			
A0021758	4-12	4,6,8,10,12	5	6	6
A0025327	4-12	4,5,6,7,8,9,10,11,12	9	6	6
A0021759	4-20	4,6,8,10,12,14,16,18,20	9	6	6
A0021760	6-38	6,9,13,16,19,21,23 26,29,32,35,39	12	10	10

TA HSS Single Ended Stub Drills

DIN 1897 RH Cutting 118° Point Angle



A0021730

Stock Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021730	2.8	16	46
A0021064	3.0	16	46
A0021061	3.2	18	49
A0021062	3.3	18	49
A0021235	3.5	20	52
A0021730	2.8	16	46
A0021064	3.0	16	46
A0021061	3.2	18	49
A0021748	3.3	18	49
A0021287	3.5	20	52
A0021749	3.8	22	55
A0021754	4.0	22	55
A0021751	4.1	22	55
SDR4.2S	4.2	22	55
SDR4.5S	4.5	24	58
A0021752	4.8	26	62
A0021753	4.9	26	62
A0021753	5.0	26	62
A0021753	6.0	28	66
SDR6.2S	6.2	31	70
SDR6.5S	6.5	31	70

mayke **HSS Stub Drills, Fully Ground,**
DIN 1897RN

118° Point Angle Cross Cut Point Steam Tempered.

Range of Applications

Industrial quality twist drill for the drilling of steel and steel castings, Alloy and plain Carbon. For drilling thin sections and sheet-metal.



ASDR2S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ASDR2S	2.0	12	38
ASDR2.1S	2.1	12	38
ASDR2.2S	2.2	13	40
ASDR2.3S	2.3	13	40
ASDR2.4S	2.4	14	43

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021320	2.5	14	43
ASDR2.6S	2.6	14	43
ASDR2.7S	2.7	16	46
ASDR2.8S	2.8	16	46
A0021322	2.9	16	46
ASDR3S	3.0	16	46
ASDR3.1S	3.1	18	49
ASDR3.2S	3.2	18	49
ASDR3.3S	3.3	18	49
A0021323	3.4	20	52
ASDR3.5S	3.5	20	52
ASDR3.6S	3.6	20	52
ASDR3.7S	3.7	20	52
ASDR3.8S	3.8	22	55
ASDR3.9S	3.9	22	55
ASDR4S	4.0	22	55
ASDR4.1S	4.1	22	55
A0021324	4.2	22	55
ASDR4.3S	4.3	24	58
ASDR4.4S	4.4	24	58
ASDR4.5S	4.5	24	58
ASDR4.6S	4.6	24	58
ASDR4.7S	4.7	24	58
ASDR4.8S	4.8	26	62
ASDR4.9S	4.9	26	62
A0021327	5.0	26	62
A0021325	5.1	26	62
A0021326	5.2	26	62
ASDR5.3S	5.3	26	62
ASDR5.4S	5.4	28	66
ASDR5.5S	5.5	28	66
ASDR5.6S	5.6	28	66
ASDR5.7S	5.7	28	66
ASDR5.8S	5.8	28	66
ASDR5.9S	5.9	28	66
ASDR6S	6.0	28	66
A0021328	6.2	31	70
A0021329	6.5	31	70
ASDR6.8S	6.8	34	74
ASDR7S	7.0	34	74
ASDR7.2S	7.2	34	74
ASDR7.5S	7.5	34	74
ASDR7.8S	7.8	37	79
ASDR8S	8.0	37	79
A0021330	8.2	37	79
ASDR8.5S	8.5	37	84
ASDR9S	9.0	40	84
ASD9.5S	9.5	40	84
ASD10S	10.0	43	89
ASDR10.2S	10.2	43	89
ASDR10.5S	10.5	43	89
ASDR11S	11.0	47	95
ASDR11.5S	11.5	47	95
ASDR12.S	12.0	51	102
ASDR12.5S	12.5	51	102
A0021318	13.0	51	102
ASDR13.5S	13.5	54	107
ASDR14S	14.0	54	107
ASDR15S	15.0	56	111
A0021319	16.0	56	115

mayke**st**ag **HSS-Eco Stub Drills, Fully Ground, DIN 1897PZ**

118° Point Angle Cross Cut Point AC Bright Finish

Range of Applications

A 5% - Cobalt Alloyed high-efficiency drill with reinforced web. Specially suitable for drilling Stainless Steel, Acid-Resisting Steel & Spring Steel. Best for handheld operation.



ACOSDR1.S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ACOSDR1.S	1.0	6	26
ACOSDR1.1S	1.1	7	28
ACOSDR1.2S	1.2	8	30
ACOSDR1.3S	1.3	8	30
ACOSDR1.4S	1.4	9	32
A0021056	1.5	9	32
A0021057	1.6	10	34
A0021058	1.7	10	34
ACOSDR1.8S	1.8	11	36
ACOSDR1.9S	1.9	11	36
ACOSDR2.S	2.0	12	38
ACOSDR2.1S	2.1	12	38
ACOSDR2.2S	2.2	13	40
ACOSDR2.3S	2.3	13	40
ACOSDR2.4S	2.4	14	43
A0021060	2.5	14	43
ACOSDR2.6S	2.6	14	43
ACOSDR2.7S	2.7	16	46
ACOSDR2.8S	2.8	16	46
ACOSDR2.9S	2.9	16	46
ACOSDR3.S	3.0	16	46
ACOSDR3.1S	3.1	18	49
A0021061	3.2	18	49
A0021062	3.3	18	49
ACOSDR3.4S	3.4	20	52
ACOSDR3.5S	3.5	20	52
ACOSDR3.6S	3.6	20	52
ACOSDR3.7S	3.7	20	52
A0021063	3.8	22	55
ACOSDR3.9S	3.9	22	55
A0021068	4.0	22	55
ACOSDR4.1S	4.1	22	55
ACOSDR4.2S	4.2	22	55
A0021065	4.3	24	58
ACOSDR4.4S	4.4	24	58
A0021066	4.5	24	58
ACOSDR4.6S	4.6	24	58
ACOSDR4.7S	4.7	24	58
ACOSDR4.8S	4.8	26	62
A0021067	4.9	26	62
ACOSDR5S	5.0	26	62
A0021069	5.1	26	62
ACOSDR5.2S	5.2	26	62
ACOSDR5.3S	5.3	26	62
ACOSDR5.4S	5.4	28	66
ACOSDR5.5S	5.5	28	66
ACOSDR5.6S	5.6	28	66
ACOSDR5.7S	5.7	28	66
ACOSDR5.8S	5.8	28	66
ACOSDR5.9S	5.9	28	66
A0021074	6.0	28	66
ACOSDR6.1S	6.1	31	70
ACOSDR6.2S	6.2	31	70
ACOSDR6.3S	6.3	31	70
A0021070	6.4	31	70

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ACOSDR6.5S	6.5	31	70
ACOSDR6.6S	6.6	31	70
A0021071	6.7	31	70
A0021072	6.8	34	74
A0021073	6.9	34	74
ACOSDR7S	7.0	34	74
ACOSDR7.1S	7.1	34	74
ACOSDR7.2S	7.2	34	74
ACOSDR7.3S	7.3	34	74
ACOSDR7.4S	7.4	34	74
ACOSDR7.5S	7.5	34	74
ACOSDR7.6S	7.6	37	79
ACOSDR7.7S	7.7	37	79
A0021075	7.8	37	79
ACOSDR7.9S	7.9	37	79

CUTTING, DRILLING AND THREADING

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021077	8.0	37	79
ACOSDR8.1S	8.1	37	79
ACOSDR8.2S	8.2	37	79
ACOSDR8.3S	8.3	37	79
ACOSDR8.4S	8.4	37	79
A0021076	8.5	37	79
ACOSDR8.6S	8.6	40	84
ACOSDR8.7S	8.7	40	84
ACOSDR8.8S	8.8	40	84
ACOSDR8.9S	8.9	40	84
ACOSDR9S	9.0	40	84
ACOSDR9.1S	9.1	40	84
ACOSDR9.2S	9.2	40	84
ACOSDR9.3S	9.3	40	84
ACOSDR9.4S	9.4	40	84
ACOSDR9.5S	9.5	40	84
ACOSDR9.6S	9.6	43	89
ACOSDR9.7S	9.7	43	89
ACOSDR9.8S	9.8	43	89
ACOSDR9.9S	9.9	43	89
A0021059	10.0	43	89
ACOSDR10.2S	10.2	43	89
ACOSDR10.5S	10.5	43	89
ACOSDR11S	11.0	47	95
ACOSDR11.5S	11.5	47	95
ACOSDR12S	12.0	51	102
ACOSDR12.5S	12.5	51	102
ACOSDR13S	13.0	51	102

maykePERFORMANCE
IN PRECISIONstegad

HSS-E/PM Spiral Drills DIN 1897 Forte

130° Point Angle Point Shape B Alunit

Range of Applications

High-performance-twist drills with FORTE - special profile for optimized chipping. Especially suitable for machining-centres and automatic lathes. Big range of application for all materials up to approx. 1300 N/mm², predominately longchipping ones and also for stainless-austenitic steels. Suitable for the dry cutting of steels.



ACOTSDR2.8S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ACOTSDR2.8S	2.8	16	46
A0021079	3.0	16	46
ACOTSDR3.3S	3.3	18	49
ACOTSDR3.5S	3.5	20	52
ACOTSDR3.7S	3.7	20	52
A0021082	4.0	22	55
A0021080	4.2	22	55
ACOOTSDR4.5S	4.5	24	58
ACOTSDR4.65S	4.65	24	58
ACOTSDR4.8S	4.8	26	62
A0021083	5.0	26	62
ACOTSDR5.5S	5.5	28	66
A0021085	6.0	28	66
ACOTSDR6.5S	6.5	31	70
A0021084	6.8	34	74
A0021086	7.0	34	74
ACOTSDR7.4S	7.4	34	74
ACOTSDR7.5S	7.5	34	74
ACOTSDR8S	8.0	37	79
A0021087	8.5	37	79
ACOTSDR9S	9.0	40	84
ACOTSDR9.3S	9.3	40	84
A0021088	9.5	40	84

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ACOTSDR10S	10.0	43	89
ACOTSDR10.2S	10.2	43	89
ACOTSDR10.5S	10.5	43	89
A0021078	11.0	47	95
ACOTSDR11.5S	11.5	47	95
ACOTSDR12S	12.0	51	102



Hss Double Ended Stub Drills



DESDR2S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021731	2.0	7.5	38
A0021728	2.2	8.5	40
A0021729	2.5	9.5	43
A0021730	2.8	10.6	46
A0021735	3.0	10.6	46
A0021732	3.2	11.2	49
A0021733	3.3	11.2	49
DESDR3.5S	3.5	12.5	52
A0021734	3.8	14.0	55
A0021740	4.0	14.0	55
A0021736	4.1	14.0	55
A0021737	4.2	14.0	55
DESDR4.5S	4.5	15.5	58
A0021738	4.8	17.0	62
A0021739	4.9	17.0	62
A0021723	5.0	17.0	62
A0021741	5.2	17.0	62
A0021722	5.5	19.0	66
DESDR5.8S	5.8	19.0	66
A0021724	6.0	19.0	66
DESDR6.2S	6.2	21.2	70
A0021742	6.5	21.2	70
DESDR7S	7.0	23.6	74
A0021725	7.5	23.6	74
A0021743	8.0	25.0	79



HSS Twist Drills Ground Flute Straight Shank DIN 338

130° Point Angle Split Point



A0021985

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021985	1.00	12	34
A0022158	1.10	14	36
A0022159	1.20	16	38
A0021965	1.30	16	38
A0022160	1.40	18	40
A0021966	1.50	18	40
A0022161	1.60	20	43
A0022162	1.70	20	43
A0022163	1.80	22	46
A0022164	1.90	22	46
A0021991	2.00	24	49
A0021986	2.10	24	49
A0022199	2.20	27	53
A0022201	2.30	27	53
A0022203	2.40	-	-

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021988	2.50	30	57
A0022205	2.60	30	57
A0021989	2.70	30	57
A0022208	2.80	33	61
A0022210	2.90	33	61
A0021998	3.00	33	61
A0022213	3.10	33	61
A0021992	3.20	36	65
A0021993	3.30	36	65
A0021994	3.40	36	65
A0021996	3.50	39	70
A0022218	3.60	39	70
A0022220	3.70	39	70
A0022222	3.80	39	70
A0022224	3.90	43	75
A0022008	4.00	43	75
A0022226	4.10	43	75
A0022000	4.20	43	75
GDR4.3S	4.30	43	75
A0022229	4.40	47	80
A0022003	4.50	47	80
A0022231	4.60	47	80
A0022004	4.70	47	80
A0022005	4.80	47	80
A0022006	4.90	52	86
A0022020	5.00	52	86
A0022236	5.10	52	86
A0022009	5.20	52	86
A0022010	5.30	52	86
A0022240	5.40	52	86
A0022012	5.50	57	93
A0022013	5.60	57	93
A0022014	5.70	57	93
A0022016	5.80	57	93
A0022017	5.90	57	93
A0022028	6.00	57	93
A0022020	6.10	63	93
A0022021	6.20	63	101
A0022247	6.30	63	101
A0022249	6.40	63	101
A0022023	6.50	63	101
A0022024	6.60	63	101
A0022252	6.70	63	101
A0022026	6.80	69	101
A0022254	6.90	69	109
A0022035	7.00	69	109
A0022256	7.10	69	109
A0022029	7.20	69	109
A0022259	7.30	69	109
A0022261	7.40	69	109
A0022031	7.50	69	109
A0022263	7.60	75	117
A0022032	7.70	75	117
A0022033	7.80	75	117
A0022267	7.90	75	117
A0022042	8.00	75	117
A0022036	8.10	75	117
A0022037	8.20	75	117
A0022271	8.30	75	117
A0022273	8.40	75	117
A0022039	8.50	75	117
A0022040	8.60	81	125
A0022276	8.70	81	125
A0022278	8.80	81	125
A0022280	8.90	81	125
A0022049	9.00	81	125
A0022282	9.10	81	125
A0022043	9.20	81	125
A0022285	9.30	81	125
A0022287	9.40	81	125
A0022045	9.50	81	125
A0022046	9.60	87	133
A0022047	9.70	87	133

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0022048	9.80	87	133
A0022292	9.90	87	133
A0021970	10.00	87	133
A0022166	10.10	87	133
A0021967	10.20	87	133
A0022167	10.30	87	133
A0022168	10.40	87	133
A0021968	10.50	87	133
A0022170	10.60	87	133
A0022171	10.70	94	142
A0021969	10.80	94	142
A0022172	10.90	94	142
A0021975	11.00	94	142
A0022173	11.10	94	142
A0021971	11.20	94	142
A0022174	11.30	94	142
A0022175	11.40	94	142
A0021972	11.50	94	142
A0022177	11.60	94	142
A0022178	11.70	94	142
A0021973	11.80	94	142
A0022179	11.90	101	151
A0021981	12.00	101	151
A0022180	12.10	101	151
A0021976	12.20	101	151
A0022181	12.30	101	151
A0021977	12.40	101	151
A0022182	12.50	101	151
A0021978	12.60	101	151
A0021979	12.70	101	151
A0022183	12.80	101	151
A0022184	12.90	101	151
A0021982	13.00	101	151

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PERFORMANCE
IN PRECISION

HSS Jobber Drills, Fully Ground, DIN 338RN

118° Point Angle Cross Cut Point AC Steam Tempered

Range of Applications

Industrial quality twist drill for drilling of steel and steel castings, Alloy and plain Carbon, grey Iron castings, Copper-Alloys, Nickel-Silver, Graphite and similar materials.



ADR0.4S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ADR0.4S	0.4	5	20
ADR0.45S	0.45	5	20
ADR0.5S	0.5	6	22
ADR0.55S	0.55	7	24
ADR0.6S	0.6	7	24
ADR0.65S	0.65	8	26
ADR0.7S	0.7	9	29
ADR0.75S	0.75	9	28
ADR0.8S	0.8	10	30
ADR0.85S	0.85	10	30
ADR0.9S	0.9	11	32
ADR0.95S	0.95	11	32
ADR1S	1.0	12	34
ADR1.05S	1.05	12	34
ADR1.1S	1.1	14	36
ADR1.15S	1.15	14	36
ADR1.2S	1.2	16	38
ADR1.25S	1.25	16	38
A0021096	1.3	16	38
ADR1.35S	1.35	18	40

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021098	1.4	18	40
A0021097	1.45	18	40
A0021100	1.5	18	40
A0021099	1.55	20	43
A0021102	1.6	20	43
A0021101	1.65	20	43
A0021103	1.7	20	43
ADR1.75S	1.75	22	46
ADR1.8S	1.8	22	46
ADR1.85S	1.85	22	46
A0021104	1.9	22	46
ADR1.95S	1.95	24	49
A0021140	2.0	24	49
A0021129	2.05	24	49
A0021130	2.10	24	49
ADR2.15S	2.15	27	53
A0021131	2.2	27	53
ADR2.25S	2.25	27	53
A0021132	2.3	27	53
ADR2.35S	2.35	27	53
A0021133	2.4	30	57
ADR2.45S	2.45	30	57
A0021134	2.5	30	57
ADR2.55S	2.55	30	57
ADR2.6S	2.6	30	57
ADR2.65S	2.65	30	57
A0021136	2.7	33	61
A0021135	2.75	33	61
A0021138	2.8	33	61
A0021137	2.85	33	61
ADR2.9S	2.9	33	61
A0021139	2.95	33	61
A0021149	3.0	33	61
ADR3.1S	3.10	36	65
A0021025	3.2	36	65
A0021141	3.25	36	65
A0021142	3.3	36	65
A0021143	3.4	39	70
A0021144	3.5	39	70
A0021145	3.6	39	70
A0021146	3.7	39	70
ADR3.75S	3.75	43	70
A0021147	3.8	43	75
A0021148	3.9	43	75
A0021026	4.0	43	75
A0021150	4.1	43	75
A0021152	4.2	47	75
A0021151	4.25	47	80
A0021153	4.3	47	80
A0021154	4.4	47	80
A0021155	4.5	47	80
A0021156	4.6	47	80
A0021157	4.7	47	80
ADR4.75S	4.75	52	86
A0021158	4.8	52	86
ADR4.9S	4.9	52	86
A0021027	5.0	52	86
ADR5.1S	5.1	52	86
ADR5.2S	5.2	52	86
ADR5.25S	5.25	52	86
A0021161	5.3	57	93
A0021162	5.4	57	93
A0021163	5.5	57	93
A0021164	5.6	57	93
A0021166	5.7	57	93
A0021165	5.75	57	93
A0021167	5.8	57	93
A0021168	5.9	57	101
A0021028	6.0	63	101
A0021169	6.1	63	101
A0021170	6.2	63	101
ADR6.25S	6.25	63	101
ADR6.3S	6.3	63	101

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021171	6.4	63	101
A0021172	6.5	63	101
A0021173	6.6	63	101
ADR6.7S	6.7	69	101
ADR6.75S	6.75	69	109
A0021175	6.8	69	109
A0021176	6.9	69	109
A0021029	7.0	69	109
A0021177	7.1	69	109
ADR7.2S	7.2	69	109
ADR7.25S	7.25	69	109
ADR7.3S	7.3	69	109
A0021178	7.4	69	109
A0021179	7.5	75	109
A0021180	7.6	75	117
A0021181	7.7	75	117
ADR7.75S	7.75	75	117
A0021182	7.8	75	117
ADR7.9S	7.9	75	117
A0021031	8.0	75	117
A0021183	8.1	75	117
A0021030	8.2	75	117
ADR8.25S	8.25	75	117
A0021184	8.3	75	117
ADR8.4S	8.4	75	117
A0021185	8.5	81	117
A0021186	8.6	81	125
A0021187	8.7	81	125
ADR8.75S	8.75	81	125
A0021188	8.8	81	125
ADR8.9S	8.9	81	125
ADR9S	9.0	81	125
A0021189	9.1	81	125
ADR9.2S	9.2	81	125
ADR9.25S	9.25	81	125
ADR9.3S	9.3	81	125
ADR9.4S	9.4	81	125
A0021190	9.5	87	125
ADR9.6S	9.6	87	133
ADR9.7S	9.7	87	133
ADR9.75S	9.75	87	133
A0021191	9.8	87	133
ADR9.9S	9.9	87	133
A0021109	10.0	87	133
ADR10.1S	10.1	87	133
A0021024	10.2	87	133
ADR10.25S	10.25	87	133
A0021106	10.3	87	133
ADR10.4S	10.4	87	133
A0021107	10.5	87	133
ADR10.6S	10.6	94	133
ADR10.7S	10.7	94	142
ADR10.75S	10.75	94	142
ADR10.8S	10.8	94	142
ADR10.9S	10.9	94	142
A0021113	11.0	94	142
ADR11.1S	11.1	94	142
ADR11.2S	11.2	94	142
ADR11.25S	11.25	94	142
ADR11.3S	11.3	94	142
ADR11.4S	11.4	94	142
A0021111	11.5	94	142
ADR11.6S	11.6	94	142
ADR11.7S	11.7	94	142
ADR11.75S	11.75	94	142
ADR11.8S	11.8	101	142
ADR11.9S	11.9	101	151
A0021118	12.0	101	151
ADR12.1S	12.1	101	151
ADR12.2S	12.2	101	151
ADR12.25S	12.25	101	151
ADR12.3S	12.3	101	151
A0021114	12.4	101	151
ADR12.5S	12.5	101	151
ADR12.6S	12.6	101	151
A0021116	12.7	101	151
ADR12.75S	12.75	101	151

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ADR12.8S	12.8	101	151
ADR12.9S	12.9	101	151
A0021120	13.0	101	151
ADR13.25S	13.25	108	160
A0021119	13.5	108	160
ADR13.75S	13.75	108	160
A0021125	14.0	108	160
ADR14.25S	14.25	114	169
A0021122	14.5	114	169
A0021123	14.75	114	169
ADR15S	15.0	114	169
ADR15.25S	15.25	120	178
A0021126	15.5	120	178
ADR15.75S	15.75	120	178
A0021127	16.0	120	178
ADR16.5S	16.5	125	184
ADR17S	17.0	125	184
ADR17.5S	17.5	130	191
ADR18S	18.0	130	191
ADR18.5S	18.5	135	198
ADR19S	19.0	135	198
ADR19.5S	19.5	140	205
A0020733	20.0	140	205



HSS-Eco Jobber Drills DIN 338RN

130° Point Angle Cross Cut Point C Bright Finish

Range of Applications

A5% - Cobalt Alloyed jobber drill with high heat resistance for drilling steels with tensile strengths over 800 N/mm², specially suitable for high alloyed steels, bearing-steels and hot/cold-rolled steel.



A0021354

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021354	1.0	12	34
ASTDCODR1.1S	1.1	14	36
A0021340	1.2	16	38
A0021341	1.3	16	38
A0021342	1.4	18	40
A0021343	1.5	18	40
ASTDCODR1.6S	1.6	20	43
A0021344	1.7	20	43
A0021345	1.8	22	46
ASTDCODR1.9S	1.9	22	46
A0021360	2.0	24	49
A0021355	2.1	24	49
ASTDCODR2.2S	2.2	27	53
ASTDCODR2.3S	2.3	27	53
A0021356	2.4	30	57
A0021357	2.5	30	57
A0021358	2.6	30	57
ASTDCODR2.7S	2.7	33	61
A0021359	2.8	33	61
ASTDCODR2.9S	2.9	33	61
A0021367	3.0	33	61
ASTDCODR3.1S	3.1	36	65
A0021361	3.2	36	65
A0021362	3.3	36	65
A0021363	3.4	39	70

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021364	3.5	39	70
A0023651	3.6	39	70
ASTDCODR3.7S	3.7	39	70
A0021366	3.8	43	75
ASTDCODR3.9S	3.9	43	75
A0021374	4.0	43	75
A0021368	4.1	43	75
A0021369	4.2	43	75
ASTDCODR4.3S	4.3	47	80
ASTDCODR4.4S	4.4	47	80
A0021370	4.5	47	80
ASTDCODR4.6S	4.6	47	80
A0021371	4.7	47	80
A0021372	4.8	52	86
A0021373	4.9	52	86
A0021380	5.0	52	86
A0021375	5.1	52	86
ASTDCODR5.2S	5.2	52	86
A0021376	5.3	52	86
ASTDCODR5.4S	5.4	57	93
A0021377	5.5	57	93
A0021378	5.6	57	93
ASTDCODR5.7S	5.7	57	93
A0021379	5.8	57	93
ASTDCODR5.9S	5.9	57	93
A0021387	6.0	57	93
A0021381	6.1	63	101
A0021382	6.2	63	101
A0021383	6.3	63	101
ASTDCODR6.4S	6.4	63	101
A0021384	6.5	63	101
A0021385	6.6	63	101
ASTDCODR6.7S	6.7	63	101
A0021386	6.8	69	109
ASTDCODR6.9S	6.9	69	109
A0021392	7.0	69	109
ASTDCODR7.1S	7.1	69	109
ASTDCODR7.2S	7.2	69	109
A0021388	7.3	69	109
ASTDCODR7.4S	7.4	69	109
A0021389	7.5	69	109
A0021390	7.6	75	117
A0021391	7.7	75	117
ASTDCODR7.8S	7.8	75	117
ASTDCODR7.9S	7.9	75	117
A0021398	8.0	75	117
A0021393	8.1	75	117
A0021394	8.2	75	117
ASTDCODR8.3S	8.3	75	117
ASTDCODR8.4S	8.4	75	117
A0021395	8.5	75	117
ASTDCODR8.6S	8.6	81	125
A0021396	8.7	81	125
A0021397	8.8	81	125
ASTDCODR8.9S	8.9	81	125
A0021401	9.0	81	125
ASTDCODR9.1S	9.1	81	125
A0021399	9.2	81	125
ASTDCODR9.3S	9.3	81	125
ASTDCODR9.4S	9.4	81	125
A0021400	9.5	81	125
ASTDCODR9.6S	9.6	87	133
ASTDCODR9.7S	9.7	87	133
ASTDCODR9.8S	9.8	87	133
ASTDCODR9.9S	9.9	87	133
A0021347	10.0	87	133
A0021346	10.2	87	133
ASTDCODR10.5S	10.5	87	133
A0021349	11.0	94	142
A0021348	11.5	94	142
A0021350	12.0	101	151
ASTDCODR12.5S	12.5	101	151
A0021351	13.0	101	151
A0021352	14.0	108	160
ASTDCODR15S	15.0	114	169



**Gold P-Powder Metallurgy, CO5,
DIN 338**

140° Point Angle, Split Point, Bright Body Tin Coated
on Operational Area

Range of Applications

High performance drilling in Alloy steels, non-Alloy steels, Cast
Iron and Magnesium Alloys.



A0022084

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0022084	1.0	12	34
A0022311	1.1	14	36
A0022312	1.2	16	38
A0022313	1.3	16	38
A0022314	1.4	18	40
A0022050	1.5	18	40
A0022051	1.6	20	43
A0021959	1.7	20	43
A0022052	1.8	22	46
A0022053	1.9	22	46
A0022092	2.0	24	49
A0022085	2.1	24	49
A0021961	2.2	27	53
A0022086	2.3	27	53
A0022087	2.4	30	57
A0022088	2.5	30	57
A0022089	2.6	30	57
A0022090	2.7	33	61
DRCO52.8.GP	2.8	33	61
A0022091	2.9	33	61
A0022102	3.0	33	61
A0022093	3.1	36	65
A0022094	3.2	36	65
A0022095	3.3	36	65
A0022096	3.4	39	70
A0022097	3.5	39	70
A0022098	3.6	39	70
A0022099	3.7	39	70
A0022100	3.8	43	75
A0022101	3.9	43	75
A0022112	4.0	3	5
A0022103	4.1	43	75
A0022104	4.2	43	75
A0022105	4.3	47	80
A0022106	4.4	47	80
A0022107	4.5	47	80
A0022108	4.6	47	80
A0022109	4.7	47	80
A0022110	4.8	52	86
A0022111	4.9	52	86
A0019996	5.0	52	86
A0022113	5.1	52	86
A0022114	5.2	52	86
A0022115	5.3	52	86
A0022116	5.4	57	93
A0022117	5.5	57	93
A0022118	5.6	57	93
A0022119	5.7	57	93
A0022120	5.8	57	93
A0019995	5.9	57	93
A0022130	6.0	57	93
A0022121	6.1	63	101
A0022122	6.2	63	101
A0022123	6.3	63	101
A0022124	6.4	63	101

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0022125	6.5	63	101
A0022126	6.6	63	101
A0022127	6.7	63	101
A0022128	6.8	69	109
A0022129	6.9	69	109
A0022140	7.0	69	109
A0022131	7.1	69	109
A0022132	7.2	69	109
A0022133	7.3	69	109
A0022134	7.4	69	109
A0022135	7.5	69	109
A0022136	7.6	75	117
A0022137	7.7	75	117
A0022138	7.8	75	117
A0022139	7.9	75	117
A0022147	8.0	75	117
A0022141	8.1	75	117
A0021963	8.2	75	117
A0022142	8.3	75	117
A0022143	8.4	75	117
A0022144	8.5	75	117
A0022145	8.6	81	125
A0019997	8.7	81	125
A0021964	8.8	81	125
A0022146	8.9	81	125
A0022157	9.0	81	125
A0022148	9.1	81	125
A0022149	9.2	81	125
A0022150	9.3	81	125
A0022151	9.4	81	125
A0022152	9.5	81	125
A0022153	9.6	87	133
A0022154	9.7	87	133
A0022155	9.8	87	133
A0022156	9.9	87	133
A0022063	10.0	87	133
A0022054	10.1	87	133
A0022055	10.2	87	133
A0022056	10.3	87	133
A0022057	10.4	87	133
A0022058	10.5	87	133
A0022059	10.6	87	133
A0022060	10.7	94	142
A0022061	10.8	94	142
A0022062	10.9	94	142
A0022072	11.0	94	142
A0022064	11.1	94	142
A0021960	11.2	94	142
A0022065	11.3	94	142
A0022066	11.4	94	142
A0022067	11.5	94	142
A0022068	11.6	94	142
A0022069	11.7	94	142
A0022070	11.8	94	142
A0022071	11.9	101	151
A0022082	12.0	101	151
A0022073	12.1	101	151
A0022074	12.2	101	151
A0022075	12.3	101	151
A0022076	12.4	101	151
A0022077	12.5	101	151
A0022078	12.6	101	151
A0022079	12.7	101	151
A0022080	12.8	101	151
A0022081	12.9	101	151
A0022083	13.0	101	151



HSS-Eco Jobber Drills DIN 338RN

130° Point Angle Cross Cut Point C Bright Finish

Range of Applications

General high performance twist drills for drilling of hard machinable, high-strength materials steel with a tensile strength of up to 1300 N/mm², Stainless Steels and Titanium Alloys.



ATCODR1S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ATCODR1S	1.0	12	34
ATCODR1.5S	1.5	18	40
ATCODR1.6S	1.6	20	43
ATCODR2S	2.0	24	49
A002140S	2.5	30	57
ATCODR3S	3.0	33	61
ATCODR3.2S	3.2	36	65
ATCODR3.3S	3.3	36	65
A0021404S	3.5	39	70
ATCODR3.7S	3.7	39	70
ATCODR3.8S	3.8	43	75
A0021040S	4.0	43	75
ATCODR4.2S	4.2	43	75
ATCODR4.3S	4.3	47	80
ATCODR4.5S	4.5	47	80
ATCODR4.6S	4.6	47	80
ATCODR4.8S	4.8	52	86
ATCODR5S	5.0	52	86
ATCODR5.1S	5.1	52	86
ATCODR5.5S	5.5	57	93
ATCODR5.7S	5.7	57	93
ATCODR5.8S	5.8	57	93
ATCODR6.S	6.0	57	93
ATCODR6.5S	6.5	63	101
ATCODR6.8S	6.8	69	109
ATCODR7S	7.0	69	109
ATCODR7.5S	7.5	69	109
ATCODR7.8S	7.8	75	117
ATCODR8S	8.0	75	117
ATCODR8.2S	8.2	75	117
ATCODR8.5S	8.5	75	117
ATCODR9S	9.0	81	125
ATCODR9.5S	9.5	81	125
ATCODR10S	10.0	87	133
ATCODR10.2S	10.20	87	133
A0021402	10.5	87	133
ATCODR11S	11.0	94	142
ATCODR11.2S	11.2	94	142
ATCODR11.5S	11.5	94	142
ATCODR12S	12.0	101	151
ATCODR12.5S	12.5	101	151
ATCODR13S	13.0	101	151



HSS Jobber Drills Quick Spiral DIN 338RW

130° Point Angle Bright Finish

Range of Applications

Fast spiral drill for soft and tough materials giving long chips e.g. Aluminium, Aluminium Alloys, Magnesium Alloys, soft thermoplastics, hard wood.



A0021301

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021301	1.0	12	34
AQDR1.1S	1.1	14	36
A0021297	1.2	16	38
AQDR1.3S	1.3	16	38
AQDR1.4S	1.4	18	40
A0021298	1.5	18	40

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
AQDR1.6S	1.6	20	43
AQDR1.7S	1.7	20	43
AQDR1.8S	1.8	22	46
AQDR1.9S	1.9	24	49
AQDR2S	2.0	24	49
AQDR2.1S	2.1	24	49
AQDR2.2S	2.2	27	53
AQDR2.3S	2.3	27	53
AQDR2.4S	2.4	30	57
A0021302	2.5	30	57
AQDR2.6S	2.6	30	57
AQDR2.7S	2.7	33	61
AQDR2.8S	2.8	33	61
AQDR2.9S	2.9	33	61
A0021306	3.0	33	61
AQDR3.1S	3.1	36	65
A0021303	3.2	36	65
A0021304	3.3	36	65
AQDR3.4S	3.4	39	70
A0021305	3.5	39	70
AQDR3.6S	3.6	39	70
AQDR3.7S	3.7	39	70
AQDR3.8S	3.8	43	75
AQDR3.9S	3.9	43	75
A0021308	4.0	43	75
AQDR4.1S	4.1	43	75
AQDR4.2S	4.2	43	75
AQDR4.3S	4.3	47	80
AQDR4.4S	4.4	47	80
AQDR4.5S	4.5	47	80
AQDR4.6S	4.6	47	80
AQDR4.7S	4.7	47	80
AQDR4.8S	4.8	52	86
AQDR4.9S	4.9	52	86
AQDR5S	5.0	52	86
AQDR5.1S	5.1	52	86
A0021309	5.2	52	86
AQDR5.3S	5.3	52	86
AQDR5.4S	5.4	57	93
A0021310	5.5	57	93
AQDR5.6S	5.6	57	93
AQDR5.7S	5.7	57	93
AQDR5.8S	5.8	57	93
AQDR5.9S	5.9	57	93
AQDR6S	6.0	57	93
AQDR6.1S	6.1	63	101
AQDR6.2S	6.2	63	101
AQDR6.3S	6.3	63	101
AQDR6.4S	6.4	63	101
AQDR6.5S	6.5	63	101
AQDR6.6S	6.6	63	101
AQDR6.7S	6.7	63	101
AQDR6.8S	6.8	69	109
AQDR6.9S	6.9	69	109
AQDR7S	7.0	69	109
AQDR7.1S	7.1	69	109
AQDR7.2S	7.2	69	109
AQDR7.3S	7.3	69	109
AQDR7.4S	7.4	69	109
AQDR7.5S	7.5	69	109
AQDR7.6S	7.6	75	117
AQDR7.7S	7.7	75	117
AQDR7.8S	7.8	75	117
AQDR7.9S	7.9	75	117
AQDR8S	8.0	75	117
AQDR8.1S	8.1	75	117
AQDR8.2S	8.2	75	117
AQDR8.3S	8.3	75	117
AQDR8.4S	8.4	75	117
AQDR8.5S	8.5	75	117
AQDR8.6S	8.6	81	125
AQDR8.7S	8.7	81	125
AQDR8.8S	8.8	81	125
AQDR8.9S	8.9	81	125
AQDR9S	9.0	81	125

CUTTING, DRILLING AND THREADING

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
AQDR9.1S	9.1	81	125
AQDR9.2S	9.2	81	125
AQDR9.3S	9.3	81	125
AQDR9.4S	9.4	81	125
A0021311	9.5	81	125
AQDR9.6S	9.6	87	133
AQDR9.7S	9.7	87	133
AQDR9.8S	9.8	87	133
AQDR9.9S	9.9	87	133
AQDR10S	10.0	87	133
AQDR10.2S	10.2	87	133
AQDR10.5S	10.5	87	133
A0021299	11.0	94	142
AQDR11.5	11.5	94	142
AQDR12S	12.0	101	151
A0021300	12.5	101	151
AQDR13S	13.0	101	151

mayke **HSS-Eco Jobber Drills**
DIN 338 Forte
130° Point Angle Cross Cut Point AC Nitrided Lands

Range of Applications

A 5%-cobalt drills with an extremely sturdy construction (reinforced web) for drilling under difficult conditions, e.g. poor chip removal and deep holes, in steel and Cast Iron with a tensile strength of up to 1000 N/mm².



AFNCODR1S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
AFNCODR4.3S	4.3	47	80
AFNCODR4.4S	4.4	47	80
AFNCODR4.5S	4.5	47	80
AFNCODR4.6S	4.6	47	80
AFNCODR4.7S	4.7	47	80
AFNCODR4.8S	4.8	52	86
AFNCODR4.9S	4.9	52	86
AFNCODR5S	5.0	52	86
AFNCODR5.1S	5.1	52	86
AFNCODR5.2S	5.2	52	86
AFNCODR5.3S	5.3	52	86
AFNCODR5.4S	5.4	57	93
AFNCODR5.5S	5.5	57	93
AFNCODR5.6S	5.6	57	93
AFNCODR5.7S	5.7	57	93
AFNCODR5.8S	5.8	57	93
AFNCODR5.9S	5.9	57	93
AFNCODR6S	6.0	57	93
AFNCODR6.1S	6.1	63	101
AFNCODR6.2S	6.2	63	101
AFNCODR6.3S	6.3	63	101
AFNCODR6.4S	6.4	63	101
AFNCODR6.5S	6.5	63	101
AFNCODR6.6S	6.6	63	101
AFNCODR6.7S	6.7	63	101
AFNCODR6.8S	6.8	69	109
AFNCODR6.9S	6.9	69	109
AFNCODR7S	7.0	69	109
AFNCODR7.1S	7.1	69	109

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
AFNCODR7.2S	7.2	69	109
AFNCODR7.3S	7.3	69	109
AFNCODR7.4S	7.4	69	109
AFNCODR7.5S	7.5	69	109
AFNCODR7.6S	7.6	75	117
AFNCODR7.7S	7.7	75	117
AFNCODR7.8S	7.8	75	117
AFNCODR7.9S	7.9	75	117
AFNCODR8S	8.0	75	117
AFNCODR8.1S	8.1	75	117
AFNCODR8.2S	8.2	75	117
AFNCODR8.3S	8.3	75	117
AFNCODR8.4S	8.4	75	117
AFNCODR8.5S	8.5	75	117
AFNCODR8.6S	8.6	81	125
AFNCODR8.7S	8.7	81	125
AFNCODR8.8S	8.8	81	125
AFNCODR8.9S	8.9	81	125
AFNCODR9S	9.0	81	125
AFNCODR9.1S	9.1	81	125
AFNCODR9.2S	9.2	81	125
AFNCODR9.3S	9.3	81	125
AFNCODR9.4S	9.4	81	125
AFNCODR9.5S	9.5	81	125
AFNCODR9.6S	9.6	87	133
AFNCODR9.7S	9.7	87	133
AFNCODR9.8S	9.8	87	133
AFNCODR9.9S	9.9	87	133
A0021243	10.0	87	133
AFNCODR10.2S	10.2	87	133
AFNCODR10.5S	10.5	87	133
AFNCODR11S	11.0	94	142
AFNCODR11.5	11.5	94	142
AFNCODR12S	12.0	101	151
AFNCODR12.5	12.5	101	151
AFNCODR13S	13.0	101	151



HSS-Eco Jobber Drills DIN 338 R-AS

130° Point Angle Cross Cut Point AC Bright
Finish

Range of Applications

A 5%-cobalt Alloyed drills in a solid sturdy version, specially suitable for corrosion and acid resistant austenitic steel and heat resistant steels.



ACODR2S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ACODR2S	2.0	24	49
ACODR2.1S	2.1	24	49
ACODR2.2S	2.2	27	53
ACODR2.3S	2.3	27	53
ACODR2.4S	2.4	30	57
ACODR2.5S	2.5	30	57
ACODR2.6S	2.6	30	57
ACODR2.7S	2.7	33	61
ACODR2.8S	2.8	33	61
ACODR2.9S	2.9	33	61
ACODR3S	3.0	33	61
ACODR3.1S	3.1	36	65
ACODR3.2S	3.2	36	65
ACODR3.3S	3.3	36	65
ACODR3.4S	3.4	39	70
A0021045	3.5	39	70
ACODR3.6S	3.6	39	70
ACODR3.7S	3.7	39	70
ACODR3.8S	3.8	43	75
ACODR3.9S	3.9	43	75
ACODR4S	4.0	43	75
ACODR4.1S	4.1	43	75
ACODR4.2S	4.2	43	75
ACODR4.3S	4.3	47	80
ACODR4.4S	4.4	47	80
A0021046	4.5	47	80
ACODR4.6S	4.6	47	80
ACODR4.7S	4.7	47	80
ACODR4.8S	4.8	52	86
ACODR4.9S	4.9	52	86
A0021048	5.0	52	86
ACODR5.1S	5.1	52	86
ACODR5.2S	5.2	52	86
ACODR5.3S	5.3	52	86
ACODR5.4S	5.4	57	93
A0021047	5.5	57	93
ACODR5.6S	5.6	57	93
ACODR5.7S	5.7	57	93
ACODR5.8S	5.8	57	93
ACODR5.9S	5.9	57	93
ACODR6S	6.0	57	93
ACODR6.1S	6.1	63	101
ACODR6.2S	6.2	63	101
ACODR6.3S	6.3	63	101
ACODR6.4S	6.4	63	101
A0021049	6.5	63	101
ACODR6.6S	6.6	63	101
ACODR6.7S	6.7	63	101
ACODR6.8S	6.8	69	109
ACODR6.9S	6.9	69	109
ACODR7S	7.0	69	109
ACODR7.1S	7.1	69	109
A0021050	7.2	69	109
ACODR7.3S	7.3	69	109
ACODR7.4S	7.4	69	109
ACODR7.5S	7.5	69	109
ACODR7.6S	7.6	75	117
A0021051	7.7	75	117
ACODR7.8S	7.8	75	117
ACODR7.9S	7.9	75	117

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021063	8.0	75	117
ACODR8.1S	8.1	75	117
ACODR8.2S	8.2	75	117
ACODR8.3S	8.3	75	117
ACODR8.4S	8.4	75	117
A0021052	8.5	75	117
ACODR8.6S	8.6	81	125
ACODR8.7S	8.7	81	125
ACODR8.8S	8.8	81	125
ACODR8.9S	8.9	81	125
ACODR9S	9.0	81	125
A0021064	9.1	81	125
ACODR9.2S	9.2	81	125
ACODR9.3S	9.3	81	125
ACODR9.4S	9.4	81	125
A0021055	9.5	81	125
ACODR9.6S	9.6	87	133
ACODR9.7S	9.7	87	133
ACODR9.8S	9.8	87	133
ACODR9.9S	9.9	87	133
A0021040	10.0	87	133
ACODR10.2S	10.2	87	133
A0021039	10.5	87	133
ACODR11S	11.0	94	142
A0021041	11.5	94	142
ACODR12S	12.0	101	151
A0021042	12.5	101	151
ACODR13S	13.0	101	151
ACODR13S	13.5	108	160
ACODR14S	14.0	108	160
ACODR14S	14.5	114	169
ACODR15S	15.0	114	169
ACODR15S	15.5	120	178
ACODR16S	16.0	120	178



HSS Long Series Twist Drills, Straight Shank DIN 340N



A0021990

System Code	Ø h8	Flute Length	Overall Length	System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm		mm	mm	mm
A0021990	2.00	56	85	GDR4.5LS	4.50	82	126
A0022197	2.10	56	85	GDR4.6LS	4.60	82	126
A0022198	2.20	56	85	GDR4.7LS	4.70	82	126
A0022200	2.30	59	90	GDR4.8LS	4.80	87	132
A0022202	2.40	62	95	GDR4.9LSC	4.90	87	132
A0021987	2.50	62	95	GDR5LS	5.00	87	132
A0022204	2.60	62	95	GDR5.1LS	5.10	87	132
A0022206	2.70	66	100	GDR5.2LS	5.20	87	132
A0022207	2.80	66	100	GDR5.3LS	5.30	87	132
A0022209	2.90	66	100	GDR5.4LS	5.40	91	139
A0021997	3.00	66	100	GDR5.5LS	5.50	91	139
A0022212	3.10	69	106	GDR5.6LS	5.60	91	139
A0022214	3.20	69	106	GDR5.7LS	5.70	91	139
A0022215	3.30	69	106	GDR5.8LS	5.80	91	139
A0022216	3.40	73	112	GDR5.9LS	5.90	91	139
A0021995	3.50	73	112	GDR6LS	6.00	91	139
A0022217	3.60	73	112	GDR6.1LS	6.10	97	148
A0022219	3.70	73	112	GDR6.2LS	6.20	97	148
A0022221	3.80	78	119	GDR6.3LS	6.30	97	148
A0022223	3.90	78	119	GDR6.4LS	6.40	97	148
A0022207	4.00	78	119	GDR6.5LS	6.50	97	148
A0022225	4.10	78	119	GDR6.6LS	6.60	97	148
A0021999	4.20	78	119	GDR6.7LS	6.70	97	148
A0022227	4.30	82	126	GDR6.8LS	6.80	102	156
A0022228	4.40	82	126	GDR6.9LS	6.90	102	156

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0022034	7.00	102	156
A0022255	7.10	102	156
A0022257	7.20	102	156
A0022258	7.30	102	156
A0022260	7.40	102	156
A0022030	7.50	102	156
A0022262	7.60	109	165
A0022264	7.70	109	165
A0022264	7.80	109	165
A0022266	7.90	109	165
A0022041	8.00	109	165
A0022268	8.10	109	165
A0022269	8.20	109	165
A0022270	8.30	109	165
A0022272	8.40	109	165
A0022272	8.50	109	165
A0022274	8.60	115	175
A0022275	8.70	115	175
A0022277	8.80	115	175
A0022279	8.90	115	175
A0021778	9.00	115	175
A0021945	9.10	115	175
A0022283	9.20	115	175
A0021948	9.30	115	175
A0022286	9.40	115	175
A0021951	9.50	115	175
A0022288	9.60	121	184
A0021953	9.70	121	184
DR9.8LS	9.80	121	184
A0021955	9.90	121	184
DR10.LS	10.00	121	184
A0021800	10.50	121	184
DR11LS	11.00	128	195
DR11.5LS	11.50	128	195
A0021810	12.00	134	205

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ALSDR4S	4.0	78	119
ALSDR4.1S	4.1	78	119
A0021290	4.2	78	119
ALSDR4.3S	4.3	82	126
ALSDR4.4S	4.4	82	126
A0021036	4.5	82	126
ALSDR4.6S	4.6	82	126
A0021291	4.7	82	126
ALSDR4.8S	4.8	87	132
ALSDR4.9S	4.9	87	132
ALSDR5S	5.0	87	132
ALSDR5.1S	5.1	87	132
ALSDR5.2S	5.2	87	132
ALSDR5.3S	5.3	87	132
ALSDR5.4S	5.4	91	139
ALSDR5.5S	5.5	91	139
ALSDR5.6S	5.6	91	139
ALSDR5.7S	5.7	91	139
ALSDR5.8S	5.8	91	139
ALSDR5.9S	5.9	91	139
A0021293	6.0	91	139
ALSDR6.1S	6.1	97	148
ALSDR6.2S	6.2	97	148
ALSDR6.3S	6.3	97	148
ALSDR6.4S	6.4	97	148
ALSDR6.5S	6.5	97	148
ALSDR6.6S	6.6	97	148
ALSDR6.7S	6.7	97	148
ALSDR6.8S	6.8	102	156
ALSDR6.9S	6.9	102	156
A0021294	7.0	102	156
ALSDR7.1S	7.1	102	156
ALSDR7.2S	7.2	102	156
ALSDR7.3S	7.3	102	156
ALSDR7.4S	7.4	102	156

maykestag HSS Long Series Drills DIN 340 RN

PERFORMANCE
BY PRECISION

118° Point Angle Cross Cut Point AC Steam
Tempered

Range of Applications

Industrial quality twist drill for the drilling of steel and steel castings, Alloy and plain Carbon, grey Iron castings, Copper-Alloys, Nickel-Silver, Graphite and similar materials.



A0021283

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021283	1.0	33	56
A0021273	1.1	37	60
ALSDR1.2S	1.2	41	65
A0021274	1.3	41	65
ALSDR1.4S	1.4	45	70
A0021275	1.5	45	70
A0021276	1.6	50	76
A0021277	1.7	50	76
ALSDR1.8S	1.8	53	80
A0021278	1.9	53	80
A0021285	2.0	56	85
ALSDR2.1S	2.1	56	85
ALSDR2.2S	2.2	59	90
A0021284	2.3	59	90
ALSDR2.4S	2.4	62	95
ALSDR2.5S	2.5	62	95
ALSDR2.6S	2.6	62	95
ALSDR2.7S	2.7	66	100
ALSDR2.8S	2.8	66	100
ALSDR2.9S	2.9	66	100
A0021289	3.0	66	100
ALSDR3.1S	3.1	69	106
ALSDR3.2S	3.2	69	106
ALSDR3.3S	3.3	69	106
ALSDR3.4S	3.4	73	112
ALSDR3.5S	3.5	73	112
ALSDR3.6S	3.6	73	112
ALSDR3.7S	3.7	73	112
ALSDR3.8S	3.8	78	119
ALSDR3.9S	3.9	78	119

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ALSDR7.5S	7.5	102	156
ALSDR7.6S	7.6	109	165
ALSDR7.7S	7.7	109	165
ALSDR7.8S	7.8	109	165
ALSDR7.9S	7.9	109	165
A0021038	8.0	109	165
ALSDR8.1S	8.1	109	165
ALSDR8.2S	8.2	109	165
ALSDR8.3S	8.3	109	165
ALSDR8.4S	8.4	109	165
A0021295	8.5	109	165
ALSDR8.6S	8.6	115	175
ALSDR8.7S	8.7	115	175
A0021296	8.8	115	175
ALSDR8.9S	8.9	115	175
ALSDR9S	9.0	115	175
ALSDR9.1S	9.1	115	175
ALSDR9.2S	9.2	115	175
ALSDR9.3S	9.3	115	175
ALSDR9.4S	9.4	115	175
ALSDR9.5S	9.5	115	175
ALSDR9.6S	9.6	121	184
ALSDR9.7S	9.7	121	184
ALSDR9.8S	9.8	121	184
ALSDR9.9S	9.9	121	184
A0021279	10.0	121	184
ALSDR10.2S	10.2	121	184
ALSDR10.5S	10.5	121	184
ALSDR11S	11.0	128	195
ALSDR11.5S	11.5	128	195
ALSDR12S	12.0	134	205

CUTTING, DRILLING AND THREADING

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021280	12.5	134	205
A0021281	13.0	134	205
ALSDR13.5S	13.5	140	214
A0021282	14.0	140	214
ALSDR14.5S	14.5	144	220
ALSDR15S	15.0	144	220
ALSDR15.5S	15.5	149	227
ALSDR16S	16.0	149	227
ALSDR16.5S	16.5	154	235
ALSDR17S	17.0	154	235
ALSDR17.5S	17.5	158	241
ALSDR18S	18.0	158	241
ALSDR18.5S	18.5	162	247
ALSDR19S	19.0	162	247
ALSDR19.5S	19.5	166	254
ALSDR20S	20.0	166	254

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PERFORMANCE
IN PRECISION

HSS Eco Long Series Drills DIN 340 RN

118° Point Angle Cross Cut Point AC Bright Finish

Range of Applications

5% - cobalt alloyed jobber drills with high heat resistance for drilling steels with tensile strengths over 800 N/mm², specially suitable for high alloyed steels, bearing-steels, hot/cold-rolled steel.



A0021270

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021270	2.0	65	85
ALSCODR2.1S	2.1	56	85
ALSCODR2.2S	2.2	59	90
ALSCODR2.3S	2.3	59	90
ALSCODR2.4S	2.4	62	95
A0021269	2.5	62	95
ALSCODR2.6S	2.6	62	95
ALSCODR2.7S	2.7	66	100
ALSCODR2.8S	2.8	66	100
ALSCODR2.9S	2.9	66	100
ALSCODR3S	3.0	66	100
ALSCODR3.1S	3.1	69	106
ALSCODR3.2S	3.2	69	106
ALSCODR3.3S	3.3	69	106
ALSCODR3.4S	3.4	73	112
ALSCODR3.5S	3.5	73	112
ALSCODR3.6S	3.6	73	112
ALSCODR3.7S	3.7	73	112
ALSCODR3.8S	3.8	78	119
ALSCODR3.9S	3.9	78	119
ALSCODR4S	4.0	78	119
ALSCODR4.1S	4.1	78	119
ALSCODR4.2S	4.2	78	119
ALSCODR4.3S	4.3	82	126
ALSCODR4.4S	4.4	82	126
ALSCODR4.5S	4.5	82	126
ALSCODR4.6S	4.6	82	126
ALSCODR4.7S	4.7	82	126
ALSCODR4.8S	4.8	87	132
ALSCODR4.9S	4.9	87	132
ALSCODR5S	5.0	87	132
ALSCODR5.1S	5.1	87	132
ALSCODR5.2S	5.2	87	132
ALSCODR5.3S	5.3	87	132
ALSCODR5.4S	5.4	91	139
ALSCODR5.5S	5.5	91	139
ALSCODR5.6S	5.6	91	139
ALSCODR5.7S	5.7	91	139
ALSCODR5.8S	5.8	91	139
ALSCODR5.9S	5.9	91	139

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
ALSCODR6S	6.0	91	139
ALSCODR6.2S	6.2	97	148
ALSCODR6.5S	6.5	97	148
ALSCODR6.8S	6.8	102	156
ALSCODR7S	7.0	102	156
ALSCODR7.2S	7.2	102	156
ALSCODR7.5S	7.5	102	156
ALSCODR7.8S	7.8	109	165
ALSCODR8S	8.0	109	165
ALSCODR8.2S	8.2	109	165
ALSCODR8.5S	8.5	109	165
ALSCODR8.8S	8.8	115	175
A0021272	9.0	115	175
ALSCODR9.2S	9.2	115	175
ALSCODR9.5S	9.5	115	175
ALSCODR9.8S	9.8	121	184
A0021267	10.0	121	184
ALSCODR10.5S	10.5	121	184
ALSCODR11S	11.0	128	195
ALSCODR11.5S	11.5	128	195
A0021268	12.0	134	205
ALSCODR12.5S	12.5	134	205
ALSCODR13S	13.0	134	205

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PERFORMANCE
IN PRECISION

HSS Long Series Drills Quick Spiral DIN 340 Forte W

130° Point Angle Point Shape A Bright Finish

Range of Applications

High efficiency drill with special designed flute profile for better chip removal and deeper holes, suitable for long chipping materials up to 500 N/mm².



AFLSDR2S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
AFLSDR2S	2.0	56	85
AFLSDR2.1S	2.1	56	85
AFLSDR2.2S	2.2	59	90
AFLSDR2.3S	2.3	59	90
AFLSDR2.4S	2.4	62	95
AFLSDR2.5S	2.5	62	95
AFLSDR2.6S	2.6	62	95
AFLSDR2.7S	2.7	66	100
AFLSDR2.8S	2.8	66	100
AFLSDR2.9S	2.9	66	100
AFLSDR3S	3.0	66	100
AFLSDR3.1S	3.1	69	106
AFLSDR3.2S	3.2	69	106
AFLSDR3.3S	3.3	69	106
AFLSDR3.4S	3.4	73	112
AFLSDR3.5S	3.5	73	112
AFLSDR3.6S	3.6	73	112
AFLSDR3.7S	3.7	73	112
AFLSDR3.8S	3.8	78	119
AFLSDR3.9S	3.9	78	119
AFLSDR4S	4.0	78	119
AFLSDR4.1S	4.1	78	119
AFLSDR4.2S	4.2	78	119
AFLSDR4.3S	4.3	82	126
AFLSDR4.4S	4.4	82	126
AFLSDR4.5S	4.5	82	126
AFLSDR4.6S	4.6	82	126
AFLSDR4.7S	4.7	82	126
AFLSDR4.8S	4.8	87	132
AFLSDR4.9S	4.9	87	132

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021239	5.0	87	132
AFLSDR5.1S	5.1	87	132
AFLSDR5.2S	5.2	87	132
AFLSDR5.3S	5.3	87	132
AFLSDR5.4S	5.4	91	139
AFLSDR5.5S	5.5	91	139
AFLSDR5.6S	5.6	91	139
AFLSDR5.7S	5.7	91	139
AFLSDR5.8S	5.8	91	139
AFLSDR5.9S	5.9	91	139
A0021240	6.0	91	139
AFLSDR6.2S	6.2	97	148
AFLSDR6.5S	6.5	97	148
AFLSDR6.8S	6.8	102	156
AFLSDR7S	7.0	102	156
AFLSDR7.2S	7.2	102	156
AFLSDR7.5S	7.5	102	156
AFLSDR7.8S	7.8	109	165
AFLSDR8S	8.0	109	165
AFLSDR8.2S	8.2	109	165
A0021241	8.5	109	165
AFLSDR8.8S	8.8	115	175
AFLSDR9S	9.0	115	175
AFLSDR9.2S	9.2	115	175
AFLSDR9.5S	9.5	115	175
AFLSDR9.8S	9.8	121	184
AFLSDR10S	10.0	121	184
AFLSDR10.2S	10.2	121	184
AFLSDR10.5S	10.5	121	184
AFLSDR11S	11.0	128	195
AFLSDR11.5S	11.5	128	195
AFLSDR12S	12.0	134	205
AFLSDR12.5S	12.5	134	205
AFLSDR13S	13.0	134	205

maykestag **HSS Extra Long Series Drills DIN 1869 R1 RN**

118° Point Angle Cross Cut Point AC Steam Tempered

Range of Applications

A high efficiency drill for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



A0021032

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021032	2.0	85	125
A0021198	2.5	95	140
A0021200	3.0	100	150
A0021199	3.5	115	165
A0021202	4.0	120	175
A0021201	4.5	125	185
A0021033	5.0	135	195
A0021203	5.5	140	205
A0021205	6.0	140	205
A0021204	6.5	150	215
A0021206	7.0	155	225
AELDR17.5S	7.5	155	225
A0021208	8.0	165	240
A0021207	8.5	165	240
A0021209	9.0	175	250
AELDR19.5S	9.5	175	250
A0021195	10.0	185	265
A0021194	10.5	185	265
AELDR111S	11.0	195	280
AELDR111.5S	11.5	195	280
A0021196	12.0	205	295
AELDR112.5S	12.5	205	295
A0021197	13.0	205	295

maykestag **HSS Extra Long Series Drills DIN 1869 R2 RN**

118° Point Angle Cross Cut Point AC Steam Tempered

Range of Applications

High efficiency drill for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
A0021213	3.0	130	190
A0021212	3.5	145	210
A0021214	4.0	150	220
AELDR24.5S	4.5	160	235
A0021215	5.0	170	245
AELDR25.5S	5.5	260	260
A0021217	6.0	260	260
A0021216	6.5	275	275
A0021218	7.0	290	290
AELDR27.5S	7.5	290	290
A0021034	8.0	305	305
A0021219	8.5	305	305
AELDR29S	9.0	320	320
AELDR29.5S	9.5	320	320
A0021210	10.0	340	340
AELDR210.5S	10.5	340	340
AELDR211S	11.0	365	365
A0021211	11.5	365	365
AELDR212S	12.0	375	375
AELDR212.5S	12.5	375	375
AELDR213S	13.0	375	375

maykestag **HSS Extra Long Series Drills DIN 1869 R3 RN**

118° Point Angle Cross Cut Point AC Steam Tempered

Range of Applications

A High efficiency drill for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



AELDR3.5S

System Code	Ø h8	Flute Length	Overall Length
	mm	mm	mm
AELDR3.5S	3.5	265	265
A0021225	4.0	280	280
AELDR34.5S	4.5	295	295
A0021035	5.0	325	325
AELDR35.5S	5.5	330	330
A0021227	6.0	330	330
AELDR36.5S	6.5	350	350
A0021229	7.0	370	370
A0021228	7.5	370	370
A0021231	8.0	390	390
A0021230	8.5	390	390
A0021233	9.0	410	410
A0021232	9.5	410	410
A0021220	10.0	430	430
AELDR310.5S	10.5	430	430
AELDR311S	11.0	455	455
AELDR311.5S	11.5	455	455
A0021222	12.0	480	480
A0021221	12.5	480	480
A0021223	13.0	480	480

mayktag **HSS Eco Extra Long Series Drills**
DIN 1869 R1 Forte

130° Point Angle Cross Cut Point AC Nitrided Lands

Range of Applications

A High efficiency drill with reinforced web and special designed flute profile for better chip removal and deeper holes, suitable for long chipping materials up to 1000 N/mm².



A0021245

System Code	Ø h8	Flute Length	Overall Length
	mm		
A0021245	3.0	100	150
AFNELCODR13.5S	3.5	115	165
AFNELCODR14S	4.0	120	175
AFNELCODR14.5S	4.5	125	185
AFNELCODR15S	5.0	135	195
A0021246	5.5	140	205
AFNELCODR16S	6.0	140	505
A0021247	6.5	150	215
AFNELCODR17S	7.0	155	225
AFNELCODR17.5S	7.5	155	225
A0021249	8.0	165	240
A0021248	8.5	165	240
AFNELCODR19S	9.0	175	250
AFNELCODR19.5S	9.5	175	250
A0021244	10.0	185	265

mayktag **HSS Eco Extra Long Series Drills DIN**
1869 R3 Forte

130° Point Angle Cross Cut Point AC Nitrided Lands

Range of Applications

A High efficiency drill with reinforced web and special designed flute profile for better chip removal and deeper holes, suitable for long chipping materials up to 1000 N/mm².



System Code	Ø h8	Flute Length	Overall Length
	mm		
AFNELCODR33.5S	3.5	180	265
A0021256	4.0	190	280
AFNELCODR34.5S	4.5	200	295
A0021257	5.0	210	315
AFNELCODR35.5S	5.5	225	330
A0021258	6.0	225	330
AFNELCODR36.5S	6.5	235	350
AFNELCODR37S	7.0	250	370
AFNELCODR37.5S	7.5	250	370
A0021260	8.0	265	390
AFNELCODR38.5S	8.5	265	390
A0021261	9.0	280	410
AFNELCODR39.5S	9.5	280	410
A0021254	10.0	295	430

mayktag **HSS Eco Extra Long Series Drills**
DIN 1869 R2 Forte

130° Point Angle Cross Cut Point AC nitrided Lands

Range of Applications

High efficiency drill with reinforced web and special designed flute profile for better chip removal and deeper holes, suitable for long chipping materials up to 1000 N/mm².



AFNELCODR23S

System Code	Ø h8	Flute Length	Overall Length
	mm		
AFNELCODR23S	3.0	130	190
AFNELCODR23.5S	3.5	145	210
AFNELCODR24S	4.0	150	220
AFNELCODR24.5S	4.5	160	235
AFNELCODR25S	5.0	170	245
AFNELCODR25.5S	5.5	180	260
A0021251	6.0	180	260
AFNELCODR26.5S	6.5	190	275
AFNELCODR27S	7.0	200	290
AFNELCODR27.5S	7.5	200	290
A0021253	8.0	210	305
A0021252	8.5	210	305
AFNELCODR29S	9.0	220	320
AFNELCODR29.5S	9.5	220	320
A0021250	10.0	235	340

TA HSS Drill Sets



Hss Ground Flute

System Code	Ø Range	No. of Pieces	Increments
	mm		mm
A0021779	1-5.9	50	0.1
A0021780	6-10	41	0.1
A0021958	1-13	25	0.5

Hss Ground Flute Tin Coated

System Code	Ø Range	No. of Pieces	Increments
	mm		mm
A0021744	1-13	25	0.5



HSS Standard Twist Drills, Morse Taper Shank DIN 345N



DR5MTC

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
DR5MTC	5.00	133	52	1
DR5.25MTC	5.20	133	52	1
DR5.5MTC	5.50	138	57	1
DR5.8MTC	5.80	138	57	1
A0020870	6.00	144	57	1
DR6.2MTC	6.20	144	63	1
DR6.3MTC	6.30	144	63	1
DR6.5MTC	6.50	150	63	1
DR6.7MTC	6.70	150	63	1
DR6.8MTC	6.80	150	69	1
DR7MTC	7.00	150	69	1
DR7.5MTC	7.50	150	69	1
DR7.75MTC	7.75	150	69	1
DR7.8MTC	7.80	156	75	1
A0020871	8.00	156	75	1
DR8.2MTC	8.20	156	75	1
DR8.5MTC	8.50	156	75	1
DR8.75MTC	8.75	162	81	1
DR8.8MTC	8.80	162	81	1
A0020878	9.00	162	81	1
DR9.2MTC	9.20	162	81	1
DR9.5MTC	9.50	162	81	1
DR9.8MTC	9.80	168	87	1
A0020837	10.00	168	87	1
DR10.2MTC	10.20	168	87	1
A0020908	10.25	168	87	1
A0020872	10.50	168	87	1
A0020909	10.75	168	87	1
DR10.8MTC	10.80	175	94	1
A0020839	11.00	175	94	1
DR11.2MTC	11.20	175	94	1
DR11.5MTC	11.50	175	94	1
DR11.8MTC	11.80	175	94	1
A0020	12.00	182	101	1
DR12.2MTC	12.20	182	101	1
A0020873	12.50	182	101	1
DR12.75MTC	12.75	182	101	1
DR12.8MTC	12.80	182	101	1
A0020841	13.00	182	101	1

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
DR13.2MTC	13.20	182	101	1
DR13.25MTC	13.25	189	108	1
A0020840	13.50	189	108	1
DR13.75MTC	13.75	189	108	1
DR13.8MTC	13.80	189	108	1
A0020843	14.00	189	108	1
DR14.25MTC	14.25	212	114	2
A0020842	14.50	212	114	2
DR14.75MTC	14.75	212	114	2
A0020845	15.00	212	114	2
DR15.25MTC	15.25	218	120	2
DR15.5MTC	15.50	218	120	2
DR15.75MTC	15.75	218	120	2
A0020846	16.00	218	120	2
DR16.25MTC	16.25	223	125	2
A0020874	16.50	223	125	2
DR16.75MTC	16.75	223	125	2
A0020848	17.00	223	125	2
DR17.25MTC	17.25	228	130	2
A0020847	17.50	228	130	2
DR17.75MTC	17.75	228	130	2
A0020850	18.00	228	130	2
DR18.25MTC	18.25	233	135	2
DR18.5MTC	18.50	233	135	2
DR18.75MTC	18.75	233	135	2

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
A0020852	19.00	233	135	2
DR19.25MTC	19.25	238	140	2
A0020851	19.50	238	140	2
DR19.75MTC	19.75	238	140	2
A0020854	20.00	238	140	2
DR20.25MTC	20.25	243	145	2
A0020853	20.50	243	145	2
DR20.75MTC	20.75	243	145	2
A0020855	21.00	243	145	2
DR21.25MTC	21.25	248	150	2
DR21.5MTC	21.50	248	150	2
DR21.75MTC	21.75	248	150	2
A0020857	22.00	248	150	2
DR22.25MTC	22.25	248	150	2
A0020856	22.50	253	155	2
DR22.75MTC	22.75	253	155	2
A0020858	23.00	253	155	2
DR23.25MTC	23.25	276	155	3
DR23.5MTC	23.50	276	155	3
DR23.75MTC	23.75	281	160	3
A0020859	24.00	281	160	3
DR24.25MTC	24.25	281	160	3
DR24.5MTC	24.50	281	160	3
DR24.75MTC	24.75	281	160	3
A0020860	25.00	281	160	3
DR25.25MTC	25.25	286	165	3
DR25.5MTC	25.50	286	165	3
DR25.75MTC	25.75	286	165	3
A0020861	26.00	286	165	3
DR26.25MTC	26.25	286	165	3

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
DR26.5MTC	26.50	286	165	3
DR26.75MTC	26.75	291	170	3
DR27MTC	27.00	291	170	3
DR27.25MTC	27.25	291	170	3
DR27.5MTC	27.50	291	170	3
DR27.75MTC	27.75	291	170	3
A0020862	28.00	291	170	3
DR28.25MTC	28.25	296	175	3
DR28.5MTC	28.50	296	175	3
DR28.75MTC	28.75	296	175	3
A0020875	29.00	296	175	3
DR29.25MTC	29.25	296	175	3
DR29.5MTC	29.50	296	175	3
DR29.75MTC	29.75	296	215	3
A0020863	30.00	296	220	3
DR30.25MTC	30.25	301	220	3
DR30.5MTC	30.50	301	220	3
DR30.75MTC	30.75	301	220	3
DR31MTC	31.00	301	220	3
DR31.25MTC	31.25	301	225	3
DR31.5MTC	31.50	301	225	4
DR31.75MTC	31.75	306	225	4
A0020864	32.00	334	230	4
DR32.25MTC	32.25	334	230	4
DR32.5MTC	32.50	334	108	4
DR32.75MTC	32.75	334	114	4
A0020865	33.00	334	114	4
DR33.5MTC	33.50	334	114	4
DR34MTC	34.00	339	114	4
DR34.5MTC	34.50	339	120	4
A0020876	35.00	339	120	4
DR35.5MTC	35.50	339	120	4
A0020866	36.00	344	120	4
DR36.5MTC	36.50	344	125	4
DR37MTC	37.00	344	125	4
DR37.5MTC	37.50	344	125	4
DR38MTC	38.00	349	125	4
DR38.5MTC	38.50	349	125	4
DR39MTC	39.00	349	130	4
DR39.5MTC	39.50	349	130	4
A0020877	40.00	349	130	4
DR40.5MTC	40.50	354	130	4
DR41MTC	41.00	354	135	4
DR41.5MTC	41.50	354	135	4

CUTTING, DRILLING AND THREADING

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
A0020867	42.00	354	135	
DR42.5MTC	42.50	354	135	4
DR43MTC	43.00	359	140	4
DR43.5MTC	43.50	359	140	4
DR44MTC	44.00	359	140	4
DR44.5MTC	44.50	359	140	4
A0020868	45.00	359	140	4
DR45.5MTC	45.50	364	145	4
DR46MTC	46.00	364	145	4
DR46.5MTC	46.50	364	145	4
DR47MTC	47.00	364	150	4
DR47.5MTC	47.50	364	150	4
DR48MTC	48.00	369	150	4
DR48.5MTC	48.50	369	150	4
DR49MTC	49.00	369	150	4
DR49.5MTC	49.50	369	150	4
A0020869	50.00	369	155	4
DR51MTC	51.00	412	155	5
DR52MTC	52.00	412	155	5
DR53MTC	53.00	412	155	5
DR54MTC	54.00	417	155	5
DR55MTC	55.00	417	160	5
DR56MTC	56.00	417	230	5
DR57MTC	57.00	422	235	5
DR58MTC	58.00	422	235	5
DR59MTC	59.00	422	235	5
DR60MTC	60.00	422	235	5
DR61MTC	61.00	427	240	5
DR62MTC	62.00	427	240	5
DR63MTC	63.00	427	240	5
DR64MTC	64.00	432	245	5
DR65MTC	65.00	432	245	5
DR66MTC	66.00	432	245	5
DR67MTC	67.00	432	245	5
DR68MTC	68.00	437	250	5
DR69MTC	69.00	437	250	5
DR70MTC	70.00	437	250	5
DR71MTC	71.00	437	250	5
DR72MTC	72.00	442	255	5
DR73MTC	73.00	442	255	5
DR74MTC	74.00	442	255	5
DR75MTC	75.00	442	255	5
DR76MTC	76.00	447	260	5
DR80MTC	80.00	519	260	6
DR83MTC	83.00	519	265	6

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
A0020748	13.0	310	205	1
AELDR113.5MT	13.5	325	220	1
A0020749	14.0	325	220	1
AELDR114.5MT	14.5	340	220	2
AELDR115MT	15.0	340	220	2
AELDR115.5MT	15.5	355	230	2
A0020752	16.0	355	230	2
A0020751	16.5	355	230	2
A0020754	17.0	355	230	2
A0020753	17.5	370	245	2
A0020755	18.0	370	245	2
AELDR118.5MT	18.5	370	245	2
A0020756	19.0	370	245	2
AELDR119.5MT	19.5	385	260	2
A0020757	20.0	385	260	2
AELDR120.5MT	20.5	385	260	2
AELDR121MT	21.0	385	260	2
AELDR121.5MT	21.5	405	270	2
A0020758	22.0	405	270	2
AELDR122.5MT	22.5	405	270	2
AELDR123MT	23.0	405	270	2
AELDR123.5MT	23.5	425	270	3
A0020759	24.0	440	290	3
AELDR124.5MT	24.5	440	290	3
A0020761	25.0	440	290	3
AELDR125.5MT	25.5	440	290	3
A0020762	26.0	440	290	3
AELDR126.5MT	26.5	440	290	3
AELDR127MT	27.0	460	305	3
AELDR127.5MT	27.5	460	305	3
AELDR128MT	28.0	460	305	3
AELDR128.5MT	28.5	460	305	3
A0020763	29.0	460	305	3
AELDR129.5MT	29.5	460	305	3
A0020764	30.0	460	305	3
AELDR131MT	31.0	480	320	3
AELDR132MT	32.0	505	320	4
AELDR133MT	33.0	505	320	4
AELDR134MT	34.0	530	340	4
AELDR135MT	35.0	530	340	4
AELDR136MT	36.0	530	340	4
AELDR137MT	37.0	530	340	4
AELDR138MT	38.0	555	360	4
AELDR139MT	39.0	555	360	4
AELDR140MT	40.0	555	360	4

maykesteg **HSS Extra Long Series Taper Shank Drills**
DIN 1870 R1 RN
118° Point Angle Point Shape A Steam Tempered

Range of Applications

High efficiency drill for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



AELDR18MT

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
AELDR18MT	8.0	265	165	1
AELDR18.5MT	8.5	265	165	1
AELDR19MT	9.0	275	175	1
AELDR19.5MT	9.5	275	175	1
A0020744	10.0	285	185	1
AELDR110.5MT	10.5	285	185	1
A0020745	11.0	300	195	1
AELDR111.5MT	11.5	300	195	1
A0020746	12.0	310	205	1
AELDR112.5MT	12.5	310	205	1

maykesteg **HSS Extra Long Series Taper Shank Drills**
DIN 1870 R2 RN
118° Point Angle Point Shape A Steam Tempered

Range of Applications

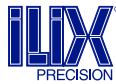
High efficiency drill for extremely deep holes where working conditions such as cutting speed, feed, coolant and frequent chip removal have to be observed.



AELDR28MT

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
AELDR28MT	8.0	330	210	1
AELDR28.5MT	8.5	330	210	1
AELDR29MT	9.0	345	220	1
AELDR29.5MT	9.5	345	220	1
A0020767	10.0	360	235	1
AELDR210.5MT	10.5	360	235	1
AELDR211MT	11.0	375	250	1
A0020768	11.5	375	250	1

System Code	Ø h8	Overall Length	Flute Length	Shank
	mm			
A0020769	12.0	395	260	1
AELDR212.5MT	12.5	395	260	1
AELDR213MT	13.0	395	260	1
AELDR213.5MT	13.5	410	275	1
A0020771	14.0	410	275	1
A0020770	14.5	425	275	2
A0020773	15.0	425	275	2
A0020772	15.5	445	295	2
A0020772	16.0	445	295	2
A0020772	16.5	445	295	2
A0020776	17.0	445	295	2
AELDR217.5MT	17.5	465	310	2
A0020777	18.0	465	310	2
AELDR218.5MT	18.5	465	310	2
A0020777	19.0	465	310	2
AELDR219.5MT	19.5	490	325	2
A0020779	20.0	490	325	2
AELDR220.5MT	20.5	490	325	2
A0020779	21.0	490	325	2
AELDR221.5MT	21.5	515	345	2
AELDR222MT	22.0	515	345	2
AELDR222.5MT	22.5	515	345	2
AELDR223MT	23.0	515	345	2
AELDR223.5MT	23.5	535	345	3
A0020779	24.0	535	365	3
AELDR224.5MT	24.5	555	365	3
A0020783	25.0	555	365	3
AELDR225.5MT	25.5	555	365	3
A0020783	26.0	555	365	3
AELDR226.5MT	26.5	555	365	3
AELDR227MT	27.0	850	385	3
AELDR227.5MT	27.5	580	385	3
AELDR228MT	28.0	580	385	3
AELDR228.5MT	28.5	580	385	3
AELDR229MT	29.0	580	385	3
AELDR229.5MT	29.5	580	385	3
A0020786	30.0	580	385	3
AELDR231MT	31.0	610	410	3
AELDR232MT	32.0	635	410	4
AELDR233MT	33.0	635	410	4
AELDR234MT	34.0	665	430	4
AELDR235MT	35.0	665	430	4
AELDR236MT	36.0	665	430	4
AELDR237MT	37.0	665	430	4
AELDR238MT	38.0	695	460	4
AELDR239MT	39.0	695	460	4
AELDR240MT	40.0	695	460	4



Carbide Tipped Drills, Straight Shank & Morse Taper Shank



Note: Various sizes are available on request.

maykestag Solid Carbide Centre Drills



A0020314

System Code	Ø	Body Ø	Overall Length
	mm		
A0020314	0.8	3.15	20.0
A0020314	1.0	3.15	31.5
A0020314	1.25	3.15	31.5
A0020314	1.6	4.00	35.5
A0020314	2.0	5.00	40.0
A0020319	2.5	6.30	45.0
A0020320	3.15	8.00	50.0
A0020313	4.0	10.00	56.0
A0020321	5.0	12.50	63.0
SCCD6.3	6.3	16.00	71.0

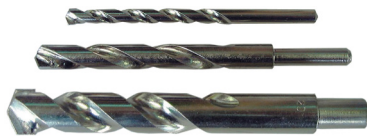
maykestag Solid Carbide Straight Shank Drills-Stub Length DIN 1897



SCDR.5

System Code	Ø h7	Overall Length	Flute Length
	mm		
SCDR.5	0.5	26	6
SCDR.6	0.6	26	6
SCDR.7	0.7	26	6
SCDR.8	0.8	26	6
SCDR.9	0.9	26	6
SCDR1	1.0	26	6
SCDR1.1	1.1	28	7
SCDR1.2	1.2	30	8
SCDR1.3	1.3	30	8
SCDR1.4	1.4	32	9
SCDR1.5	1.5	32	9
SCDR1.6	1.6	34	10
SCDR1.7	1.7	34	10
SCDR1.8	1.8	36	11
SCDR1.9	1.9	36	11
SCDR2	2.0	38	12
SCDR2.1	2.1	38	12
SCDR2.2	2.2	40	13
SCDR2.3	2.3	40	13
SCDR2.4	2.4	43	14

Masonry Drills



MDR3X75

System Code	Size	Length
	mm	
MDR3X75	3	75
MDR3.5X75	3.5	75
MDR4X75	4	75
MDR5X85	5	85
MDR6X100	6	100
MDR6.5X100	6.5	100
MDR7X100	7	100
MDR8X100	8	100
MDR10X150	10	150
MDR12X150	12	150
MDR13X150	13	150
MDR14X150	14	150
MDR16X150	16	150
MDR19X160	19	160
MDR20X160	20	160
MDR25X160	25	160

System Code	Ø h8	Overall Length	Flute Length
	mm	mm	mm
SCLDR5.5	5.5	86	52
SCLDR5.6	5.6	93	57
SCLDR5.7	5.7	93	57
SCLDR5.8	5.80	93	57
SCLDR5.9	5.90	93	57
SCLDR6	6.00	93	57
SCLDR6.1	6.10	93	57
SCLDR6.2	6.20	93	57
SCLDR6.3	6.30	101	63
SCLDR6.4	6.40	101	63
SCLDR6.5	6.50	101	63
SCLDR6.6	6.60	101	63
SCLDR6.7	6.70	101	63
SCLDR6.8	6.80	101	63
SCLDR6.9	6.90	101	63
SCLDR7	7.00	109	69
SCLDR7.1	7.10	109	69
SCLDR7.2	7.20	109	69
SCLDR7.3	7.30	109	69
SCLDR7.4	7.40	109	69
SCLDR7.5	7.50	109	69
SCLDR7.6	7.60	109	69
SCLDR7.7	7.70	109	69
SCLDR7.8	7.80	117	75
SCLDR7.9	7.90	117	75
SCLDR8	8.00	117	75
SCLDR8.1	8.10	117	75
SCLDR8.2	8.20	117	75
SCLDR8.3	8.30	117	75
SCLDR8.4	8.40	117	75
SCLDR8.5	8.50	117	75
SCLDR8.6	8.60	117	75
SCLDR8.7	8.70	117	75

System Code	Ø h8	Overall Length	Flute Length
	mm	mm	mm
SCLDR8.8	8.80	125	81
SCLDR8.9	8.90	125	81
SCLDR9	9.00	125	81
SCLDR9.1	9.10	125	81
SCLDR9.2	9.20	125	81
SCLDR9.3	9.30	125	81
SCLDR9.4	9.40	125	81
SCLDR9.5	9.50	125	81
SCLDR9.6	9.60	125	81
SCLDR9.7	9.70	125	81
SCLDR9.8	9.80	133	87
SCLDR9.9	9.90	133	87
SCLDR10	10.00	133	87
SCLDR10.2	10.20	133	87
SCLDR10.5	10.50	133	87
SCLDR10.8	10.80	142	94
SCLDR11	11.00	142	94
SCLDR11.5	11.50	142	94
SCLDR12	12.00	151	101
SCLDR12.5	12.50	151	101
SCLDR13	13.00	160	108
SCLDR13.5	13.50	160	108
SCLDR14	14.00	160	108
SCLDR14.5	14.50	169	114
SCLDR15	15.00	169	114
SCLDR15.5	15.50	178	120
SCLDR16	16.00	178	120

V = Surface Speed m/min

n = RPM

D = Cutter Diameter

To calculate the Surface Speed:

$$v = \frac{\pi \cdot D \cdot n}{1000} \quad n = \frac{V \cdot 1000}{\pi \cdot D}$$

To calculate the RPM :

Yes® YESTOOL Co., Ltd.

Solid Carbide High Production, High Feed, Straight Shank Twist Drills. TiAlN Coated

Jobber Length to Work Standard.



H0001022

System Code	Ø h7	Shank Ø h6	Overall Length	Flute Length	Drilling Depth
	mm	mm	mm	mm	
H0001022	3.0	4.0	55	20	15
H0001009	3.1	4.0	55	20	15
H0001010	3.2	4.0	55	20	15
H0001012	3.3	4.0	55	20	15
H0001013	3.4	4.0	55	20	15
H0001015	3.5	4.0	55	20	15
H0001016	3.6	4.0	55	25	19
H0001017	3.7	4.0	55	25	19
H0001019	3.8	4.0	55	25	19
H0001020	3.9	4.0	55	25	19
H0001035	4.0	4.0	55	25	19
YDR4.1S	4.1	4.0	55	25	19
H0001024	4.2	5.0	62	32	25
H0001025	4.3	5.0	62	32	25
H0001026	4.4	5.0	62	32	25
YDR4.5S	4.5	5.0	62	32	25
YDR4.6S	4.6	5.0	62	32	25
YDR4.7S	4.7	5.0	62	32	25
YDR4.8S	4.8	5.0	62	32	25
YDR4.9S	4.9	5.0	62	32	25
H0001047	5.0	5.0	62	32	25
H0001036	5.1	5.0	62	32	25
H0001038	5.2	6.0	66	36	27
H0001039	5.3	6.0	66	36	27
H0001040	5.4	6.0	66	36	27
H0001042	5.5	6.0	66	36	27
H0001043	5.6	6.0	66	36	27
H0001044	5.7	6.0	66	36	27
H0001045	5.8	6.0	66	36	27
H0001046	5.9	6.0	66	36	27

System Code	Ø h7	Shank Ø h6	Overall Length	Flute Length	Drilling Depth
	mm	mm	mm	mm	
H0001060	6.0	6.0	66	36	27
H0001048	6.1	6.0	66	36	27
H0001048	6.2	7.0	74	42	32
H0001052	6.3	7.0	74	42	32
H0001052	6.4	7.0	74	42	32
H0001053	6.5	7.0	74	42	32
H0001054	6.6	7.0	74	42	32
H0001055	6.7	7.0	74	42	32
H0001056	6.8	7.0	74	42	32
H0001058	6.9	7.0	74	42	32
H0001074	7.0	7.0	74	42	32
H0001061	7.1	7.0	74	42	32
H0001063	7.2	8.0	79	46	34
H0001064	7.3	8.0	79	46	34
H0001065	7.4	8.0	79	46	34
H0001067	7.5	8.0	79	46	34
H0001068	7.6	8.0	79	46	34
YDR7.7S	7.7	8.0	79	46	34
H0001071	7.8	8.0	79	46	34
H0001072	7.9	8.0	79	46	34
H0001088	8.0	8.0	79	46	34
H0001075	8.1	8.0	79	46	34
H0001077	8.2	9.0	84	50	37

Yes® YESTOOL Co., Ltd.

Interchangeable Insert Drill Standard Length Flange Type (FSL)

Polished flutes, high production. Through coolant. Double-locking Flange type body inserts are supplied separately.



System Code	Ø Range	Shank Ø h6	Overall Length	Flute Length	Depth of Cut
	mm				
H0001247	8-8.4	10	85	26	3XD
YDRB8.5FSL	8.5-8.9	10	85	26	3XD
YDRB9FSL	9-9.4	10	85	33	3XD
YDRB9.5FSL	9.5-9.9	12	95	33	3XD
H0001110	10-10.4	12	95	33	3XD
H0001106	10.5-10.9	12	100	43	3XD
H0001118	11-11.4	12	100	43	3XD
H0001115	11.5-11.9	12	105	48	3XD
YDRB12FSL	12-12.4	12	105	48	3XD
H0001120	12.5-12.9	16	110	48	3XD
H0001130	13-13.4	16	110	48	3XD
H0001128	13.5-13.9	16	115	52	3XD
H0001136	14-14.4	16	115	52	3XD
YDRB14.5FSL	14.5-14.9	20	125	55	3XD
YDRB15FSL	15-15.4	20	125	55	3XD
YDRB15.5FSL	15.5-15.9	20	125	55	3XD
H0001152	16-16.4	20	130	55	3XD
YDRB16.5FSL	16.5-16.9	20	130	55	3XD
YDRB17FSL	17-17.4	20	130	55	3XD
YDRB17.5FSL	17.5-17.9	20	130	55	3XD
H0001167	18-18.4	20	140	63	3XD
YDRB18.5FSL	18.5-18.9	20	140	63	3XD
YDRB19FSL	19.0-19.4	20	140	63	3XD
YDRB19.5FSL	19.5-19.9	20	140	63	3XD
H0001181	20.0-20.4	25	150	63	3XD
YDRB20.5FSL	20.5-20.9	25	150	69	3XD
YDRB21FSL	21.0-21.4	25	150	69	3XD
H0001186	21.5-21.9	25	150	69	3XD
H0001193	22.0-22.4	25	160	75	3XD
YDRB22.5FSL	22.5-22.9	25	160	75	3XD
YDRB23FSL	23.0-23.4	25	160	75	3XD
YDRB23.5FSL	23.5-23.9	25	160	75	3XD
YDRB24FSL	24.0-24.4	32	170	83	3XD
YDRB24.5FSL	24.5-24.9	32	170	83	3XD
H0001209	25.0-25.4	32	170	83	3XD
YDRB25.5FSL	25.5-25.9	32	170	83	3XD
YDRB26FSL	26.0-26.4	32	180	90	3XD
H0001212	26.5-26.9	32	180	90	3XD
YDRB27FSL	27.0-27.4	32	180	90	3XD
H0001218	27.5-27.9	32	180	90	3XD
H0001221	28.0-28.4	32	180	97	3XD
YDRB28.5FSL	28.5-28.9	32	190	97	3XD
YDRB29FSL	29.0-29.4	32	190	97	3XD
H0001223	29.5-29.9	32	190	97	3XD
YDRB30FSL	30.0-30.4	32	200	105	3XD
YDRB30.5FSL	30.5-30.9	32	200	105	3XD
YDRB31FSL	31.0-31.4	32	200	105	3XD
YDRB31.5FSL	31.5-31.9	32	200	105	3XD
H0001393	32.0-32.4	32	210	110	3XD
YDRB32.5FSL	32.5-32.9	32	210	110	3XD
YDRB33FSL	33.0-33.4	32	210	110	3XD

System Code	Ø h7	Shank Ø h6	Overall Length	Flute Length	Drilling Depth
	mm				
H0001078	8.3	9.0	84	50	37
H0001079	8.4	9.0	84	50	37
H0001081	8.5	9.0	84	50	37
H0001082	8.6	9.0	84	50	37
H0001083	8.7	9.0	84	50	37
H0001085	8.8	9.0	84	50	37
H0001086	8.9	9.0	84	50	37
YDR9.0S	9.0	9.0	84	50	37
H0001089	9.1	9.0	84	50	37
H0001091	9.2	10.0	89	53	38
H0001092	9.3	10.0	89	53	38
H0001093	9.4	10.0	89	53	38
H0001095	9.5	10.0	89	53	38
H0001096	9.6	10.0	89	53	38
H0001097	9.7	10.0	89	53	38
H0001098	9.8	10.0	89	53	38
H000110	9.9	10.0	89	53	38
H0000952	10.0	10.0	89	53	38
H0000941	10.2	11.0	95	55	40
H0000942	10.3	11.0	95	55	40
H0000945	10.5	11.0	95	55	40
H0000949	10.8	11.0	95	55	40
H0000964	11.0	11.0	95	55	40
H0000958	11.5	12.0	102	62	44
H0000972	12.0	12.0	102	62	44
H0000967	12.5	13.0	102	62	42
H0000979	13.0	13.0	102	62	42
H0000975	13.5	14.0	107	64	43
H0000985	14.0	14.0	107	64	43
H0000983	14.5	15.0	111	67	45
H0000990	15.0	15.0	111	67	45
H0000988	15.5	16.0	115	69	45
H0000995	16.0	16.0	115	69	45

Yes® YESTOOL Co., Ltd.

Solid Carbide High Production, High Feed, Straight Shank Twist Drills. TiAlN Coated

Long Length to Work Standard.



H0001021

System Code	Ø h7	Shank Ø h6	Overall Length	Flute Length	Drilling Depth
	mm				
H0001021	3.0	4.0	80	45	40
H0001014	3.5	4.0	80	45	40
H0001034	4.0	4.0	80	45	39
H0001027	4.5	5.0	80	45	38
H0000797	5.0	5.0	80	45	38
H0001041	5.5	6.0	83	50	41
H0001059	6.0	6.0	83	50	41
H0000798	6.5	7.0	85	53	43
H0001073	7.0	7.0	85	53	43
H0001066	7.5	8.0	90	58	46
H0001087	8.0	8.0	90	58	46
H0001080	8.5	9.0	98	64	51
H0001101	9.0	9.0	98	64	51
H0000951	10.0	10.0	105	68	53
H0000940	10.2	11.0	110	73	57
H0000963	11.0	11.0	110	73	57
H0000971	12.0	12.0	120	80	62
H0000978	13.0	13.0	137	90	71
H0000984	14.0	14.0	147	96	75

CUTTING, DRILLING AND THREADING

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
YDRB33.5FSL	33.5-33.9	40	210	110	3XD
YDRB34FSL	34.0-34.5	40	230	118	3XD
YDRB34.5FSL	34.5-34.9	40	230	118	3XD
H0001233	35.0-35.4	40	230	118	3XD
YDRB35.5FSL	35.5-35.9	40	230	118	3XD
YDRB36FSL	36.0-36.4	40	250	125	3XD
YDRB36.5FSL	36.5-36.9	40	250	125	3XD
YDRB37FSL	37.0-37.4	40	250	125	3XD
YDRB37.5FSL	37.5-37.9	40	250	125	3XD
H0001236	38.0-38.4	40	250	132	3XD
YDRB38.5FSL	38.5-38.9	40	250	132	3XD
YDRB39FSL	39.0-39.4	40	250	132	3XD
H0001238	39.5-39.9	40	270	138	3XD
H0001240	40.0-40.4	40	270	138	3XD
YDRB40.5FSL	40.5-40.9	40	270	138	3XD
YDRB41FSL	41.0-41.4	40	270	138	3XD
YDRB41.5FSL	41.5-41.9	40	270	145	3XD
YDRB42FSL	42.0-42.4	40	270	145	3XD
YDRB42.5FSL	42.5-42.9	40	270	145	3XD
YDRB43FSL	43.0-43.4	40	270	145	3XD
YDRB43.5FSL	43.5-43.9	40	270	145	3XD
YDRB44FSL	44.0-44.4	40	280	153	3XD
YDRB44.5FSL	44.5-44.9	40	280	153	3XD
YDRB45FSL	45.0-45.4	40	280	153	3XD
YDRB45.5FSL	45.5-45.9	40	280	153	3XD
YDRB46FSL	46.0-46.4	40	280	160	3XD
YDRB46.5FSL	46.5-46.9	40	280	160	3XD
YDRB47FSL	47.0-47.4	40	280	160	3XD
YDRB47.5FSL	47.5-47.9	40	280	160	3XD
YDRB48FSL	48.0-48.4	40	300	167	3XD
YDRB48.5FSL	48.5-48.9	40	300	167	3XD
YDRB49FSL	49.0-49.4	40	300	167	3XD
YDRB49.5FSL	49.5-49.9	40	300	167	3XD
YDRB50FSL	50.0-50.4	40	300	167	3XD

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
H0001112	10.0-10.4	12	115	58	5XD
YDRB10X7KRUZ	10.0-10.4	12	140	78	7XD
H0001108	10.5-10.9	12	125	68	5XD
YDRB10.5X7KRUZ	10.5-10.9	12	150	88	7XD
YDRB11X5KRUZ	11.0-11.4	12	125	68	5XD
YDRB11X7KRUZ	11.0-11.4	12	150	88	7XD
H0001117	11.5-11.9	12	130	73	5XD
YDRB11.5X7KRUZ	11.5-11.9	12	160	98	7XD
H0001126	12.0-12.4	16	130	73	5XD
YDRB12X7KRUZ	12.0-12.4	16	160	98	7XD
H0001122	12.5-19.9	16	140	77	5XD
YDRB12.5X7KRUZ	12.5-19.9	12	175	102	7XD
YDRB13X5KRUZ	13.0-13.4	16	140	77	5XD
YDRB13X7KRUZ	13.0-13.4	16	175	102	7XD
H0001129	13.5-13.9	16	145	82	5XD
YDRB13.5X7KRUZ	13.5-13.9	16	180	107	7XD
YDRB14X5KRUZ	14.0-14.4	16	145	82	5XD
YDRB14X7KRUZ	14.0-14.4	16	180	107	7XD
H0001135	14.5-14.9	20	148	85	5XD
YDRB14.5X7KRUZ	14.5-14.9	20	185	117	7XD
YDRB15X5KRUZ	15.0-15.4	20	158	95	5XD
YDRB15X7KRUZ	15.0-15.4	20	185	117	7XD
H0001144	15.5-15.9	20	158	95	5XD
YDRB15.5X7KRUZ	15.5-15.9	20	185	117	7XD
YDRB16X5KRUZ	16.0-16.4	20	160	110	5XD
YDRB16X7KRUZ	16.0-16.4	20	190	123	7XD
H0001151	16.5-16.9	20	160	97	5XD
YDRB16.5X7KRUZ	16.5-16.9	20	190	123	7XD
H0001163	17.0-17.4	20	160	99	5XD
YDRB17X7KRUZ	17.0-17.4	20	200	128	7XD
H0001159	17.5-17.9	20	160	99	5XD
YDRB17.5X7KRUZ	17.5-17.9	20	200	128	7XD
YDRB18X5KRUZ	18.0-18.4	20	170	100	5XD
H0001172	18.0-18.4	20	210	138	7XD
YDRB18.5X5KRUZ	18.5-18.9	20	170	100	5XD
YDRB18.5X7KRUZ	18.5-18.9	20	210	138	7XD
YDRB19X5KRUZ	19.0-19.4	20	170	100	5XD

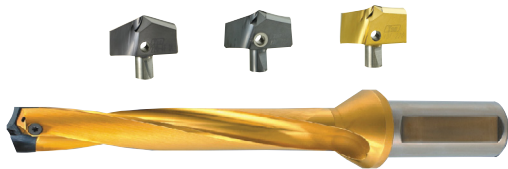
Yes® YESTOOL Co., Ltd.

Interchangeable Insert 'Kruz' Drills for Deep Hole Drilling

TiN coated flutes, high production and through coolant, double locking.

Flange Type Body.

Inserts are supplied separately.



H0001112

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
H0001112	10.0-10.4	12	115	58	5XD
YDRB10X7KRUZ	10.0-10.4	12	140	78	7XD
H0001108	10.5-10.9	12	125	68	5XD
YDRB10.5X7KRUZ	10.5-10.9	12	150	88	7XD
YDRB11X5KRUZ	11.0-11.4	12	125	68	5XD
YDRB11X7KRUZ	11.0-11.4	12	150	88	7XD
H0001117	11.5-11.9	12	130	73	5XD
YDRB11.5X7KRUZ	11.5-11.9	12	160	98	7XD
H0001126	12.0-12.4	16	130	73	5XD
YDRB12X7KRUZ	12.0-12.4	16	160	98	7XD

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
YDRB19X7KRUZ	19.0-19.4	20	210	138	7XD
YDRB19.5X5KRUZ	19.5-19.9	20	170	100	5XD
YDRB19.5X7KRUZ	19.5-19.9	20	210	138	7XD
YDRB20X5KRUZ	20.0-20.4	25	190	110	5XD
YDRB20X7KRUZ	20.0-20.4	25	230	153	7XD
YDRB20.5X5KRUZ	20.5-20.9	25	190	110	5XD
YDRB20.5X7KRUZ	20.5-20.8	25	230	153	7XD
YDRB21X5KRUZ	21.0-21.4	25	190	110	5XD
YDRB21X7KRUZ	21.0-21.4	25	230	153	7XD
YDRB21.5X5KRUZ	21.5-21.9	25	190	110	5XD
YDRB21.5X7KRUZ	21.5-21.9	25	230	153	7XD
YDRB22X5KRUZ	22.0-22.4	25	200	121	5XD
YDRB22X7KRUZ	22.0-22.4	25	240	168	7XD
YDRB22.5X5KRUZ	22.5-22.9	25	200	121	5XD
YDRB22.5X7KRUZ	22.5-22.9	25	240	168	7XD
YDRB23X5KRUZ	23.0-23.4	25	200	121	5XD
YDRB23X7KRUZ	23.0-23.4	25	240	168	7XD
YDRB23.5X5KRUZ	23.5-23.9	25	200	121	5XD
YDRB23.5X7KRUZ	23.5-23.9	25	240	168	7XD
YDRB24X5KRUZ	24.0-24.4	32	220	133	5XD
YDRB24X7KRUZ	24.0-24.4	32	270	183	7XD
YDRB24.5X5KRUZ	24.5-24.9	32	220	133	5XD
YDRB24.5X7KRUZ	24.5-24.9	32	270	183	7XD
YDRB25X5KRUZ	25.0-25.4	32	220	133	5XD
YDRB25X7KRUZ	25.0-25.4	32	270	183	7XD
YDRB25.5X5KRUZ	25.5-25.9	32	220	33	5XD
YDRB25.5X7KRUZ	25.5-25.9	32	270	183	7XD
YDRB26X5KRUZ	26.0-26.4	32	24	144	5XD

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
YDRB28.5X7KRUZ	28.5-28.9	32	300	213	7XD
YDRB29X5KRUZ	29.0-29.4	32	250	155	5XD
YDRB29X7KRUZ	29.0-29.4	32	300	213	7XD
YDRB29.5X5KRUZ	29.5-29.9	32	250	155	5XD
YDRB29.5X7KRUZ	29.5-29.9	32	300	213	7XD
YDRB30X5KRUZ	30.0-30.4	32	260	165	5XD
YDRB30X7KRUZ	30.0-30.4	32	320	228	7XD
YDRB30.5X5KRUZ	30.5-30.9	32	260	165	5XD
YDRB30.5X7KRUZ	30.5-30.9	32	320	228	7XD
YDRB31X5KRUZ	31.0-31.4	32	260	165	5XD
YDRB31X7KRUZ	31.0-31.4	32	320	228	7XD
YDRB31.5X5KRUZ	31.5-31.9	32	260	165	5XD
YDRB31.5X7KRUZ	31.5-31.9	32	320	228	7XD
YDRB32X5KRUZ	32.0-32.5	32	270	177	5XD
YDRB32X7KRUZ	32.0-32.5	32	340	243	7XD
YDRB32.5X5KRUZ	32.5-32.9	32	270	177	5XD
YDRB32.5X7KRUZ	32.5-32.9	32	340	243	7XD
YDRB33X5KRUZ	33.0-33.4	32	270	177	5XD
YDRB33X7KRUZ	33.0-33.4	32	340	243	7XD
YDRB33.5X5KRUZ	33.5-33.9	32	270	177	5XD
YDRB33.5X7KRUZ	33.5-33.9	32	340	243	7XD
YDRB34X5KRUZ	34.0-34.4	40	300	188	5XD
YDRB34X7KRUZ	34.0-34.4	40	360	258	7XD
YDRB34.5X5KRUZ	34.5-34.9	40	300	188	5XD
YDRB34.5X7KRUZ	34.5-34.9	40	360	258	7XD
YDRB35X5KRUZ	35.0-35.4	40	300	188	5XD
YDRB35X7KRUZ	35.0-35.4	40	360	258	7XD

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
YDRB36.5X7KRUZ	36.5-36.9	40	380	273	7XD
YDRB37X5KRUZ	37.0-37.4	40	310	199	5XD
YDRB37X7KRUZ	37.0-37.4	40	380	273	7XD
YDRB37.5X5KRUZ	37.5-37.9	40	310	199	5XD
YDRB37.5X7KRUZ	37.5-37.9	40	380	273	7XD
YDRB38X5KRUZ	38.0-38.4	40	320	210	5XD
YDRB38X7KRUZ	38.0-38.4	40	400	288	7XD
YDRB38.5X5KRUZ	38.5-38.9	40	320	210	5XD
YDRB38.5X7KRUZ	38.5-38.9	40	400	288	7XD
YDRB39X5KRUZ	39.0-39.4	40	320	210	5XD
YDRB39X7KRUZ	39.0-39.4	40	400	228	7XD
YDRB39.5X5KRUZ	39.5-39.9	40	320	210	5XD
YDRB39.5X7KRUZ	39.5-39.9	40	400	228	7XD
YDRB40X5KRUZ	40.0-40.4	40	340	221	5XD
YDRB40X7KRUZ	40.0-40.4	40	420	303	7XD
YDRB40.5X5KRUZ	40.5-40.9	40	340	221	5XD
YDRB40.5X7KRUZ	40.5-40.9	40	420	303	7XD
YDRB41X5KRUZ	41.0-41.4	40	340	221	5XD
YDRB41X7KRUZ	41.0-41.4	40	420	303	7XD
YDRB41.5X5KRUZ	41.5-41.9	40	340	221	5XD
YDRB41.5X7KRUZ	41.5-41.9	40	420	303	7XD
YDRB42X5KRUZ	42.0-42.4	40	340	232	5XD
YDRB42X7KRUZ	42.0-42.4	40	420	318	7XD
YDRB42.5X5KRUZ	42.5-42.9	40	340	232	5XD
YDRB42.5X7KRUZ	42.5-42.9	40	420	318	7XD
YDRB43X5KRUZ	43.0-43.4	40	340	232	5XD
YDRB43X7KRUZ	43.0-43.4	40	420	318	7XD
YDRB43.5X5KRUZ	43.5-43.9	40	340	232	5XD
YDRB43.5X7KRUZ	43.5-43.9	40	420	318	7XD
YDRB44X5KRUZ	44.0-44.4	40	370	243	5XD
YDRB44X7KRUZ	44.0-44.4	40	460	333	7XD
YDRB44.5X5KRUZ	44.5-44.9	40	370	240	5XD

System Code	Ø Range	Shank Ø	Overall Length	Flute Length	Depth of Cut
	mm				
YDRB44.5X7KRUZ	44.5-44.9	40	460	333	7XD
YDRB45X5KRUZ	45.0-45.4	40	370	243	5XD
YDRB45X7KRUZ	45.0-45.4	40	460	333	7XD
YDRB45.5X5KRUZ	45.5-45.9	40	370	243	5XD
YDRB45.5X7KRUZ	45.5-45.9	40	460	333	7XD
YDRB46X5KRUZ	46.0-46.4	40	370	255	5XD
YDRB46X7KRUZ	46.0-46.4	40	460	348	7XD
YDRB46.5X5KRUZ	46.5-46.9	40	370	255	5XD
YDRB46.5X7KRUZ	46.5-46.9	40	460	348	7XD
YDRB47X5KRUZα	47.0-47.4	40	370	255	5XD
YDRB47X7KRUZ	47.0-47.4	40	460	348	7XD
YDRB47.5X5KRUZ	47.5-47.9	40	370	255	5XD
YDRB47.5X7KRUZ	47.5-47.9	40	460	342	7XD
YDRB48X5KRUZ	48.0-48.4	40	390	265	5XD
YDRB48X7KRUZ	48.0-48.4	40	490	363	7XD
YDRB48.5X5KRUZ	48.5-48.9	40	390	265	5XD
YDRB48.5X7KRUZ	48.5-48.9	40	490	363	7XD
YDRB49X5KRUZ	49.0-49.4	40	390	265	5XD
YDRB49X7KRUZ	49.0-49.4	40	490	363	7XD
YDRB49.5X5KRUZ	49.5-49.9	40	390	265	5XD
YDRB49.5X7KRUZ	49.5-49.9	40	490	363	7XD
YDRB50X5KRUZ	50.0-50.4	40	390	265	5XD
YDRB50X7KRUZ	50.0-50.4	40	490	363	7XD



YDRB50X7KRUZ

KoreaTechnics Insert Drills

For Holes up to 3 x the Diameter



H000591

Bodies

System Code	Ø	Shank Ø	Insert
	mm	mm	
H0000591	16	25	WC••0302
H0000592	17	25	WC••0302
A0027364	18	25	WC••0302
H0000593	19	25	WC••0302
H0000594	20	25	WC••0302
A0027365	22	25	WC••0402
H0000595	23	25	WC••0402
H0000596	24	25	WC••0402
H0000597	25	25	WC••0402
H0000598	26	32	WC••0503
H0000599	27	32	WC••0503
H0000600	28	32	WC••0503
H0000602	30	32	WC••0503
H0000604	32	32	WC••06T3
H0000606	33	32	WC••06T3
H0000607	34	32	WC••06T3
H0000608	36	32	WC••06T3
H0000609	38	32	WC••06T3
H0000610	40	32	WC••06T3
H0000611	41	32	WC••06T3
H0000612	42	40	WC••0804
H0000613	43	40	WC••0804
H0000614	44	40	WC••0804
H0000615	45	40	WC••0804
H0000616	48	40	WC••0804
H0000618	50	40	WC••0804
H0000620	56	40	WC••0804

KORLOY Inc. King Drills



KINGD14203D-05

System Code		Shank Ø	Overall Length	Flute Length	Insert
		mm	mm	mm	
A0026312	(14 x 5D)	20	110	45	SPMT0502+XOMT0502
A0026314	(15 x 3D)	20	114	48	SPMT0502+XOMT0502
A0026317	(16 x 3D)	20	117	51	PMTO502+XOMT0502
A0026319	(16 x 5D)	20	117	51	SPMT0502+XOMT0502
A0026322	(17 x 3D)	25	126	54	SPMT0602+XOMT0602
A0026325	(17.5 x 5D)	25	126	54	SPMT0602+XOMT0602
A0026326	(18 x 3D)	25	130	57	SPMT0602+XOMT0602
A0026328	(18 x 5D)	25	130	57	SPMT0602+XOMT0602
A0026330	(19 x 3D)	25	133	60	SPMT0602+XOMT0602
A0026331	(19 x 5D)	25	171	98	SPMT0602+XOMT0602
A0026332	(20 x 3D)	25	138	63	SPMT07T2+XOMT07T2
A0026334	(20 x 5D)	25	173	103	SPMT0702+XOMT0702
A0026336	(21 x 3D)	25	141	66	SPMT07T2+XOMT07T2
A0026338	(21 x 5D)	25	183	108	SPMT0702+XOMT0702
A0026340	(22 x 3D)	25	144	69	SPMT07T2+XOMT07T2
A0026341	(22 x 5D)	25	210	128	SPMT07T2+XOMT07T2
A0026344	(24 x 3D)	32	157	75	SPMT0903+XOMT0903
A0026346	(24 x 4D)	32	181	99	SPMT0903+XOMT0903
A0026347	(24 x 5D)	32	205	123	SPMT0903+XOMT0903
A0026349	(25 x 3D)	32	160	78	SPMT0903+XOMT0903
A0026353	(26 x 3D)	32	163	78	SPMT0903+XOMT0903
A0026354	(26 x 5D)	32	215	133	SPMT0903+XOMT0903
A0026356	(27 x 3D)	32	167	84	SPMT0903+XOMT0903
A0026359	(28 x 3D)	32	171	87	SPMT0903+XOMT0903
A0026361	(28 x 5D)	32	227	143	SPMT0903+XOMT0903
A0026362	(28.5 x 5D)	32	171	87	SPMT0903+XOMT0903
A0026363	(30 x 3D)	32	180	93	SPMT11T3+XOMT11T3
A0026365	(30 x 5D)	32	240	153	SPMT11T3+XOMT11T3
A0026367	(32 x 3D)	32	186	99	SPMT11T3+XOMT11T3
A0026369	(32 x 5D)	32	250	163	SPMT11T3+XOMT11T3
A0026371	(33 x 3D)	32	190	102	SPMT11T3+XOMT11T3
A0026372	(35 x 3D)	32	196	108	SPMT11T3+XOMT11T3
A0026376	(38 x 3D)	40	219	118	SPMT1304+XOMT1304
A0026377	(40 x 4D)	40	266	164	SPMT1304+XOMT1304

KORLOY Inc.



WCMT



WCMT



WCMT

Inserts

System Code			
WCMT	030204	C21	NCM325
WCMT	030208	C20	PC5300
WCMT	030208	C20	PC5335
WCMT	040208	C20/C21	NCM325
WCMT	040208	C20/C21	PC5300
WCMT	040208	C20/C21	PC5335
WCMT	050308	C20/C21	NCM325
WCMT	050308	C20/C21	PC5300
WCMT	050308	C20/C21	PC5335
WCMT	06T308	C20/C21	PC5335
WCMT	080408	C20/C21	NCM325
WCMT	080408	C20/C21	PC5300
WCMT	080408	C20/C21	PC5335

V = Surface Speed m/min

n = RPM

D = Cutter Diameter

To calculate the Surface Speed:

$$V = \frac{\pi \cdot D \cdot n}{1000}$$

To calculate RPM :

$$n = \frac{V \cdot 1000}{\pi \cdot D}$$

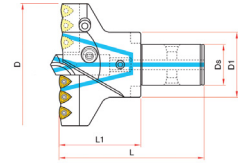


Max Drills

VMD



N = Inner
T = Outer



System Code	D	DS	D1	L1	L	Plot Drill	Cartridge	Insert	Screw	Driver
H0000644	45-50	13	28	50	85	PLD-1035 TiN-H	VMC-045050N/T	WC..030204	TSB-22045	TXL-6
H0000645	50-55	13	28	50	85		VMC-050055N/T			
H0000646	55-60	16	32	60	100	PLD-1238 TiN-H	VMC-055060N/T	WC..040204	TSB-25055	TXL-6
H0000647	60-65	16	32	60	100		VMC-060065N/T			
H0000648	65-70	16	32	60	100		VMC-065070N/T			
VMD-070075	70-75	22	40	70	115	PLD-1645 TiN-H	VMC-070075N/T	WC..06T308	TSB-30070	TXL-15
H0000649	75-80	22	40	70	115		VMC-075080N/T			
VMD-080085	80-85	22	40	70	115		VMC-080085N/T			
H0000650	85-90	27	48	70	120		VMC-085090N/T			
H0000651	90-95	27	48	70	120	PLD-2045 TiN-H	VMC090095N/T	WC..050308	TSB-30070	TXL-8
VMD-095100	95-100	27	48	70	120		VMC-095100N/T			
H0000652	100-105	32	58	80	130	PLD-2556 TiN-H	VMC-100105N/T	WC..06T308	-	TXL-15
VMD-105110	105-110	32	58	80	130		VMC-105110N/T			
VMD-110115	110-115	32	58	80	130		VMC110115N/T			
VMD-115120	115-120	40	70	90	145	PLD-3068 TiN-H	VMD-115120N/T	-	-	-
VMD-120125	120-125	40	70	90	145		VMD-120125N/T			
VMD-125130	125-130	40	70	90	145		VMC-125130N/T			
VMD-130135	130-135	40	70	90	145		VMC-130135N/T			
H0000654	135-140	40	70	90	145	PLD-2045 TiN-H	VMC-135140N/T	-	-	-
VMD-140150	140-150	50	80	100	160		VMC140150N/T			
VMD-150160	150-160	50	80	100	160	PLD-2556 TiN-H	VMC150160N/T	-	-	-
H0000655	160-170	50	80	100	160		VMD-160170N/T			
H0000656	170-180	50	80	100	160	PLD-3068 TiN-H	VMD-170180N/T	-	-	-

CUTTING, DRILLING AND THREADING

System Code	D	L
PLD-V1035 TiN-H	10	35
PLD-V1238 TiN-H	12	38
PLD-V1645 TiN-H	16	45
PLD-2045 TiN-H	20	56
PLD-2556 TiN-H	25	
PLD-3068 TiN-H	30	68

Pilot Drill



PLD-V1035 TiN-H

System Code	D	d	S
A0027363	28	13	10
H0001479	32	16	
H0001484	40	22	12
H0001480	48	27	
H0001481	58	32	14
H0001482	70	40	
H0001483	80	50	16

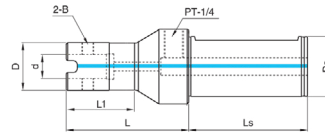
Drive Ring



A0027363

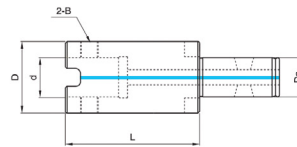


Mx Holder



System Code	Ds	d	L	D	Ls	B	Drive Ring
MXA-3213115	32	13	115	28	70	MTB-08115	DVR-281310
MXA-3213200	32	13	200	28			
H0001503	32	13	300	28			
H0001504	40	16	125	32	80		DVR-321610
H0001505	40	16	200	32			
H0001506	40	16	300	32			
MXA-4022148	40	22	148	40		MTB-10145	DVR-402212
H0001507	40	22	200	40			
H0001508	40	22	300	40		MTB-12175	DVR-482712
H0001509	40	27	168	48			
H0001510	40	27	300	48		MTB-12195	DVR-583214
MXA-4032186	40	32	186	58			
H0001511	40	32	300	58		80	MTB-16260
H0001512	50	40	186	70			
H0001513	50	40	300	70			
MXA-5050184	50	50	184	80	DVR-805016		
MXA-5050300	50	50	300	80			

Mx Extension



System Code	D	d	L	Ds	B	Drive Ring
H0001515	28	13	115	13	MTB-08115	DVR-281310
H0001516	28	13	150	13		
H0001517	28	13	200	13		
H0001518	28	13	300	13		
H0001519	32	16	115	16	MTB-08115	DVR-32610
H0001520	32	16	200	16		
MXB-3216300	32	16	300	16		
H0001521	40	22	113	22	MTB-10145	DVR-402212
MXB-4022200	40	22	200	22		
MXB-4022300	40	22	300	22	MTB-12175	DVR-482712
MXB-4827113	48	27	113	27		
H0001523	48	27	200	27		
H0001524	48	27	300	27	MTB-12195	DVR-583214
MXB-5832186	58	32	186	32		
MXB-5832300	58	32	300	32	MTB-16260	DVR-704014
MXB=7040186	70	40	186	40		
MXB-7040300	70	40	300	40		
H0001526	70	40	500	40		DVR-805016
MXB-8050204	80	50	204	50		
MXB-8050300	80	50	300	50		
H0001527	80	50	500	50		

HSS Corner Rounding Cutters (M2)

DIN 6518



A0020206

System Code	Radius	Ø mm ±0.2	Shank Ø mm	Overall Length mm
	mm H11			
A0020206	2.0	10	10	60
A0020207	2.5	10	10	60
A0020209	3.0	12	12	60
A0020106	4.0	14	12	60
A0020107	5.0	16	12	60
A0020210	6.0	20	16	67
A0020211	8.0	24	16	73
A0020103	10.0	28	25	85
A0020104	12.0	34	25	90
A0020205	14.0	42	25	90
A0020105	16.0	48	25	90
A0020208	20.0	60	32	115

HSS Inverted Dovetail Cutters (M2)

DIN 1831



IDTC45x16

System Code	Ø	Angle per Side +15°	Shank Ø mm	Overall Length mm
	mm js16			
IDTC45x16	16	45°	12	60
IDTC45x20	20	45°	12	63
IDTC45x25	25	45°	16	67
IDTC60x16	16	60°	12	60
IDTC60x20	20	60°	12	63
IDTC60x25	25	60°	16	67

HSS T Slot Cutters (M2)

DIN 851A



A0020300

System Code	Ø	Width mm	For T Slots DIN 650 mm	Overall Length mm	Ø of Shank h7 mm	No. of Teeth
	d11 mm					
A0020300	12.5	6	6	53.5	10	8
A0020176	16	8	8	62	10	8
A0020177	18	8	10	70	12	8
A0020301	21	9	12	74	12	8
A0020178	25	11	14	82	16	8
A0020302	32	14	18	90	25	8

HSS Woodruff Cutters (M2)

Threaded shank. For woodruff keys to DIN 898

DIN 350B



A0020179

System Code	Ø	Width e8 mm	For Woodruff Keyseat Slots DIN 6888 mm	Overall Length mm	Ø of Shank h7 mm
	h11 mm				
A0020179	10.5	2	2x3.7	50	6
A0020180	10.5	2.5	2.5x3.7	50	6
A0020303	10.5	3	3x3.7	50	6
A0020304	13.5	3	3x5	50	8
A0020305	13.5	4	4x5	56	8
A0020181	16.5	3	3x6.5	56	8
A0020306	16.5	4	4x6.5	56	8
A0020182	16.5	5	5x6.5	56	8
A0020183	19.5	4	4x7.5	63	8
A0020184	19.5	5	5x7.5	63	8
A0020307	19.5	6	6x7.5	63	8
A0020185	22.5	5	5x9	63	8
A0020186	22.5	6	6x9	63	8
A0020187	22.5	8	8x9	63	8
A0020188	25.5	6	6x11	63	10
A0020309	28.5	8	8x11	63	10
W32.5X10	32.5	10	10x13	71	10

HSS Dovetail Cutters (M2)

DIN 1831



DTC45x16

System Code	Ø	Angle per Side ±15°	Shank Ø mm	Overall Length mm
	mm js16			
DTC45x16	16	45°	12	60
DTC45x20	20	45°	12	63
DTC45x25	25	45°	16	67
DTC60x16	16	60°	12	60
DTC60x20	20	60°	12	63
DTC60x25	25	60°	16	67

Tank Power Standard Two Flute Slot Drills, Plain Shank

HSS Premium powder metallurgy, TiAlN coated



A0020292

System Code	Ø	Shank Ø mm	Flute Length mm	Overall Length mm
	mm e8			
A0020292	1	6	2.5	47
A0020295	2	6	4	48
A0020296	3	6	5	49
A0020147	4	6	7	51
A0020297	5	6	8	52
A0020148	6	6	8	52
A0020298	7	10	10	60
A0020149	8	10	11	61
A0020299	9	10	11	61
A0020142	10	10	13	63
A0020143	12	12	16	73
A0020144	14	12	16	73
A0020145	16	16	19	79
A0020146	18	16	19	79
A0020293	20	20	22	88
A0020294	22	20	22	88
A0020312	25	25	26	102

Tank Power Standard Two Flute Ball Slot Drill Plain Shank

HSS Premium powder metallurgy, TiALN coated.



A0020196

System Code	Mill Ø	Shank Ø	Flute length	Overall Length
	mm e8	h6 mm	mm	mm
A0020196	1	6	2.5	47
A0020200	2	6	4	48
A0020202	3	6	5	49
A0020203	4	6	7	51
A0020100	5	6	8	52
A0020101	6	6	8	52
A0020204	7	10	10	60
A0020102	8	10	11	61
BSD9T	9	10	11	61
A0020192	10	10	13	63
A0020099	12	12	16	72
A0020193	14	12	16	72
A0020194	16	16	19	79
A0020195	18	16	19	79
A0020197	20	20	22	88
A0020198	22	20	22	88
A0020199	25	25	26	102

Tank Power Standard Four Flute End Mill Plain Shank

HSS Premium powder metallurgy, TiALN coated.



A0020213

System Code	Mill Ø	Shank Ø	Flute length	Overall Length
	mm e8	h6 mm	mm	mm
A0020213	1	6	3	49
A0020214	2	6	7	51
A0020215	3	6	8	52
A0020216	4	6	11	55
A0020217	5	6	13	57
A0020120	6	6	13	57
A0020218	7	10	16	66
A0020121	8	10	19	69
A0020219	9	10	19	69
A0020110	10	10	22	72
A0020111	12	12	26	83
A0020112	14	12	26	83
A0020113	16	16	32	92
A0020114	18	16	32	92
A0020115	20	20	38	104
A0020116	22	20	38	104
A0020117	25	25	45	104

Tank Power Standard Multi-Flute Fine Pitch Rippers Weldon Flat

HSS Premium powder metallurgy, TiALN coated.



A0020238

System Code	Mill Ø	Shank Ø	Flute length	Overall Length
	mm e8	h6 mm	mm	mm
A0020238	6	6	13	57
A0020239	7	10	16	66
A0020241	8	10	19	69
A0020243	9	10	19	69
A0020221	10	10	22	72
A0020224	12	12	26	83
A0020226	14	12	26	83
A0020122	16	16	32	92
A0020123	18	16	32	92
A0020232	20	20	38	104
A0020234	22	20	38	104
A0020124	25	25	45	121

Three Flute Throw Away End Mills Plain Shank Centre Cutting HSS-C08

DIN Tolerance
Cutting ø: e⁸ Shank ø: h⁶



TAEM1.5

System Code	Mill Ø	Shank Ø	Flute length	Overall Length
	mm e8	h6 mm	mm	mm
TAEM1.5	1.5	6	3	34
TAEM2	2.0	6	4	35
TAEM2.5	2.5	6	5	36
TAEM3	3.0	6	5	36
TAEM4	4.0	6	7	38
TAEM5	5.0	6	8	39
TAEM6	6.0	6	8	39
TAEM7	7.0	8	10	42
TAEM8	8.0	8	11	43
TAEM9	9.0	10	11	48
TAEM10	10.0	10	13	50

Long Length Ltaem

System Code	Mill Ø	Shank Ø	Flute length	Overall Length
	mm e8	h6 mm	mm	mm
LTAEM3	3.0	6	8	39
LTAEM4	4.0	6	11	42
LTAEM5	5.0	6	13	44
LTAEM6	6.0	6	13	44

Three Flute Throw Away End Mills Plain Shank Centre Cutting HSS-C08

DIN Tolerance
Cutting \varnothing : e⁸ Shank \varnothing : h⁶



LTAEM3

Long Length Ltaem

System Code	Mill \varnothing	Shank \varnothing	Flute Length	Overall Length
	mm e8	h6 mm	mm	mm
LTAEM3	3.0	6	8	39
LTAEM4	4.0	6	11	42
LTAEM5	5.0	6	13	44
LTAEM6	6.0	6	13	44

Three Flute Throw Away End Mills- Plain Shank- Centre Cutting HSS-C08

Clarkson Tolerances
Cutting \varnothing : e⁸
Shank \varnothing : 0,025/0,032



TAEM1.5C

Short Length TAEMC

System Code	\varnothing	Shank \varnothing	Flute Length	Overall Length
	mm e8	mm	mm	mm
TAEM1.5C	1.5	6	2.0	24.5
TAEM2C	2.0	6	2.5	24.5
TAEM3C	3.0	6	3.0	25.5
TAEM4C	4.0	6	4.5	28.0
TAEM5C	5.0	6	7.5	36.0
TAEM6C	6.0	6	9.5	36.0

Long Length LTAEMC

System Code	\varnothing	Shank \varnothing	Flute Length	Overall Length
	mm e8	mm	mm	mm
LTAEM2C	2.0	6	4.5	29.0
LTAEM3C	3.0	6	7.5	34.0
LTAEM4C	4.0	6	9.5	39.0
LTAEM5C	5.0	6	12.5	44.5
LTAEM6C	6.0	6	16.0	44.5

Standard Slot Drills THREE Flute HSS-CO8 Plain Shank

DIN 327



3PSD3

System Code	\varnothing	Shank \varnothing	Flute Length	Overall Length
	mm e8	mm h6	mm	mm
3PSD3	3	6	5	49
3PSD4	4	6	7	51
3PSD5	5	6	8	52
3PSD6	6	6	8	52
3PSD8	8	10	11	61
3PSD10	10	10	13	63
3PSD12	12	12	16	73
3PSD14	14	12	16	73
3PSD16	16	16	19	79
3PSD18	18	16	19	79
3PSD20	20	16	22	88
3PSD22	22	25	22	88
3PSD25	25	25	26	102

Note: Also available in TiN and TiCN coated

Standard Slot Drills Three Flute HSS-CO8 Threaded Shank

DIN 327



3SD2

System Code	\varnothing	Shank \varnothing	Flute Length	Overall Length
	mm e8	mm h6	mm	mm
3SD2	2	6	4	48
A0019982	3	6	5	49
A0019983	4	6	7	51
A0019984	5	6	8	52
A0019985	6	6	8	52
A0019856	8	10	11	61
A0019851	10	10	13	63
A0019977	12	12	16	73
A0019852	14	12	16	73
A0019853	16	16	19	79
A0019854	18	16	19	79
A0019979	19	16	19	79
A0019855	20	16	22	88
A0019980	22	25	22	88
3SD24	24	25	26	102
A0019981	25	25	26	102
3SD26	26	25	26	102
3SD28	28	25	26	102
3SD30	30	25	26	102

Note: Also available TiN and TiCN coated.

IG Standard Slot Drills HSS-CO8 Plain Shank with Weldon Flats

DIN 327



PSD2

System Code	Ø	Shank Ø	Flute Length	Overall Length
	mm e8	mm h6	mm	mm
PSD2	2.0	6.0	4.0	48.0
PSD2.5	2.5	6.0	5.0	49.0
PSD3	3.0	6.0	5.0	49.0
PSD3.5	3.5	6.0	6.0	50.0
PSD4	4.0	6.0	7.0	51.0
PSD4.5	4.5	6.0	7.0	51.0
PSD5	5.0	6.0	8.0	52.0
PSD5.5	5.5	6.0	8.0	52.0
PSD6	6.0	6.0	8.0	52.0
PSD6.5	6.5	10.0	10.0	60.0
PSD7	7.0	10.0	10.0	60.0
PSD7.5	7.5	10.0	10.0	60.0
PSD8	8.0	10.0	11.0	61.0
PSD8.5	8.5	10.0	11.0	61.0
PSD9	9.0	10.0	11.0	61.0
PSD9.5	9.5	10.0	11.0	61.0
PSD10	10.0	10.0	13.0	63.0
PSD11	11.0	12.0	13.0	70.0
PSD12	12.0	12.0	16.0	73.0
PSD13	13.0	12.0	16.0	73.0
PSD14	14.0	12.0	16.0	73.0
PSD16	16.0	16.0	19.0	79.0
PSD17	17.0	16.0	19.0	79.0
PSD18	18.0	16.0	19.0	79.0
PSD19	19.0	16.0	19.0	79.0
PSD20	20.0	16.0	22.0	82.0
PSD22	22.0	20.0	22.0	88.0
PSD25	25.0	25.0	26.0	102.0
PSD28#	28.0	25.0	26.0	102.0
PSD32	32.0	32.0	32.0	112.0
PSD36#	36.0	32.0	32.0	112.0

NOTE: Also available in Tin And Tcn Coated.

IG Standard Slot Drills HSS-CO8 Threaded Shank

DIN 327



A0020079

System Code	Ø	Shank Ø	Flute Length	Overall Length
	mm e8	mm h6	mm	mm
A0020079	1.5	6	3	47
A0019922	2.0	6	4	48
A0020083	2.5	6	5	49
A0019928	3.0	6	5	49
A0020085	3.5	6	6	50
A0019931	4.0	6	7	51
A0020088	4.5	6	7	51
A0019932	5.0	6	8	52
A0019933	5.5	6	8	52
A0019934	6.0	6	8	52
A0020092	6.5	10	10	60
A0019935	7.0	10	10	60
A0020093	7.5	10	10	60
A0019936	8.0	10	11	61
A0019937	8.5	10	11	61
A0019938	9.0	10	11	61
A0019939	9.5	10	11	61
A0019915	10.0	10	13	63
A0019916	11.0	12	13	70
A0019917	12.0	12	16	73
A0020080	13.0	12	16	73
A0019918	14.0	12	16	73
A0019919	15.0	12	16	73
A0019920	16.0	16	19	79
A0020081	17.0	16	19	79

System Code	Ø	Shank Ø	Flute Length	Overall Length
	mm e8	mm h6	mm	mm
A0019921	18.0	16	19	79
A0020082	19.0	16	19	79
A0019923	20.0	16	22	88
A0019924	22.0	25	22	88
A0019925	24.0	25	26	102
A0020084	25.0	25	26	102
A0019926	26.0	25	26	102
A0019927	28.0	25	26	102
A0019929	30.0	25	26	102
A0020086	32.0	32	32	112
A0020087	34.0	32	32	112
A0019930	36.0	32	32	112
A0020089	40.0	32	38	118
A0020090	45.0	32	38	118
A0020091	50.0	32	41	118

NOTE: Also Available Tin And Tcn Coated.

IG Long Series Slot Drills HSS-CO8 Plain Shank With Weldon Flats

DIN 844



LPSD3

System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
LPSD3	3.0	6	8	52
LPSD4	4.0	6	11	55
LPSD5	5.0	6	13	57
LPSD6	6.0	6	13	57
LPSD7	7.0	10	16	66
LPSD8	8.0	10	19	69
LPSD9	9.0	10	19	69
LPSD10	10.0	10	22	72
LPSD12	12.0	12	26	83
LPSD14	14.0	12	26	83
LPSD16	16.0	16	32	92
LPSD18	18.0	16	32	92
LPSD20	20.0	20	38	104
LPSD22	22.0	20	38	104

NOTE: Also available in Tin And Tcn Coated.

IG Long Series Slot Drills HSS-CO8 Threaded Shank

DIN 844



LSD1.5

System Code	Ø	Shank Ø	Flute Length	Overall Length
	mm e8	mm h6	mm	mm
LSD1.5	1.5	6	7	51
A0020063	2.0	6	7	51
LSD2.5	2.5	6	8	52
A0020065	3.0	6	8	52
LSD3.5	3.5	6	10	54
A0019906	4.0	6	11	55
LSD4.5	4.5	6	11	55
LSD5	5.0	6	13	57
LSD5.5	5.5	6	13	57
A0019907	6.0	6	13	57
LSD6.5	6.5	10	16	66
LSD7	7.0	10	16	66
LSD7.5	7.5	10	16	66
A0019908	8.0	10	19	69
LSD8.5	8.5	10	19	69
LSD9	9.0	10	19	69
LSD9.5	9.5	10	19	69
A0019900	10.0	10	22	72
LSD11	11.0	12	22	79
A0019901	12.0	12	26	83

Pictures may vary from the actual product.

System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
LSD13	13.0	12	26	83
A0019902	14.0	12	26	83
LSD15	15.0	12	26	83
A0019903	16.0	16	32	92
LSD17	17.0	16	32	92
A0019904	18.0	16	32	92
LSD19	19.0	16	32	92
A0020064	20.0	20	38	104
LSD22	22.0	20	38	104
LSD24	24.0	25	45	121
A0019905	25.0	25	45	121
LSD26	26.0	25	45	121
LSD28	28.0	25	45	121
LSD30	30.0	25	45	121

NOTE: Also available in TiN & TiCN coated

Standard Ball Nose Slot Drills Plain Shank

DIN 844



System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
PBSD3	3.0		5.0	49.0
PBSD3.5	3.5	6.0	6.0	50.0
PBSD4	4.0	6.0	7.0	51.0
PBSD4.5	4.5	6.0	7.0	51.0
PBSD5	5.0	6.0	8.0	52.0
PBSD5.5	5.5	6.0		
PBSD6	6.0	10.0	8.0	52.0
PBSD7	7.0	10.0	10.0	60.0
PBSD8	8.0	10.0	11.0	61.0
PBSD9	9.0	10.0	11.0	61.0
PBSD10	10.0	12.0	13.0	63.0
PBSD11	11.0	12.0	13.0	70.0
PBSD12	12.0	12.0	16.0	73.0
PBSD13	13.0	12.0	16.0	73.0
PBSD14	14.0	12.0	16.0	73.0
PBSD15	15.0	16.0	16.0	73.0
PBSD16	16.0	16.0	19.0	79.0
PBSD17	17.0	16.0	19.0	79.0
PBSD18	18.0	16.0	19.0	79.0
PBSD19	19.0	16.0	19.0	79.0
PBSD20	20.0	16.0	22.0	82.0
PBSD22	22.0	20.0	22.0	88.0
PBSD24	24.0	25.0	26.0	102.0
PBSD25	25.0	25.0	26.0	102.0

NOTE: Also available in TiN & TiCN coated

Standard Ball Nose Slot Drills HSS-CO8 Threaded Shank

DIN 844



System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
A0019861	3.0	6.0	5.0	49.0
A0020201	3.5	6.0	6.0	50.0
A0019862	4.0	6.0	7.0	51.0
BSD4.5	4.5	6.0	7.0	51.0
A0019863	5.0	6.0	8.0	52.0

System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
BSD5.5	5.5	6.0	8.0	52.0
A0019864	6.0	6.0	8.0	52.0
A0019993	7.0	10.0	10.0	60.0
A0019865	8.0	10.0	11.0	61.0
A0019994	9.0	10.0	11.0	61.0
A0019857	10.0	10.0	13.0	63.0
BSD11	11.0	12.0	13.0	70.0
A0019958	12.0	12.0	16.0	73.0
A0019986	13.0	12.0	16.0	73.0
A0019987	14.0	12.0	16.0	73.0
A0019988	15.0	12.0	16.0	73.0
A0019859	16.0	16.0	19.0	79.0
BSD17	17.0	16.0	19.0	79.0
A0019989	18.0	16.0	19.0	79.0
BSD19	19.0	16.0	19.0	79.0
A0019860	20.0	16.0	22.0	82.0
A0019990	22.0	20.0	22.0	88.0
A0019991	24.0	25.0	26.0	102.0
A0019992	25.0	25.0	26.0	102.0

Note: Also available TiN and TiCN coated

Long Series Ball Nose Slot Drills HSS-CO8 Plain Shank



System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
LPBSD3	3.0	6	8	52
LPBSD4	4.0	6	11	55
LPBSD5	5.0	6	13	57
LPBSD6	6.0	6	13	57
LPBSD7	7.0	10	16	66
LPBSD8	8.0	10	19	69
LPBSD9	9.0	10	19	69
LPBSD10	10.0	10	22	72
LPBSD12	12.0	12	26	83
LPBSD13	13.0	12	26	83
LPBSD14	14.0	12	26	83
LPBSD15	15.0	12	26	83
LPBSD16	16.0	16	32	92
LPBSD17	17.0	16	32	92
LPBSD18	18.0	16	32	92
LPBSD20	20.0	20	38	104
LPBSD22	22.0	20	38	104
LPBSD25	25.0	25	45	121
LPBSD26	26.0	25	45	121
LPBSD28	28.0	25	45	121
LPBSD30	30.0	25	45	121

Long Series Ball Nose Slot Drills HSS-CO8 Threaded Shank



System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
LBSD3	3.0	6	8	52
LBSD4	4.0	6	11	55
LBSD5	5.0	6	13	57
LBSD6	6.0	6	13	57
LBSD7	7.0	10	16	66
LBSD8	8.0	10	19	69
LBSD9	9.0	10	19	69

System Code	Ø	Shank Ø	Flute length	Overall Length
	mm e8	mm h6	mm	mm
A0020248	10.0	10	22	72
A0020249	12.0	12	26	83
LBSD13	13.0	12	26	83
LBSD14	14.0	12	26	83
LBSD15	15.0	12	26	83
A0020250	16.0	16	32	92
LBSD17	17.0	16	32	92
LBSD18	18.0	16	32	92
LBSD20	20.0	20	38	104
LBSD22	22.0	20	38	104
LBSD25	25.0	25	45	121
LBSD26	26.0	25	45	121
A0020251	28.0	25	45	121
LBSD30	30.0	25	45	121

NOTE: Also Available Tin & Tcn Coated

W Standard End Mills HSS-CO Plain Shank With Weldon Flats Centre Cutting

DIN 844



System Code	Ø	Shank Ø	Flute length	Overall Length	No of teeth
	0/+0.04 mm	mm h6	mm	mm	
A0020069	2.0	6	7	51	4
A0020072	3.0	6	8	52	4
A0020073	4.0	6	11	55	4
A0020074	5.0	6	13	57	4
A0019914	6.0	6	13	57	4
PEM7	7.0	10	16	66	4
A0020075	8.0	10	19	69	4
PEM9	9.0	10	19	69	4
A0019909	10.0	10	22	72	4
A0020067	11.0	12	22	79	4
A0019910	12.0	12	26	83	4
A0020068	13.0	12	26	83	4
A0019911	14.0	12	26	83	4
A0019912	16.0	16	32	92	4
PEM17	17.0	16	32	92	4
A0019913	18.0	16	32	92	4
A0020070	20.0	16	38	98	4
PEM22	22.0	20	38	104	6
A0020071	25.0	25	45	121	6
PEM30	30.0	25	45	121	6

NOTE: Also Available In Tin & Tcn Coated

W Standard End Mills Hss-Co8 Threaded Shank CENTRE CUTTING

DIN 844



System Code	Ø	Shank Ø	Flute length	Overall Length	No of teeth
	0/+0.04 mm	mm h6	mm	mm	
A0019874	2.0	6	7	51	4
A0019875	2.5	6	8	52	4
A0019881	3.0	6	8	52	4
A0020005	3.5	6	10	54	4
A0019884	4.0	6	11	55	4
A0020007	4.5	6	11	55	4
A0019885	5.0	6	13	57	4
EM5.5	5.5	6	13	57	4
A0019886	6.0	6	13	66	4
A0020009	6.5	10	16	66	4

System Code	Ø	Shank Ø	Flute length	Overall Length	No of teeth
	0/+0.04 mm	mm h6	mm	mm	
A0019887	7.0	10	16	66	4
EM7.5	7.5	10	16	66	4
A0019888	8.0	10	16	66	4
A0020010	8.5	10	16	66	4
A0020011	9.0	10	19	69	4
EM9.5	9.5	10	19	69	4
A0019867	10.0	10	22	72	4
A0020001	11.0	12	22	79	4
A0019868	12.0	12	26	83	4
A0020002	13.0	12	26	83	4
A0019869	14.0	12	26	83	4
A0019870	15.0	16	26	83	4
A0019871	16.0	16	32	92	4
A0019873	18.0	16	32	92	4
A0020003	19.0	16	32	92	4
A0019876	20.0	16	38	104	4
A0019877	22.0	25	38	104	6
A0019879	25.0	25	45	121	6
A0019880	28.0	25	45	121	6
A0019882	30.0	25	45	121	6
A0019883	32.0	32	53	133	6
A0020118	34.0	32	53	143	6
A0020119	36.0	32	53	143	6
A0020006	38.0	32	63	143	6
A0020008	40.0	32	63	143	6

NOTE: Also available TIN & TiCN coated

W Long Series End Mills HSS-CO Plain Shank With Weldon Flat

DIN 844



System Code	Ø	Shank Ø	Flute length	Overall Length	No of teeth
	0/+0.04 mm	mm h6	mm	mm	
LPEM3	3.0	6	12	56	4
LPEM4	4.0	6	19	63	4
A0020132	5.0	6	24	68	4
LPEM6	6.0	6	24	68	4
A0020133	7.0	10	30	80	4
A0020134	8.0	10	38	88	4
LPEM9	9.0	10	38	88	4
LPEM10	10.0	10	45	75	4
LPEM11	11.0	12	45	102	4
LPEM12	12.0	12	53	110	4
A0020129	14.0	12	53	110	4
A0020130	16.0	16	63	123	4
LPEM18	18.0	16	63	123	4
A0020131	20.0	16	75	141	4
LPEM22	22.0	25	75	141	6
LPEM24	24.0	25	90	166	6
LPEM25	25.0	25	90	166	6

NOTE: Also Available In Tin & Tcn Coated

W Long Series End Mills HSS-CO8 Threaded Shank

DIN 844



System Code	Ø	Shank Ø	Flute length	Overall Length	No of teeth
	0/+0.04 mm	mm h6	mm	mm	
A0020260	2.0	6	10	54	4
A0020261	2.5	6	12	56	4
A0020052	3.0	6	12	56	4
LEM3.5	3.5	6	15	59	4
A0020055	4.0	6	19	63	4

Pictures may vary from the actual product.

KORLOY Inc. Turning Insert Code System (ISO)

1. Insert Shape

C	D	E	K
L	R	S	T
V	W		

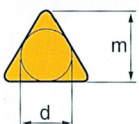
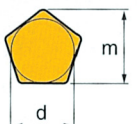
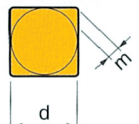
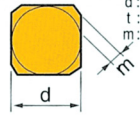
2. Clearance Angle

B	D	B	E
F	N	P	
Special			
O			

T N M G

1 2 3 4

3. Tolerance

d : Inscribed Circle
t : Thickness
m : refer to figure

Class	d	m	t
A	±0.025	±0.005	±0.025
C	±0.025	±0.013	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.05 - ±0.15	±0.005	±0.025
K	±0.05 - ±0.15	±0.013	±0.025
L	±0.05 - ±0.15	±0.025	±0.025
M	±0.05 - ±0.15	0.08 - 0.20	±0.13
U	±0.08 - ±0.25	0.13 - 0.38	±0.13

Tolerance on C, H, R, T, W class (exceptional)

d	Tolerance on d		Tolerance on m	
	J, K, L, M, N	U	M, N	U
6.35	±0.05	±0.08	±0.08	±0.13
9.525	±0.05	±0.08	±0.08	±0.13
12.7	±0.08	±0.13	±0.13	±0.20
15.875	±0.10	±0.18	±0.15	±0.27
19.05	±0.10	±0.18	±0.15	±0.27
25.4	±0.13	±0.25	±0.18	±0.38

Tolerance on D class (exceptional)

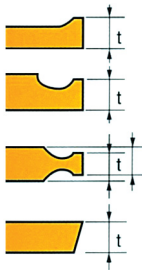
d	Tolerance on d	Tolerance on m
6.35	±0.05	±0.11
9.525	±0.05	±0.11
12.7	±0.08	±0.15
15.875	±0.10	±0.18
19.05	±0.10	±0.18

4. Cross Section Type

A	B
C	F
G	H
J	M
N	Q
R	T
U	W
Special Type	
X	

KORLOY Inc. TURNING INSERT CODE SYSTEM (ISO)

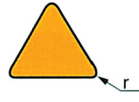
6 Height of Cutting Edge



Symbol		Height of Cutting Edge (t)	
Metric	Inch	mm	Inch
-	0.5(1)	0.79	1-32
T0	0.6	1.00	0.040
01	1(2)	1.59	1/16
T1	1.2	1.98	5/64
02	1.5(3)	2.38	3/32
03	2	3.18	1/8
T3	2.5	3.97	5/32
04	3	4.76	3/16
05	3.5	5.56	7/32
06	4	6.35	1/4
07	5	7.94	5/16
09	6	9.52	3/8
11	7	11.11	7/16
12	8	12.70	1/2

*() Symbol for small size insert

7 Nose Corner Radius (Nose R)



Symbol		Height of Cutting Edge (t)	
Metric	Inch	mm	Inch
01	0	0.1	0.004
02	5.0	0.2	0.008
04	1	0.4	1/64
08	2	0.8	1/32
12	3	1.2	3/64
16	4	1.6	1/16
20	5	2.0	5/64
24	6	2.4	3/32
28	7	2.8	7/64
32	8	3.2	1/8
00	-	Round Insert (Inch)	
MO	-	Round Insert (Metric)	

16 04 08 VM

5 6 7 8

5 Cutting Edge Length, Diameter of Incribed circle

Symbol							IC	d(mm)
C	D	S	T	R	V	W		
Metric							Inch	
03	04	03	06	03	-	02	1.2(5)	3.97
04	05	04	08	04	08	S3	1.5(6)	4.76
05	06	05	09	05	09	03	1.8(7)	5.56
-	-	-	-	06	-	-	-	6.00
06	07	06	11	06	11	04	2	6.35
08	09	07	13	07	13	05	2.5	7.94
-	-	-	-	08	-	-	-	8.00
09	11	09	16	09	16	06	3	9.525
-	-	-	-	10	-	-	-	10.00
11	13	11	19	11	19	07	3.5	11.11
-	-	-	-	12	-	-	-	12.00
12	15	12	22	12	22	08	4	12.70
14	17	14	24	14	24	09	4.5	14.29
16	19	15	27	15	27	10	5	15.875
-	-	-	-	16	-	-	-	16.00
17	21	17	30	17	30	11	5.5	17.46
19	23	19	33	19	33	13	6	19.05
-	-	-	-	20	-	-	-	20.00
22	27	22	38	22	38	15	7	22.225
-	-	-	-	25	-	-	-	25.00
25	31	25	44	25	44	17	8	25.40
32	38	31	54	31	54	21	10	31.75
-	-	-	-	32	-	-	-	32.00

8 Chip Breaker for Turning

HU	HW	VF	HC
VM	HR	HH	HA
HS	GF	GM	GR
GH	GS	B20	B25
HFP	HMP	C25	AK

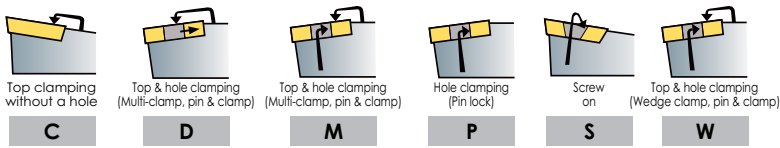
P S K N R 25 25 - M 12

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

Clamping Method of Insert Insert Shape Holder Style Clearance Angle of Insert Hand Height of Shank Width of Shank Length of Holder Length of Insert Cutting Edge

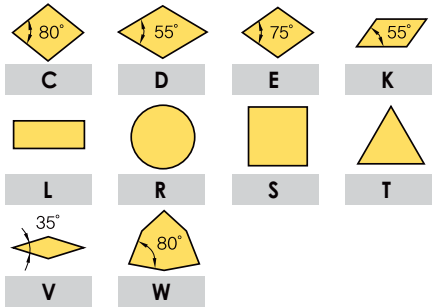
1 Clamping Method of Insert

P S K N R 25 25 - S W



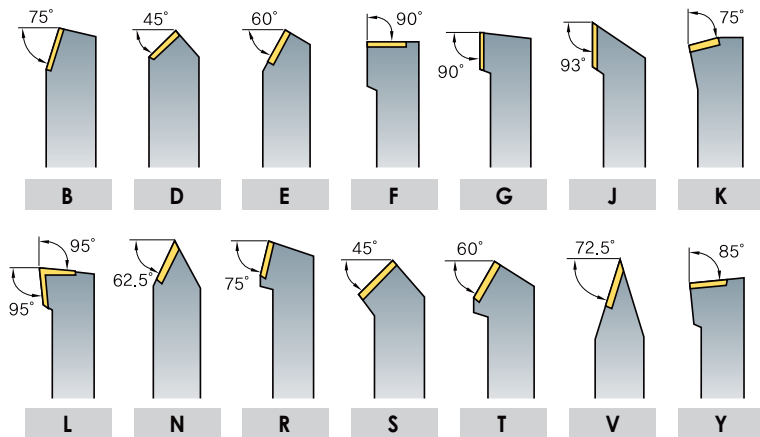
2 Insert Shape

P S K N R 25 25 - S W



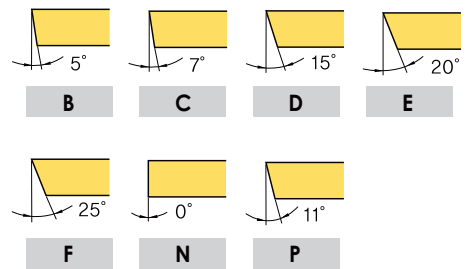
3 Holder Style

P S K N R 25 25 - S W



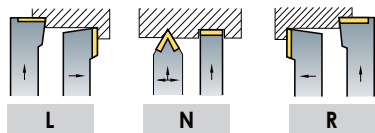
4 Clearance Angle of Insert

P S K N R 25 25 - S W



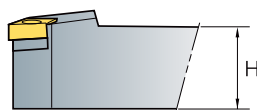
5 Hand

P S K N R 25 25 - S W



6 Height of Shank

P S K N R 25 25 - S W



7 Width of Shank

P S K N R 25 25 - S W



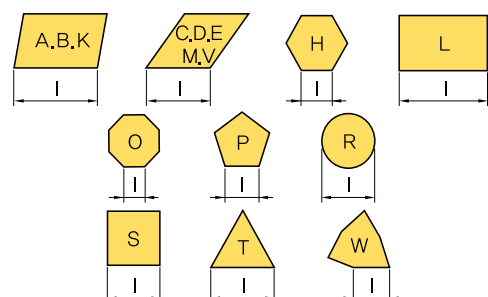
8 Length of Holder

P S K N R 25 25 - S W

A - 32	H - 100	Q - 180	X-Special Item
B - 40	J - 110	R - 200	
C - 50	K - 125	S - 250	
D - 60	L - 140	T - 300	
E - 70	M - 150	U - 350	
F - 80	N - 160	V - 400	
G - 90	P - 170	W - 450	

9 Length of Insert Cutting Edge

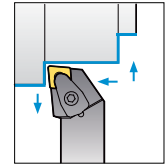
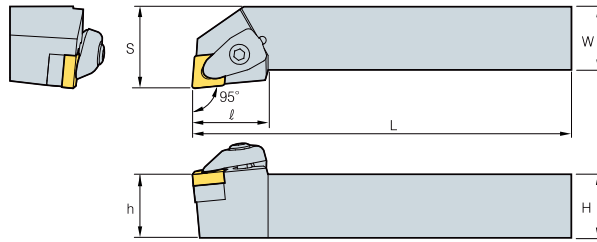
P S K N R 25 25 - S W



DCLNR/L



CN

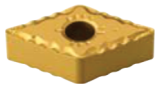


95°

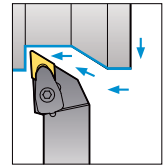
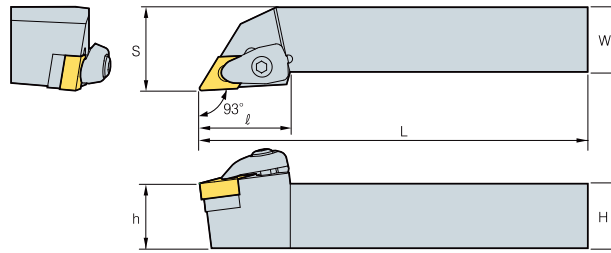
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench	
DCLNR/L	2020-K09	20	20	125	25	20	24.5	CN 0903		CVH3	CHX0415	SC32V	FTKA0307	SPR0510	HW25P
	2525-M09	25	25	150	32	25	24.5								
	2020-K12	20	20	125	25	20	30	CN 1204							
	2525-M12	25	25	150	32	25	30								
	3225-P12	32	25	170	32	32	30								
	3232-P12	32	32	170	40	32	30								
	2525-M16	25	25	150	32	25	36	CN 1606							
	3225-P16	32	25	170	32	32	36								
	3232-P16	32	32	170	40	32	36								
	2525-M19	25	25	150	32	25	40	CN 1906							
3225-P19	32	25	170	32	32	40									
3232-P19	32	32	170	40	32	40									
4040-S19	40	40	250	50	40	40									

DDJNR/L



DN



93°

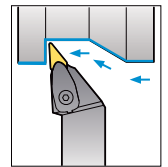
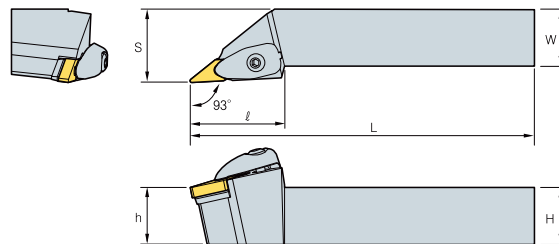
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench	
DDJNR/L	2020-K11	20	20	125	25	20	30	DN 1104		CVH3	CHX0415	15SD32V	FTKA0307	SPR0510	HW25P
	2525-M11	25	25	150	32	25	30								
	3225-P11	32	25	170	32	32	30								
	3232-P11	32	32	170	40	32	30								
	2020-K15	20	20	125	25	20	35	DN 1506							
	2525-M15	25	25	150	32	25	35								
	3225-P15	32	25	170	32	32	35								
	3232-P15	32	32	170	40	32	35	DN 1504							
	2020-K15-3	20	20	125	25	20	35								
2525-M15-3	25	25	150	32	25	35									
3232-P15-3	32	32	170	40	32	35									

DVJNR/L



VN

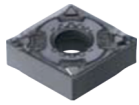


93°

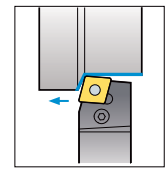
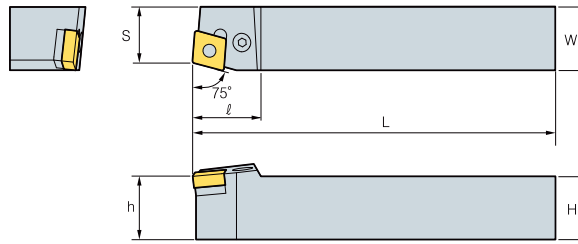
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench	
DVJNR/L	2020-K16	20	20	125	25	20	41.5	VN 1604		CVH3V	CHX0518	SV32V	FTNA03508	SPR0714	HW30P
	2525-M16	25	25	150	32	25	41.5								
	3232-P16	32	32	170	40	32	41.5								

PCBNR/L



CN



75°

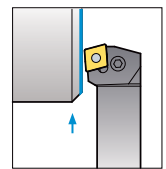
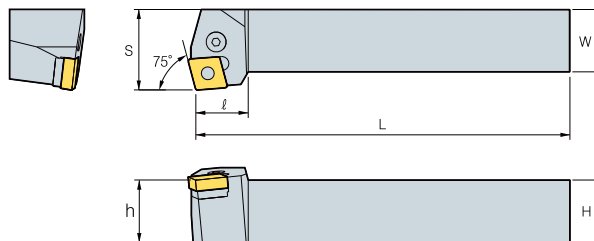
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin	Punch
PCBNR/L	2020-K12	20	20	125	17	20	27	CN 1204	LV4	VHX0821	SC42	SP4	HW30L	LSPS4	
	2525-M12	25	25	150	22	25	27								
	3225-P12	32	25	170	22	32	27	CN 1606	LV5	VHX0825	SC53	SP5	HW30L	LSPS6	
	2525-M16	25	25	150	22	25	33								
	3232-P16	32	32	170	27	32	33	CN 1906	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS6	
	3232-P19	32	32	170	27	32	36								
	4040-S19	40	40	250	35	40	36	CN 2509	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8	
	4040-S25	40	40	250	35	40	47								
4040-S25-5	40	40	250	35	40	47	CN 2507								
5050-T25	50	50	300	43	50	47	CN 2509	LV8N	VHX1236N	SC84N	SP8N	HW50L	LSPS8		
PCBNR/L	2020-K12N	20	20	125	17	20	27	CN 1204	LV4N	VHX0820N	SC42N	SP4N	HW30L	LSPS4	
	2525-M12N	25	25	150	22	25	27								
	3225-P12N	32	25	170	22	32	27	CN 1606	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS8	
	2525-M16N	25	25	150	22	25	33								
	3232-P16N	32	32	170	27	32	33	CN 1906	LV6N	VHX1027N	SC63N	SP6N	HW40L	LSPS8	
	3232-P19N	32	32	170	27	32	36								
4040-S19N	40	40	250	35	40	38	CNMG190612								

PCKNR/L



CN



95°

• R type insert
(mm)

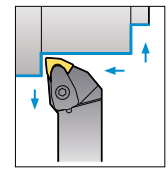
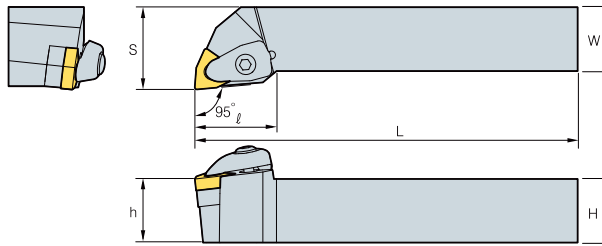
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin	Punch
PCKNR/L	2020-K12	20	20	125	25	20	27	CN 1204	LV4	VHX0821	SC42	SP4	HW30L	LSPS4	
	2525-M12	25	25	150	32	25	27								
	3225-P12	32	25	170	40	32	30	CN 1606	LV5	VHX0825	SC53	SP5	HW30L	HW30L	
	3232-P16	32	32	170	40	32	26								
4040-S16	40	40	250	50	40	25									
PCKNR/L	2020-K12N	20	20	125	25	20	27	CN 1204	LV4N	VHX0820N	SC42N	SP4N	HW30L	LSPS4	
	2525-M12N	25	25	150	32	25	27								
	3225-P12N	32	25	170	40	32	30	CN 1606	LV5N	VHX0820AN	SC53N	SP5N	HW30L	LSPS5	
	3232-P16N	32	32	170	40	32	26								
4040-S16N	40	40	250	50	40	25									

- Improved holders and parts ensure performance and durability
- 'N' stands for 'New' type (Holders and parts)

DWLNR/L



WN

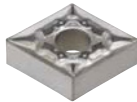


95°

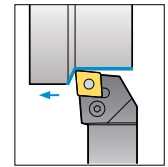
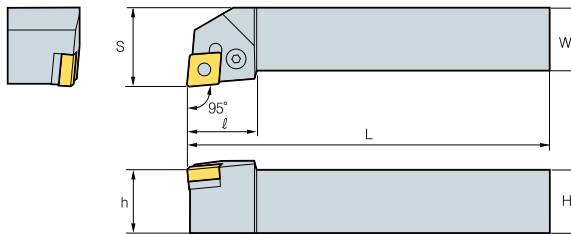
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Wrench
DWLNR/L	2020-K06	20	20	125	25	20	26	WN 0604						
	2525-M06	25	25	150	32	25	26							
	2020-K08	20	20	125	25	20	32	WN 0804						
	2525-M08	25	25	150	32	25	32							

PCLNR/L



CN



95°

• R type insert
(mm)

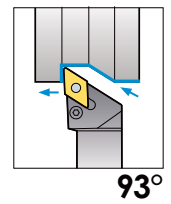
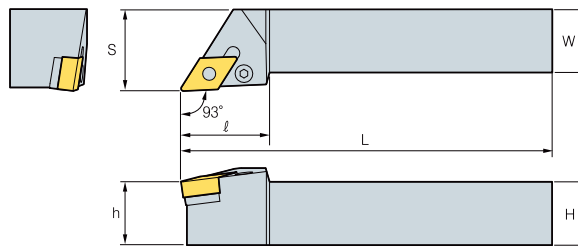
Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PCLNR/L	1616-H09	16	16	100	20	16	20	CN 0903						
	2020-K09	20	20	125	25	20	22							
	2525-M09	25	25	150	32	25	22							
	1616-H12	16	16	100	20	16	28	CN 1204						
	2020-K12	20	20	125	25	20	28							
	2525-M12	25	25	150	32	25	28							
	3225-P12	32	25	170	32	32	28							
	3232-P12	32	32	170	40	32	28							
	2525-M16	25	25	150	32	25	33	CN 1606						
	3232-P16	32	32	170	40	32	33							
	2525-M19	25	25	150	32	25	36	CN 1906						
	3225-P19	32	25	170	32	32	36							
	3232-P19	32	32	170	40	32	36							
	4040-P19	40	40	170	50	40	36							
	4040-S19	40	40	250	50	40	36							
4040-S25	40	40	250	50	40	47	CN 2509							
5050-T25	50	50	300	60	50	47								
4040-S25-5	40	40	250	50	40	47	CN 2507							
5050-S25-5	50	50	300	60	50	47								

PCLNR/L	1616-H09N	16	16	100	20	16	20	CN 0903						
	2020-K09N	20	20	125	25	20	22							
	2525-M09N	25	25	150	32	25	22							
	1616-H12N	16	16	100	20	16	28	CN 1204		 				
	2020-K12N	20	20	125	25	20	28							
	2525-M12N	25	25	150	32	25	28							
	3225-P12N	32	25	170	32	32	28							
	3232-P12N	32	32	170	40	32	28							
	2525-M16N	25	25	150	32	25	33	CN 1606						
	3232-P16N	32	32	170	40	32	33							
2525-M19N	25	25	150	32	25	38	CN 1906							
4040-S19N	40	40	250	50	40	36								

PDJNR/L



DN



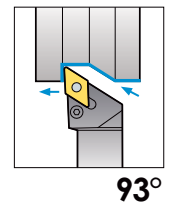
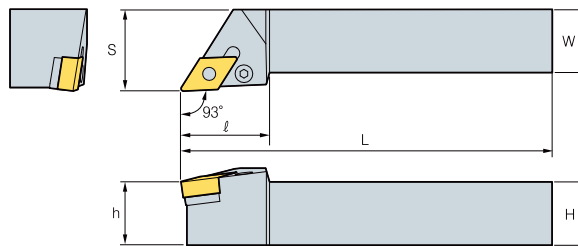
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDJNR/L	1616-H11	16	16	100	20	16	25	DN 1104						
	2020-K11	20	20	125	25	20	25							
	2525-M11	25	25	150	32	25	30							
	2020-K15	20	20	125	25	20	35	DN 1506						
	2525-M15	25	25	150	32	25	35							
	3225-P15	32	25	170	32	32	35							
	3232-P15	32	32	170	40	32	35	DN 1504						
	2020-K15-3	20	20	125	25	20	35							
	2525-M15-3	25	25	150	32	25	35							
3232-P15-3	32	32	170	40	32	35								

PDJNR/L



DN



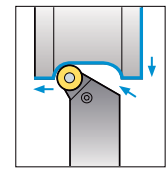
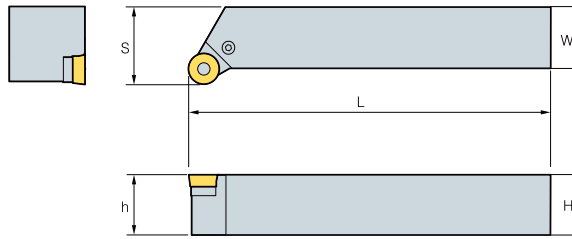
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDJNR/L	1616-H11N	16	16	100	20	16	25	DN 1104						
	2020-K11N	20	20	125	25	20	25							
	2525-M11N	25	25	150	32	25	30							
	2020-K15N	20	20	125	25	20	35	DN 1506						
	2525-M15N	25	25	150	32	25	35							
	3225-P15N	32	25	170	32	32	35							
	3232-P15N	32	32	170	40	32	35	DN 1504						
	2020-K15-3N	20	20	125	25	20	35							
	2525-M15-3N	25	25	150	32	25	35							
3232-P15-3N	32	32	170	40	32	35								

PRGCR/L



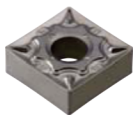
RCMX



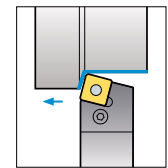
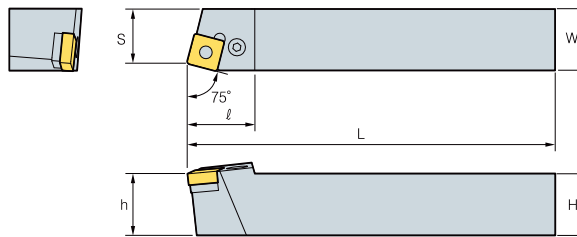
• R type insert
(mm)

Designation		H	W	L	S	h	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRGCR/L	2020-K10	20	20	125	25	20	RCMX 1003M0	LR10	VHX0514	SR10	SP3	HW20L	LSPS3
	2525-M10	25	25	150	32	25							
	2020-K12	20	20	125	25	20	RCMX 1204M0	LR12	VHX0617	SR12	SP3	HW25L	LSPS3
	2525-M12	25	25	150	32	25							
	3225-P12	32	25	170	32	32							
	2525-M16	25	25	150	32	25	RCMX 1606M0	LR16	VHX0621	SR16	SP4	HW25L	LSPS4
	3225-P16	32	25	170	32	32							
	3232-P20	32	32	170	40	32	RCMX 2006M0	LR20	VHX0823	SR20	SP5-1	HW30L	LSPS5
4040-S25	40	40	250	50	40	RCMX 2507M0	LR25	VHX1030	SR25	SP6N	HW40L	LSPS6	

PSBNR/L



SN



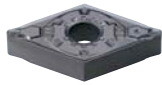
75°

• R type insert
(mm)

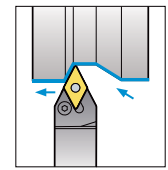
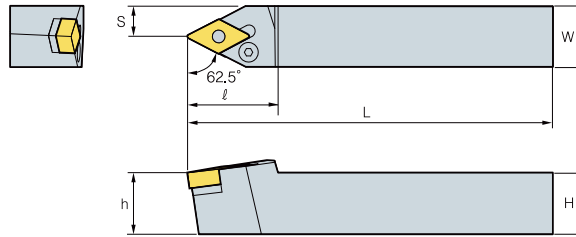
Designation		H	W	L	S	h	l	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSBNR/L	1616-H09	16	16	100	13	16	21	SN 0903	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K09	20	20	125	17	20	23							
	2020-K12	20	20	125	17	20	28	SN 1204	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	22	25	28							
	3225-P12	32	25	170	22	32	28							
	3232-P12	32	32	170	27	32	28	SN 1506	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
	2525-M15	25	25	150	22	25	35							
	3232-P15	32	32	170	27	32	35	SN 1906	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
	3232-P19	32	32	170	27	32	40							
	4040-S19	40	40	250	35	40	40	SN 2507	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	4040-S25	40	40	250	35	40	50							
	4040-S25-6	40	40	250	35	40	50	SN 2509	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	5050-T25	50	50	300	43	50	50	SN 2507	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
	5050-T25-6	50	50	300	43	50	46	CNMG250924	LV8N	VHX1026N	SS84N	SP8N	HW50L	LSPS8
PSBNR/L	1616-H09N	16	16	100	13	16	21	SN 0903	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
	2020-K09N	20	20	125	17	20	23							
	2020-K12N	20	20	125	17	20	28	SN 1204	LV4N	VHX0820N	SS42N	SP4N	HW30L	LSPS4
	2525-M12N	25	25	150	22	25	28							
	3225-P12N	32	25	150	22	25	28							
	3232-P12N	32	32	170	27	32	28	SN 1506	LV5N	VHX0820AN	SS53N	SP5N	HW30L	LSPS5
	2525-M15N	25	25	150	22	25	35							
	3232-P15N	32	32	170	27	32	35							

CUTTING, DRILLING AND THREADING

PDNNR/L



DN



62.5°

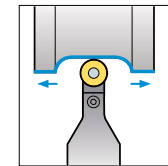
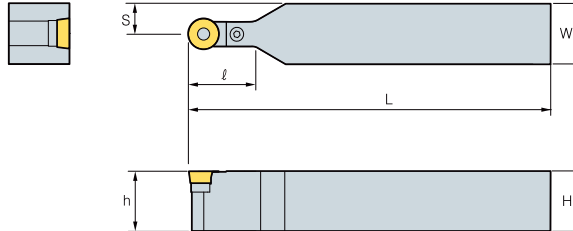
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PDNNR/L	2020-K15	20	20	125	8	20	37	DN 1506						
	2525-M15	25	25	150	12.5	25	37							
	3232-P15	32	32	150	16	32	37							
	4025-M15	40	25	170	12.5	32	37	DN 1504						
	2525-M15-3	25	25	150	12.5	25	37							
	4025-M15-3	40	25	150	12.5	25	37							
PDNNR/L	2020-K15N	20	20	125	8	20	37	DN 1506						
	2525-M15N	25	25	150	12.5	25	37							
	3232-P15N	32	32	170	16	32	37							
	2525-M15-3N	25	25	150	12.5	25	37	DN 1504						
	3232-P15-3N	32	32	170	16	32	37							

PRDCN



RCMX



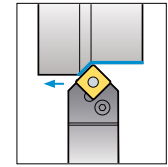
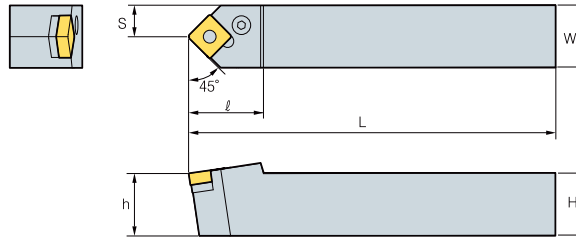
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PRDCN	2020-M10	20	20	150	15	20	24	RCMX 1003M0						
	2525-M10	25	25	150	17.5	25	24							
	2525-M12	25	25	150	18.5	25	24							
	2020-K12	20	20	125	16	20	24	RCMX 1204M0						
	3225-Q12	32	25	180	18.5	32	24							
	2525-Q16	25	25	180	20.5	25	30	RCMX 1606M0						
	3225-Q16	32	25	180	20.5	32	30							
	3232-Q16	32	32	180	24	32	35							
	3232-Q20	32	32	180	26	32	40	RCMX 2006M0						
	4040-S25	40	40	250	32.5	40	42	RCMX 2507M0						
	4040-T25	40	40	300	32.5	40	42							
	5050-U32	50	50	350	41	50	52	RCMX 3209M0						

PSDNN



SN



45°

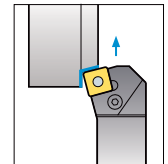
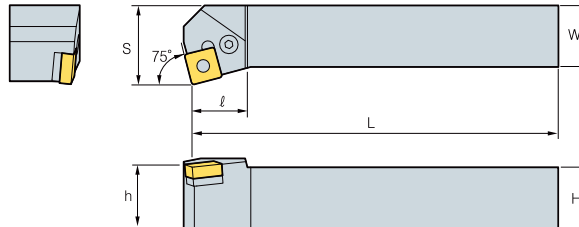
• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSDNN	1616-H09	16	16	100	8	16	23	SN 0903						
	2020-K12	20	20	125	10	20	30	SN 1204						
	2525-M12	25	25	150	12.5	25	30							
	3225-P12	32	25	170	12.5	32	30							
	3232-P12	32	32	170	16	32	40							
	2525-M15	25	25	150	12.5	25	40	SN 1506						
	3232-P15	32	32	170	16	32	40							
	3225-P19	32	25	170	12.5	32	40							
	3232-P19	32	32	170	16	32	40							
	4040-S19	40	40	250	20	40	40	SN 1906						
	4040-S25	40	40	250	20	40	50							
5050-T25	50	50	300	25	50	50								
4040-S25-6	40	40	250	20	40	50								
5050-T25-6	50	50	300	25	50	50	SN 2509							
PSDNN	1616-H09N	16	16	100	8	16	23	SN 0903						
	2020-K12N	20	20	125	10	20	30	SN 1204						
	2525-M12N	25	25	150	12.5	20	30							
	3225-P12N	32	25	170	12.5	32	30							
	3232-P12N	32	32	170	16	32	40							
	2525-M15N	25	25	150	12.5	25	40	SN 1506						
	3232-P15N	32	32	170	16	32	40							
3232-P15N	32	32	170	16	32	40								

PSKNR/L



SN



75°

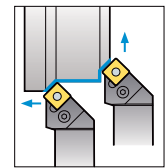
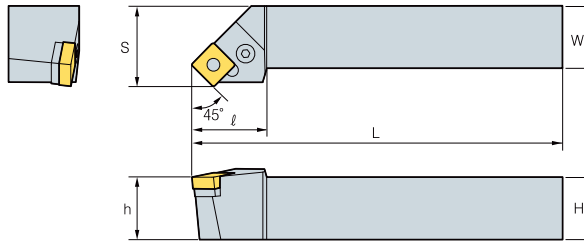
• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSKNR/L	1616-H09	16	16	100	20	16	17	SN 0903						
	2020-K09	20	20	125	25	20	20	SN 1204						
	2020-K12	20	20	125	25	20	23							
	2525-M12	25	25	150	32	25	23							
	3232-P12	32	32	170	40	32	23							
	2525-M15	25	25	150	32	25	28	SN 1506						
	3232-P15	32	32	170	40	32	28							
	3232-P19	32	32	170	40	32	41.5							
	4040-S19	40	40	250	50	40	41.5							
	4040-S25	40	40	250	50	40	46	SN 2507						
	4040-S25-6	40	40	250	50	40	46							
5050-T25-6	50	50	300	60	50	37.5								
5050-T25-6	50	50	300	60	50	37.5								
PSKNR/L	1616-H09N	16	16	100	20	16	17	SN 0903						
	2020-K09N	20	20	125	25	20	20	SN 1204						
	2020-K12N	20	20	125	25	20	26							
	2525-M12N	25	25	150	32	25	26							
	3232-P12N	32	32	170	40	32	26							
	2525-M15N	25	25	150	32	25	32	SN 1506						
	3232-P15N	32	32	170	40	32	32							
3232-P15N	32	32	170	40	32	32								

PSSNR/L



SN



45°

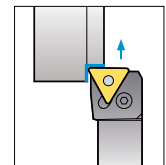
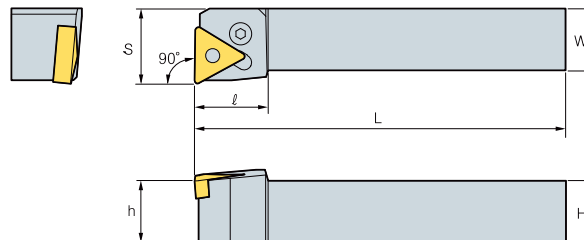
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PSSNR/L	1616-H09	16	16	100	20	16	25	SN 0903	LV3	VHX0617	SS32	SP3	HW25L	LSPS3
	2020-K12	20	20	125	25	20	30	SN 1204	LV4	VHX0821	SS42	SP4	HW30L	LSPS4
	2525-M12	25	25	150	32	25	36							
	3225-P12	32	25	170	32	32	36							
	3232-P12	32	32	170	40	32	40	SN 1506	LV5	VHX0825	SS53	SP5	HW30L	LSPS5
	2525-M15	25	25	150	32	25	36							
	3232-P15	32	32	170	40	32	45							
	3232-P19	32	32	170	40	32	41.5	SN 1906	LV6N	VHX1027N	SS63N	SP6N	HW40L	LSPS6
	4040-R19	40	40	200	50	40	41.5							
	4040-S19	40	40	250	50	40	41.5	SN 2507	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8
4040-S25	40	40	250	50	40	48								
4040-S25-6	40	40	250	50	40	48	SN 2509	LV8N	VHX1236N	SS84N	SP8N	HW50L	LSPS8	
PSSNR/L	1616-H09N	16	16	100	20	16	25	SN 0903	LV3N	VHX0617N	SS32N	SP3	HW25L	LSPS3
	2020-K12N	20	20	125	25	20	30	SN 1204	LV4N	VHX0821N	SS42N	SP4N	HW30L	LSPS4
	2525-M12N	25	25	150	32	25	36							
	3225-P12N	32	25	170	32	32	45							
	3232-P12N	32	32	170	40	32	40	SN 1506	LV5N	VHX08209N	SS53N	SP5N	HW30L	LSPS5
	2525-M15N	25	25	150	32	25	36							
	3232-P15N	32	32	170	40	32	45							

PTFNR/L



TN

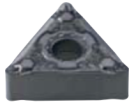


90°

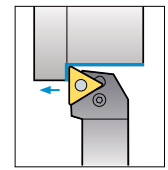
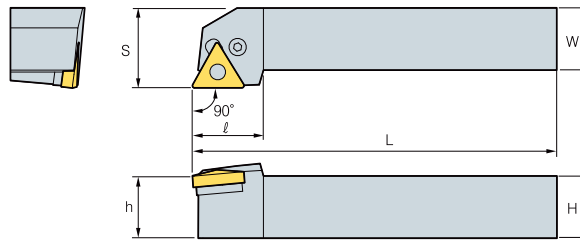
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch
PTFNR/L	1616-H16	16	16	100	20	16	20	TN 1604	LV3	VHX0617	ST317	SP3	HW25L	LSPS3
	2020-K16	20	20	125	25	20	20							
	2525-M16	25	25	150	32	25	20							
	2525-M22	25	25	150	32	25	25	TN 2204	LV4	VHX0821	ST42	SP4	HW30L	LSPS4
	3232-P22	32	32	170	40	32	25							
	3232-P27	32	32	170	40	32	34	TN 2706	LV5	VHX0825	ST53	SP5	HW30L	LSPS5
	4040-S27	40	40	250	50	40	34							
PTFNR/L	1616-H16N	16	16	100	20	16	20	TN 1604	LV3N	VHX0617N	ST317N	SP3	HW25L	LSPS3
	2020-K16N	20	20	125	25	20	20							
	2525-M16N	25	25	150	32	25	20							
	2525-M22N	25	25	150	32	25	25	TN 2204	LV4N	VHX0820N	ST42N	SP4N	HW30L	LSPS4
	3232-P22N	32	32	170	40	32	25							
	3232-P27N	32	32	170	40	32	34	TN 2706	LV5AN	VHX0823N	ST53N	SP5N	HW30L	LSPS5
	4040-S27N	40	40	250	50	40	34							

PTGNR/L



TN



90°

• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	
PTGNR/L	1212-F11	12	12	80	16	12	16	TN 1103							
	1616-H11	16	16	100	20	16	18								
	2020-K11	20	20	125	25	20	19								
	2525-M11	25	25	150	32	25	20								
	PTGNR/L	1616-H16	16	16	100	20	16	20	TN 1604						
		2020-K16	20	20	125	25	20	20							
		2525-M16	25	25	150	32	25	20							
		3232-P16	32	32	170	40	32	20							
	PTGNR/L	2525-M22	25	25	150	32	25	28	TN 2204						
		3232-P22	32	32	170	40	32	28							
3232-P27		32	32	170	40	32	33								
PTGNR/L	4040-S27	40	40	250	50	40	33	TN 2706							
PTGNR/L	1616-H16N	16	16	100	20	16	20	TN 1604							
	2020-K16N	20	20	125	25	20	20								
	2525-M16N	25	25	150	32	25	20								
	3232-P16N	32	32	170	40	32	20								
	PTGNR/L	2525-M22N	25	25	150	32	25	28	TN 2204						
		3232-P22N	32	32	170	40	32	28							
	PTGNR/L	3232-P27N	32	32	170	40	32	33	TN 2706						
	PTGNR/L	4040-S27N	40	40	250	50	40	33	TN 2706						

PWLNR/L



WN

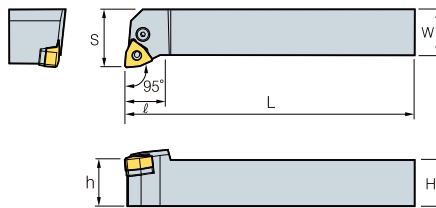


Fig.1

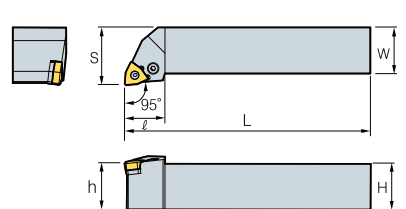


Fig.2

95°

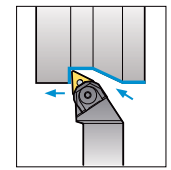
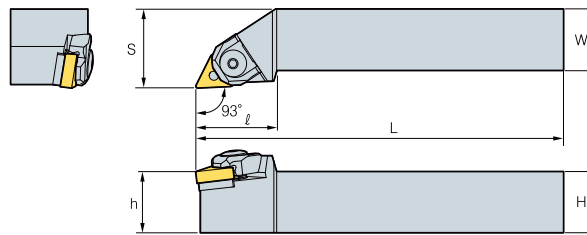
• R type insert (mm)

Designation		H	W	L	S	h	ℓ	Insert	Lever	Screw	Shim	Shim Pin	Wrench	Shim Pin Punch	Fig.	
PWLNR/L	1616-H06	16	16	100	20	16	20	WN 0604							1	
	2020-K06	20	20	125	25	20	20									
	2525-M06	25	25	150	32	25	20									
	PWLNR/L	2020-K08	20	20	125	25	20	26	WN 0804							2
		2525-M08	25	25	150	32	25	26								
PWLNR/L	1616-H06N	16	16	100	20	16	20	WN 0604							1	
	2020-K06N	20	20	125	25	20	20									
	2525-M06N	25	25	150	32	25	20									
	PWLNR/L	2020-K08N	20	20	125	25	20	26	WN 0804							2
		2525-N08N	25	25	150	32	25	26								

WTJNR/L



TN



93°

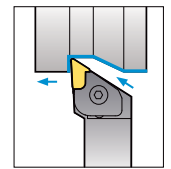
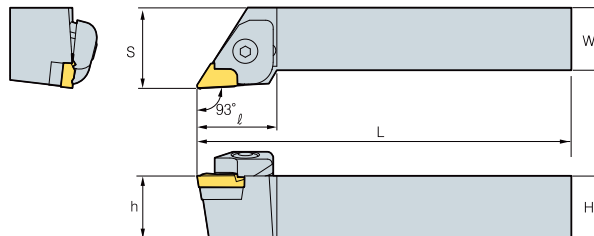
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Wedge Clamp	Screw	Stopper Ring	Shim	Shim Pin	Nut	Wrench
WTJNR/L	2020-K16	20	20	125	25	20	33	TN 1604							
	2525-M16	25	25	150	32	25	33								
	3232-P16	32	32	170	40	32	33								
	2525-M22	25	25	150	32	25	35								
3232-P22	32	32	170	40	32	35	TN 2204								

CKJNR/L



KN



93°

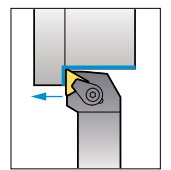
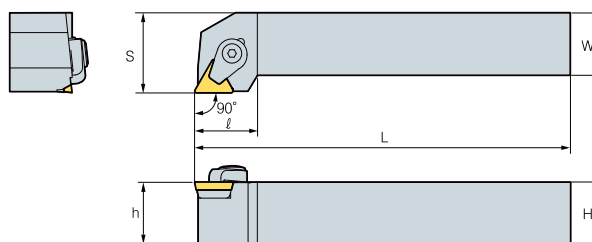
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin + Spring	Shim Screw	Wrench
CKJNR	2020-K16	20	20	125	25	20	32	KN 1604 R							
	2525-M16	25	25	150	32	25	32								
	3225-M16	32	25	150	32	32	32								
	3225-P16	32	25	170	32	32	32								
	3232-P16	32	32	170	40	32	32								
4040-R16	40	40	200	50	40	32	KN 1604 L								
2020-K16	20	20	125	25	20	32									
2525-M16	25	25	150	32	25	32									
3232-P16	32	32	170	40	32	32									
4040-R16	40	40	200	50	40	32									

CTGPR/L



TP R

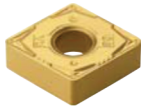


90°

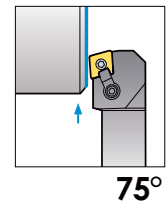
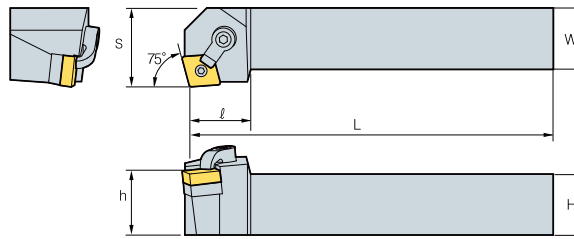
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	C-Ring	Wrench
CTGPR/L	1212-F11	12	12	80	16	12	20	TP R1103						
	1616-H11	16	16	100	20	16	20							
	2020-K11	20	20	125	25	20	20							
	2020-K16	20	20	125	25	20	25							
	2525-M16	25	25	150	32	25	25							
	2525-M22	25	25	150	32	25	32							
3232-P22	32	32	170	40	32	32	TP R2204							

MCKNR/L



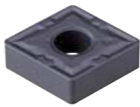
CN



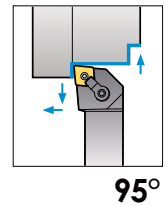
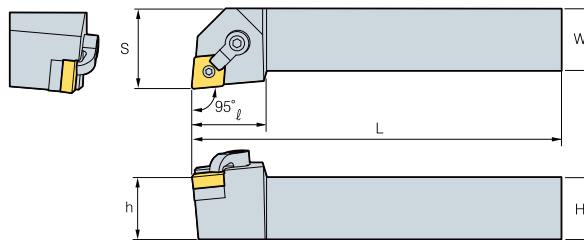
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCKNR/L	2020-K12	20	20	125	25	20	32	CN 1204					
	2525-M12	25	25	150	32	25	32						
	3232-P12	32	32	170	40	32	32						
									CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L

MCLNR/L



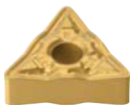
CN



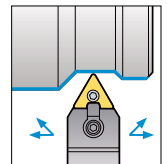
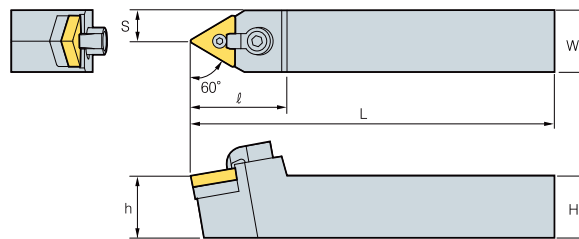
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MCLNR/L	1616-H09	16	16	100	20	16	25	CN 0903					
	2020-K09	20	20	125	25	20	25						
	2525-M09	25	25	150	32	25	25						
	2020-K12	20	20	125	25	20	32	CN 1204					
	2525-M12	25	25	150	32	25	32						
	3225-P12	32	25	170	32	32	32						
	3232-P12	32	32	170	40	32	32	CN 1606					
	2525-M16	25	25	150	32	25	33						
	3232-P16	32	32	170	40	32	33						
	4040-S16	40	40	250	50	40	33	CN 1906					
	2525-M19	25	25	150	32	25	38						
	3232-P19	32	32	170	40	32	38						
4040-S19	40	40	250	50	40	38	CN 2507						
4040-S25	40	40	250	50	40	38							
									CDH7N	DHA10-32-19	SC32D	SP3DS	HW23.8L HW19.8L
									CDH6N	DHA1/4-25	SC43D	SP4D	HW31.8L HW23.8L
									CDH8N	DHA5/16-32	SC53D	SP5D	HW39.7L HW31.8L
									CDH8N	DHA5/16-32	SC63D	SP6D	HW39.7L HW35.7L
									CDH8N3	DHA3/8-35	SC84D	SP8D	HW39.7L HW47.6L

MTENN



TN



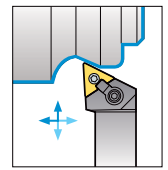
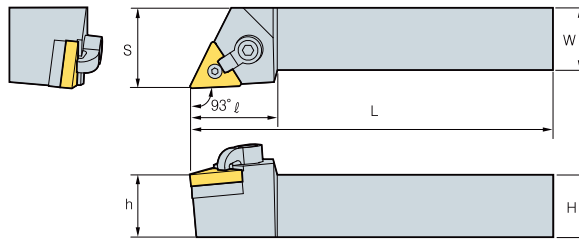
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTENN	2020-K16	20	20	125	10	20	32	TN 1604					
	2525-M16	25	25	150	12.5	25	32						
	2525-M22	25	25	150	12.5	25	35	TN 2204					
	3232-P27	32	32	170	16	32	35	TN 2706					
	4040-S33	40	40	250	20	40	40	TN 3307					
									CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
									CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
									CDH8N1	DHA5/16-32	ST53D	SP5D	HW39.7L HW31.8L
									CDH8N	DHA5/16-32	ST63D	SP6DL	HW39.7L HW35.7L

MTJNR/L



TN



93°

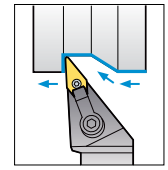
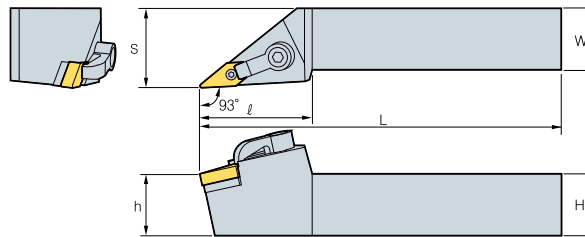
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MTJNR/L	2020-K16	20	20	125	25	20	32	TN 1604	CDH7N	DHA10-32-19	ST32D	SP3D	HW23.8L HW19.8L
	2525-M16	25	25	150	32	25	32						
	2525-M22	25	25	150	32	25	32	TN 2204	CDH8N1	DHA5/16-32	ST43D	SP4D	HW39.7L HW23.8L
	3232-P22	32	32	170	40	32	32						
	3232-P27	32	32	170	40	32	35	TN 2706	CDH8N1	DHA5/16-32	ST53D	SP5D	HW39.7L HW31.8L
	4040-S27	40	40	250	50	40	35						
4040-S33	40	40	250	50	40	40	TN 3307	CDH8N	DHA5/16-32	ST63D	SP6DL	HW39.7L HW35.7L	

MVJNR/L



VN



93°

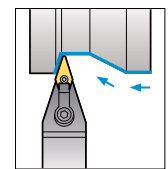
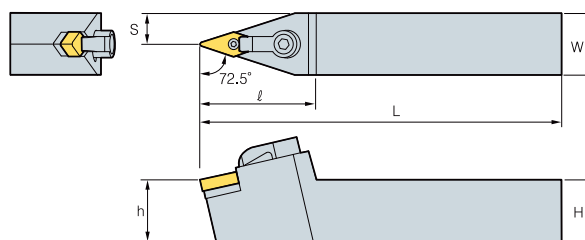
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVJNR/L	2020-K16	20	20	125	25	20	37	VN 1604	CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L
	2525-M16	25	25	150	32	25	37						
	3232-P16	32	32	170	40	32	37						
	2525-M22	25	25	150	32	25	50	VN 2204	CDH8N2	DHA5/16-32	SV43D	SP4D	HW39.7L HW23.8L
	3232-P22	32	32	170	40	32	50						
	4040-S22	40	40	250	50	40	50						

MVVNN



VN

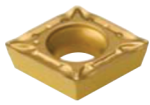


72.5°

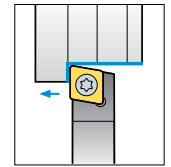
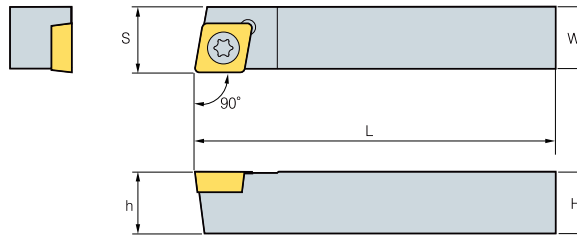
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench
MVVNN	2020-K16	20	20	125	25	20	42	VN 1604	CDH8N2	DHA5/16-32	SV32D	SP3D	HW39.7L HW19.8L
	2525-M16	25	25	150	32	25	42						

SCACR/L



CC

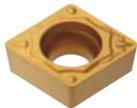


90°

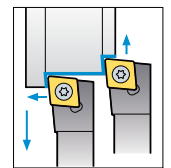
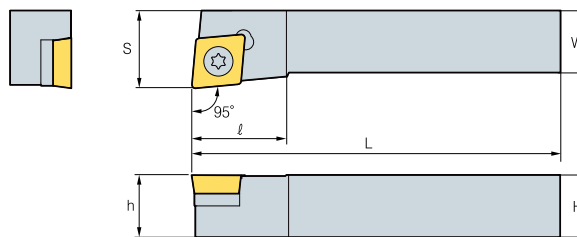
• R type insert (mm)

Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SCACR/L	1010-E06	10	10	70	10.5	10	CC 0602	FTKA02565	-	-	TW07P
	1212-F09	12	12	80	12.5	12	CC 09T3	FTKA03508	-	-	TW15P

SCLCR/L



CC



95°

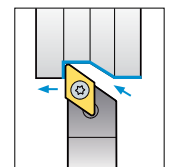
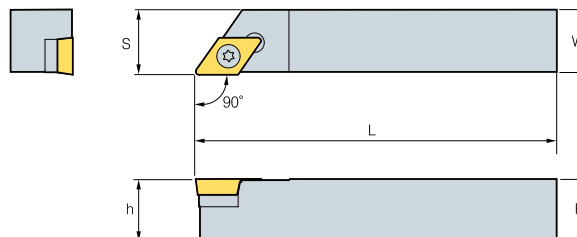
• R type insert (mm)

Designation		H	W	L	S	h	l	Insert	Screw	Shim	Shim Screw	Wrench
SCLCR/L	0808-D06	08	08	60	10	08	10	CC 0602	FTKA02565	-	-	TW07P
	1010-E06	10	10	70	16	10	10					
	1212-F09	12	12	80	20	12	16					
	1616-H09	16	16	100	20	16	16	CC 09T3	CDH7N	-	-	TW15P
	2020-K09	20	20	125	25	20	16	CC 1204	FTGA0411F	SC42S	SHXN0610F	TW15P
	2525-M09	25	25	150	32	25	26	CC 09T3	FTGA03508	-	-	TW156P
	2525-M12	25	25	150	32	25	26	CC 1204	FTGA0411F	SC42S	SHXN0610F	HW40L

SDACR/L



DC

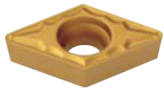


90°

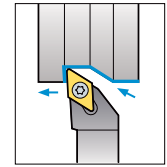
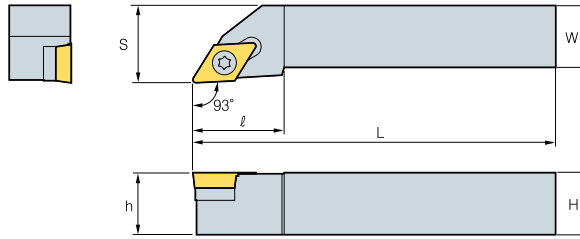
• R type insert (mm)

Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SDACR/L	1010-E07	10	10	70	10.5	10	DC 0702	FTKA02565	-	-	TW07P
	1212-F11	12	12	80	12.5	12		FTKA03508	-	-	TW15P
	1616-H11	16	16	100	16.5	16	DC 11T3	FTGA03512	SD32S	SHXN0509F	TW15P, HW35L

SDJCR/L



DC

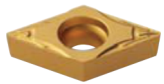


93°

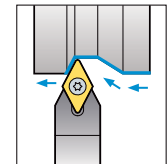
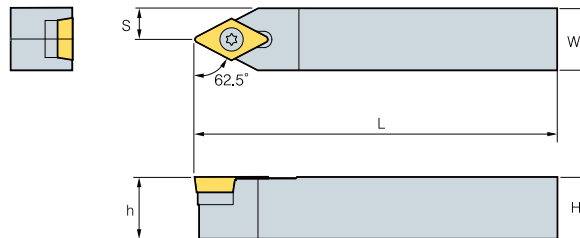
• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SDJCR/L	1010-E07	10	10	70	12	10	15	DC 0702	FTKA02565	-	-	TW07P
	1212-F07	12	12	80	16	12	15					
	1616-H07	16	16	100	20	16	18					
	2020-K07	20	20	125	25	20	15					
SDJCR/L	1212-F11	12	12	80	16	12	15	DC 11T3	FTGA03512	-	-	TW15P, HW35L
	1616-H11	16	16	100	20	16	24					
	2020-K11	20	20	125	25	20	24					
	2525-M11	25	25	150	32	25	29					

SDNCN



DC



62.5°

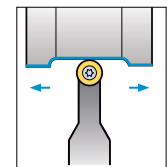
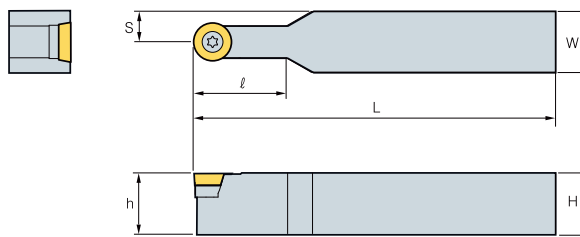
• R type insert
(mm)

Designation		H	W	L	S	h	Insert	Screw	Shim	Shim Screw	Wrench
SDNCN	1010-E07	10	10	70	5	10	DC 0702	FTKA02565	-	-	TW07P
	1212-F07	12	12	80	6	12					
	1212-H11	12	12	100	6	12	DC 11T3	FTGA03508	-	-	TW15P
	1616-H11	16	16	100	8	16	DC 11T3	FTGA03512	SD32S	SHXN0509F	TW15P, HW35L
	2020-K11	20	20	125	10	20					
2020-M11	25	25	150	12.5	25	DCMT 11T3	FTGA03512	SD32S	SHXN0509F	TW25P, HW35L	

SRDCN



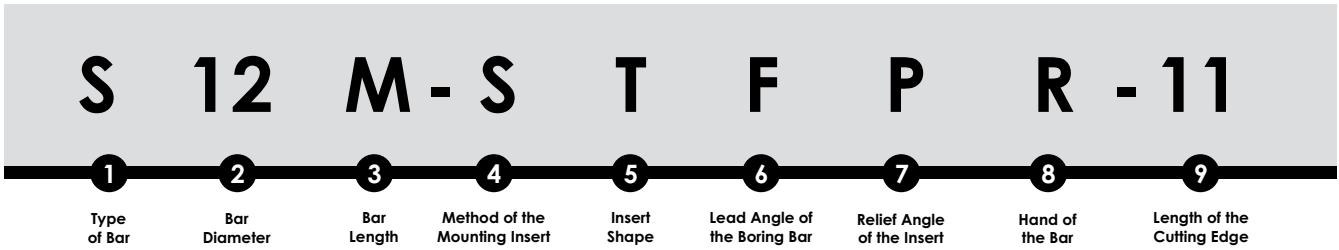
RCGT



• R type insert
(mm)

Designation		H	W	L	S	h	ℓ	Insert	Screw	Shim	Shim Screw	Wrench
SRDCN	1010-E06	10	10	70	5	10	10	RCGT0602M0	FTKA02565	-	-	TW07P
	1212-F06	12	12	80	6	12	12					
	1616-H06	16	16	100	8	16	12					
	2525-M06	25	25	150	12.5	25	20	RCGT0803M0	FTNA0307	-	-	TW09P
	1616-H08	16	16	100	8	16	16					
	2020-K08	20	20	125	10	20	20					
	2525-M08	25	25	150	12.5	25	20	RCGT1003M0	FTKA03511A	SR10S	SHXN0509F	TW15P, HW35L
	1616-H10	16	16	100	8	16	25					
	2020-K10	20	20	125	10	20	25					
	2525-M10	25	25	150	12.5	25	25	RCGT1204M0	FTGA03512	SR12S	SHXN0509F	TW15P, HW35L
	2020-K12	20	20	125	10	20	28					
	2525-M12	25	25	150	12.5	25	28					

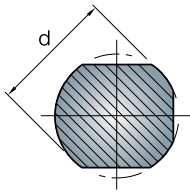
Boring Bar Code System (ISO)



1 Type of Bar S 12 M-S T F P R - 11

- "A" Steel with a coolant hole
- "E" Carbide bar with a fixed Steel head and a coolant hole
- "C" Carbide shank
- "S" Steel shank
- "X" Special type

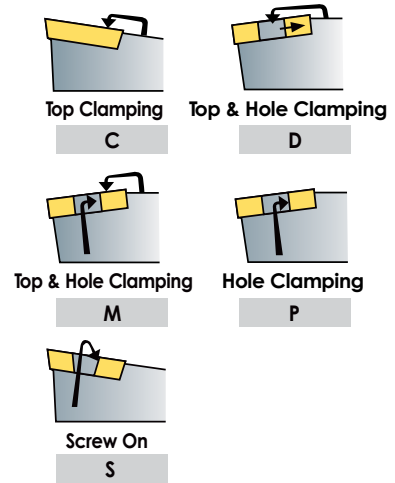
2 Bar Diameter S 12 M-S T F P R - 11



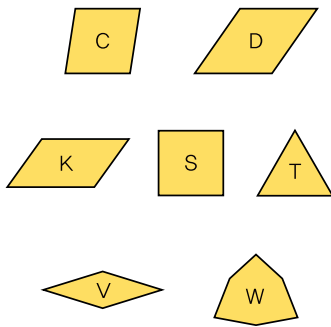
3 Bar Length S 12 M-S T F P R - 11

Length (L) (mm)	
H	100
J	110
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400
W	450
Y	500

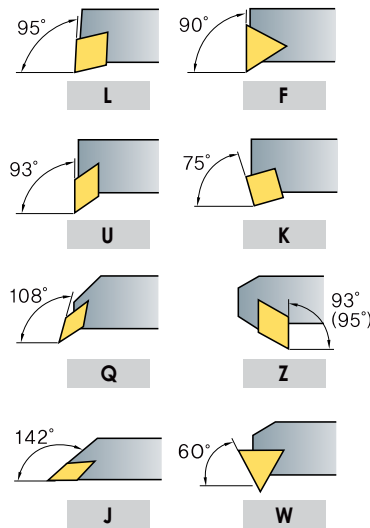
4 Method of the Mounting Insert S 12 M-S T F P R - 11



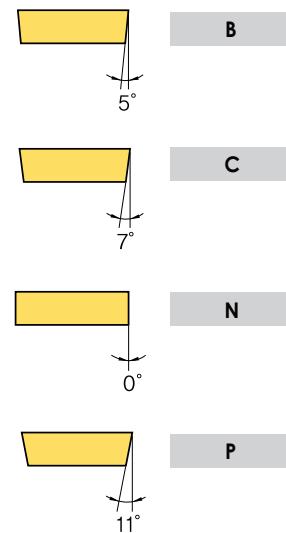
5 Insert Shape S 12 M-S T F P R - 11



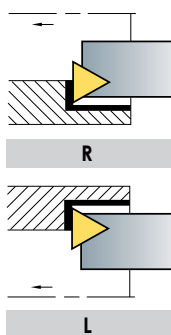
6 Lead Angle of the Boring Bar S 12 M-S T F P R - 11



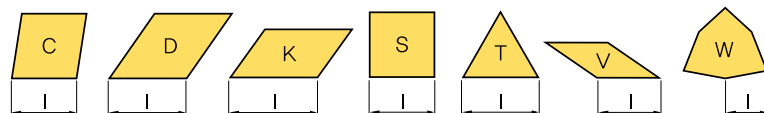
7 Relief Angle of the Insert S 12 M-S T F P R - 11



8 Hand of the Bar S 12 M-S T F P R - 11



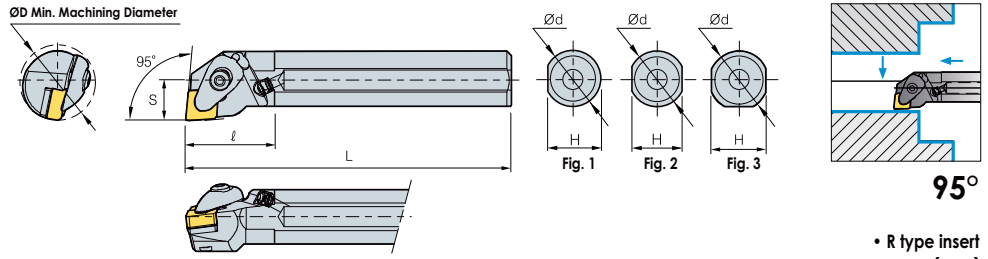
9 Length of the Cutting Edge S 12 M-S T F P R - 11



DCLNR/L



CN



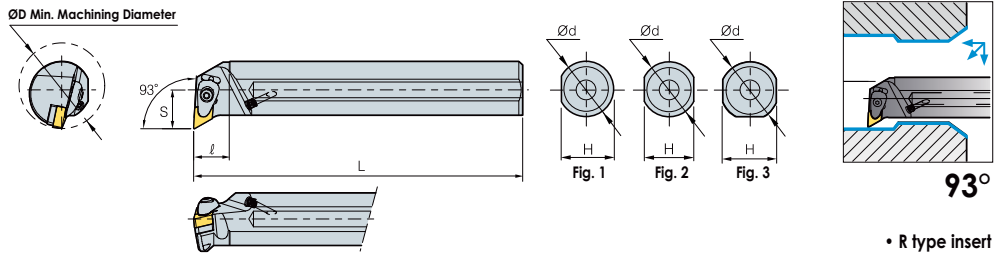
• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DCLNR/L-09	32	25	24	200	17	40	CN 0903								1
A25R-DCLNR/L-12	32	25	24	200	17	40	CN 0903								1
A32S-DCLNR/L-12	40	32	30	250	22	50	CN 1204								3
A40T-DCLNR/L-12	50	40	38	300	27	60	CN 1204								3
A50U-DCLNR/L-16	63	50	48	350	35	70	CN 1604								3

DDUNR/L



DN



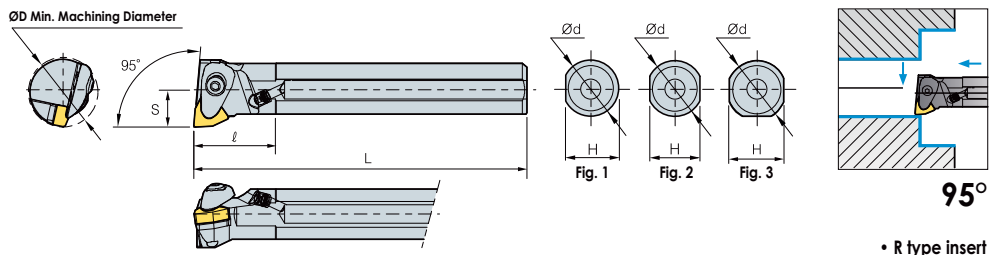
• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A40T-DDUNR/L-15	50	40	38	300	27	60	DN 1506								3
A50U-DDUNR/L-15	63	50	47	350	35	70	DN 1506								3
A40T-DDUNR/L-15 -3	50	40	38	300	27	60	DN 1504								3
A50U-DDUNR/L-15 -3	63	50	47	350	35	70	DN 1504								3

DWLNR/L

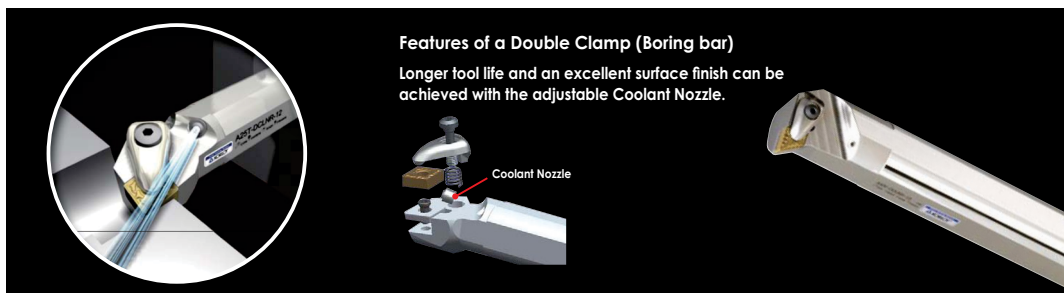


WN



• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Screw	Spring	Nozzle	Wrench	Fig.
A25R-DWLNR/L-06	32	25	24	200	17	40	WN 0604								1
A32S-DWLNR/L-06	40	32	30	250	22	50	WN 0604								3
A40T-DWLNR/L-06	50	40	38	300	27	60	WN 0604								3
A25R-DWLNR/L-08	32	25	24	200	17	40	WN 0804								1
A32S-DWLNR/L-08	40	32	30	250	22	50	WN 0804								3
A40T-DWLNR/L-08	50	40	38	300	27	60	WN 0804								3
A50U-DWLNR/L-08	63	50	47	350	35	70	WN 0804								3



Features of a Double Clamp (Boring bar)

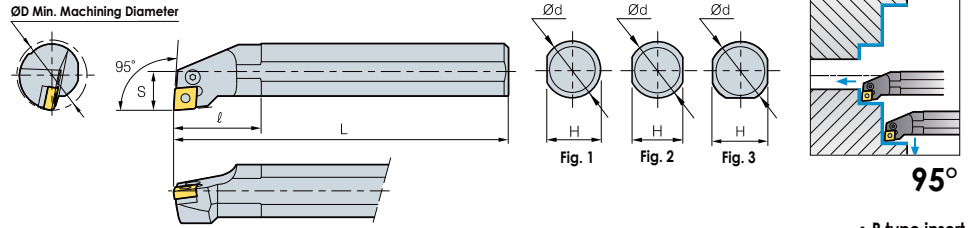
Longer tool life and an excellent surface finish can be achieved with the adjustable Coolant Nozzle.

Coolant Nozzle

PCLNR/L



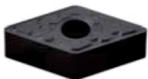
CN



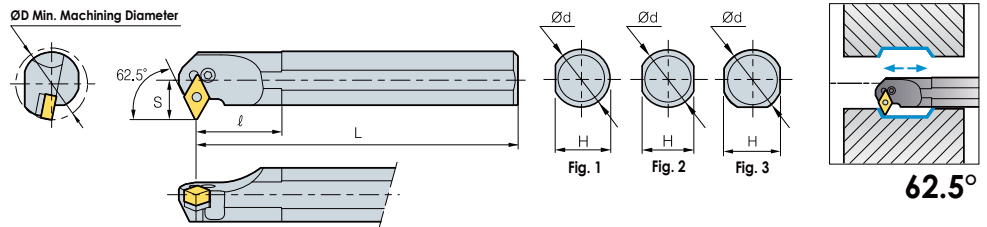
• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S16R-PCLNR/L-09	20	16	14	200	11	25	CN 0903							2
S20S-PCLNR/L-09	25	20	18	250	13	32								
S25R-PCLNR/L-09	32	25	23	200	17	40								
S25R-PCLNR/L-12	32	25	23	200	17	40	CN 1204							3
S32S-PCLNR/L-12	40	32	30	250	22	50								
S40T-PCLNR/L-12	50	40	38	300	27	60								
S50U-PCLNR/L-12	63	50	47	350	35	70	CN 1906							3
S50U-PCLNR/L-19	63	50	47	350	35	70								
A25R-PCLNR/L-12	32	25	24	200	17	40								
A32S-PCLNR/L-12	40	32	30	250	22	50	CN 1204							3
A40T-PCLNR/L-12	50	40	38	300	27	60								
A40T-PCLNR/L-12	50	40	38	300	27	60								
S16R-PCLNR/L-09N	20	16	14	200	11	25	CN 0903							2
S20S-PCLNR/L-09N	25	20	18	250	13	32								
S25R-PCLNR/L-09N	32	25	23	200	17	40								
S25R-PCLNR/L-12N	32	25	23	200	17	40	CN 1204							3
S25T-PCLNR/L-12N	32	25	23	300	17	40								
S32S-PCLNR/L-12N	40	32	30	250	22	50								
S32U-PCLNR/L-12N	40	32	30	350	22	50	CN 1906							3
S40T-PCLNR/L-12N	50	40	38	300	27	60								
S50U-PCLNR/L-12N	63	50	47	350	35	70								
S50U-PCLNR/L-19N	63	50	47	350	35	70	CN 0903							1
A16R-PCLNR/L-09N	20	16	14	200	11	25								
A20S-PCLNR/L-09N	25	20	18	250	13	32								
A25R-PCLNR/L-09N	32	25	23	200	17	40	CN 1204							1
A25R-PCLNR/L-12N	32	25	23	200	17	40								
A32R-PCLNR/L-12N	40	32	30	250	22	50								
A40T-PCLNR/L-12N	50	40	38	300	27	60	CN 1204							3
A50U-PCLNR/L-12N	63	50	47	350	35	70								
A50U-PCLNR/L-19N	63	50	47	350	35	70								

PDSNR/L



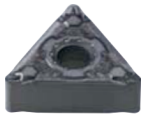
DN



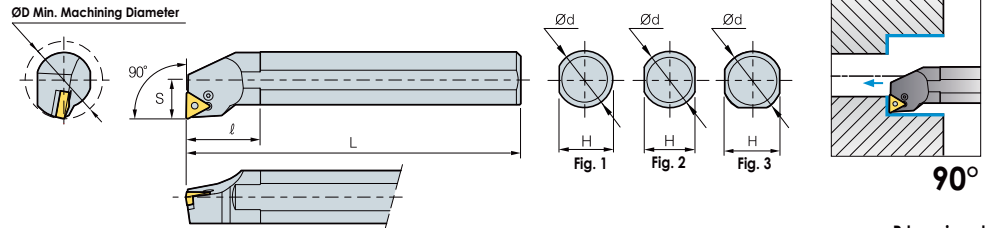
• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S32S-PDSNR/L-15	40	32	30	250	22	50	DN 1506							3
S40T-PDSNR/L-15	50	40	38	300	27	60								
S32S-PDSNR/L-15-3	40	32	30	250	22	50								
S40T-PDSNR/L-15-3	50	40	38	300	27	60	DN 1504							3
A32S-PDSNR/L-15	40	32	30	250	22	50								
A32S-PDSNR/L-15-3	40	32	30	250	22	50								

PTFNR/L



TN



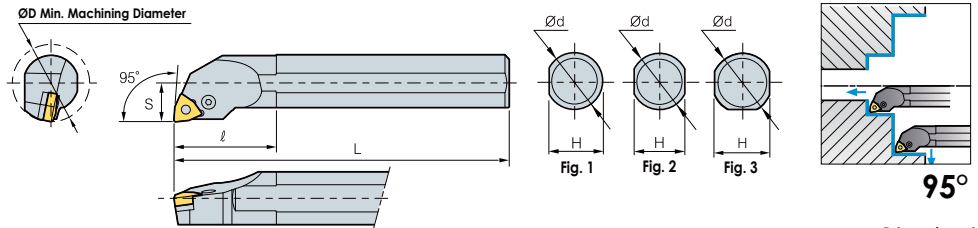
• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S16R-PTFNR/L-11	20	16	23	200	11	25	TN 1103							1
S20S-PTFNR/L-11	25	20	30	250	13	32								
S25R-PTFNR/L-11	32	25	38	200	17	40	TN 1604							3
S25R-PTFNR/L-16	32	25	23	200	17	40								
S32S-PTFNR/L-16	40	32	30	250	22	50								
S40T-PTFNR/L-16	50	40	38	300	27	60								
A25R-PTFNR/L-16	32	25	24	200	17	40								
A32S-PTFNR/L-16	40	32	30	250	22	50								
S25T-PTFNR/L-16N	32	24	23	200	17	40	TNMG160408							3
S32S-PTFNR/L-16N	40	31	30	250	22	50								
S40T-PTFNR/L-16N	50	39	38	300	27	50								

PWLNR/L



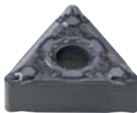
WN



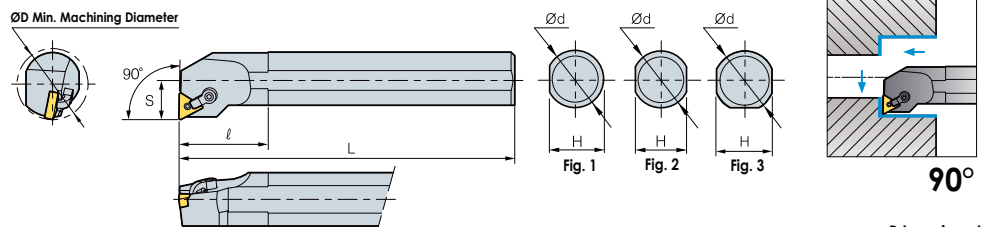
• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Lever	Screw	Shim	Shim Pin	Shim Pin Punch	Wrench	Fig.
S16R-PWLNR/L-06	20	16	14	200	11	25	WNMG060408							2
S20S-PWLNR/L-06	25	20	18	250	13	32	WN 0604							2
S25R-PWLNR/L-06	32	25	23	200	17	40								
S32S-PWLNR/L-06	40	32	30	250	22	50	WN 0804							3
S25R-PWLNR/L-08	32	25	23	200	17	40								
S32S-PWLNR/L-08	40	32	30	250	22	50								
S32S-PWLNR/L-06N*	40	32	30	250	22	50	WN 0604							3
S25R-PWLNR/L-08N*	32	25	23	200	17	40	WN 0804							
S32S-PWLNR/L-08N*	40	32	30	250	22	50	WN 0804							

MTFNR/L



TN



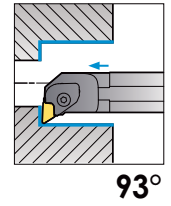
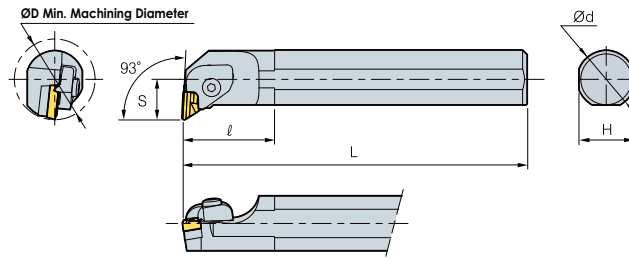
• R type insert (mm)

Designation	ØD	Ød	H	L	S	l	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MTFNR/L-16	32	25	23	200	17	40	TN 1604						3
S32S-MTFNR/L-16	40	32	30	250	22	50							
S40T-MTFNR/L-16	50	40	38	300	27	60	TN 1604						1
A25R-MTFNR/L-16	32	25	24	200	17	40							
A32S-MTFNR/L-16	40	32	30	250	22	50							

CKUNR/L



KN



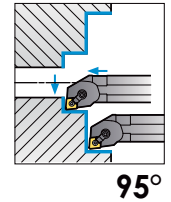
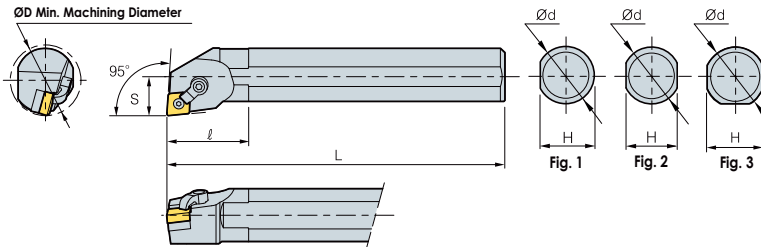
• R type insert
(mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Spring	Shim	Pin+Spring	Shim Screw	Wrench
S32S-CKUNR-16	40	32	30	250	22	70	KN 1604 L							
S40T-CKUNR-16	50	40	37	300	27	60								
S50U-CKUNR-16	63	50	43	350	35	55								
S32S-CKUNL-16	40	32	30	250	22	70	KN 1604 R							
S40T-CKUNL-16	50	40	37	300	27	60								
S50U-CKUNL-16	63	50	43	350	35	55								

MCLNR/L



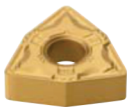
CN



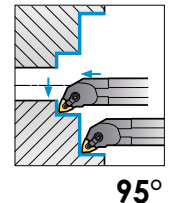
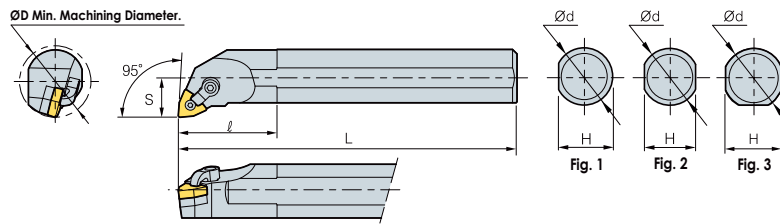
• R type insert
(mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S20S-MCLNR/L-09	25	20	18	200	13	32	CN 0903						2
S25R-MCLNR/L-09	32	25	23	250	17	40							3
S25R-MCLNR/L-12	32	25	23	200	17	40	CN 1204						3
S32S-MCLNR/L-12	40	32	30	250	22	50							
S40T-MCLNR/L-12	50	40	38	300	27	60							
A25R-MCLNR/L-12	32	25	24	200	17	40	CN 1204						1
A32S-MCLNR/L-12	40	32	31	250	22	50							3

MWLNR/L



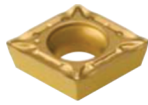
WN



• R type insert
(mm)

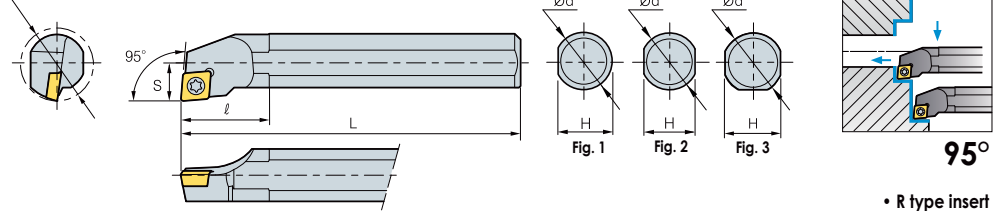
Designation	ØD	Ød	H	L	S	ℓ	Insert	Clamp	Clamp Screw	Shim	Shim Pin	Wrench	Fig.
S25R-MWLNR/L-06	32	25	23	200	17	40	WN 0604						3
S32S-MWLNR/L-06	40	32	30	250	22	50							
S40T-MWLNR/L-06	50	40	38	300	27	60							
S25R-MWLNR/L-08	32	25	23	200	17	40	WN 0804						3
S32S-MWLNR/L-08	40	32	30	250	22	50							
S40T-MWLNR/L-08	50	40	38	300	27	60							
A25R-MWLNR/L-06	32	25	24	200	17	40	WN 0604						1
A32S-MWLNR/L-06	40	32	31	250	22	50							3
A25R-MWLNR/L-08	32	25	24	200	17	40	WN 0804						1
A32S-MWLNR/L-08	40	32	31	250	22	50							3

SCLCR/L



CC

ØD Min. Machining Diameter



• R type insert
(mm)

Steel Shank Type

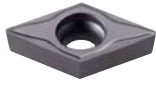
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.						
S08K-SCLCR/L-06	11	8	7.2	125	6	12	CC 0602	FTKA02555			TWO7	2						
S10K-SCLCR/L-06	13	10	9	125	7	16		FTKA02565	-	-	TWO7P							
S10M-SCLCR/L-06	13	10	9	150	7	16			-	-	-							
S12M-SCLCR/L-06	16	12	11	150	9	20												
S16R-SCLCR/L-06	20	16	14	200	11	25			CC 09T3	FTGA03508	-		-	TW15P	2			
S12M-SCLCR/L-09	16	12	11	150	9	20	FTGA03510	-		-	TW15P							
S16R-SCLCR/L-09	20	16	14	200	11	25						-	-	-				
S20S-SCLCR/L-09	25	20	18	250	13	32									CC 1204	FTGA0411F	-	-
S25R-SCLCR/L-09	32	25	23	200	17	40	FTGA0411F	SC42S		SHXN0610F	HW40L TW15P							
S25R-SCLCR/L-12	32	25	23	200	17	40												
S32S-SCLCR/L-12	40	32	30	250	22	50	CC 0602	FTKA02555	-	-	TW07P	1						
S40T-SCLCR/L-12	50	40	38	300	27	60		FTKA02565	-	-	TW07P							
A08F-SCLCR/L-06	11	8	7.6	80	6	12						CC 09T3	FTGA03508	-	-	TW15P	1	
A10H-SCLCR/L-06	13	10	9.5	100	7	16							-	-	-			
A12K-SCLCR/L-06	16	12	11.5	125	9	20										FTGA03510		-
A12K-SCLCR/L-09	16	12	11.5	125	9	20	-	-	-									
A16M-SCLCR/L-09	20	16	15	150	11	25												
A20Q-SCLCR/L-09	25	20	19	180	13	32	CC 1204	FTGA0411F	-	-	TW15P	1						
A25R-SCLCR/L-09	32	25	24	200	17	40		FTGA0411F	SC42S	SHXN0610F	HW40L, TW15P							
A25R-SCLCR/L-12	32	25	24	200	17	40							-	-	-			
A32S-SCLCR/L-12	40	32	31	250	22	50										-	-	-

Carbide Shank Type

• R type insert
(mm)

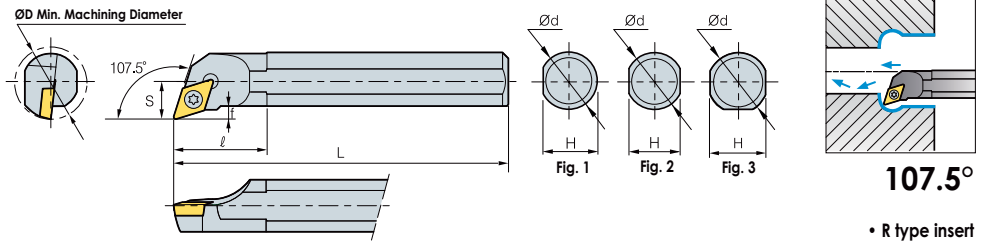
Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.			
C04G-SCLCR/L-03	5	4	3.8	90	2.5	CC T0301	FTNA01633	TW06P	1			
C05H-SCLCR/L-03	6	5	4.4	100	3							
C06H-SCLCR/L-04	7	6	5.4	100	3.5	CC T0401	FTNA0238	TW06P				
C07K-SCLCR/L-04	8	7	6.4	125	4							
C08K-SCLCR/L-06	10	8	7	125	5	CC T0602	FTKA02555	TW07P				
C10K-SCLCR/L-06	12	10	9	125	6							
C10M-SCLCR/L-06	12	10	9	150	6							
C12M-SCLCR/L-06	14	12	11	150	7							
C12Q-SCLCR/L-06	14	12	11	180	7							
C12M-SCLCR/L-09	15	12	11	150	8							
C12Q-SCLCR/L-09	15	12	11	180	8							
C16R-SCLCR/L-09	20	16	15	200	10							
C16S-SCLCR/L-09	20	16	15	250	10							
C20R-SCLCR/L-09	25	20	18	200	13							
C20S-SCLCR/L-09	25	20	18	250	13							
C25T-SCLCR/L-12	32	25	23	300	17	CC T1204	FTGA0411F	TW15P	2			
E06H-SCLCR/L-04	7	6	5.4	100	3.5	CC T0401	FTNA0238	TW06P				
E07K-SCLCR/L-04	8	7	6.4	125	4							
E08K-SCLCR/L-06	10	8	7	125	5	CC T0602	FTKA02555	TW07P	1			
E10K-SCLCR/L-06	12	10	9	125	6							
E10M-SCLCR/L-06	12	10	9	150	6							
E12M-SCLCR/L-06	14	12	11	150	7							
E12Q-SCLCR/L-06	14	12	11	180	7							
E12M-SCLCR/L-09	15	12	11	150	8	CC T09T3	FTGA03508	TW15P	2			
E12Q-SCLCR/L-09	15	12	11	180	8							
E16R-SCLCR/L-09	20	16	15	200	11							
E16S-SCLCR/L-09	20	16	15	250	10							
E20R-SCLCR/L-09	25	20	18	200	13							
E20S-SCLCR/L-09	25	20	18	250	13							
E25T-SCLCR/L-12	32	25	23	300	17					CC T1204	FTGA0411F	TW15P

SDQCR/L



DC

Steel Shank Type



• R type insert
(mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-SDQCR/L-07	13	10	9	150	7	16	DC 0702	FTKA02555	TW07P	2
S12M-SDQCR/L-07	16	12	11	150	9	20				
S16R-SDQCR/L-07	20	16	14	200	11	25				
S16R-SDQCR/L-11	20	16	14	200	11	25	DC 11T3	FTGA03508	TW15P	2
S20S-SDQCR/L-11	25	20	18	250	13	32				
S25R-SDQCR/L-11	32	25	23	200	17	40				
A10H-SDQCR/L-07	13	10	9.5	100	7	16	DC 0702	FTKA02555	TW07P	1
A12K-SDQCR/L-07	16	12	11.5	125	9	20				
A16M-SDQCR/L-11	20	16	15	150	11	25	DC 11T3	FTGA03508	TW15P	1
A20Q-SDQCR/L-11	25	20	19	180	13	32				
A25R-SDQCR/L-11	32	25	24	200	17	40				

Carbide Shank Type

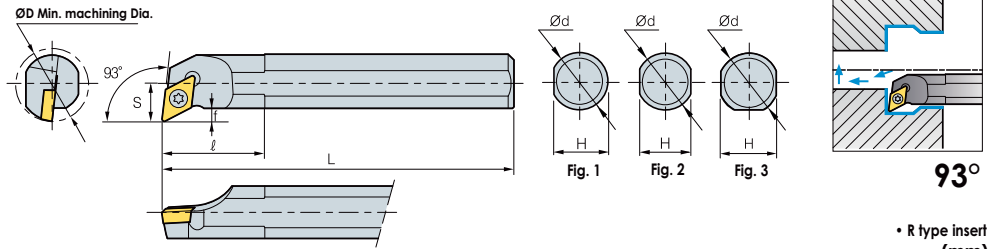
• R type insert
(mm)

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-SDQCR/L-07	10	8	7	125	6	DC T0702	FTKA02555	TW07P	2
C10K-SDQCR/L-07	13	10	9	125	7				
C12M-SDQCR/L-07	16	12	11	150	9				
C16R-SDQCR/L-07	20	16	15	200	11	DC T11T3	FTGA03508	TW15P	2
C16R-SDQCR/L-11	20	16	15	200	11				
C20R-SDQCR/L-11	25	20	18	200	13				
C20S-SDQCR/L-11	25	20	18	250	13	DC T0702	FTKA02555	TW07P	2
E08K-SDQCR/L-07	10	8	7	125	6				
E10K-SDQCR/L-07	13	10	9	125	7				
E12M-SDQCR/L-07	16	12	11	150	9	DC T11T3	FTGA03508	TW15P	2
E16R-SDQCR/L-07	20	16	15	200	11				
E16R-SDQCR/L-11	20	16	15	200	11				
E20R-SDQCR/L-11	25	20	18	200	13	DC T11T3	FTGA03508	TW15P	2
E20S-SDQCR/L-11	25	20	19	250	13				

SDUCR/L



DC



Steel Shank Type

• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-SDUCR/L-07	13	10	9	150	7	16	DC 0702	FTKA02555	TW07P	2
S12M-SDUCR/L-07	16	12	11	150	9	20		FTKA02565	TW07P	2
S16R-SDUCR/L-07	20	16	14	200	11	25		DC 11T3	FTGA03508	TW15P
S16R-SDUCR/L-11	20	16	14	200	11	25	FTGA03510		TW15P	3
S20S-SDUCR/L-11	25	20	18	250	13	32	DC 0702		FTKA02555	TW07P
S25R-SDUCR/L-11	32	25	23	200	17	40		FTKA02565	TW07P	1
S32S-SDUCR/L-11	40	32	30	250	22	50		DC 11T3	FTGA03508	TW15P
A10H-SDUCR/L-07	13	10	9.5	100	7	16	FTGA03510		TW15P	
A12K-SDUCR/L-07	16	12	11.5	125	9	20	DC 0702		FTKA02555	TW07P
A16M-SDUCR/L-07	20	16	15	150	11	25		FTKA02565	TW07P	
A20Q-SDUCR/L-11	25	20	19	180	13	32	DC 11T3	FTGA03508	TW15P	1
A25R-SDUCR/L-11	32	25	24	200	17	40		FTGA03510	TW15P	

Carbide Shank Type

• R type insert (mm)

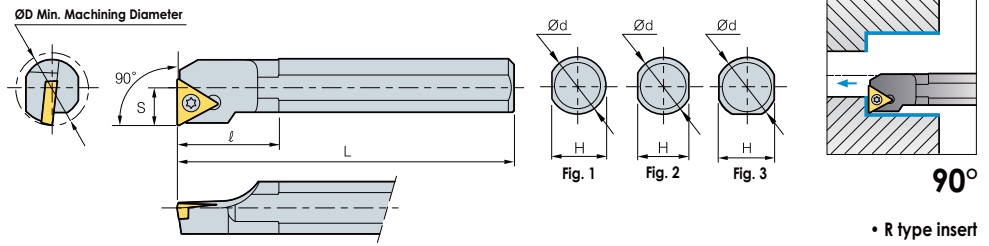
Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.			
C10K-SDUCR/L-07	13	10	9	125	7	DC T0702	FTKA02555	TW07P	2			
C10M-SDUCR/L-07	13	10	9	150	7		DC T11T3	FTKA02565		TW07P		
C12M-SDUCR/L-07	16	12	11	150	9			DC T0702		FTGA03508	TW15P	
C12Q-SDUCR/L-07	16	12	11	180	9					DC T11T3	FTGA03510	TW15P
C16R-SDUCR/L-07	20	16	15	200	11						DC T0702	FTKA02555
C16S-SDUCR/L-07	20	16	15	250	11	DC T11T3			FTKA02565			TW07P
C16R-SDUCR/L-11	20	16	15	200	11		DC T0702		FTGA03508			TW15P
C16S-SDUCR/L-11	20	16	15	250	11			DC T11T3	FTGA03510			TW15P
C20R-SDUCR/L-11	25	20	18	200	13				DC T0702	FTKA02555		TW07P
C20S-SDUCR/L-11	25	20	18	250	13					DC T11T3	FTKA02565	TW07P
C25T-SDUCR/L-11	32	25	23	300	17	DC T0702					FTGA03508	TW15P
E10K-SDUCR/L-07	13	10	9	125	7		DC T11T3				FTGA03510	TW15P
E10M-SDUCR/L-07	13	10	9	150	7			DC T0702			FTKA02555	TW07P
E12M-SDUCR/L-07	16	12	11	150	9				DC T11T3		FTKA02565	TW07P
E12Q-SDUCR/L-07	16	12	11	180	9					DC T0702	FTGA03508	TW15P
E16R-SDUCR/L-07	20	16	15	200	11	DC T11T3					FTGA03510	TW15P
E16S-SDUCR/L-07	20	16	15	250	11		DC T0702				FTKA02555	TW07P
E16R-SDUCR/L-11	20	16	15	200	11			DC T11T3			FTKA02565	TW07P
E16S-SDUCR/L-11	20	16	15	250	11				DC T0702		FTGA03508	TW15P
E20R-SDUCR/L-11	25	20	18	200	13					DC T11T3	FTGA03510	TW15P
E20S-SDUCR/L-11	25	20	18	250	13	DC T0702					FTKA02555	TW07P
E25T-SDUCR/L-11	32	25	23	300	17		DC T11T3				FTKA02565	TW07P
								DC T0702			FTGA03508	TW15P
									DC T11T3		FTGA03510	TW15P
										DC T0702	FTKA02555	TW07P
						DC T11T3					FTKA02565	TW07P

STFCR/L



TC

Steel Shank Type



• R type insert
(mm)

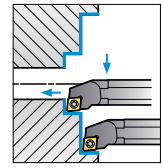
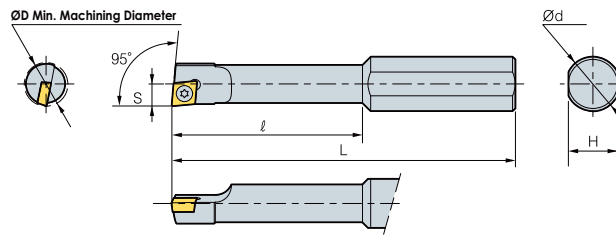
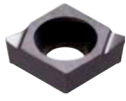
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Shim	Shim Screw	Wrench	Fig.
S10M-STFCR/L-09	13	10	9	150	7	16	TC 0902	FTKA02206	-	-	TW06P	2
S12M-STFCR/L-09	16	12	11	150	9	20						
S12M-STFCR/L-11	16	12	11	150	9	20						
S16R-STFCR/L-11	20	16	14	200	11	25	TC 1102	FTKA02565	-	-	TW07P	2
S20S-STFCR/L-11	25	20	18	250	13	32						
S20S-STFCR/L-16	25	20	18	250	13	32	TC 16T3	FTGA03510	-	-	TW15P	2
S25R-STFCR/L-16	32	25	23	200	17	40						3
S32S-STFCR/L-16	40	32	30	250	22	50	TC 16T3	FTGA03512	ST32S	SHXN0509F	TW15P, HW35L	3
S40T-STFCR/L-16	50	40	38	300	27	60						
A10H-STFCR/L-09	13	10	9.5	100	7	16	TC 0902	FTKA02206	-	-	TW06P	1
A12K-STFCR/L-09	16	12	11.5	125	9	20						
A12K-STFCR/L-11	16	12	11.5	125	9	20						
A16M-STFCR/L-11	20	16	15	150	11	25	TC 1102	FTKA02565	-	-	TW07P	1
A20Q-STFCR/L-11	25	20	19	180	13	32						
A25R-STFCR/L-16	32	25	24	200	17	40	TC 16T3	FTKA03510	-	-	TW15P	1
A32S-STFCR/L-16	40	32	30	250	22	50		FTGA03512	ST32S	SHXN0509F	TW15P, HW35L	3

Carbide Shank Type

• R type insert
(mm)

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C08K-STFCR/L-09	10	8	7	125	5	TC T0902	FTKA02206	TW06P	2
C10K-STFCR/L-09	12	10	9	125	6				
C10K-STFCR/L-11	12	10	9	125	6				
C12M-STFCR/L-11	15	12	11	150	8	TC T1102	FTKA02565	TW07P	2
C16R-STFCR/L-11	20	16	15	200	10				
C20R-STFCR/L-11	25	20	18	200	13				
C20S-STFCR/L-11	25	20	18	250	13	TC T16T3	FTGA03510	TW15P	2
C20R-STFCR/L-16	25	20	18	200	13				
C20S-STFCR/L-16	25	20	18	250	13				
E08K-STFCR/L-09	10	8	7	125	5	TC T0902	FTKA02206	TW06P	2
E10K-STFCR/L-09	12	10	9	125	6				
E10K-STFCR/L-11	12	10	9	125	6				
E12M-STFCR/L-11	15	12	11	150	8	TC T1102	FTKA02565	TW07P	2
E16R-STFCR/L-11	20	16	15	200	11				
E20R-STFCR/L-11	25	20	18	200	13				
E20S-STFCR/L-11	25	20	18	250	13	TC T16T3	FTGA03510	TW15P	2
E20R-STFCR/L-16	25	20	18	200	13				
E20S-STFCR/L-16	25	20	19	250	13				

SCLCR/L



95°

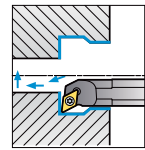
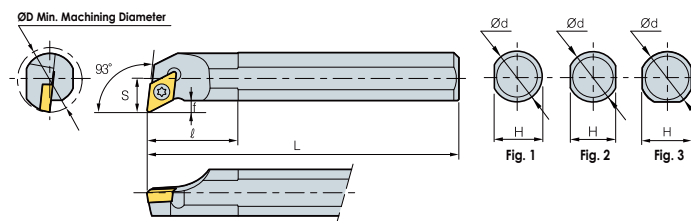
• R type insert (mm)

Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench
S10H-SCLCR/L-0305	5	10	9	100	2.5	25	CCET0301	FTNA01633	TW06P
S10H-SCLCR/L-0306	6	10	9	100	3.0	25			
S10J-SCLCR/L-0407	7	10	9	110	3.5	30	CCET0401	FTNA0238	TW06P
S10J-SCLCR/L-0408	8	10	9	110	4.0	30			

SDUCR/L



DC



93°

• R type insert (mm)

Steel Shank Type

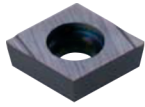
Designation	ØD	Ød	H	L	S	ℓ	Insert	Screw	Wrench	Fig.
S10M-SDUCR/L-07	13	10	9	150	7	16	DC 0702	FTKA02555	TW07P	2
S12M-SDUCR/L-07	16	12	11	150	9	20				
S16R-SDUCR/L-07	20	16	14	200	11	25				
S16R-SDUCR/L-11	20	16	14	200	11	25	DC 11T3	FTGA03508	TW15P	2
S20S-SDUCR/L-11	25	20	18	250	13	32				
S25R-SDUCR/L-11	32	25	23	200	17	40				
S32S-SDUCR/L-11	40	32	30	250	22	50	DC 0702	FTKA02555	TW07P	1
A10H-SDUCR/L-07	13	10	9.5	100	7	16				
A12K-SDUCR/L-07	16	12	11.5	125	9	20				
A16M-SDUCR/L-07	20	16	15	150	11	25	DC 11T3	FTGA03508	TW15P	1
A20Q-SDUCR/L-11	25	20	19	180	13	32				
A25R-SDUCR/L-11	32	25	24	200	17	40				

Carbide Shank Type

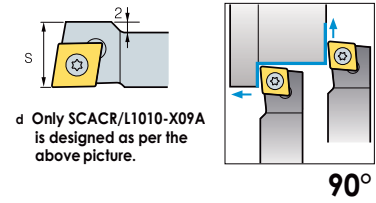
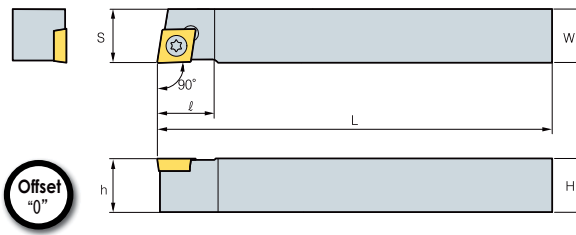
• R type insert (mm)

Designation	ØD	Ød	H	L	S	Insert	Screw	Wrench	Fig.
C10K-SDUCR/L-07	13	10	9	125	7	DC T0702	FTKA02555	TW07P	2
C10M-SDUCR/L-07	13	10	9	150	7				
C12M-SDUCR/L-07	16	12	11	150	9				
C12Q-SDUCR/L-07	16	12	11	180	9				
C16R-SDUCR/L-07	20	16	15	200	11				
C16S-SDUCR/L-07	20	16	15	250	11				
C16R-SDUCR/L-11	20	16	15	200	11	DC T11T3	FTGA03508	TW15P	2
C16S-SDUCR/L-11	20	16	15	250	11				
C20R-SDUCR/L-11	25	20	18	200	13				
C20S-SDUCR/L-11	25	20	18	250	13				
C25T-SDUCR/L-11	32	25	23	300	17				
E10K-SDUCR/L-07	13	10	9	125	7				
E10M-SDUCR/L-07	13	10	9	150	7				
E12M-SDUCR/L-07	16	12	11	150	9				
E12Q-SDUCR/L-07	16	12	11	180	9				
E16R-SDUCR/L-07	20	16	15	200	11				
E16S-SDUCR/L-07	20	16	15	250	11				
E16R-SDUCR/L-11	20	16	15	200	11	DC T11T3	FTGA03508	TW15P	2
E16S-SDUCR/L-11	20	16	15	250	11				
E20R-SDUCR/L-11	25	20	18	200	13				
E20S-SDUCR/L-11	25	20	18	250	13				
E25T-SDUCR/L-11	32	25	23	300	17				
E25T-SDUCR/L-11	32	25	23	300	17				

SCACR/L



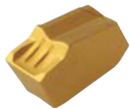
CC T



• R type insert
(mm)

Designation		H	W	L	S	h	l	Insert	Screw	Wrench
SCACR/L	0808-X06A	8	8	120	8	8	10	CC T 0602	FTKA02565	TW 07P
	1010-X06A	10	10	120	10	10	10			
	1010-X09A	10	10	120	12	10	13	CC T 09T3	FTKA0410	TW 15P
	1212-X09A	12	12	120	12	12	16			
	1616-X09A	16	16	120	16	16	16			

SPB/SPB-S (Blades)



SP

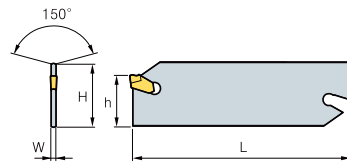


Fig. 1

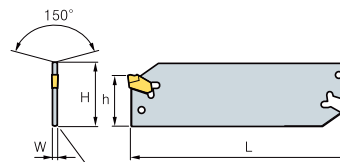
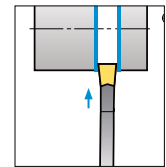


Fig. 2



• R type insert
(mm)

Designation		H	W	L	h	Inserts	Wrench		Fig.
SPB	226	26	1.6	110	21	SP200, 200R/L SP300, 300R/L SP400, 400R/L SP500, 500R/L SP600, 600R/L	SW50L	-	1
	326	26	2.4	110	21				
	426	26	3.2	110	21				
	526	26	4.0	110	21				
	626	26	5.2	110	21				
	232	32	1.6	150	25				
	332	32	2.4	150	25				
	432	32	3.2	150	25				
	532	32	4.0	150	25				
	632	32	5.2	150	25				
SPB-S	226-S	26	1.6	110	21	SP200, 200R/L SP300, 300R/L SP400, 400R/L SP500, 500R/L SP600, 600R/L	-	SW15S (Ordered separately)	2
	326-S	26	2.4	110	21				
	426-S	26	3.2	110	21				
	526-S	26	4.0	110	21				
	626-S	26	5.2	110	21				
	232-S	32	1.6	150	25				
	332-S	32	2.4	150	25				
	432-S	32	3.2	150	25				
	532-S	32	4.0	150	25				
	632-S	32	5.2	150	25				

SPH/SPH-S (Holder)



SP

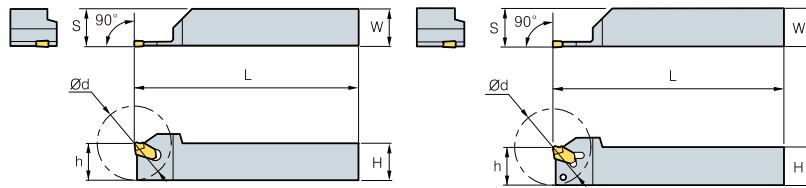
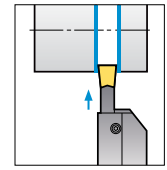


Fig. 1

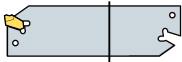
Fig. 2



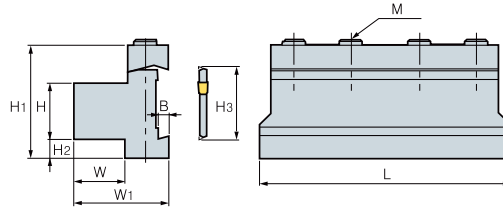
• R type insert
(mm)

Designation		H = (h)	W	L	Ød	S	Inserts	Wrench		Fig.
SPH	316R/L	16	16	100	32	16.3	SP300, 300R/L	SW50L	-	1
	320R/L	20	20	120	40	20.3	SP300, 300R/L			
	420R/L	20	20	120	50	20.4	SP400, 400R/L			
	520R/L	20	20	120	60	20.5	SP500, 500R/L			
	325R/L	25	25	150	50	25.3	SP300, 300R/L			
	425R/L	25	25	150	60	25.4	SP400, 400R/L			
	525R/L	25	25	150	70	25.5	SP500, 500R/L			
SPH	316R/L-S	16	16	100	32	16.3	SP300, 300R/L	-	SW15S (Ordered separately)	2
	320R/L-S	20	20	120	40	20.3	SP300, 300R/L			
	420R/L-S	20	20	120	50	20.4	SP400, 400R/L			
	520R/L-S	20	20	120	60	20.5	SP500, 500R/L			
	325R/L-S	25	25	150	50	25.3	SP300, 300R/L			
	425R/L-S	25	25	150	60	25.4	SP400, 400R/L			
	525R/L-S	25	25	150	70	25.5	SP500, 500R/L			

SMBB (Block)



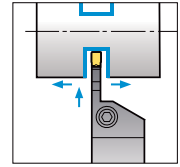
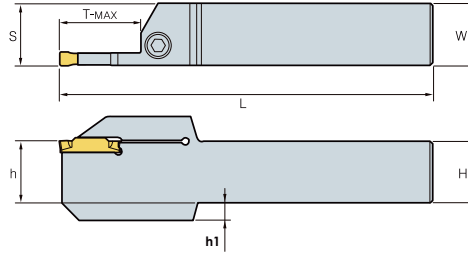
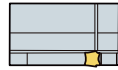
SPB □ □ □ (-S)
KGTB □ □ □ 32



• R type insert
(mm)

Designation		H	W	H3	L	H1	H2	W1	B	M	Blades	Wrench
SMBB	1626	16	12	26	86	43	13	30	5.3	3-M6	SPB □ 26(-S) SPB □ 32(-S) KGTB □ □ 32	HW50L
	2026	20	19	26	86	43	9	38	5.3	3-M6		
	2032	20	19	32	100	50	13	38	5.3	4-M6		
	2526	25	23	26	86	43	4	42	5.3	4-M6		
	2532	25	23	32	110	50	8	42	5.3	4-M6		
	3232	32	30	32	110	54	5	48	5.3	4-M6		

KGEHR/L



• R type insert
(mm)

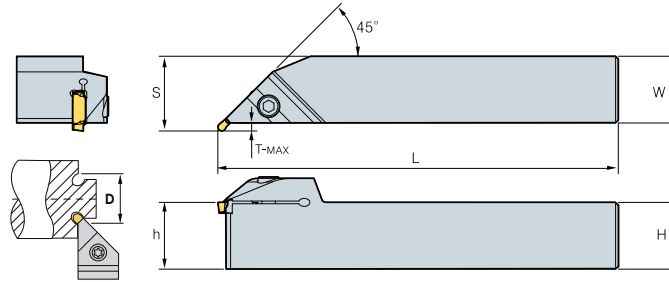
KGGN KGMN
KGMR/L KRMN
KRGN

Designation		H = (h)	W	L	S	h ₁	T-MAX	Inserts	Screw	Wrench
KGEHR/L	1616-1.5-T14	16	16	100	16.2	-	14	KGMN150-	MHA0512	HW40L
	2020-1.5-T14	20	20	125	20.2	-	14			
	2525-1.5-T14	25	25	150	25.2	-	14			
	1212-2-T08	12	12	100	12.2	-	8	KGMN200- KGMR/L200- KRMN200-C KGGN200-	MHA0512	HW40L
	1616-2-T08	16	16	100	16.2	-	8			
	2020-2-T08	20	20	125	20.2	-	8			
	2525-2-T08	25	25	150	25.2	-	8			
	1616-2-T12	16	16	100	16.2	-	12			
	2020-2-T12	20	20	125	20.2	-	12			
	2525-2-T12	25	25	150	25.2	-	12			
	1616-2-T17	16	16	100	16.2	-	17			
	2020-2-T17	20	20	125	20.2	-	17			
	2525-2-T17	25	25	150	25.2	-	17			
	1616-2.5-T17	16	16	100	16.3	-	17	KGMN250-	MHA0512	HW40L
	2020-2.5-T17	20	20	125	20.3	-	17			
	2525-2.5-T17	25	25	150	25.3	-	17			
	1616-3-T10	16	16	100	16.4	-	10	KGMN300- KGMR/L300- KRMN300-C KGGN300- KRGN300-	MHA0512	HW40L
	2020-3-T10	20	20	125	20.4	-	10			
	2525-3-T10	25	25	150	25.4	-	10			
	3232-3-T10	32	32	170	32.4	-	10			
	1616-3-T13	16	16	100	16.4	-	13			
	2020-3-T13	20	20	125	20.4	-	13			
	2525-3-T13	25	25	150	25.4	-	13			
	1616-3-T20	16	16	100	16.4	-	20			
	2020-3-T20	20	20	125	20.4	-	20			
	2525-3-T20	25	25	150	25.4	-	20			
	3232-3-T20	32	32	170	32.4	-	20			
	2525-3-T25	25	25	150	25.4	-	25	KGMN400- KGMR/L400- KRMN400-C KGGN400- KRGN400-	BHA0616	HW50L
	1616-4-T10	16	16	100	16.4	-	10			
	2020-4-T10	20	20	125	20.4	-	10			
	2525-4-T10	25	25	150	25.4	-	10			
	3232-4-T10	32	32	150	32.4	-	10			
	1616-4-T15	16	16	100	16.4	-	15			
	2020-4-T15	20	20	125	20.4	-	15			
	2525-4-T15	25	25	150	25.4	-	15			
	1616-4-T20	16	16	100	16.4	-	20			
	2020-4-T20	20	20	125	20.4	-	20			
	2525-4-T20	25	25	150	25.4	-	20			
	3232-4-T20	32	32	170	32.4	-	20			
	1616-4-T25	16	16	100	16.4	-	25			
2020-4-T25	20	20	125	20.4	-	25				
2525-4-T25	25	25	150	25.4	-	25				

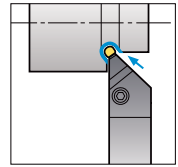
KGEUR/L



KRMN
KRGN



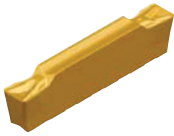
For relief machining



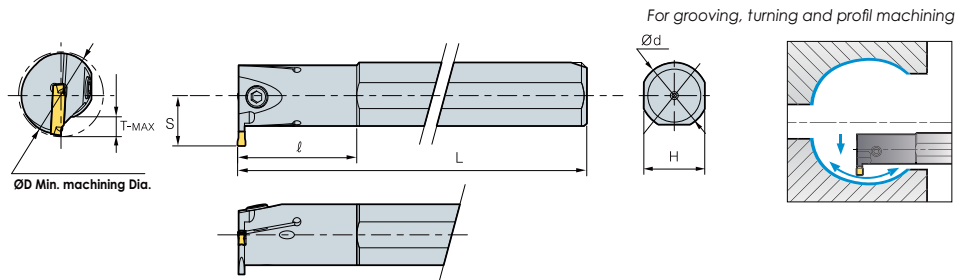
• R type insert
(mm)

Designation		H = (h)	W	L	S	ØD Min	T-MAX	Inserts	Screw	Wrench
KGEUR/L	1616-3	16	16	100	19	40	2.8	KRMN300-C KRGN300-	MHA0512	HW40L
	2020-3	20	20	125	23	40	2.8			
	2525-3	25	25	150	28	40	2.8			
	3232-3	32	32	170	35	40	2.8			
	1616-4	16	16	100	19	40	2.8	KRMN400-C KRGN400-	BHA0616	HW50L
	2020-4	20	20	125	23	40	2.8			
	2525-4	25	25	150	28	40	2.8			
	3232-4	32	32	170	35	40	2.8	KRMN500-C KRGN500-	BHA0616	HW50L
	2020-5	20	20	125	23.5	50	3.3			
	2525-5	25	25	150	28.5	50	3.3			
	3232-5	32	32	170	35.5	50	3.3			
	2020-6	20	20	125	23.5	50	3.3	KRMN600-C KRGN600-	BHA0616	HW50L
	2525-6	25	25	150	28.5	50	3.3			
	3232-6	32	32	170	35.5	50	3.3			
	2525-8	25	25	150	28.5	65	3.3	KRMN800-C KRGN800-	BHA0616	HW50L
	3232-8	32	32	170	35.5	65	3.3			

KGIVR/L



KGMI
KGMN



• R type insert
(mm)

Designation		ØD	Ød	L	ℓ	T-MAX	H	S	Inserts	Screw	Wrench
KGIVR/L	2016-1.5	20	16	125	35	4	15	12	KGMN150- -	MHB0410	HW30L
	2520-1.5	25	20	150	45	6	18	15.5		MHB0410	HW30L
	3225-1.5	32	25	200	45	7	23	19		MHA0512	HW40L
	2516-2	25	16	125	35	6.5	15	14	KGMI200- -	MHB0410	HW30L
	2520-2	25	20	150	45	6.5	18	15.5		MHB0512	HW40L
	3225-2	32	25	200	45	7	23	19		MHB0512	HW40L
	2516-2.5	25	16	125	35	6.5	15	14	KGMN250- -	MHB0410	HW30L
	2520-2.5	25	20	150	45	6.5	18	15.5		MHA0512	HW40L
	3225-2.5	32	25	200	45	7	23	19		MHA0512	HW40L
	2520-3	25	20	150	45	6.5	18	15.5	KGMI300- -	MHB0410	HW30L
	3225-3	32	25	200	45	7	23	19		MHA0512	HW40L
	4032-3	40	32	250	55	7.5	30	22.5		BHA0616	HW50L
	2520-4	25	20	150	45	6.5	18	15.5	KGMI400- -	MHB0410	HW30L
	3225-4	32	25	200	45	7	23	19		MHA0512	HW40L
	4032-4	40	32	250	55	7.5	30	22.5		BHA0616	HW50L
	3225-5	32	25	200	45	7.5	23	19.5	KGMN500- -	MHA0512	HW40L
	4032-5	40	32	250	55	8.5	30	23.5		BHA0616	HW50L
	3225-6	32	25	200	45	7.5	23	19.5	KGMN600- -	MHA0512	HW40L
	4032-6	40	32	250	55	8.5	30	23.5		BHA0616	HW50L
	4032-8	40	32	250	55	8.5	30	23.5	KGMN800- -	BHA0616	HW50L
4540-8	45	40	300	70	8.5	37	26.5	BHA0616		HW50L	

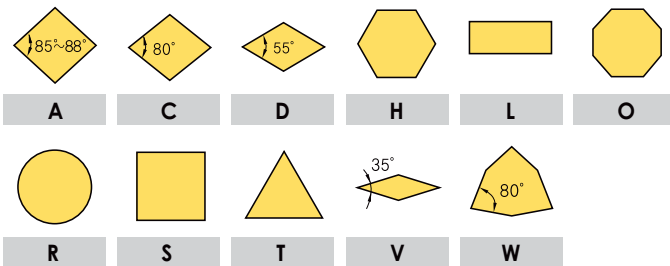
S P K R 12

1 2 3 4 5

Insert Shape Relief Angle Tolerance Cross Section Type Cutting-edge Length, Diameter of the Inscribed Circle

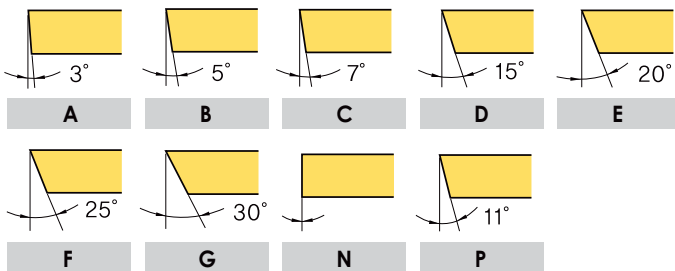
1 Insert Shape

S P K R 12 03 ^{ED}/₀₈ **S R MX**



2 Relief Angle

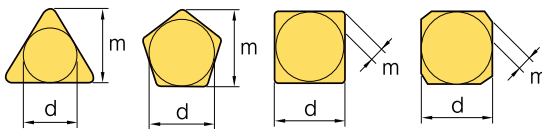
S P K R 12 03 ^{ED}/₀₈ **S R MX**



3 Tolerance

S P K R 12 03 ^{ED}/₀₈ **S R MX**

d: Inscribed Circle
t: Thickness
m: Refer to Figure



■ Tolerance on C, E, H, M, O, P, R, S, T, W Insert Shape (Exceptional Case)

Class	d	m	t
A	±0.025	±0.005	±0.025
C	±0.025	±0.013	±0.025
H	±0.013	±0.013	±0.025
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
J	±0.05~±0.15	±0.005	±0.025
K	±0.05~±0.15	±0.013	±0.025
L	±0.05~±0.15	±0.025	±0.025
M	±0.05~±0.15	-	±0.13
U	-	-	±0.13

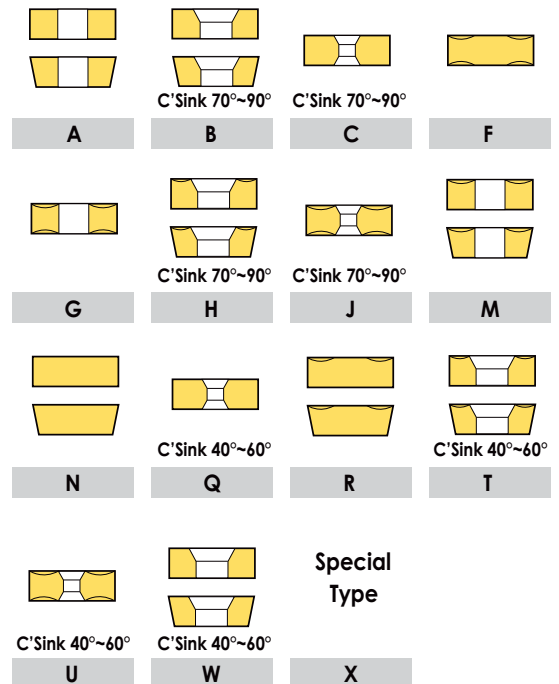
d	Tolerance on 'd'	Tolerance on 'm'
6.35	±0.05	±0.13
9.525	±0.05	±0.13
12.7	±0.13	±0.20
19.05	±0.10	±0.27
25.4	±0.13	±0.25

■ Tolerance on D Insert Shape (Exceptional Case)

d	Tolerance on 'd'	Tolerance on 'm'
6.35	±0.05	±0.11
9.525	±0.05	±0.11
12.7	-	±0.15
19.05	±0.10	-

4 Cross Section Type

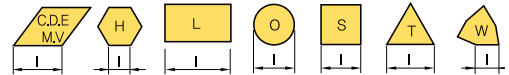
S P K R 12 03 ^{ED}/₀₈ **S R MX**



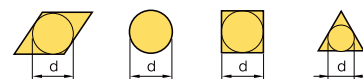
5 Cutting-edge Length, Diameter of the Inscribed Circle

S P K R 12 03 ^{ED}/₀₈ **S R MX**

■ Metric System



■ Inch System



· Rhombic inserts indicate cutting-edge length instead of the inscribed circle.

■ Cross Over Chart for "Metric" and "Inch" Systems

	06	09	11	16	22	27	33	44
	03	05	06	09	12	15	19	25
	04	06	07	11	15	19	23	31
	03	05	06	09	12	16	19	25
Inscribed Circle	-	-	-	-	-	-	-	-
Inch System	5	7	-	-	-	-	-	-

03

6

Height of Cutting-Edge

ED 08

7

Nose Radius (Nose R)

S

8

Edge Preparation

R

9

Hand

- MX

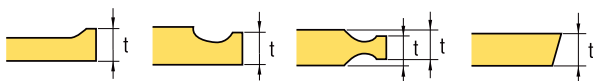
10

Chip Breaker for Milling

6

Height of Cutting-Edge

S P K R 12 **03** ^{ED} ₀₈ S R - MX



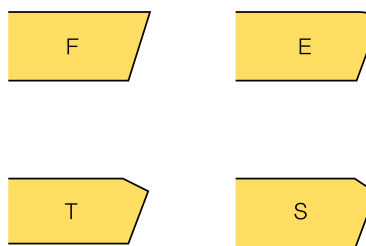
Symbol		Height of Cutting-Edge (t)	
Metric	Inch	mm	Inch
01	1 (2)	1.59	1/16
T0	1.125	1.79	-
T1	1.2	-	5/64
02	1.5 (3)	-	3/32
T2	1.75	-	7/64
03	2	-	-
T3	2.5	3.97	5/32
04	3	4.76	3/16
05	3.5	5.56	7/32
06	4	6.35	1/4
07	5	7.94	5/16
09	6	9.52	-
11	7	11.11	7/16
12	-	12.70	1/2

() Symbol for small size insert

8

Edge Preparation

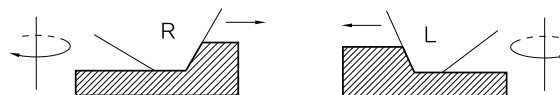
S P K R 12 03 ^{ED} ₀₈ **S** R - MX



9

Hand

S P K R 12 03 ^{ED} ₀₈ S **R** - MX



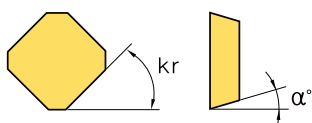
7

Nose Radius (Nose R)

S P K R 12 03 ^{ED} ₀₈ S R - MX



r		Symbol		r		Symbol	
mm	Inch	mm	Inch	mm	Inch	mm	Inch
00	0	0.0	-	12	3	1.2	3/64
02	-	0.2	-	15	-	1.5	-
04	1	0.4	1/64	16	4	1.6	4/64
05	-	0.5	-	24	6	2.4	6/64
-	2	-	2/64	32	-	3.2	-
10	-	1.0	-	40	-	4.0	-

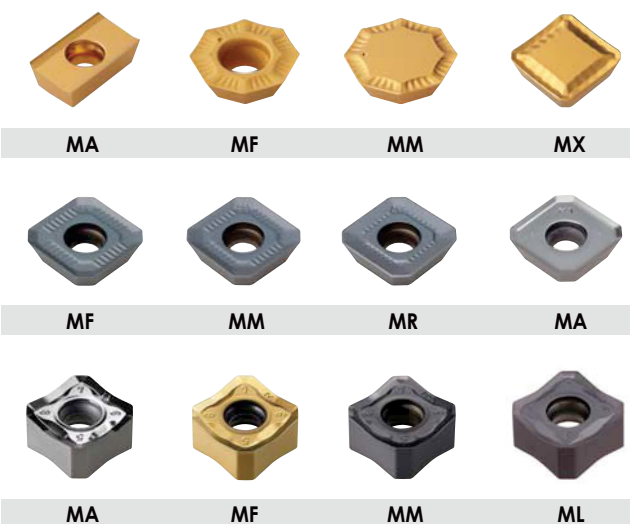


Parallel Land	Relief Angle
kr	*
A - 45°	A - 3° F - 25°
D - 60°	B - 5° G - 30°
E - 75°	C - 7° N - 0°
-	D - 15° P - 11°
P - 90°	E - 20° -
Z - Special	- -

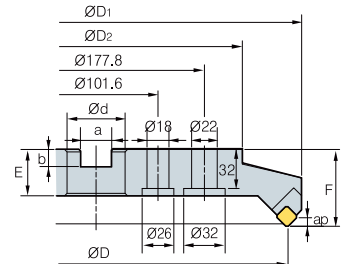
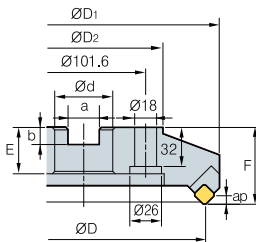
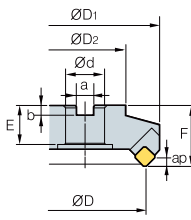
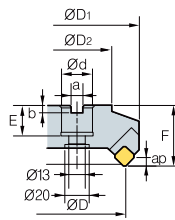
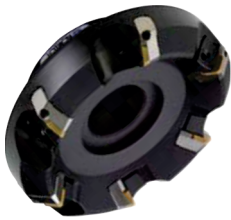
10

Chip Breaker for Milling

S P K R 12 03 ^{ED} ₀₈ S R - **MX**



ADN(M)4000



AA
45°
• AR: 15°
• RR: -4°

(mm)

Designation		ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.	
ADN (ADNM)	4080R/L	4	80	57	57	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	6	1.9	1
	4100R/L	5	100	67	67	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	6	2.5	2
	4125R/L	6	125	87	87	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	6	4.3	2
	4160R/L	8	160	107	107	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	6	6.4	2
	4200R/L	10	200	130	130	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	6	8.7	3
	4250R/L	12	250	180	180	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	6	14.0	3
	4315R/L	14	315	240	240	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	6	21.0	4

() Metric size

Available Inserts

		SDCN	SDKN-MU	SDKN-SU	SDKR-MX
Designation		Cermetal			
		GN2000 GN30	NCM325 NCM335	NC5330 NC5340 NC5350	PC3600 PC9530 PC6510 PC5300 PC5400
Designation		Coated			
		ST30A	G10	H01	
SDCN	42M				
	42M-G				
	42MT	••	•		•
	42MT-RH				
	42MT-S20				•
	1203AEEN				
	1203AEEN-RH				
1203AESN					
1203AESN-RH					
SDKN	1203AESN-MU				
	1203AESN-SU				
SDKR	1203AESN-MX				
	1203AETN-MX				
	1203AEN-MX		•		

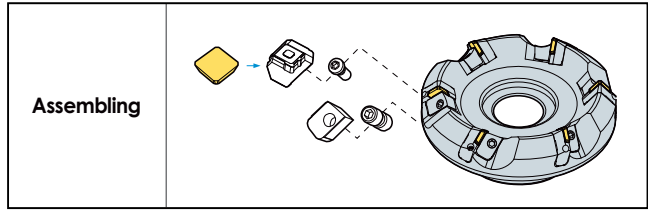
Available Arbors

Designation	General arbor	NC arbors	
		ADN	ADNM
ADN(M)	4080R/L NT* (M/U)-FMA25.4-25	BT** -FMA25.4-	FMC27
	4100R/L NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32
	4125R/L NT*	BT**	FMB40
	4160R/L NT*	BT**	FMB40
	4200R/L NT*	BT** -FMA47.625-	FMB60
	4250R/L NT*	BT** -FMA47.625-	FMB60
	4315R/L		

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
M	90~150	0.05~0.20	
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	



Parts

Specification					
Ø80~Ø315	LADN4R/L	WEPN4R/L		LTX0514	HW40

CUTTING, DRILLING AND THREADING

ADN(M)5000+

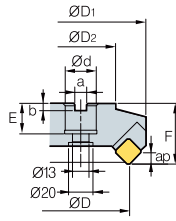
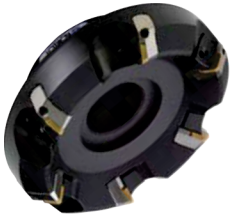


Fig. 1

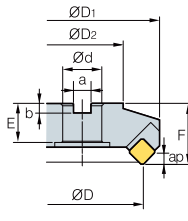


Fig. 2

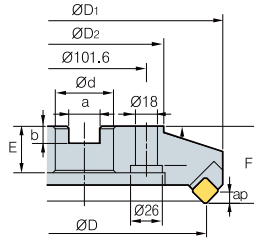


Fig. 3

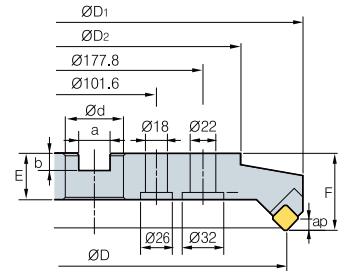


Fig. 4



(mm)

Designation		⊙	ØD	ØD1	ØD2	Ød	a	b	E	F	ap		Fig.
ADN (ADNM)	5080R/L+	4	80	107	65	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	63	8	2.4	1
	5100R/L+	5	100	126	75	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	63	8	3.0	2
	5125R/L+	6	125	150	100	31.8 (40)	15.9 (16.4)	10 (9)	38 (30)	63	8	4.7	2
	5160R/L+	8	160	180	120	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	8	6.5	2
	5200R/L+	10	200	225	140	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	8	8.7	3
	5250R/L+	12	250	275	220	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	8	15.5	3
	5315R/L+	14	315	340	280	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	8	23.7	4

() Metric size

Available Inserts

		SDCN	SDKN-MU	SDKN-SU	SDKR-MX
Designation		Cermet			
		CN2000 CN30	NCM325 NCM335	Coated	Uncoated
SDCN	53M				
	53M-G				
	53MT	•	•		•
	53MT-RH			•	
	53MT-S20				•
	1504AEEN				
	1504AEEN-RH				•
1504AESN				•	
1504AESN-RH				•	
SDKN	1504AESN-MU			•	
	1504AESN-SU			•	
SDKR	1504AESN-MX		•		
	1504AETN-MX				
	1504AEN-MX		•		

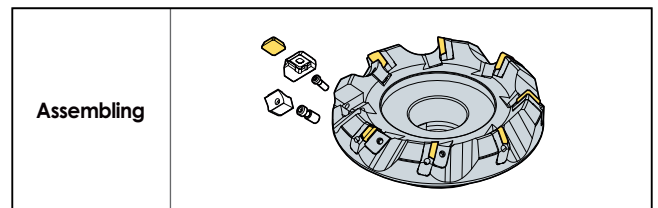
Available Arbors

Designation	General Arbor		NC Arbors	
	ADN	ADNM	ADN	ADNM
ADN(M) 5080R/L+	NT*	(M/U)-FMA25.4-25	BT**	-FMA25.4-
5100R/L+	NT*	(M/U)-FMA31.75-	BT**	-FMA31.75-
5125R/L+	NT*		BT**	FMC40
5160R/L+	NT*		BT**	FMB40
5200R/L+	NT*		BT**	-FMA47.625-
5250R/L+	NT*		BT**	-FMA47.625-
5315R/L+	(Center Ring Plug)			

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	



Parts

Specification					
	Locator	Wedge	Wedge screw	Locator screw	Wrench
Ø80~Ø315	LADN5R/L	WHPS5R/L		LTX0514	HW40

AE(M)4000

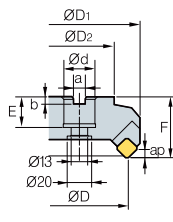


Fig. 1

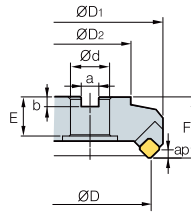


Fig. 2

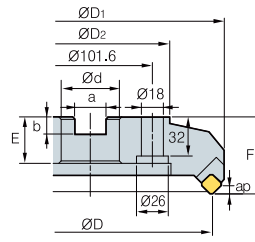


Fig. 3

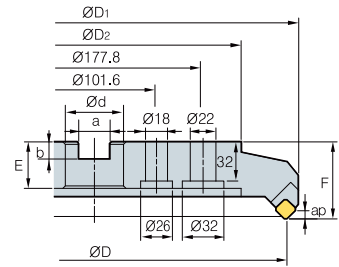


Fig. 4



AA
45°

- AR: 20°
- RR: -3°

(mm)

Designation		⊙	ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.
AE (AEM)	4080R/L	4	80	103	60	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	5.5	1.7	1
	4100R/L	5	100	122	80	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	5.5	2.9	2
	4125R/L	6	125	146	100	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	5.5	4.4	2
	4160R/L	8	160	181	120	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	5.5	6.1	2
	4200R/L	10	200	220	130	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	5.5	8.9	3
	4250R/L	12	250	270	180	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	5.5	15.7	3
	4315R/L	15	315	335	240	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	5.5	25.1	4

() Metric size

Available Inserts

		SECN	SEKN-SU	SEKR-MF1	SEKR-MX													
Designation		Cermel		Coated				Uncoated										
		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01	
SECN	1203AFFN	•	•															
	1203AFTN																	
	1203AFEN			•	•													
	1203AFSN																	
	1203AFEN-RH																	
	1203AFSN-RH																	
	1203AFTN-S20																	
SEKN	1203AFSN-SU																	
SEKR	1203AFSN-MF1																	
	1203AFSN-MX			•	•													

Available Arbors

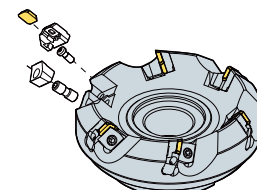
Designation	General Arbor	NC Arbors	
		ADN	ADNM
AE(M) 4080R/L	NT* (M/U)-FMA25.4-25	BT** -FMA25.4-	FMC27
4100R/L	NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32
4125R/L	NT*	BT**	FMB40
4160R/L	NT*	BT**	FMB40
4200R/L	NT*	BT** -FMA47.625-	FMB60
4250R/L	NT*	BT** -FMA47.625-	FMB60
4315R/L	(Center ring plug)		

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	

Assembling



Parts

Specification					
Ø80~Ø315	Locator LAE4R/L	Wedge WAE4R/L	Wedge screw	Locator screw LTX0512	Wrench HW40

AE(M)5000

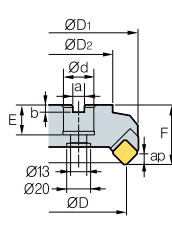


Fig. 1

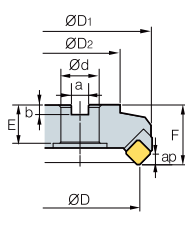


Fig. 2

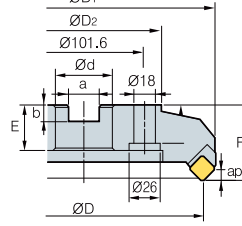


Fig. 3

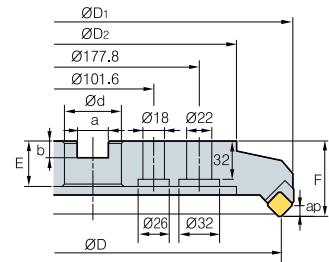


Fig. 4



(mm)

Designation		ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.	
AE (AEM)	5080R/L	4	80	103	60	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	7.5	1.7	1
	5100R/L	5	100	122	80	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	7.5	2.9	2
	5125R/L	6	125	146	100	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	7.5	4.4	2
	5160R/L	8	160	181	120	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	7.5	6.1	2
	5200R/L	10	200	220	130	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	7.5	8.9	3
	5250R/L	12	250	270	180	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	7.5	15.7	3
	5315R/L	15	315	335	240	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	7.5	25.1	4

() Metric size

Available Inserts

		SECN	SEKR-MX	SEKN-SU										
Designation		Cermel	Coated					Uncoated						
		CN2000 CN30	NCM325 NCM335	NC5330	NC5340	NC5350	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
SECN	1504AFFN													
	1504AFTN	•												
	1504AFEN													
	1504AFSN													
	1504AFEN-RH													
	1504AFSN-RH													
SEKN	1504AFSN-S20													
	1504AFSN-SU													
	1504AFSN-MX													

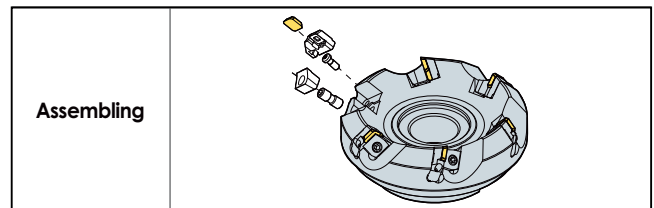
Available Arbors

Designation	General Arbor	NC Arbors	
		AE	AEM
AE(M) 5080R/L	NT* (M/U)-FMA25.4-25	BT** -FMA25.4-	FMC27
5100R/L	NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32
5125R/L	NT*	BT**	FMB40
5160R/L	NT*	BT**	FMB40
5200R/L	NT*	BT** -FMA47.625-	FMB60
5250R/L	NT*	BT** -FMA47.625-	FMB60
5315R/L	(Center ring plug)		

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

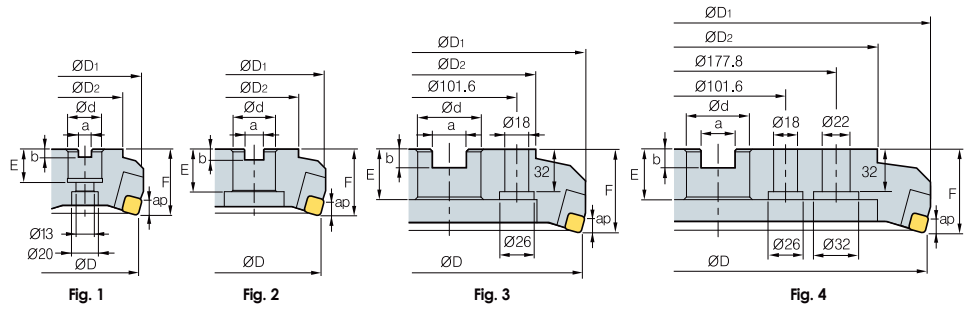
Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	



Parts

Specification	Locator	Wedge	Wedge Screw	Locator Screw	Wrench
Ø80~Ø315	LAE5R/L	WAE5R/L		LTX0512	HW40

EN(M)4000



(mm)

Designation		ØD	ØD1	ØD2	Ød	a	b	E	F	ap		Fig.	
EN (ENM)	4080R/L	5	80	89	57	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	8	1.4	1
	4100R/L	6	100	107	67	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	8	2.1	2
	4125R/L	8	125	132	87	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	8	3.8	2
	4160R/L	10	160	167	107	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	8	5.7	2
	4200R/L	12	200	207	130	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	8	8.2	3
	4250R/L	16	250	257	180	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	8	13.4	3
	4315R/L	20	315	322	240	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	8	21.6	4

() Metric size

Available Inserts

		SNCN				SNKN											
		Cermel				Coated				Uncoated							
Designation		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6810	PC5300	PC5400	ST30A	G10	H01
SNCN	1204ENN	•												•			
SNKN	1204ENN										•						

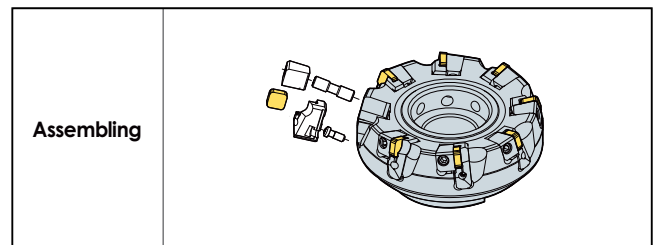
Available Arbors

Designation	General Arbor	NC Arbors	
		EN	ENM
EN(M) 4080R/L	NT* (M/U)-FMA25.4-25-	BT** -FMA25.4-	FMC27
4100R/L	NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32
4125R/L	NT*	BT**	FMB40
4160R/L	NT*	BT**	FMB40
4200R/L	NT*	BT** -FMA47.625-	FMB60
4250R/L	NT*	BT** -FMA47.625-	FMB60
4315R/L	(Center ring plug)		

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	

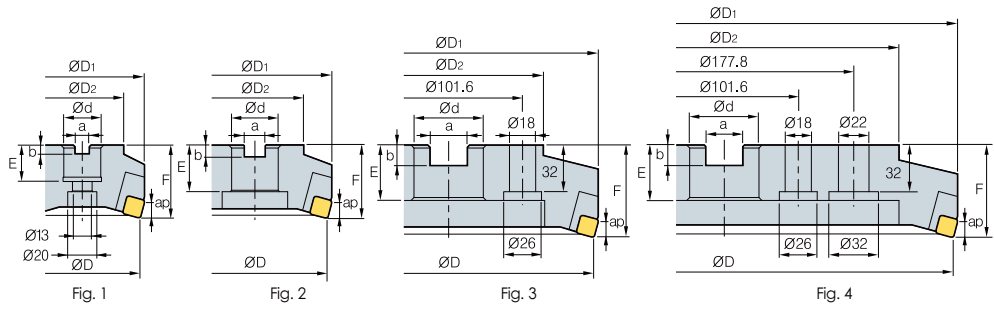
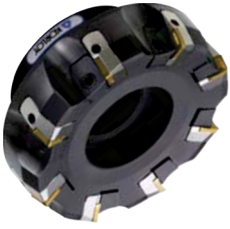


Parts

Specification					
Ø80~Ø315	LEN4R/L	WENR/L WENR1*/L1*	_____	LTX0512	HW40

CUTTING, DRILLING AND THREADING

EPN(M)4000



(mm)

Designation		⊙	ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.
EPN (EPNM)	4080R/L	5	80	86	57	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	9	1.4	1
	4100R/L	6	100	107	67	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	9	2.1	2
	4125R/L	8	125	132	87	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	9	3.8	2
	4160R/L	10	160	166	107	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	9	5.7	2
	4200R/L	12	200	206	130	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	9	8.2	3
	4250R/L	16	250	256	180	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	9	13.5	3
	4315R/L	20	315	321	240	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	9	21.1	4

() Metric size

Available Inserts

		SPCN	SPKN-SU	SPKN-MU	SPKR-MX	SPEX										
Designation		Cermel			Coated			Uncoated								
		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10
SPCN	1203EDR		•	•	•									•	•	•
	1203EDL															
	1203EDR-G															•
	1203EDER-RH															
	1203EDSR-RH															•
	1203EDTR-RH															
SPKN	1203EDSR-MU															
	1203EDSR-SU															
	1203EDSL-SU															
SPKR	1203EDSR-MX			•	•											
	1203EDSL-MX															
SPEX	1203EDR/L-1															

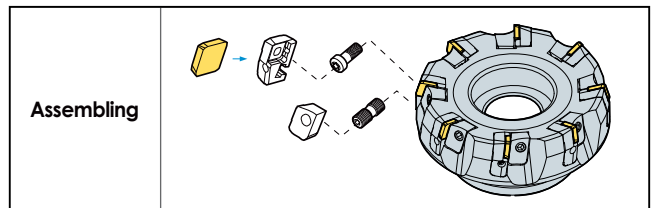
Available Arbors

Designation	General Arbor		NC Arbors	
	EPN	EPNM	EPN	EPNM
EPN(M) 4080R/L	NT* (M/U)-FMA25.4-25	BT** -FMA25.4-	FMC27	
4100R/L	NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32	
4125R/L	NT*	BT**	FMB40	
4160R/L	NT*	BT**	FMB40	
4200R/L	NT*	BT** -FMA47.625-	FMB60	
4250R/L	NT*	BT** -FMA47.625-	FMB60	
4315R/L	(Center ring plug)			

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

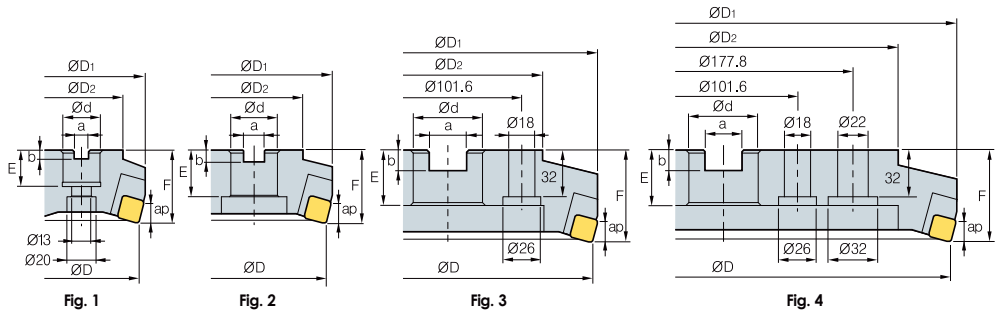
Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	



Parts

Specification					
Ø80~Ø315	LEPN4R/L LEPN4R1*/L1*	WEPN4R/L		LTX0514	HW40

EPN(M)5000+



(mm)

Designation		⊙	ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.
EPN (EPNM)	5080R/L+	5	80	91	60	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	63	12	1.7	1
	5100R/L+	6	100	110	70	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	63	12	2.5	1
	5125R/L+	8	125	134	90	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	12	3.8	2
	5160R/L+	10	160	169	110	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	12	5.5	2
	5200R/L+	12	200	209	150	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	12	8.2	3
	5250R/L+	16	250	259	230	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	12	13.5	3
	5315R/L+	20	315	324	270	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	12	22.4	4

() Metric size

Available Inserts

		SPCN		SPKN-SU		SPKN-MU		SPKR-MX		SPEX								
Designation		Cermel		Coated						Uncoated								
		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	HD1	
SPCN	150412T																	
	1504EDR		•	•											•	•		
	1504EDSR																	
	1504EDL																	
	1504EDR-G																•	
	1504EDER-RH																	
	1504EDSR-RH																	
1504EDTR-RH																		
1504EDR-S20																		
SPKN	1504EDSR-MU																	
	1504EDSR-SU																	
	1504EDSL-SU																	
SPKR	1504EDR-MX																	
	1504EDSR-MX																	
SPEX	1504EDR/L-1																	

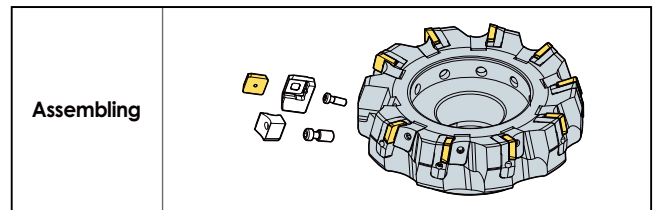
Available Arbors

Designation	General arbor	NC arbors	
		EPN	EPNM
EPN(M) 5080R/L+	NT* (M/U)-FMA25.4-25	BT** -FMA25.4-	FMC27
5100R/L+	NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32
5125R/L+	NT*	BT**	FMB40
5160R/L+	NT*	BT**	FMB40
5200R/L+	NT*	BT** -FMA47.625-	FMB60
5250R/L+	NT*	BT** -FMA47.625-	FMB60
5315R/L+	(Center ring plug)		

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	

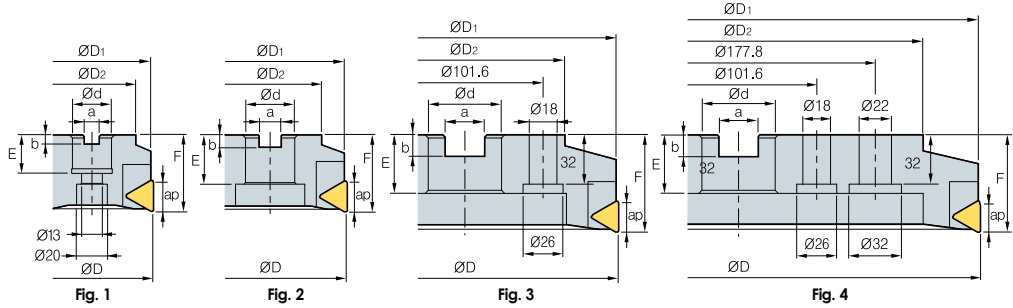
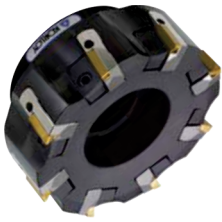


Parts

Specification					
Ø80~Ø315	LEPN5R/L LEPN5R1*/L1*	WHPS5R/L		LTX0514	HW40

CUTTING, DRILLING AND THREADING

PPN(M)4000



• AR: 7°
• RR: 0°

(mm)

Designation		⊙	ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.
PPN (PPNM)	4080R/L	5	80	79	57	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	18	1.3	1
	4100R/L	6	100	99	67	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	18	1.9	2
	4125R/L	8	125	124	87	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	18	3.5	2
	4160R/L	10	160	158	107	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	18	5.6	2
	4200R/L	12	200	198	130	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	18	8.1	3
	4250R/L	16	250	248	180	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	18	13.3	3
	4315R/L	20	315	313	240	47.625 (60)	25.4 (25.7)	14 (14)	38 (38)	63	18	21.4	4

() Metric size

Available Inserts

		TPCN	TPKN-SU	TPKN-MU	TPKR-MX				
Designation		Coated				Uncoated			
		CN2000 CN30	NCM325 NCM335	NC5330 NC5340	NC5350 PC3600	PC9530 PC6510	PC5300 PC5400	ST30A G10	H01
TPCN	2204PDR	•	•					•	
	2204PDR-G								•
	2204PDL							•	
	2204PDSR		•						
	2204PDTR								
	2204PDR-RH								
	2204PDER-RH					•	•		
TPKN	2204PDSR-MU				•				
	2204PDSR-SU				•	•			
	2204PDSL-SU				•				
TPKR	2204PDR-MX	•							
	2204PDSR-MX	•							
	2204PPR-MX								

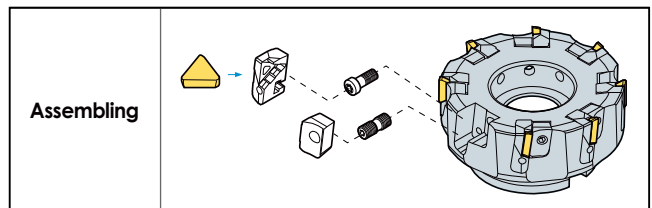
Available Arbors

Designation	General Arbor	NC Arbors	
		PPN	PPNM
PPN(M) 4080R/L	NT* (M/U)-FMA25.4-25	BT** -FMA25.4-	FMC27
4100R/L	NT* (M/U)-FMA31.75-	BT** -FMA31.75-	FMC32
4125R/L	NT*	BT**	FMB40
4160R/L	NT*	BT**	FMB40
4200R/L	NT*	BT** -FMA47.625-	FMB60
4250R/L	NT*	BT** -FMA47.625-	FMB60
4315R/L	(Center ring plug)		

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

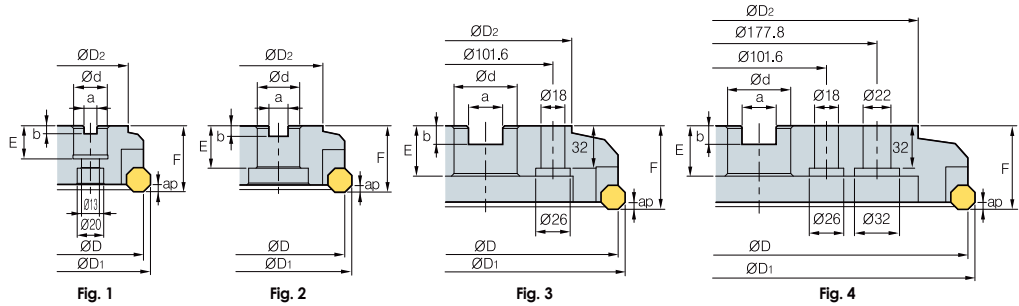
Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3600 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	



Parts

Specification					
Ø80~Ø315	LPPN4R/L LPPN4R1*/L1*	WPPN4R/L		LTX0514	HW40

AFO(M)4000



(mm)

Designation		ØD	ØD1	ØD2	Ød	a	b	E	F	ap	kg	Fig.
AFO (AFOM)	4080R/L	5	80	88	60	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	3.3	1
	4100R/L	6	100	108	80	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	3.3	1
	4125R/L	8	125	133	100	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	3.3	1

() Metric size

Available Inserts

		OFCW	OFKT-MF	OFKT-MM	OFKT-MA											
Designation		Carmet				Coated				Uncoated						
		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10
OFCW	05T3SN															
	05T3FN															
	05T308FN															
OFKT	05T3SN-MF															
	05T308SN-MF															
	05T3SN-MM															
	05T308SN-MM															
	05T3FN-MA															
05T3EN-MA																

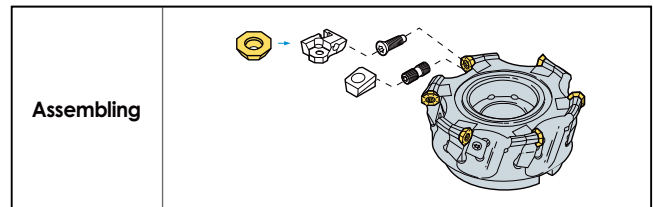
Available Arbors

Designation		General Arbor		NC Arbors		
				AFO	AFOM	
AFO(M)	4080R/L	NT*	(M/U)-FMA25.4-25	BT**	-FMA25.4-	FMC27
	4100R/L	NT*	(M/U)-FMA31.75-	BT**	-FMA31.75-	FMC32
	4125R/L	NT*		BT**		FMB40

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3500 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	

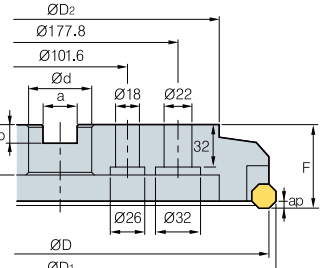
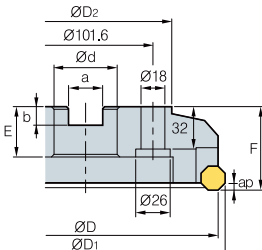
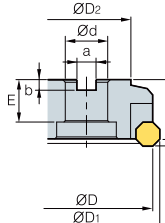
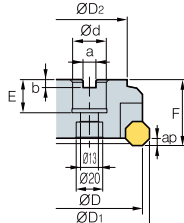


Parts

Specification					
Ø80~Ø125	Locator LAF04R/L	Wedge WAFO4R/L	Wedge Screw	Screw	Wrench TW15S

CUTTING, DRILLING AND THREADING

AFO(M)5000



AA
45° • AR: 15°
• RR: 5°

(mm)

Designation			ØD	ØD1	ØD2	Ød	a	b	E	F	ap		Fig.
AFO (AFOM)	5080R/L	5	80	91	60	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	4.8	1.4	1
	5100R/L	6	100	111	80	31.75 (32)	12.7 (14.4)	8 (8)	32 (28)	50	4.8	2.0	2
	5125R/L	8	125	136	100	38.1 (40)	15.9 (16.4)	10 (9)	38 (30)	63	4.8	3.1	2
	5160R/L	10	160	171	120	50.8 (40)	19.0 (16.4)	11 (9)	38 (30)	63	4.8	5.2	2
	5200R/L	12	200	211	130	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	4.8	7.5	3
	5250R/L	16	250	261	180	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	4.8	16.1	3
	5315R/L	20	315	326	240	47.625 (60)	25.4 (25.7)	13.5 (14)	38 (38)	63	4.8	22.8	4

() Metric size

Available Inserts

		OFKT-MM	OFKT-MA	OFCN	OFKR-MF												
		OFKR-MM	OFKR-MA	REKR-MM													
Designation		Cement			Coated				Uncoated								
		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
OFCN	0704SN																
	0704FN																
	070408SN																
	070408FN																
OFKR	0704SN-MF			•	•												
	070408SN-MF																
	0704SN-MM							•	•								
	070408SN-MM			•													
	0704FN-MA																•
OFKT	0704SN-MM																
	0704FN-MA																•
	0704EN-MA																
REKR	170400-MM																

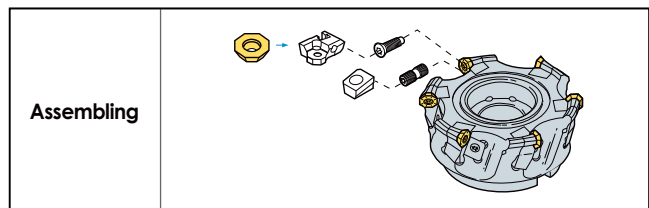
Available Arbors

Designation		General Arbor		NC Arbors		
		NT*	(M/U)-FMA25.4-25	AFO	AFOM	
AFO(M)	5080R/L	NT*	(M/U)-FMA25.4-25	BT**	-FMA25.4-	FMC27
	5100R/L	NT*	(M/U)-FMA31.75-	BT**	-FMA31.75-	FMC32
	5125R/L	NT*		BT**		FMB40
	5160R/L	NT*		BT**		FMB40
	5200R/L	NT*		BT**	-FMA47.625-	FMB60
	5250R/L	NT*		BT**	-FMA47.625-	FMB60
	5315R/L		(Center ring plug)			

* -NT number ** -BT number ***Over milling 5

Recommended Cutting Conditions

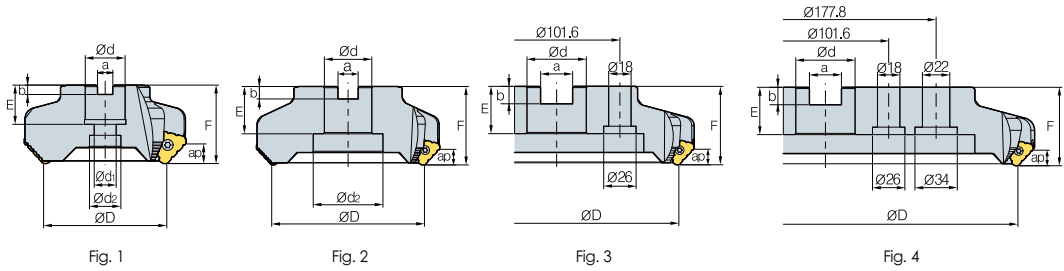
Workpiece	Cutting Conditions		Grades
	vc (m/min)	fz (mm/t)	
P	190~320	0.05~0.20	NCM325 PC3500 ST30A
	161~270	0.05~0.20	
		0.05~0.20	
M	90~150	0.05~0.20	PC9530
K	140~230	0.05~0.30	PC6510 G10
	50~90	0.05~0.30	



Parts

Specification					
Ø80~Ø315	LAF05R/L LAF05R*/L-1*	WEFR/L		LTX0512	HW40

PBAC(M)5000



Designation		⊙	ØD	Ød	Ød	Øcb	a	b	E	F	α	Fig.
Coarse Pitch	PBAC (PBACM)											
	5080R/L	4	80	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (22)	50	12	1
	5100R/L	4	100	31.75 (32)	-	45	12.7 (14.4)	8 (8)	32 (28)	50	12	2
	5125R/L	6	125	38.1 (40)	-	56	15.9 (16.4)	10 (9)	38 (30)	63	12	2
	5160R/L	8	160	50.8 (40)	-	100	19 (16.4)	11 (9)	38 (30)	63	12	2
	5200R/L	10	200	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63	12	3
	5250R/L	12	250	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63	12	3
5315R/L	14	315	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63	12	4	
Close Pitch	PBAC (PBACM)											
	5080R/L-M	6	80	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (22)	50	12	1
	5100R/L-M	6	100	31.75 (32)	-	45	12.7 (14.4)	8 (8)	32 (28)	50	12	2
	5125R/L-M	8	125	38.1 (40)	-	56	15.9 (16.4)	10 (9)	38 (30)	63	12	2
	5160R/L-M	10	160	50.8 (40)	-	100	19 (16.4)	11 (9)	38 (30)	63	12	2
	5200R/L-M	12	200	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63	12	3
	5250R/L-M	14	250	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63	12	3
5315R/L-M	16	315	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63	12	4	

() Metric size

Available Inserts

		TNMX-NM															
		Cermet		Coated							Uncoated						
Designation		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
TNMX	2710AZNR-NM					•			•		•		•				
	2710AZNL-NM																

Available Arbors

Designation		Available Arbors				
		PBAC		PBACM		
PBAC (PBACM)	5080R/L-	BT	-FMA25.4-		BT	-FMC27-
	5100R/L-	BT	-FMA31.75-		BT	-FMC32-
	5125R/L-				BT	-FMB40-
	5160R/L-				BT	-FMC40-
	5200R/L-					
	5250R/L-					
	5315R/L-	BT	-FMA47.625-		BT	-FMB60-

Parts

Specification				
Ø80~Ø315	Screw	Shim ST53AZR	Shim Screw SHXN0712F	Wrench TW20-100

PBZC(M)5000

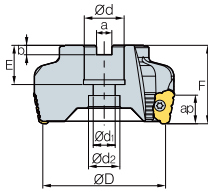
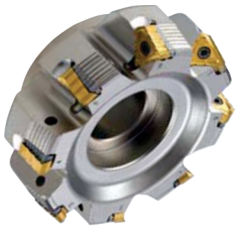


Fig. 1

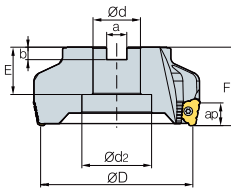


Fig. 2

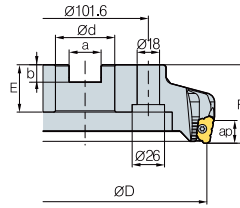


Fig. 3

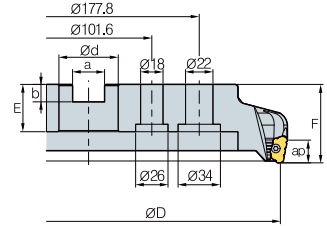


Fig. 4



AA
80°

- AR: -5°
- RR: -12°

(mm)

Designation		⊙	ØD	Ød	Ød ₁	Ød ₂	a	b	E	F	φ	Fig.
Coarse Pitch	PBZC (PBZCM) 5080R/L	4	80	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (22)	50		1
	5100R/L	4	100	31.75 (32)	-	45	12.7 (14.4)	8 (8)	32 (28)	50		2
	5125R/L	6	125	38.1 (40)	-	56	15.9 (16.4)	10 (9)	38 (30)	63		2
	5160R/L	8	160	50.8 (40)	-	100	19 (16.4)	11 (9)	38 (30)	63		2
	5200R/L	10	200	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63		3
	5250R/L	12	250	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63		3
	5315R/L	14	315	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63		4
Close Pitch	PBZC (PBZCM) 5080R/L-M	6	80	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (22)	50		1
	5100R/L-M	6	100	31.75 (32)	-	45	12.7 (14.4)	8 (8)	32 (28)	50		2
	5125R/L-M	8	125	38.1 (40)	-	56	15.9 (16.4)	10 (9)	38 (30)	63		2
	5160R/L-M	10	160	50.8 (40)	-	100	19 (16.4)	11 (9)	38 (30)	63		2
	5200R/L-M	12	200	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63		3
	5250R/L-M	14	250	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63		3
	5315R/L-M	16	315	47.625 (60)	-	-	25.4 (25.7)	14 (14)	38 (38)	63		4

() Metric size

Available Inserts

		TMNX-NM															
		Cermet		Coated								Uncoated					
Designation		CN2000	CN30	NCM325	NCM335	NC5330	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
TMNX	2710AZNR-NM					•			•				•				
	2710AZNL-NM																

Available Arbors

Designation		Available Arbors				
		PBZC		PBZCM		
PBZC (PBZCM)	5080R/L-	BT	-FMA25.4-		BT	-FMC27-
	5100R/L-	BT	-FMA31.75-		BT	-FMC32-
	5125R/L-	BT			BT	-FMB40-
	5160R/L-	BT			BT	-FMC40-
	5200R/L-					
	5250R/L-	BT	-FMA47.625-		BT	-FMB60-
	5315R/L-					

Parts

Specification				
Ø80~Ø315	Screw	Shim	Shim Screw	Wrench
		ST53AZR	SHXN0712F	TW20-100

RM8AC(M)4000

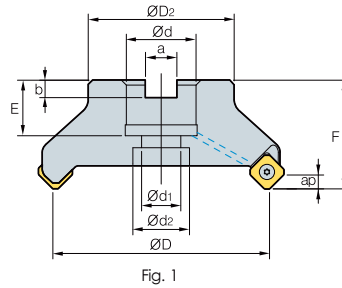


Fig. 1

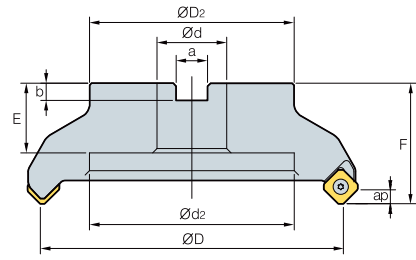


Fig. 2



AA
45°

- AR: -6°
- RR: -9°~ -6°

(mm)

Designation		ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	ap	$\frac{\text{kg}}{\text{kg}}$	Fig.	
RM8ACM	4050HR-M	4	50	49	22	11	18	10.4	6.3	20	40	6.0	0.5	1
	4050HR-H	6	50	49	22	11	18	10.4	6.3	20	40	6.0	0.5	1
	4063HR-M	6	63	49	22	11	18	10.4	6.3	20	40	6.0	0.7	1
	4063HR-H	8	63	49	22	11	18	10.4	6.3	20	40	6.0	0.7	1
RM8AC (RM8ACM)	4080HR	5	80	57	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (23)	50	6.0	1.2	1
	4080HR-M	7	80	57	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (23)	50	6.0	1.2	1
	4080HR-H	10	80	57	25.4 (27)	14	20	9.5 (12.4)	6 (7)	25 (23)	50	6.0	1.3	1
	4100HR	6	100	67	31.75 (32)	18	26	12.7 (14.4)	8	33 (25.5)	63 (50)	6.0	1.7	1
	4100HR-M	8	100	67	31.75 (32)	18	26	12.7 (14.4)	8	33 (25.5)	63 (50)	6.0	1.7	1
	4100HR-H	12	100	67	31.75 (32)	18	26	12.7 (14.4)	8	33 (25.5)	63 (50)	6.0	1.7	1
	4125HR	8	125	87	50.8 (40)	22	32	15.9 (16.4)	10 (9)	36 (30)	63	6.0	3.6	1
	4125HR-M	10	125	87	50.8 (40)	22	32	15.9 (16.4)	10 (9)	36 (30)	63	6.0	3.6	1
	4125HR-H	16	125	87	50.8 (40)	22	32	15.9 (16.4)	10 (9)	36 (30)	63	6.0	3.7	1
	4160R	10	160	107	50.8 (40)	-	107	19 (16.4)	11 (9)	38 (32)	63	6.0	4.8	2
	4160R-M	12	160	107	50.8 (40)	-	107	19 (16.4)	11 (9)	38 (32)	63	6.0	5.3	2
	4160R-H	20	160	107	50.8 (40)	-	107	19 (16.4)	11 (9)	38 (32)	63	6.0	5.4	2
	4200R-M	14	200	130	47.625 (60)	-	135	25.4 (25.7)	14	38 (32)	63	6.0	7.1	2
	4200R-H	24	200	130	47.625 (60)	-	135	25.4 (25.7)	14	38 (32)	63	6.0	7.1	2
	4250R-M	16	250	180	47.625 (60)	-	180	25.4 (25.7)	14	38 (32)	63	6.0	11.9	2
	4250R-H	30	250	180	47.625 (60)	-	180	25.4 (25.7)	14	38 (32)	63	6.0	12.0	2
4315R	18	315	240	47.625 (60)	-	238	25.4 (25.7)	14	38	63	6.0	18.8 (18.6)	2	
4315R-M	20	315	240	47.625 (60)	-	238	25.4 (25.7)	14	38	63	6.0	18.8 (18.6)	2	
4400R-M	28	400	260	47.625 (60)	-	238	25.4 (25.7)	14	38	63	6.0	37.7 (37.4)	2	

() Metric size

Available Inserts

		SNEX-MF	SNEX-ML	SNEX-MM	SNEX-MA	SNEX-W	SNMX-MF	SNMX-MM								
Designation		Cermet		Coated				Uncoated								
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G-10
SNEX	1206ANN-MF															
	1206ANN-ML															
	1206ANN-MM															
	1206ANN-MA															
SNMX	1206ANN-W															
	1206ANN-MF															
	1206ANN-MM															

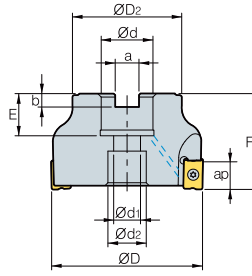
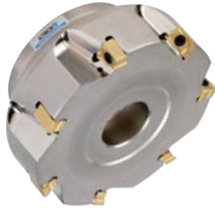
Parts

Specification		
Ø50~Ø400	FTKA0410	TW15S

Available Arbors

Designation	Available Arbors	
	RM8AC	RM8ACM
RM8ACM	4050HR- 4063HR-	- -FMC22-
RM8AC (RM8ACM)	4080HR-	BT -FMA25.4-
	4100HR-	BT -FMA31.75-
	4125HR-	BT -FMA38.1-
	4160R-	BT -FMA50.8-
	4200R-	
	4250R-	BT -FMA47.625-
	4315R-	
	4400R-	BT -FMB60-

RM4PC(M)3000



• AR: -6°
• RR: -19°~ -13°

(mm)

Designation			ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	ap		Bolt
RM4PCM	3040HR	4	40	35	16	9	14	8.4	5.6	19	40	9.0	0.24	SB0825
	3040HR-M	5	40	35	16	9	14	8.4	5.6	19	40	9.0	0.23	SB0825
	3050HR	5	50	42	22	11	18	10.4	6.3	20	40	9.0	0.36	SB1025
	3050HR-M	7	50	42	22	11	18	10.4	6.3	20	40	9.0	0.35	SB1025
	3063HR	7	63	49	22	11	18	10.4	6.3	20	40	9.0	0.61	SB1025
	3063HR-M	9	63	49	22	11	18	10.4	6.3	20	40	9.0	0.60	SB1025
RM4PC (RM4PCM)	3080HR	8	80	57	25.4(27)	14	20	9.5(12.4)	6.0(7.0)	25(23)	50	9.0	1.25(1.24)	SB1230
	3080HR-M	10	80	57	25.4(27)	14	20	9.5(12.4)	6.0(7.0)	25(23)	50	9.0	1.24(1.23)	SB1230
	3100HR	9	100	67	31.75(32)	18	26	12.7(14.4)	8.0(8.0)	33(25)	63(50)	9.0	2.46(1.94)	SB1630
	3100HR-M	12	100	67	31.75(32)	18	26	12.7(14.4)	8.0(8.0)	33(25)	63(50)	9.0	2.44(1.93)	SB1630

() Metric size

Available Inserts

		LNEX-MF		LNEX-MM		LNEX-MA		LNMX-MF		LNMX-MM						
Designation		Cermet		Coated						Uncoated						
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PCY530	PC6510	PC5300	PC5400	ST30A	G10
LNEX	100605PNR-MF										•	•	•			
	100605PNR-MM							•			•	•	•			
	100605PNR-MA															•
	100605PNL-MM										•	•	•			
	100608PNR-MF								•		•	•	•			
	100608PNR-MM										•	•	•			
LNMX	100605PNR-MF								•		•	•	•			
	100605PNR-MM							•	•	•	•	•				
	100608PNR-MF								•		•	•	•			
	100608PNR-MM								•		•	•	•			
	100605PNL-MM							•	•		•	•	•			

Available Arbors

Designation		Available Arbors	
		RM4PC	RM4PCM
RM4PC(M)	3040HR	-	BT -FMC16-
	3040HR-M	-	BT -FMC16-
	3050HR	-	BT -FMC22-
	3050HR-M	-	BT -FMC22-
	3063HR	-	BT -FMC22-
	3063HR-M	-	BT -FMC22-

Designation		Available Arbors	
		RM4PC	RM4PCM
RM4PC(M)	3080HR	BT -FMA25.4-	BT -FMC27-
	3080HR-M	BT -FMA25.4-	BT -FMC27-
	3100HR	BT -FMA31.75-	BT -FMC32-
	3100HR-M	BT -FMA31.75-	BT -FMC32-

Parts

Specification		
Ø40~Ø100	FTKA0307	TW09S

RM4PC(M)4000

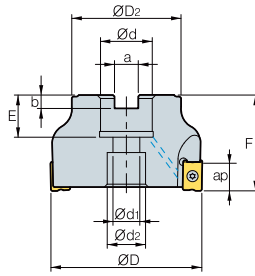
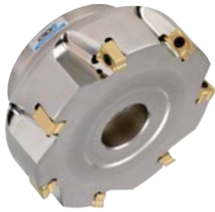


Fig. 1

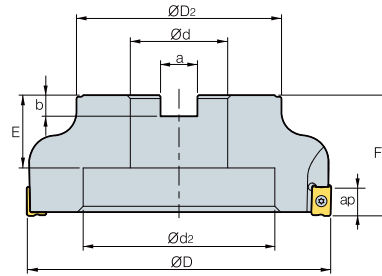


Fig. 2



AA
90°
• AR: -6°
• RR: -19°~ -13°

(mm)

Designation		⊙	ØD	ØD2	Ød	Ød1	Ød2	a	b	E	F	ap	kg	Bolt	Fig.
RM4PCM	4040HR	3	40	36	16	11	18	8.4	5.6	19	40	14	0.23	SB0825	1
	4050HR	3	50	46	22	11	18	10.4	6.3	20	40	14	0.36	SB1025	1
	4050HR-M	4	50	46	22	11	18	10.4	6.3	20	40	14	0.35	SB1025	1
	4050HR-H	5	50	46	22	11	18	10.4	6.3	20	40	14	0.36	SB1025	1
	4063HR	4	63	49	22	11	18	10.4	6.3	20	40	14	0.56	SB1025	1
	4063HR-M	6	63	49	22	11	18	10.4	6.3	20	40	14	0.57	SB1025	1
RM4PC (RM4PCM)	4080HR	5	80	57	25.4 (27)	14	20	9.5 (12.4)	6.0 (7.0)	25 (23)	50	14	1.8 (1.16)	SB1230	1
	4080HR-M	7	80	57	25.4 (27)	14	20	9.5 (12.4)	6.0 (7.0)	25 (23)	50	14	1.17 (1.14)	SB1230	1
	4080HR-H	7	80	57	25.4 (27)	14	20	9.5 (12.4)	6.0 (7.0)	25 (23)	50	14	1.17 (1.14)	SB1230	1
	4100HR	5	100	67	31.75 (32)	18	26	12.7 (14.4)	8.0 (8.0)	33 (25)	63 (50)	14	2.35 (1.84)	SB1630	1
	4100HR-M	8	100	67	31.75 (32)	18	26	12.7 (14.4)	8.0 (8.0)	33 (25)	63 (50)	14	2.31 (1.82)	SB1630	1
	4100HR-H	9	100	67	31.75 (32)	18	26	12.7 (14.4)	8.0 (8.0)	33 (25)	63 (50)	14	2.31 (1.82)	SB1630	1
	4125HR	7	125	87	38.1 (40)	22	32	15.9 (16.4)	10 (9.0)	35 (30)	63	14	3.87 (3.79)	SB2040	1
	4125HR-M	10	125	87	38.1 (40)	22	32	15.9 (16.4)	10 (9.0)	35 (30)	63	14	3.82 (3.70)	SB2040	1
	4160R	8	160	107	50.8 (40)	-	100	19 (16.4)	11 (9.0)	38 (32)	63	14	5.0 (4.75)	MBA	2
	4160R-M	12	160	107	50.8 (40)	-	100	19 (16.4)	11 (9.0)	38 (32)	63	14	4.97 (4.71)	MBA	2

() Metric size

Available Inserts

		LNEX-MF		LNEX-MM		LNEX-MA		LNMX-MF		LNMX-MM							
Designation		Cermel		Coated						Uncoated							
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
LNEX	151004PNR-MF																
	151004PNR-MM																
	151004PNR-MA																
	151008PNR-MF																
	151008PNR-MM																
	151008PNR-MA																
	151008PNL-MM																
	151016PNR-MF																
151016PNR-MM																	
LNMX	151004PNR-MF																
	151004PNR-MM																
	151008PNR-MF																
	151008PNR-MM																
151016PNR-MF																	
151016PNR-MM																	

Available Arbors

Designation	Available Arbors	
	RM4PC	RM4PCM
RM4PC(M)	4050HR	
	4050HR-M	
	4063HR	BT -FMC22-
	4063HR-M	
	4080HR	BT -FMA25.4-
	4080HR-M	BT -FMC27-

Designation	Available Arbors	
	RM4PC	RM4PCM
RM4PC(M)	4100HR	BT -FMA31.75-
	4100HR-M	
	4125HR	
	4125HR-M	BT -FMB40-
	4160R	BT -FMC40-
	4160R-M	

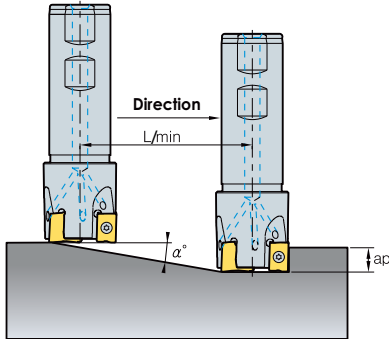
Parts

Specification		
Ø50~Ø160	FTKA0412B	TW15S

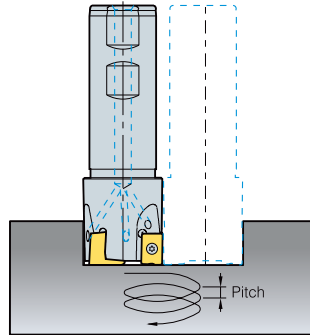
Rich Mill RM4

Ramping and Helical Cutting

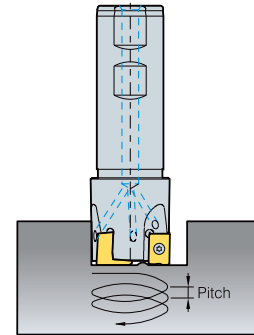
1. Ramping



2. Helical Cutting for Blind Hole



3. Helical Cutting for Through Hole



(mm)

Designation	1. Ramping			2. Helical cutting for blind hole				3. Helical cutting for through hole	
	D	α°	L/min	Maximum Hole Diameter	Maximum Pitch	Minimum Hole Diameter	Minimum Pitch	Minimum Hole Diameter	Maximum Pitch
RM4PS3014HR	14	4.5	125	27	3.1	25	2.7	19	1.3
RM4PS3016HR	16	3.5	160	31	2.7	29	2.5	23	1.4
RM4PS3018HR	18	3.0	185	35	2.7	33	2.4	27	1.5
RM4PS3020HR	20	2.7	204	39	2.7	37	2.5	31	1.6
RM4PS3025HR	25	1.8	301	49	2.3	47	2.1	41	1.6
RM4PS3032HR	32	1.2	451	63	2.0	61	1.9	55	1.5
RM4PS3040HR	40	0.9	616	79	1.8	77	1.8	71	1.5
RM4PS3050HR	50	0.6	843	99	1.5	97	1.5	91	1.3
RM4PC(M)3040HR	40	0.9	616	79	1.8	77	1.8	71	1.5
RM4PC(M)3050HR	50	0.6	1508	99	1.5	97	1.5	91	1.3
RM4PC(M)3063HR	63	0.5	1123	125	1.6	123	1.6	117	1.4
RM4PC(M)3080HR	80	0.3	1508	159	1.2	157	1.2	151	1.1
RM4PC(M)3100HR	100	0.2	1910	199	1.0	197	1.0	191	0.9
RM4PS4032HR	32	2.5	229	62	4	59.5	3.0	49	2.0
RM4PS4040HR	40	2.0	286	78	4	75.5	3.0	65	2.0
RM4PS4050HR	50	2.0	286	98	5	95.5	4.0	85	3.5
RM4PS4063HR	63	2.0	286	124	5	121.5	5.0	111	5.0
RM4PC(M)4050HR	50	2.0	286	98	5	95.5	4.0	85	3.5
RM4PC(M)4063HR	63	2.0	286	124	5	121.5	5.0	111	5.0
RM4PC(M)4080HR	80	1.5	382	158	5	155.5	5.0	145	5.0
RM4PC(M)4100HR	100	1.0	573	198	5	195.5	4.5	185	4.0
RM4PC(M)4125HR	125	1.0	573	248	5	245.5	5.0	235	5.0
RM4PC(M)4160R	160	0.5	1146	318	4	315.5	3.5	305	3.5

* Please be sure to use cutting oil or air for ramping and helical machining

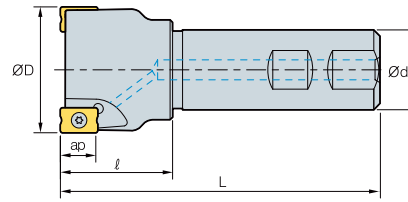
3000 Type: Available ap = 5.5 mm

Recommended Cutting Conditions

(mm)

ISO	Grades	LNM(E)X100605PNR-MF		LNM(E)X100605PNR-MM		LNEX100605PNR-MA		Max-ap	LNM(E)X151008PNR-MF		LNM(E)X151008PNR-MM		LNEX151008PNR-MA		Max-ap
		vc (m/min)	fz (mm/t)	vc (m/min)	fz (mm/t)	vc (m/min)	fz (mm/t)		vc (m/min)	fz (mm/t)	vc (m/min)	fz (mm/t)	vc (m/min)	fz (mm/t)	
P	NCM325	-	-	-	-	-	-	9.0	150~300	0.05~0.30	120~300	0.05~0.35	150~300	0.03~0.20	14.0
	PC3500	150~300	0.05~0.25	120~30	0.05~0.30	150~300	0.03~0.20		150~300	0.05~0.30	120~300	0.05~0.35	150~300	0.03~0.20	
M	PC5300		0.05~0.25		0.05~0.30	120~200	0.03~0.20			0.05~0.30		0.05~0.3	120~200	0.03~0.20	
K	PC6510	150~300		120~300		-	-		150~300		120~300		-	-	

RM4PS3000



- AR: -6°
- RR: $-39^\circ \sim -16^\circ$

(mm)

Designation			ØD	Ød	l	L	φ	
RM4PS	3014HR-S16	1	14	16	23	90	9.0	0.11
	3016HR-S16	1	16	16	25	90	9.0	0.11
	3018HR-S16	2	18	16	23	90	9.0	0.12
	3020HR-S20	2	20	20	30	100	9.0	0.21
	3020HR-S20M	3	20	20	30	100	9.0	0.21
	3025HR-S25	2	25	25	35	115	9.0	0.38
	3025HR-S25M	3	25	25	35	115	9.0	0.38
	3032HR-S32	3	32	25	40	125	9.0	0.38
	3032HR-S32M	4	32	32	40	125	9.0	0.70
	3040HR-S32	4	40	32	42	130	9.0	0.86
	3040HR-S32M	5	40	32	42	130	9.0	0.85
	3040HR-S40	4	40	40	42	130	9.0	1.17
	3040HR-S40M	5	40	40	42	130	9.0	1.17
	3040HR-S42	4	40	42	42	130	9.0	1.26
	3040HR-S42M	5	40	42	42	130	9.0	1.25
	3050HR-S32	5	40	42	42	130	9.0	1.25
	3050HR-S32M	7	50	32	45	135	9.0	1.05
	3050HR-S40	5	50	40	45	135	9.0	1.38
	3050HR-S40M	7	50	40	45	135	9.0	1.37
	3050HR-S42	5	50	42	45	135	9.0	1.48
3050HR-S42M	7	50	42	45	135	9.0	1.48	

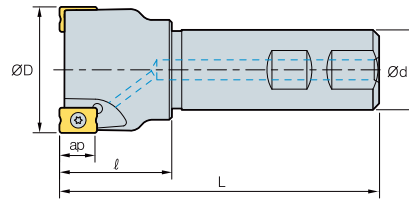
Available Inserts

		LNEX-MF		LNEX-MM		LNEX-MA		LNMX-MF		LNMX-MM						
Designation		Cermet		Coated								Uncoated				
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10
LNEX	100605PNR-MF										•	•	•			
	100605PNR-MM									•						
	100605PNR-MA															•
	100605PNL-MM											•	•	•		
	100608PNR-MF									•						
	100608PNR-MM												•	•	•	
LNMX	100605PNR-MF										•	•	•			
	100605PNR-MM									•	•	•	•			
	100605PNL-MM									•	•	•	•			
	100608PNR-MF									•						
	100608PNR-MM									•	•	•	•			

Parts

Specification		
	Screw	Wrench
Ø14~Ø50	FTKA0307	TW09S

RM4PS4000



- AR: -6°
- RR: -24°~ -14°

(mm)

Designation			ØD	Ød	ℓ	L	φ	
RM4PS	4032HR-S32	2	32	32	40	125	14	0.86
	4032HR-S32M	3	32	32	40	125	14	0.69
	4040HR-S32	3	40	32	42	125	14	0.83
	4040HR-S32M	4	40	32	43	125	14	1.14
	4040HR-S40	3	40	40	42	125	14	1.14
	4040HR-S42	3	40	42	42	125	14	1.23
	4050HR-S32	3	50	32	45	125	14	1.02
	4050HR-S32M	4	50	32	45	125	14	1.02
	4050HR-S40	3	50	40	45	125	14	1.35
	4050HR-S40M	4	50	40	45	125	14	1.34
	4050HR-S42	3	50	42	45	125	14	1.45
	4050HR-S42M	4	50	42	45	125	14	1.45
	4063HR-S32	4	63	32	45	125	14	1.25
	4063HR-S32M	6	63	32	45	125	14	1.24
	4063HR-S40	4	63	40	45	125	14	1.62
	4063HR-S40M	6	63	40	45	125	14	1.61
	4063HR-S42	4	63	42	45	125	14	1.71
	4063HR-S42M	6	63	42	45	125	14	1.7

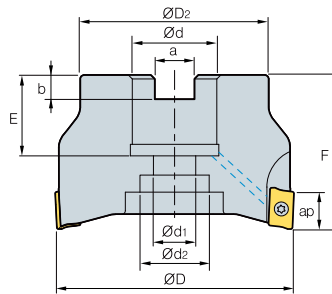
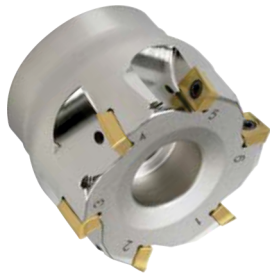
Available Inserts

		LNEX-MF		LNEX-MM		LNEX-MA		LNMX-MF		LNMX-MM							
Designation		Cermet		Coated								Uncoated					
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
LNEX	151004PNR-MF										•	•	•				
	151004PNR-MM										•	•	•				
	151004PNR-MA															•	
	151008PNR-MF										•	•	•				
	151008PNR-MM								•		•	•	•				
	151008PNR-MA											•	•	•			•
	151016PNR-MF											•	•	•			
151016PNR-MM											•	•	•				
LNMX	151004PNR-MF								•		•	•	•				
	151004PNR-MM										•	•	•				
	151008PNR-MF										•	•	•				
	151008PNR-MM							•	•	•	•	•	•				
	151016PNR-MF									•	•	•	•				
151016PNR-MM								•	•		•	•					

Parts

Specification		
Ø32~Ø63	FTKA0412B	TW15S

AMC(M)1000S



• AR: 9°~13°
• RR: -14°~5°

(mm)

Designation			$\varnothing D$	$\varnothing D_2$	$\varnothing d$	$\varnothing d_1$	$\varnothing d_2$	a	b	E	F	ap	
AMCM	1032HS	8	32	30	16	9	14	8.4	5.6	19	40	5.6	0.15
	1040HS-16	10	40	34	16	9	14	8.4	5.6	19	40	5.6	0.24
	1040HS-22	10	40	34	22	11	18	10.4	6.3	21	40	5.6	0.24
	1050HS	12	50	42	22	11	18	10.4	6.3	21	40	5.6	0.36
	1063HS	14	63	49	22	11	18	10.4	6.3	21	40	5.6	0.61

Available Inserts

		APMT-MA		APMT-MM													
Designation		Cermet		Coated								Uncoated					
		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	0602PDFR-MA																•
	060208PDFR-MA																
	060202PDSR-MM				•					•			•	•			
	0602PDSR-MM				•			•	•	•	•	•	•	•			
	060208PDSR-MM				•					•	•		•	•			
	060212R-MM				•						•		•	•			

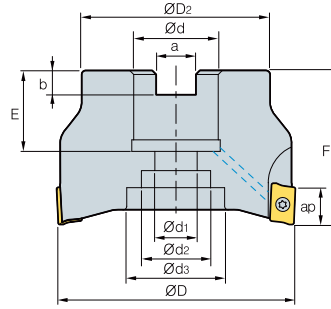
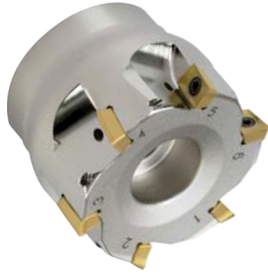
Available Arbors

Designation		$\varnothing d$	NC Arbors
AMCM	1032HS	16	BT -FMC16-
	1040HS-16		
	1040HS-22		
	1050HS	22	BT -FMC22-
	1063HS		

Parts

Specification		
$\varnothing 32\sim\varnothing 63$	FTKA01842	TW06S-A

AMC(M)1500S



• AR: 9°~13°
• RR: -14°~5°

(mm)

Designation			$\varnothing D$	$\varnothing D_2$	$\varnothing d$	$\varnothing d_1$	$\varnothing d_2$	a	b	E	F	$\varnothing p$		
AMCM	15040HS	5	40	34	16	9	14	-	8.4	5.6	19	40	9	0.22
	15050HS	6	50	42	22	11	18	-	10.4	6.3	21	40	9	0.34
	15063HS	8	63	49	22	11	18	-	10.4	6.3	21	40	9	0.57
AMC (AMCM)	15080HS	10	80	57	25.4 (27)	14	25	35	9.5 (12.4)	6 (7)	24 (23)	50	9	1.10
	15100HS	12	100	67	31.75 (32)	18	26	42	12.7 (14.4)	8 (8)	32 (26)	63	9	2.10

() Metric size

Available Inserts

		APMT-MA		APMT-ML						APMT-MM							
Designation		Cermet		Coated								Uncoated					
		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	0903PDFR-MA																•
	090308PDFR-MA																
	0903PDER-ML													•	•		
	090308PDER-ML													•	•		
	0903PDSR-MM				•			•	•	•	•		•	•	•		
	090308PDSR-MM				•					•	•			•	•		
	090312R-MM										•			•	•		
	090316R-MM					•					•	•		•	•		
	090320R-MM									•	•			•	•		

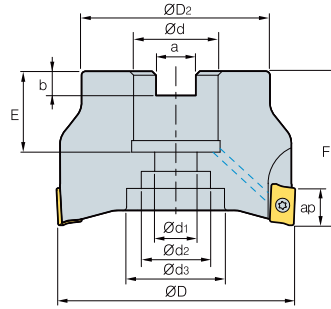
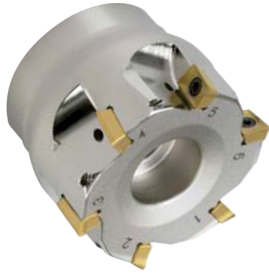
Available Arbors

Designation		$\varnothing d$	NC Arbors	
AMC(M)	15040HS	16	BT -FMC16-	
	15050HS			
	15063HS	22	BT -FMC22-	
	15080HS		25.4	BT -FMA25.4-
			27	BT -FMC27-
	15100HS		31.75	BT -FMA31.75-
			32	BT -FMC32-

Parts

Specification		
$\varnothing 40 \sim \varnothing 100$	FTKA02565S	TW08S

AMC(M)2000S



AA
90°
• AR: 9°~13°
• RR: -14°~5°

(mm)

Designation			$\varnothing D$	$\varnothing D_2$	$\varnothing d$	$\varnothing d_1$	$\varnothing d_2$	$\varnothing d_3$	a	b	E	F	ap	
AMCM	2040HS	5	40	34	16	9	14	-	8.4	5.6	18	40	11	0.22
	2050HS	6	50	42	22	11	18	-	10.4	6.3	20	40	11	0.34
	2063HS	8	63	49	22	11	18	-	10.4	6.3	20	40	11	0.57
AMC (AMCM)	2080HS	8	80	57	25.4 (27)	14	25	35	9.5 (12.4)	6 (7)	25 (22)	50	11	1.10
	2100HS	10	100	67	31.75 (32)	18	26	42	12.7 (14.4)	8 (8)	32 (28)	63	11	2.10

() Metric size

Available Inserts

		APMT-MA		APMT-ML		APMT-MM		APMT-MF									
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NCM925	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	11T3PDFR-MA																•
	11T308PDFR-MA																
	11T3PDER-ML													•	•		
	11T308PDER-ML													•	•		
	11T3PDSR-MM			•	•			•	•	•	•	•	•	•	•		
	11T3PDSR-MF												•	•	•		
	11T308PDSR-MM				•	•									•	•	
	11T312PDSR-MM				•	•									•	•	
	11T316R-MM				•	•									•	•	
	11T318R-MM																
	11T324R-MM				•	•									•	•	

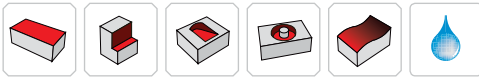
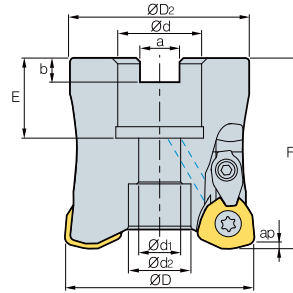
Available Arbors

Designation		$\varnothing d$	NC Arbors
AMC(M)	2040HS	16	BT -FMC16-
	2050HS	22	BT -FMC22-
	2063HS		
	2080HS		BT -FMA25.4-
	2100HS	31.75	BT -FMC27-
			32
			BT -FMC32-

Parts

Specification		
$\varnothing 40 \sim \varnothing 100$	FTKA02565S	TW08S

HRMC(M)13



AA
15°

- AR: 7°
- RR: -15°~5°

(mm)

Designation		⊙	ØD	ØD	Ød	Ød	Ød2	a	b	E	F	ap	kg	Bolt
HRMC(M)	13050HR-3	3	50	47	22.225 (22)	11	16.4	8.0 (10.4)	5 (6.3)	20 (21)	50	2.0	0.4	SB1035
	13050HR-4	4	50	47	22.225 (22)	11	16.4	8.0 (10.4)	5 (6.3)	20 (21)	50	2.0	0.4	SB1035
	13063HR-4	4	63	60	22.225 (22)	11	17	8.0 (10.4)	5 (6.3)	20 (21)	50	2.0	0.7	SB1035
	13080HR-5	5	80	76	31.75 (27)	18 (13)	26 (20)	12.7 (12.4)	8 (7)	32 (23)	70	2.0	1.6	SB16 (12)45

() Metric size

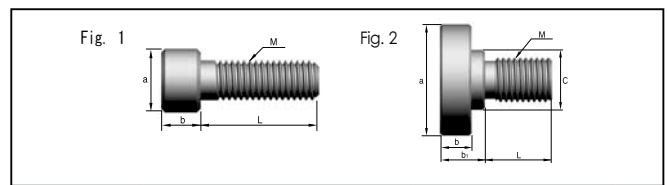
Available Inserts

WDKT-MH																
Designation		Cermet		Coated							Uncoated					
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10
WDKT	130520ZDSR-MH					•	•	•	•	•	•	•	•			

Available Arbors

Designation		HRMDC		HRMDCM	
HRMC(M)	13050HR-3				
	13050HR-4	BT	-FMA22.225-	BT	-FMC22-
	13063HR-4			SK	-FMC22-
	13080HR-5	BT SK	-FMA31.75- -FMA31.75-	BT SK	-FMC27- -FMC27-

Bolt

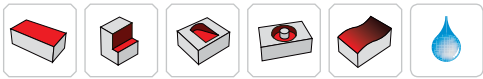
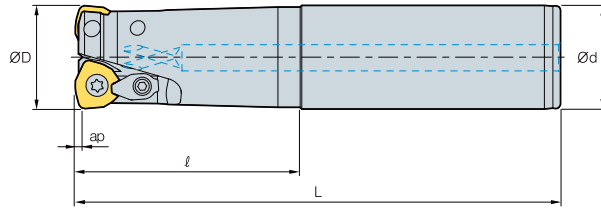


Designation	Dimensions (mm)							Fig
	M	a	b	b1	C	L	pitch	
SB1035	M10	16	10	-	-	35	1.5	1
SB1245	M12	18	12	-	-	45	1.75	1
SB1645	M16	24	16	-	-	45	2.0	1
SB2040	M20	30	20	-	-	40	2.5	1
MBA-M20	M20	50	14	20	27	30	2.5	2
MBA-M24	M24	65	14	24	37	36	3.0	2

Parts

Specification	Screw	Clamp	Clamp Screw	C-Ring	Wrench
Ø50~Ø80	FTGA0513-P	CHH4.5R1	CTX04513H	CR03	TW20-100

HRMS08/10



AA
15°

- AR: 7°
- RR: -11°~ 5°

(mm)

Designation			ØD	Ød	ℓ	L	ϕ	
HRMS	0820HR-2S20	2	20	20	50	130	1.0	0.3
	0820HR-2M20	2	20	20	100	180	1.0	0.4
	0820HR-2L20	2	20	20	130	250	1.0	0.5
	0821HR-2S20	2	21	20	50	130	1.0	0.3
	0821HR-2M20	2	21	20	50	180	1.0	0.4
	0821HR-2L20	2	21	20	50	250	1.0	0.5
	1025HR-2S25	2	25	25	60	140	1.5	0.4
	1025HR-2M25	2	25	25	120	200	1.5	0.6
	1025HR-2L25	2	25	25	180	300	1.5	0.9
	1026HR-2S25	2	26	25	60	140	1.5	0.4
	1026HR-2M25	2	26	25	60	200	1.5	0.6
	1026HR-2L25	2	26	25	60	300	1.5	1.0
	1030HR-2S32	2	30	32	70	150	1.5	0.8
1030HR-2M32	2	30	32	120	200	1.5	1.0	
1030HR-2L32	2	30	32	180	300	1.5	1.5	

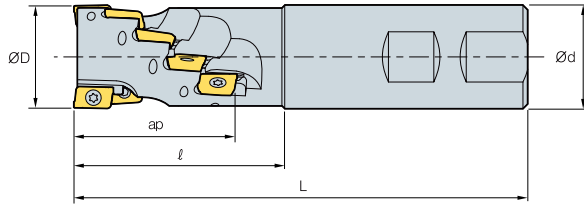
Available Inserts

			WDKT-MH															
			Cermet		Coated							Uncoated						
Type	Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9630	PC6510	PC5300	PC5400	ST30A	G10	H01
08 type	WDKT	080316ZDSR-MH						•	•	•	•	•	•	•				
10 type	WDKT	10T320ZDSR-MH						•	•	•	•	•	•	•				

Parts

Specification					
	Screw	Clamp	Clamp Screw	C-Ring	Wrench
Ø20~Ø21 (08 type)	FTNA0306	-	-	-	TW09P
Ø25~Ø30 (10 type)	FTKA0408	CHH3.5R1	CTX03510	CR03	TW15S

AMS1000M/1500M



AA
90°

- AR: 7°~ 9°
- RR: -13°~ 10°

(mm)

Designation		⊙	ØD	Ød	l	L	No. of flute	ap	kg
AMS	1016M	6	16	16	30	80	2	15.5	0.3
	1020M	12	20	20	32	85	3	20.5	0.3
	1025M	20	25	25	39	95	4	25.5	0.3
AMS	15020M	3	20	20	42	105	1	26.5	0.3
	15025M	8	25	25	50	110	2	35	0.3
	15032M	10	32	32	60	120	2	44	0.3

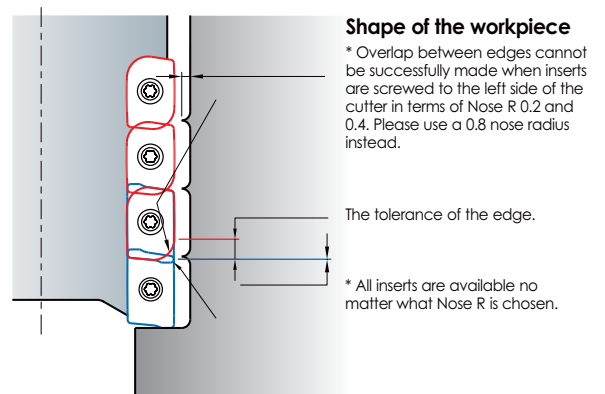
Available Inserts

		APMT-MA		APMT-ML					APMT-MM								
		Cermet		Coated										Uncoated			
Type	Designation	CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
1000 type	APMT	0602PDFR-MA															•
		060208PDFR-MA															
		060202PDSR-MM			•					•	•	•	•	•	•		
		0602PDSR-MM			•				•	•	•	•	•	•	•		
		060208PDSR-MM			•					•	•				•	•	
		060212R-MM			•										•	•	
1500 type	APMT	0903PDFR-MA															•
		090308PDFR-MA															
		0903PDER-ML												•	•		
		090308PDER-ML												•	•		
		0903PDSR-MM			•				•	•	•		•	•	•		
		090308PDSR-MM			•					•	•			•	•		
		090312R-MM												•	•		
		090316R-MM			•						•	•		•	•		
	090320R-MM								•	•			•	•			

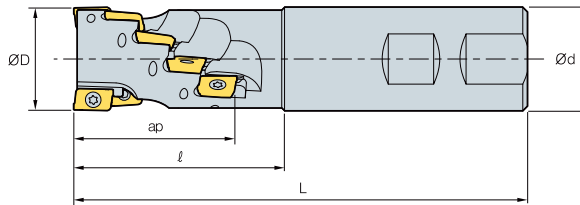
Parts

Specification	Screw	Wrench	Wrench
Ø16~Ø25 (1000 type)	FTKA01842	-	TW06S-A
Ø20~Ø32 (1500 type)	FTKA02565S	TW08S	-

Caution when Clamping the Inserts



AMS2000M



AA
90°

- AR: 7°~9°
- RR: -13°~10°

(mm)

Designation	⊙	ØD	Ød	ℓ	L	No. of flute	ap	
AMS	2020M	3	20	20	45	1	29.4	0.32
	2025M	8	25	25	55	2	38.9	0.40
	2032M	10	32	32	65	2	48.5	0.65
	2040M	14	40	40	75	2	58	0.75

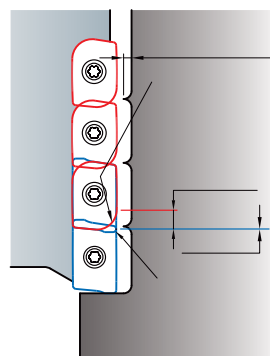
Available Inserts

		APMT-MA		APMT-ML		APMT-MM		APMT-MF									
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	11T3PDFR-MA																•
	11T308PDFR-MA																
	11T3PDER-ML													•	•		
	11T308PDER-ML													•	•		
	11T3PDSR-MM			•	•			•	•	•	•	•	•	•	•		
	11T3PDSR-MF				•					•	•		•	•	•		
	11T308PDSR-MM				•					•	•		•	•	•		
	11T312PDSR-MM				•					•	•		•	•	•		
	11T316R-MM				•					•	•		•	•	•		
	11T318R-MM				•					•	•		•	•	•		
	11T324R-MM				•					•	•		•	•	•		

Parts

Specification		
Ø20~Ø40	FTKA02565S	TW08S

Caution when Clamping the Inserts



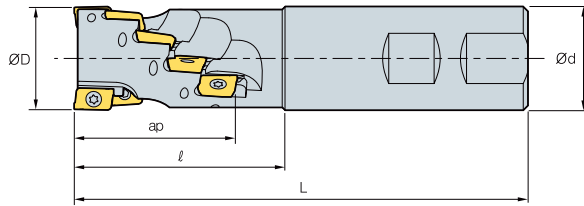
Shape of the workpiece

* Overlap between edges cannot be successfully made when inserts are screwed to the left side of the cutter in terms of Nose R 0.2 and 0.4. Please use a 0.8 nose radius instead.

The tolerance of the edge.

* All inserts are available no matter what Nose R is chosen.

AMS4000M



• AR: 7°~ 9°
• RR: -13°~ 10°

(mm)

Designation		ØD	Ød	l	L	No. of flute	ap	kg
AMS	4032M	4	32	32	60	2	31.6	0.65
	4040M	6	40	40	70	2	46	1.11
	4050M-S40	6	50	40	55	2	46	1.22
	4050M	8	50	40	70	2	61	1.37

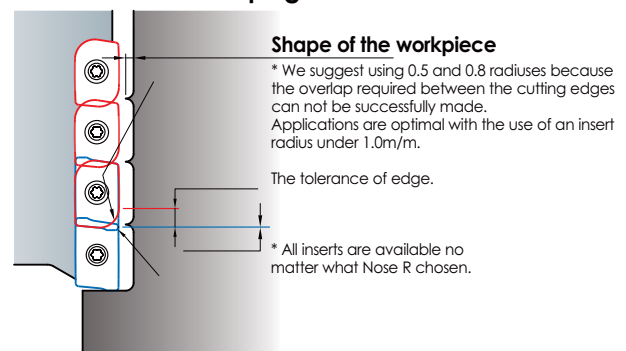
Available Inserts

		APMT-MA		APMT-ML		APMT-MM		APMT-MF									
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	1806PDR-MA																•
	180604PDR-MA																•
	180612PDR-MA																•
	180616PDR-MA																•
	180620PDR-MA																•
	180624PDR-MA																•
	180630R-MA																•
	1806PDER-ML													•	•		
	180604PDER-ML													•	•		
	180612PDER-ML													•	•		
	180616PDER-ML													•	•		
	180620PDER-ML													•	•		
	180624PDER-ML													•	•		
	180630R-ML													•	•		
	1806PDSR-MM				•				•	•	•	•	•	•	•	•	
	1806PDSR-MF				•						•			•	•	•	
	180612PDSR-MM				•						•			•	•	•	
	180616PDSR-MM				•									•	•	•	
	180620PDSR-MM				•									•	•	•	
	180624PDSR-MM				•									•	•	•	
180630R-MM				•									•	•	•		
180632R-MM				•									•	•	•		

Parts

Specification	Screw	Wrench
Ø32~Ø50	FTKA0410	TW15S

Caution when Clamping the Inserts



AMS1000S

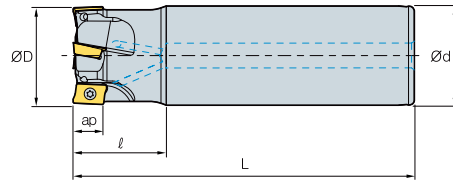


Fig. 1

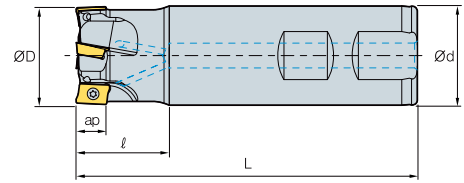


Fig. 2



AA
90°
• AR: 7.5°~13°
• RR: -17°~-6°

(mm)

Designation			ØD	Ød	l	L	φ		Fig.
AMS	1010HS	2	10	10	20	80	5.6	0.04	2
	1011HS	2	11	10	20	80	5.6	0.04	2
	1012HS-2	2	12	12	25	80	5.6	0.06	2
	1012HS-2L12	2	12	12	25	120	5.6	0.09	1
	1012HS-3	3	12	12	25	80	5.6	0.06	2
	1014HS-2	2	12	12	25	90	5.6	0.11	2
	1014HS-2L16	2	14	16	25	140	5.6	0.18	1
	1014HS-3	3	14	16	25	90	5.6	0.12	2
	1015HS	3	14	16	25	90	5.6	0.12	2
	1015HS-3L16	3	15	16	25	140	5.6	0.18	1
	1016HS-3	3	16	16	25	90	5.6	0.12	2
	1016HS-3L16	3	16	16	25	160	5.6	0.22	1
	1016HS-4	4	16	16	25	90	5.6	0.12	2
	1017HS	4	17	16	25	90	5.6	0.12	2
	1017HS-3L16	3	17	16	25	160	5.6	0.22	1
	1018HS	4	18	16	25	90	5.6	0.12	2
	1018HS-4L16	4	18	16	25	180	5.6	0.25	1
	1020HS-4	4	20	20	30	110	5.6	0.23	2
	1020HS-4L20	4	20	20	30	200	5.6	0.43	1
	1020HS-5	5	20	20	30	110	5.6	0.23	2
	1021HS	5	21	20	30	110	5.6	0.24	2
	1021HS-4L20	4	21	20	30	200	5.6	0.43	1
	1022HS	5	22	20	30	110	5.6	0.27	2
1025HS	7	25	25	30	120	5.6	0.39	2	
1026HS	7	26	25	30	120	5.6	0.39	2	
1032HS	8	32	32	35	120	5.6	0.65	2	
1033HS	8	33	32	35	120	5.6	0.65	2	

Available Inserts

		APMT-MA						APMT-MM									
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	0602PDR-MA																•
	060208PDR-MA																
	060202PDSR-MM				•					•				•	•		
	0602PDSR-MM				•			•	•	•	•	•	•	•	•		
	060208PDSR-MM				•					•	•			•	•		
	060212R-MM				•						•			•	•		
	060216R-MM										•			•	•		

Parts

Specification		
Ø10~Ø33	FTKA01842	TW06S-A

AMS2000S

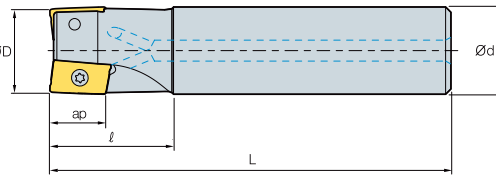


Fig. 1

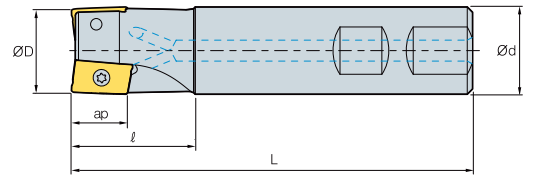


Fig. 2



AA
90°
• AR: 3°~14°
• RR: -25°~-18°

(mm)

Designation		⊙	ØD	Ød	ℓ	L	φ	kg	Fig.
AMS	2010HS	1	10	10	20	85	11	0.04	1
	2010HS-1L16	1	10	16	30	160	11	0.21	1
	2012HS	1	12	16	25	85	11	0.10	1
	2012HS-1L16	1	12	16	30	160	11	0.21	1
	2014HS	1	14	16	25	90	11	0.12	1
	2014HS-1L16	1	14	16	30	160	11	0.21	1
	2016HS	2	16	16	25	90	11	0.12	1
	2016HS-2L16	2	16	16	30	180	11	0.21	1
	2018HS	2	18	16	25	90	11	0.12	1
	2018HS-2L16	2	18	16	30	180	11	0.21	1
	2020HS	2	20	20	30	100	11	0.21	2
	2020HS-2L20	2	20	20	30	210	11	0.49	1
	2022HS	3	22	20	35	115	11	0.25	2
	2022HS-3L20	3	22	20	35	180	11	0.38	1
	2025HS	3	25	25	35	115	11	0.40	2
	2025HS-3L25	3	25	25	40	180	11	0.59	1
	2032HS	4	32	32	40	125	11	0.70	2
	2032HS-4L32	4	32	32	50	180	11	1.00	1
	2040HS	5	40	32	42	130	11	0.84	2
	2040HS-5L32	5	40	32	50	200	11	1.20	1
	2040HS-S40	5	40	40	42	130	11	1.15	2
	2040HS-S42	5	40	42	42	130	11	2.00	2
	2050HS	6	50	32	45	135	11	1.06	2
	2050HS-S40	6	50	40	45	135	11	1.38	2
2050HS-S42	6	50	42	45	135	11	1.50	2	
2063HS	8	63	32	45	135	11	1.31	2	
2063HS-S40	8	63	40	45	135	11	1.62	2	
2063HS-S42	8	63	42	45	135	11	1.70	2	

Available Inserts

		APMT-MA		APMT-ML		APMT-MM		APMT-MF										
		Cermet		Coated						Uncoated								
Designation		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01	
APMT	11T3PDFR-MA																•	
	11T308PDFR-MA																	
	11T3PDER-ML																	
	11T308PDER-ML																	
	11T3PDSR-MM			•	•				•	•	•	•	•	•	•	•		
	11T3PDSR-MF									•	•	•	•	•	•	•		
	11T308PDSR-MM																	
	11T312PDSR-MM																	
	11T316R-MM																	
	11T318R-MM																	
	11T324R-MM																	

Parts

Specification		
	Screw	Wrench
Ø10~Ø14	FTKA02555S	
Ø16~Ø63	FTKA02565S	TW08S

AMS3000S

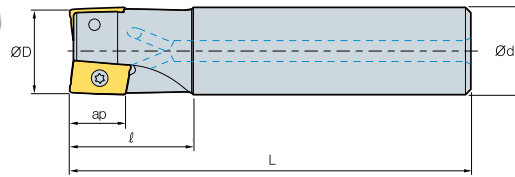


Fig. 1

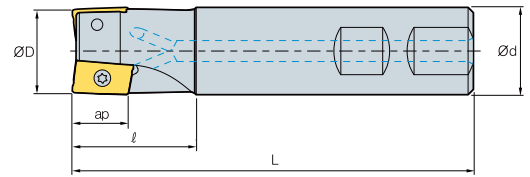


Fig. 2



AA
90°
• AR: 3°~14°
• RR: -18°~-10°

(mm)

Designation		ØD	Ød	ℓ	L	φp		Fig.
AMS								
3025HS	2	25	25	35	115	16	0.40	2
3025HS-2M25	2	25	25	35	180	16	0.65	1
3025HS-2L25	2	25	25	60	220	16	0.75	1
3032HS	3	32	32	40	125	16	0.69	2
3032HS-2M32	2	32	32	40	200	16	1.13	1
3032HS-2L32	2	32	32	65	260	16	1.52	1
3032HS-3M32	3	32	32	40	200	16	1.12	1
3032HS-3L32	3	32	32	65	260	16	1.48	1
3040HS	4	40	32	42	130	16	0.80	2
3040HS-3M32	3	40	32	42	200	16	1.24	1
3040HS-3L32	3	40	32	42	260	16	1.61	1
3040HS-4M32	4	40	32	42	200	16	1.21	1
3040HS-4L32	4	40	32	42	260	16	1.58	1
3040HS-S40	4	40	40	42	130	16	1.10	2
3040HS-S42	4	40	42	42	130	16	1.20	2
3050HS	5	50	32	45	135	16	1.00	2
3050HS-S40	5	50	40	45	135	16	1.30	2
3050HS-S42	5	50	42	45	135	16	1.40	2
3063HS	6	63	32	45	135	16	1.25	2
3063HS-S40	6	63	40	45	135	16	1.50	2
3063HS-S42	6	63	42	45	135	16	1.54	2

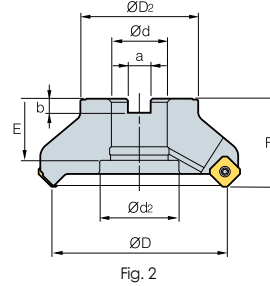
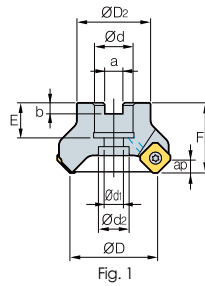
Available Inserts

		APMT-MA		APMT-ML		APMT-MM		APMT-MF									
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	G10	H01
APMT	1604PDFR-MA																•
	160404PDFR-MA																
	1604PDER-ML													•	•		
	160404PDER-ML													•	•		
	1604PDSR-MM			•	•		•	•	•	•	•	•	•	•	•		
	1604PDSR-MF				•									•	•		
	160410PDSR-MM													•	•		
	160416PDSR-MM				•									•	•		
	160424R-MM				•									•	•		
	160430R-MM													•	•		
	160432R-MM				•									•	•		

Parts

Specification		
Ø25 Ø32~Ø63	FTKA0408 FTKA0410	TW15S

FMAC(M)3000



AA
45°

• AR: 21°
• RR: -17°~-12°

Designation		⌀	ØD	ØD ₂	Ød	a	b	E	F	Ød ₁	Ød ₂	ap	⊄	Fig.
FMACM	3050HR	4	50	42	22	10.4	6.3	20	40	11	17.5	4.0	0.4	1
	3050HR-H	6	50	42	22	10.4	6.3	20	40	11	17.5	4.0	0.4	1
	3063HR	5	63	49	22	10.4	6.3	20	40	11	17.5	4.0	0.5	1
	3063HR-H	8	63	49	22	10.4	6.3	20	40	11	17.5	4.0	0.6	1
FMAC (FMACM)	3080HR	6	80	57	25.4 (27)	9.5 (12.4)	6 (7)	25 (23)	50	14	20	4.0	1.1	1
	3080HR-H	10	80	57	25.4 (27)	9.5 (12.4)	6 (7)	25 (23)	50	14	20	4.0	1.2	1
	3100HR	7	100	67	31.75 (32)	12.7 (14.4)	8 (8)	35 (25.5)	50	(18)	45 (26)	4.0	1.7	2 (1)
	3100HR-H	12	100	67	31.75 (32)	12.7 (14.4)	8 (8)	35 (25.5)	50	(18)	45 (26)	4.0	1.7	2 (1)
	3125HR	8	125	87	38.1 (40)	15.9 (16.4)	10 (9)	42 (29)	63	(22)	55 (32)	4.0	3.3 (3.5)	2 (1)
	3125HR-H	14	125	87	38.1 (40)	15.9 (16.4)	10 (9)	42 (29)	63	(22)	55 (32)	4.0	3.3 (3.5)	2 (1)

(mm)

() Metric size

Available Inserts

		SEET-MF	SEET-MM	SEET-MA	SEXT-MF	SEXT-MM	SEXT-MR	SEEW									
		Cermet		Coated					Uncoated								
Designation		CN2000	CN30	NCM325	NCM335	NC5340	NC5350	PC3500	PC3600	PC9550	PC6510	PC5300	PC5400	PD2000	ST30A	G10	H01
SEET	0903AGFN-MA																
	0903AGSN-MF									•	•	•	•				•
	0903AGSN-MM										•	•	•				
SEXT	0903AGSN-MF										•	•	•				
	0903AGSN-MM									•	•	•	•				
	0903AGSN-MR																
SEEW	0903AGTN																

Available Arbors

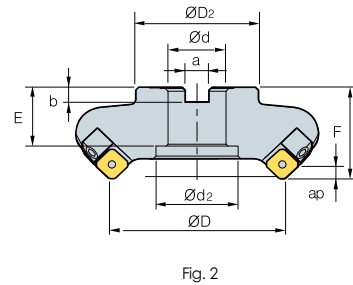
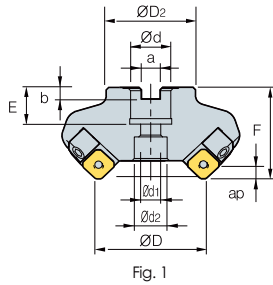
Designation		Ød	NC Arbors
FMAC(M)	3050HR-	22	BT -FMC22-
	3063HR-		
	3080HR-	25.4	BT -FMA25.4-
			BT -FMC27-
			BT -FMA31.75-
	3100HR-	31.75	BT -FMC32-
			BT -FMA38.1-
	3125HR-	38.1	BT -FMB/FMC40-
			BT -FMA38.1-
			40

Parts

Specification		
Ø50~Ø125	FTKA0307	TW09S

FMAC(M)3000-A

Aluminum Body



AA
45°

- AR: 21°
- RR: -16°~-12°

Designation		ØD	ØD2	Ød	a	b	E	F	Ød1	Ød2	ap	kg	Fig.
FMACM	3063R-A	63	49	22	10.4	6.3	20	40	11	18	4	0.5	1
FMAC (FMACM)	3080R-A	80	57	25.4 (27)	9.5 (12.4)	6 (7)	25	50	13.5	20	4	0.6	1
	3100R-A	100	67	31.75 (32)	12.7 (14.4)	8 (8)	32	50	-	45	4	0.8	2
	3100R-25.4-A	100	67	25.4	9.5	6	25	50	-	38	4	0.9	2
	3125R-A	125	87	38.1 (40)	15.9 (16.4)	10 (9)	38	63	-	56	4	1.6	2
	3125R-25.4-A	125	70	25.4	9.5	6	25	63	-	38	4	1.7	2

() Metric size

Available Inserts

		SEET-MF	SEET-MM	SEET-MA	SEXT-MF	SEXT-MM	SEXT-MR	SEEW									
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NCM325	NCM335	NC5340	NC5350	PC3300	PC3400	PC9530	PC6510	PC5300	PC5400	PD2000	ST30A	G10	H01
SEET	0903AGFN-MA																
	0903AGSN-MF																
	0903AGSN-MM																
SEXT	0903AGSN-MF																
	0903AGSN-MM																
	0903AGSN-MR																
SEEW	0903AGTN																

Available Arbors

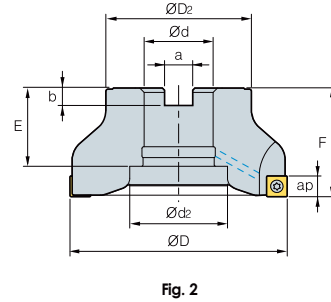
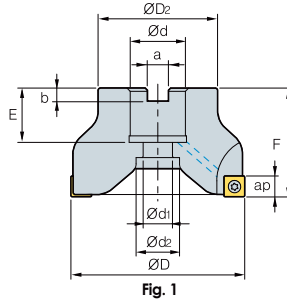
Designation	Ød	NC arbors
FMAC(M)	3063R-	BT -FMC22-
	3080R-	BT -FMA25.4-
3100R-	27	BT -FMC27-
	31.75	BT -FMA31.75-
	32	BT -FMC32-
3125R-	38.1	BT -FMA38.1-
	40	BT -FMB40-

Parts

Specification					
Ø63~Ø125	FTKA0307	TW09S	HW30L	LFMA3R-A	DHA620

CUTTING, DRILLING AND THREADING

FMPC(M)3000



AA
90°
• AR: 10°
• RR: -9°~-8°

Designation		ØD	ØD2	Ød	a	b	E	F	Ød1	Øc2	ap	kg	Fig.
FMPCM	3050HS	50	40	22	10.4	6.3	20	40	11	18	7	0.3	1
	3063HS	63	40	22	10.4	6.3	20	40	11	18	7	0.5	1
FMPC (FMPCM)	3080HS	80	55	25.4 (27)	9.5 (12.4)	6 (7)	25 (22)	50	14	20	7	1.0	1
	3100HS	100	67	31.75 (32)	12.7 (14.4)	8 (8)	36 (26)	50	18	45 (26)	7	1.5	2 (1)

() Metric size

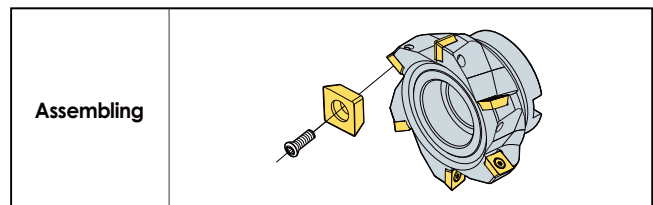
Available Inserts

		SDET-MF		SDET-MM		SDET-MA		SDXT-MF		SDXT-MM		SDXT-MA					
		Cermet		Coated								Uncoated					
Designation		CN2000	CN30	NCM325	NCM335	NC5340	NC5350	PC3500	PC3400	PC9530	PC6510	PC5300	PC5400	PD2000	ST30A	G10	H01
SDET	09M402R-MA													•			•
	09M405R-MF																
	09M405R-MM																
SDXT	09M405R-MF			•					•	•	•	•	•				
	09M405L-MF																
	09M405R-MM			•	•			•	•	•	•	•	•				
	09M405L-MM								•	•							
	09M405R-MA																•

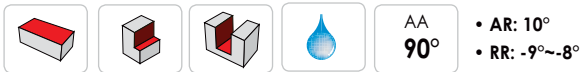
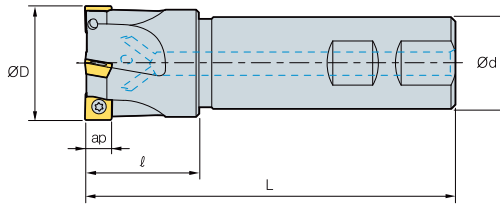
Designation		Ød	NC Arbors
FMPC(M)	3050HS	22	BT -FMC22-
	3063HS		
	3080HS	25.4	BT -FMA25.4-
		27	BT -FMC27-
	3100HS	31.75	BT -FMA31.75-
32		BT -FMC32-	

Parts

Specification	 Screw	 Wrench
Ø50~Ø100	FTGA03508	TW15S



FMPS3000



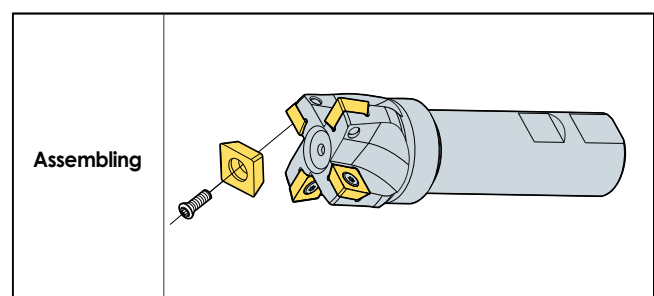
Designation			ØD	Ød	ℓ	L	φ	
FMPS	3025HS	2	25	25	35	115	7	0.4
	3032HS	3	32	25	40	125	7	0.5
	3040HS	4	40	32	40	130	7	0.8
	3040HS-S40	4	40	40	45	140	7	1.2
	3040HS-S42	4	40	42	45	140	7	1.3
	3050HS	5	50	32	40	135	7	1
	3050HS-S40	5	50	40	40	140	7	1.3
	3050HS-S42	5	50	42	40	140	7	1.4
	3063HS	6	63	32	45	135	7	1.2
	3063HS-S40	6	63	40	45	145	7	1.6
	3063HS-S42	6	63	42	45	145	7	1.7

Available Inserts

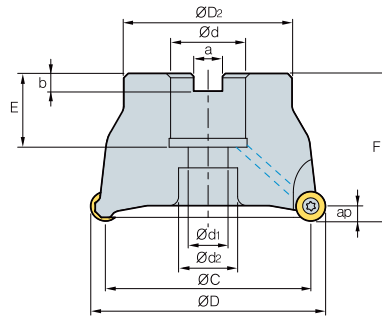
		SDET-MF		SDET-MM		SDET-MA		SDXT-MF		SDXT-MM		SDXT-MA					
Designation		Cermet		Coated								Uncoated					
		CN2000	CN30	NCM325	NCM335	NC5340	NC5350	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	PD2000	ST30A	G10	H01
SDET	09M402R-MA																
	09M405R-MF																
	09M405R-MM																
SDXT	09M405R-MF			•					•	•	•	•	•				
	09M405L-MF																
	09M405R-MM			•	•				•	•	•	•	•				
	09M405L-MM								•	•							
	09M405R-MA																•

Parts

Specification		
Ø25~Ø63	Screw FTGA03508	Wrench TW15S



FMRC(M)3000



- AR: 5°
- RR: -5°

Designation		⊙	ØD	ØC	ØD ₂	Ød	a	b	E	F	Ød ₁	Ød ₂	ap	kg
FMRCM	3040HRD	3	40	30	36	16	8.4	5.6	18	40	9	14	5.0	0.2
	3040HRD-H	4	40	30	36	16	8.4	5.6	18	40	9	14	5.0	0.2
	3050HRD	4	50	40	42	22	10.4	6.3	20	40	11	16.5	5.0	0.3
	3050HRD-H	5	50	40	42	22	10.4	6.3	20	40	11	16.5	5.0	0.3
	3063HRD	5	63	53	49	22	10.4	6.3	20	50	11	16.5	5.0	0.64
	3063HRD-H	6	63	53	49	22	10.4	6.3	20	50	11	16.5	5.0	0.64
FMRC (FMRCM)	3080HRD	6	80	70	57	25.4 (27)	9.5 (12.4)	6 (7.0)	25 (22)	50 (50)	14	19	5.0	1.1
	3080HRD-H	7	80	70	57	25.4 (27)	9.5 (12.4)	6 (7.0)	25 (22)	50 (50)	14	19	5.0	1.1
	3100HRD	7	100	90	67	31.75 (32)	12.7 (14.4)	8 (8.0)	32 (28)	63 (63)	18	26	5.0	2.1
	3100HRD-H	8	100	90	67	31.75 (32)	12.7 (14.4)	8 (8.0)	32 (28)	63 (63)	18	26	5.0	2.1

Note: It's general practice that you measure the inner diameter when the diameter of FMRC/FMRCM is Ø40-Ø63

() Metric size

Available Inserts

		RDKT-MF		RDKT-MM						RDCT-MA							
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC3530	PC6510	PC5300	PC5400	ST30A	H01
RDCT	10T3M0-MA																•
RDKT	10T3M0-MF											•		•			
	10T3M0-MM			•						•		•	•				

Designation		Ød	Available Arbors
FMRC(M)	3040HRD	16	BT -FMC16-
	3040HRD-H		
	3050HRD	22	BT -FMC22-
	3050HRD-H		
	3063HRD		
	3063HRD-H		
	3080HRD	25.4	BT -FMA/FMB25.4-
	3080HRD-H	27	BT -FMB/FMC27-
	3100HRD	31.75	BT -FMA31.75-
	3100HRD-H	32	BT -FMC32-

Parts

Specification	Screw	Wrench
Ø40-Ø100	FTGA03508	TW15S

FMRS3000

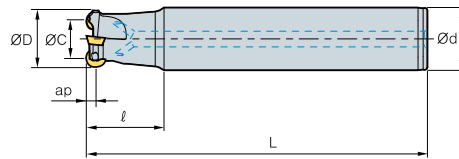


Fig. 1

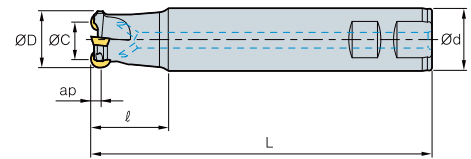


Fig. 2



- AR: 5°
- RR: -8°~-5°

(mm)

Designation		ØD	ØC	Ød	l	L	φ		Fig.	
FMRS	3021HRD-M	1	21	11	20	40	150	5	0.4	1
	3021HRD-M2	2	21	11	20	40	150	5	0.4	1
	3021HRD-L	1	21	11	20	50	200	5	0.6	1
	3021HRD-L2	2	21	11	20	50	200	5	0.6	1
	3025HRD-S	2	25	15	25	35	115	5	0.5	2
	3025HRD-M	2	25	15	25	70	200	5	0.7	1
	3025HRD-L	2	25	15	25	100	250	5	1	1
	3026HRD-M	2	26	16	25	70	200	5	0.65	1
	3026HRD-L	2	26	16	25	100	250	5	0.7	1
	3032HRD-S	3	32	22	32	40	125	5	1	2
	3032HRD-M	3	32	22	32	70	200	5	1.3	1
	3032HRD-L	3	32	22	32	150	300	5	1.6	1
	3040HRD-S	4	40	30	32	40	125	5	1.3	2
	3040HRD-M	4	40	30	32	70	200	5	1.5	1
3040HRD-L	4	40	30	32	150	300	5	1.8	1	

Available Inserts

		RDKT-MF			RDKT-MM			RDCT-MA									
		Cermet			Coated						Uncoated						
Designation		CN2000	CN30	NCM325	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	H01
RDCT	10T3M0-MA																•
RDKT	10T3M0-MF											•		•			
	10T3M0-MM			•					•			•	•				

Parts

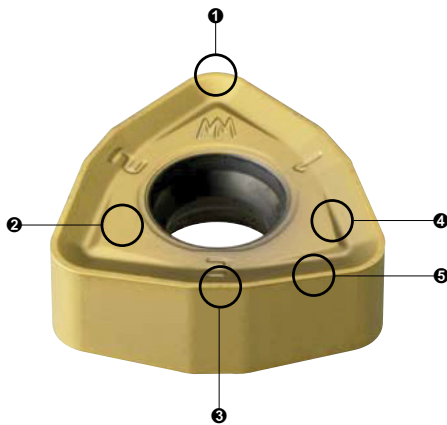
Specification		
Ø21~Ø40	FTGA03508 (07)	TW15S

CUTTING, DRILLING AND THREADING

HRMD

- HRMD is more economical due to the use of 6 cutting-edges in comparison to the HRM tool with a 3-edge positive insert.
- A high-rake angle cutting-edge and chip breaker reduces the cutting load.
- Negative geometry has been designed for rigidity of the cutting-edge and double-sided function.
- Screw on system and stable support achieves strong clamping force.
- A unique insert design for high feed and multi-functional machining.
- A HRMD insert with symmetrical cutting-edge is applicable for both 'R' and 'L' type machining.

Features of the Insert



1 Nose-R

- Security of the rigid edge in ramping pocket machining
- The round edge is suitable for high feed rates insert geometry
- Possible to use R/L type machining

2 Clamping Surface

- Designed for stable clamping
- Prevention of friction by a chip

3 Minor Cutting-edge

- Improvement of surface roughness in high feed machining
- Specially design for decreasing the thrust force
- Symmetrical insert designed for a R/L type tool

4 Chip Breaker

- Reduction of cutting load due to the high-rake angle
- Improvement of chip flow and evacuation in various applications
- Prevention of damage on the clamping face of insert

5 Major Cutting-edge

- Symmetrical designed insert for a R/L type tool
- Superior cutting performance due to a high rake angle cutting-edge
- Low cutting resistance in high feed
- Specially designed for decreasing the thrust force

Features of the Cutter



Inner Coolant System

- Improvement of chip control and evacuation
- Longer tool life due to a reduced cutting temperature

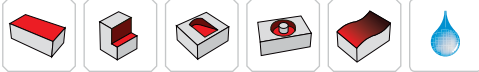
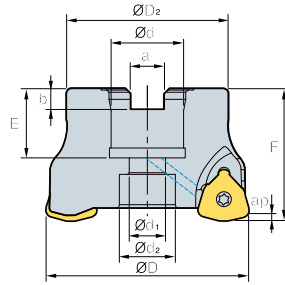
3-Surface Constrained System

- Strong clamping system
- Stable clamping system against different cutting resistances in various machining applications

Simple Screw on System

- Strong clamping of the screw on the system
- Convenient clamping system
- Wide chip pocket for better chip evacuation

HRMDC(M)09



AA
14°
• AR: -7°
• RR: -12°~18°

(mm)

Designation		⊙	ØD	ØD2	Ød	Ød	Ød2	a	b	E	F	ap	kg	Bolt
HRMDCM	09040HR-3	3	40	34	16	9	14	8.4	5.6	19	40	1.5	0.2	SB0825
	09040HR-4	4	40	34	16	9	14	8.4	5.6	19	40	1.5	0.2	
	09050HR-4	4	50	42	22	11	18	10.4	6.3	21	40	1.5	0.3	
	09050HR-5	5	50	42	22	11	18	10.4	6.3	21	40	1.5	0.3	
	09063HR-5	5	63	49	22	11	18	10.4	6.3	21	40	1.5	0.5	
	09063HR-6	6	63	49	22	11	18	10.4	6.3	21	40	1.5	0.5	
	09080HR-6	6	80	57	27	14	20	12.4	7	23	50	1.5	1.1	
	09080HR-7	7	80	57	27	14	20	12.4	7	23	50	1.5	1.1	
	09100HR-7	7	100	67	32	18	26	14.4	8	25	50	1.5	1.7	
09100HR-8	8	100	67	32	18	26	14.4	8	25	50	1.5	1.7	SB1630	
HRMDC	09080HR-6	6	80	57	25.4	14	20	9.5	6	24	50	1.5		1.1
	09080HR-7	7	80	57	25.4	14	20	9.5	6	24	50	1.5		1.1
	09080HR-31.75-6	6	80	67	31.75	18	26	12.7	8	32	63	1.5		1.5
	09080HR-31.75-7	7	80	67	31.75	18	26	12.7	8	32	63	1.5		1.5
	09100HR-7	7	100	67	31.75	18	26	12.7	8	32	63	1.5		2.1
09100HR-8	8	100	67	31.75	18	26	12.7	8	32	63	1.5	2.1		

Available Inserts

		WNNX-MF		WNNX-ML						WNNX-MM							
				new													
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNNX	09T316ZNN-MF									•			•	•			
	09T316ZNN-ML						•	•	•	•			•	•			
	09T316ZNN-MM						•	•	•	•			•	•			

Available Arbors

Designation		NC Arbors	
HRMDCM	09040HR-	BT	-FMC16-
		SK	-FMC16-
	09050HR-	BT	-FMC22-
		SK	-FMC22-
	09080HR-	BT	-FMC27-
		SK	-FMC27-
09100HR-	BT	-FMC32-	
	SK	-FMC32-	
HRMDC	09080HR-	BT	-FMA25.4-
		SK	-FMA25.4-
	09080HR-31.75-	BT	-FMA31.75-
		SK	-FMA31.75-

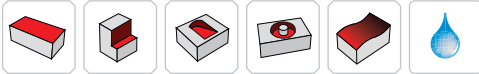
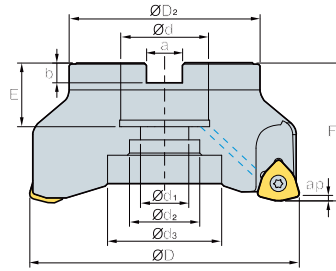
Bolt

		Dimensions (mm)				
Designation	M	a	b	L	Pitch	
SB0825	M08	13	8	25	1.25	
SB1025	M10	16	10	25	1.5	
SB1230	M12	18	12	30	1.75	
SB1630	M16	24	16	30	2.0	

Parts

Specification	Screw	Wrench
Ø40~Ø100	FTKA0307	TW09S

HRMDC(M)13



AA
14°
• AR: -7°
• RR: -12°~-18°

(mm)

Designation		ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	$\frac{m}{kg}$	Bolt	
HRMDCM	13050HR-3	3	50	42	22	11	17	-	10.4	6.3	21	40	2	0.3	SB1025
	13050HR-4	4	50	42	22	11	17	-	10.4	6.3	21	40	2	0.3	
	13063HR-4	4	63	49	22	11	18	-	10.4	6.3	21	40	2	0.5	
	13063HR-5	5	63	49	22	11	18	-	10.4	6.3	21	40	2	0.5	
	13080HR-5	5	80	57	27	14	20	-	12.4	7	23	50	2	1	SB1230
	13080HR-6	6	80	57	27	14	20	-	12.4	7	23	50	2	1	
	13100HR-6	6	100	67	32	18	26	-	14.4	8	25	50	2	1.6	SB1630
	13100HR-7	7	100	67	32	18	26	-	14.4	8	25	50	2	1.6	
	13125HR-7	7	125	87	40	22	32	52	16.4	9	29	63	2	3.2	SB2040 MBA-M20
13125HR-8	8	125	87	40	22	32	52	16.4	9	29	63	2	3.2		
HRMDC	13080HR-5	5	80	57	25.4	14	20	-	9.5	6	24	50	2	1	SB1230
	13080HR-6	6	80	57	25.4	14	20	-	9.5	6	24	50	2	1	
	13080HR-31.75-5	5	80	67	31.75	18	26	-	12.7	8	32	63	2	1.4	SB1630
	13080HR-31.75-6	6	80	67	31.75	18	26	-	12.7	8	32	63	2	1.4	
	13100HR-6	6	100	67	31.75	18	26	-	12.7	8	32	63	2	2.1	SB1630
	13100HR-7	7	100	67	31.75	18	26	-	12.7	8	32	63	2	2.1	
	13125HR-7	7	125	87	38.1	22	32	52	15.9	10	35	63	2	3.3	SB2040 MBA-M20
	13125HR-8	8	125	87	38.1	22	32	52	15.9	10	35	63	2	3.3	

Available Inserts

		WNMX-MF		WNMX-ML				WNMX-MM									
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNMX	130520ZNN-MF									•			•	•			
	130520ZNN-ML						•	•	•	•			•	•			
	130520ZNN-MM									•			•	•			

Available Arbors

Designation		NC Arbors	
HRMDCM	13050HR-	BT	-FMC22-
		SK	-FMC22-
	13063HR-	BT	-FMC22-
		SK	-FMC27-
	13100HR-	BT	-FMC32-
		SK	-FMC32-
13125HR-	BT	-FMC40-	
	SK	-FMC40-	
HRMDC	13080HR-	BT	-FMA25.4-
		SK	-FMA25.4-
	13100HR-	BT	-FMA31.75-
		SK	-FMA31.75-
	13125HR-	BT	-FMA38.1-
		SK	-FMA38.1-

Bolt

Designation	Dimensions (mm)							Fig.
	M	a	b	bl	C	L	Pitch	
SB1025	M10	16	10	-	-	25	1.5	1
SB1230	M12	18	12	-	-	30	1.75	1
SB1630	M16	24	16	-	-	30	2.0	1
SB2040	M20	30	20	-	-	40	2.5	1
MBA-M20	M20	50	14	20	27	30	2.5	2

Parts

Specification	Screw	Wrench
Ø50~Ø125	FTKA0412B	TW15S

HRMDC(M)16 **new**

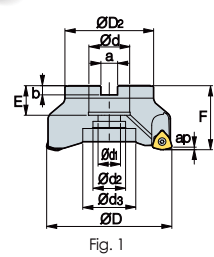


Fig. 1

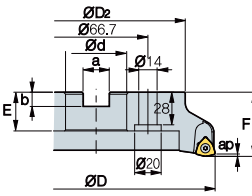


Fig. 2

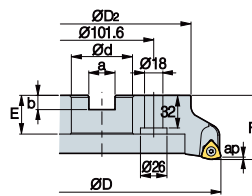


Fig. 3

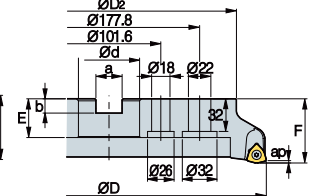
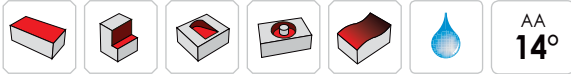


Fig. 4



AA
14°

- AR: -7°
- RR: -12°~-18°

(mm)

Designation		ØD	ØD2	Ød	Ød	Øc2	Øcs	a	b	E	F	ap	kg	Bolt	Fig.	
HRMDC (HRMDCM)	16080HR-4	4	80	65	25.4 (27)	14	20	-	9.5 (12.4)	6 (7)	25 (23)	50	2.5	0.99	SB1230	1
	16080HR-5	5	80	65	25.4 (27)	14	20	-	9.5 (12.4)	6 (7)	25 (23)	50	2.5	0.91		
	16100HR-5	5	100	85	31.75 (32)	18	26	-	12.7 (14.4)	8	33 (25)	63 (50)	2.5	1.68	SB1630	1
	16100HR-6	6	100	85	31.75 (32)	18	26	-	12.7 (14.4)	8	33 (25)	63 (50)	2.5	1.64		
	16125HR-6	6	125	100	38.1 (40)	22	32	52	15.9 (16.4)	10 (9)	36 (29)	63	2.5	3.23	SB2040 MBA-M20	1
	16125HR-7	7	125	100	38.1 (40)	22	32	52	15.9 (16.4)	10 (9)	36 (29)	63	2.5	3.24		
	16160R-7	7	160	107	50.8 (40)	-	90	-	19 (16.4)	11 (9)	38 (32)	63	2.5	3.73	MBA-M24	2
	16160R-8	8	160	107	50.8 (40)	-	90	-	19 (16.4)	11 (9)	38 (32)	63	2.5	3.77		
	16200R-8	8	200	145	47.625 (60)	-	132	-	25.4 (25.7)	14	38	63	2.5	6.48	-	3
	16200R-10	10	200	145	47.625 (60)	-	132	-	25.4 (25.7)	14	38	63	2.5	6.61		
	16250R-10	10	250	190	47.625 (60)	-	190	-	25.4 (25.7)	14	38	63	2.5	11.01	-	3
	16250R-12	12	250	190	47.625 (60)	-	190	-	25.4 (25.7)	14	38	63	2.5	11.04		
	16315R-12	12	315	250	47.625 (60)	-	238	-	25.4 (25.7)	14	38	63	2.5	18.34	-	4
	16315R-14	14	315	250	47.625 (60)	-	238	-	25.4 (25.7)	14	38	63	2.5	18.35		

() Metric size

Available Inserts

		WNMX-MF		WNMX-ML		WNMX-MM											
		Cermet		Coated				Uncoated									
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PCY530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNMX	160720ZNN-MF									•							
	160720ZNN-ML									•							
	160720ZNN-MM									•							

Available Arbors

Designation		HRMDC	HRMDCM
HRMDCM	16080HR-4	BT -FMA25.4-	BT -FMC27-
	16080HR-5		BT -FMC32-
	16100HR-5	BT -FMA31.75-	
	16100HR-6		
	16125HR-6	BT -FMA38.1-	BT -FMB40-
	16125HR-7		BT -FMC40-
	16160R-7	BT -FMA50.8-	
	16160R-8		
	16200R-8	BT -FMA47.625-	
	16200R-10		
	16250R-10		
	16250R-12		
	16315R-12		BT -FMB60-
	16315R-14		

Bolt

Designation		M	a	b	b1	C	L	Pitch	Fig.
SB1025	M10	16	10	-	-	25	1.5	1	
SB1230	M12	18	12	-	-	30	1.75	1	
SB1630	M16	24	16	-	-	30	2.0	1	
SB2040	M20	30	20	-	-	40	2.5	1	
MBA-M20	M20	50	14	20	27	30	2.5	2	
MBA-M24	M24	65	14	24	37	36	3.0	2	

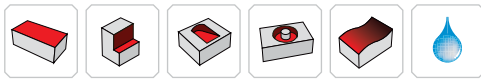
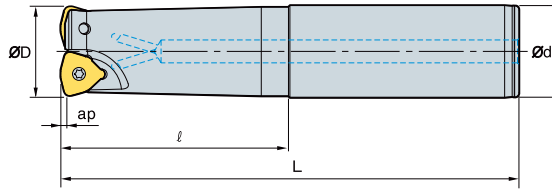
CUTTING, DRILLING AND THREADING

Parts

Specification	Screw	Wrench
Ø80~Ø315	FTGA0513-P	TW20-100

HRMDS06

new



AA
14°
• AR: -7°
• RR: -12°~-18°

(mm)

Designation		⊙	ØD	Ød	ℓ	L	φ	kg
HRMDS	0616HR-2S16	2	16	16	30	110	1.0	0.15
	0616HR-2M16	2	16	16	70	150	1.0	0.20
	0616HR-2L16	2	16	16	100	200	1.0	0.26
	0617HR-2S16	2	17	16	20	110	1.0	0.15
	0617HR-2M16	2	17	16	20	150	1.0	0.21
	0617HR-2L16	2	17	16	20	200	1.0	0.28
	0618HR-2S16	2	18	16	20	110	1.0	0.15
	0618HR-2M16	2	18	16	20	150	1.0	0.21
	0618HR-2L16	2	18	16	20	200	1.0	0.28
	0620HR-2S20	2	20	20	50	130	1.0	0.28
	0620HR-2M20	2	20	20	100	180	1.0	0.38
	0620HR-2L20	2	20	20	130	250	1.0	0.53
	0621HR-2S20	2	21	20	20	130	1.0	0.29
	0621HR-2M20	2	21	20	20	180	1.0	0.40
	0621HR-2L20	2	21	20	20	250	1.0	0.57
	0625HR-3S25	3	25	25	60	140	1.0	0.44
	0625HR-3M25	3	25	25	80	180	1.0	0.57
	0625HR-3L25	3	25	25	120	250	1.0	0.80
	0626HR-3S25	3	26	25	30	140	1.0	0.46
	0626HR-3M25	3	26	25	30	180	1.0	0.60
	0626HR-3L25	3	26	25	30	250	1.0	0.84
	0632HR-4S32	4	32	32	70	150	1.0	0.82
	0632HR-4M32	4	32	32	100	200	1.0	1.10
	0632HR-4L32	4	32	32	180	300	1.0	1.66
	0633HR-4S32	4	33	32	40	200	1.0	1.14
	0633HR-4M32	4	33	32	40	250	1.0	1.43
	0633HR-4L32	4	33	32	40	300	1.0	1.73

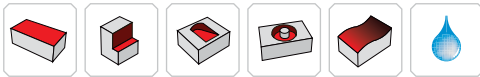
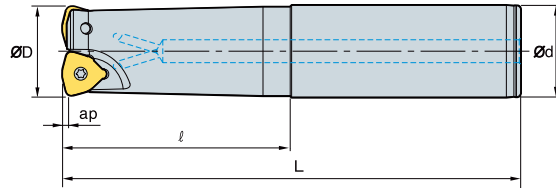
Available Inserts

		WNMX-MF		WNMX-ML				WNMX-MM									
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNMX	060312ZNN-MF								•			•	•				
	060312ZNN-ML											•	•				
	060312ZNN-MM						•	•		•		•	•				

Parts

Specification		
Ø16~Ø33	ETNA02506	TW07S

HRMDS09



AA
14°

- AR: -7°
- RR: -17°~-25°

(mm)

Designation			ØD	Ød	l	L	αp	
HRMDS	0925HR-2S25	2	25	25	60	140	1.5	0.5
	0925HR-2M25	2	25	25	120	200	1.5	0.6
	0925HR-2L25	2	25	25	180	300	1.5	1
	0926HR-2S25	2	26	25	60	140	1.5	0.5
	0926HR-2M25	2	26	25	60	200	1.5	0.7
	0926HR-2L25	2	26	25	60	300	1.5	1
	0930HR-3S32	3	30	32	70	150	1.5	0.8
	0930HR-3M32	3	30	32	120	200	1.5	1
	0930HR-3L32	3	30	32	180	300	1.5	1.5
	0932HR-3S32	3	32	32	70	150	1.5	0.8
	0932HR-3M32	3	32	32	120	200	1.5	1.1
	0932HR-3L32	3	32	32	180	300	1.5	1.7
	0933HR-3S32	3	33	32	70	150	1.5	0.8
	0933HR-3M32	3	33	32	70	200	1.5	1.1
	0933HR-3L32	3	33	32	70	300	1.5	1.7
	0935HR-4S32	4	35	32	50	150	1.5	0.9
	0935HR-4M32	4	35	32	50	200	1.5	1.1
	0935HR-4L32	4	35	32	50	300	1.5	1.7
	0940HR-4S32	4	40	32	50	150	1.5	0.9
	0940HR-4M32	4	40	32	50	250	1.5	1.5
0940HR-4L32	4	40	32	50	300	1.5	1.8	
0940HR-4S40	4	40	40	60	150	1.5	1.3	

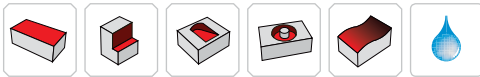
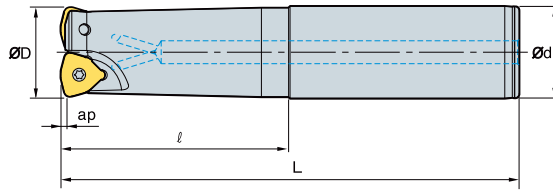
Available Inserts

		WNNX-MF		WNNX-ML						WNNX-MM							
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNNX	09T316ZNN-MF																
	09T316ZNN-ML																
	09T316ZNN-MM																

Parts

Specification		
Ø25~Ø40	FTKA0307	TW09S

HRMDS09



AA
14°

• AR: -7°
• RR: -17°~-25°

(mm)

Designation		⊙	ØD	Ød	l	L	φ	kg
HRMDS	0940HR-4M40	4	40	40	130	250	1.5	2.2
	0940HR-4L40	4	40	40	180	300	1.5	2.7
	0940HR-4S42	4	40	42	60	150	1.5	1.4
	0940HR-4M42	4	40	42	130	250	1.5	2.3
	0940HR-4L42	4	40	42	180	300	1.5	2.8
	0950HR-4S32	4	50	32	40	150	1.5	1.1
	0950HR-4M32	4	50	32	40	250	1.5	1.6
	0950HR-4L32	4	50	32	40	300	1.5	2
	0950HR-4S40	4	50	40	40	150	1.5	1.4
	0950HR-4M40	4	50	40	40	250	1.5	2.4
	0950HR-4L40	4	50	40	40	300	1.5	2.9
	0950HR-4S42	4	50	42	40	150	1.5	1.6
	0950HR-4M42	4	50	42	40	250	1.5	2.6
	0950HR-4L42	4	50	42	40	300	1.5	3.1
	0950HR-5S32	5	50	32	40	150	1.5	1.1
	0950HR-5M32	5	50	32	40	250	1.5	1.6
	0950HR-5L32	5	50	32	40	300	1.5	2
	0950HR-5S40	5	50	40	40	150	1.5	1.4
	0950HR-5M40	5	50	40	40	250	1.5	2.4
	0950HR-5L40	5	50	40	40	300	1.5	2.9
0950HR-5S42	5	50	42	40	150	1.5	1.6	
0950HR-5M42	5	50	42	40	250	1.5	2.6	
0950HR-5L42	5	50	42	40	300	1.5	3.1	

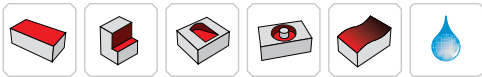
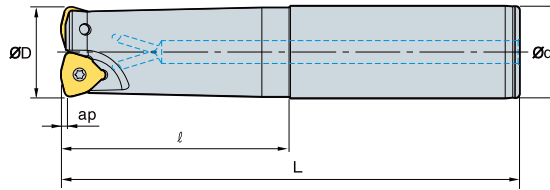
Available Inserts

		WNNX-MF				WNNX-ML				WNNX-MM							
		Cermet		Coated								Uncoated					
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNNX	09T316ZNN-MF									•			•	•			
	09T316ZNN-ML												•	•			
	09T316ZNN-MM						•	•	•	•	•		•	•			

Parts

Specification		
Ø40~Ø50	FTKA0307	TW09S

HRMDS13



AA
14°

- AR: -7°
- RR: -14°~-16°

(mm)

Designation		⊙	ØD	Ød	ℓ	L	φ	kg
HRMDS	1332HR-2S32	2	32	32	70	150	2	0.8
	1332HR-2M32	2	32	32	120	200	2	1
	1332HR-2L32	2	32	32	180	300	2	1.6
	1333HR-2S32	2	33	32	70	150	2	0.8
	1333HR-2M32	2	33	32	70	200	2	1.1
	1333HR-2L32	2	33	32	70	300	2	1.7
	1335HR-2S32	2	35	32	50	150	2	0.8
	1335HR-2M32	2	35	32	50	200	2	1.1
	1335HR-2L32	2	35	32	50	300	2	1.7
	1340HR-3S32	3	40	32	50	150	2	0.8
	1340HR-3M32	3	40	32	50	250	2	1.4
	1340HR-3L32	3	40	32	50	300	2	1.7
	1340HR-3S40	3	40	40	60	150	2	1.2
	1340HR-3M40	3	40	40	130	250	2	2.1
	1340HR-3L40	3	40	40	180	300	2	2.6
	1340HR-3S42	3	40	42	60	150	2	1.4
	1340HR-3M42	3	40	42	130	250	2	2.3
	1340HR-3L42	3	40	42	180	300	2	2.7
	1350HR-3S32	3	50	32	50	150	2	1.1
	1350HR-3M32	3	50	32	50	250	2	1.7
1350HR-3L32	3	50	32	50	300	2	2	
1350HR-3S40	3	50	40	50	150	2	1.5	
1350HR-3M40	3	50	40	50	250	2	2.4	
1350HR-3L40	3	50	40	50	300	2	2.9	
1350HR-3S42	3	50	42	50	150	2	1.6	
1350HR-3M42	3	50	42	50	250	2	2.6	
1350HR-3L42	3	50	42	50	300	2	3.1	

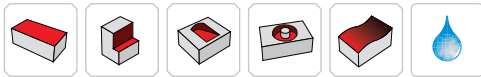
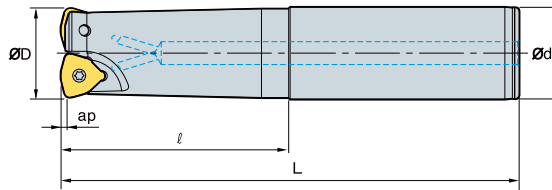
Available Inserts

		WNMX-MF		WNMX-ML		WNMX-MM											
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WNMX	130520ZNN-MF									•			•	•			
	130520ZNN-ML												•	•			
	130520ZNN-MM						•	•	•	•	•		•	•			

Parts

Specification		
Ø32-Ø50	FTKA0412B	TW15S

HRMDS13



AA
14°

- AR: -7°
- RR: -14°~16°

(mm)

Designation		⊙	ØD	Ød	ℓ	L	φ	kg
HRMDS	1350HR-4S32	4	50	32	50	150	2	1.1
	1350HR-4M32	4	50	32	50	250	2	1.7
	1350HR-4L32	4	50	32	50	300	2	2
	1350HR-4S40	4	50	40	50	150	2	1.5
	1350HR-4M40	4	50	40	50	250	2	2.4
	1350HR-4L40	4	50	40	50	300	2	2.9
	1350HR-4S42	4	50	42	50	150	2	1.6
	1350HR-4M42	4	50	42	50	250	2	2.6
	1350HR-4L42	4	50	42	50	300	2	3.1
	1363HR-4S32	4	63	32	50	150	2	1.4
	1363HR-4M32	4	63	32	50	250	2	2.1
	1363HR-4L32	4	63	32	50	300	2	2.4
	1363HR-4S40	4	63	40	50	150	2	1.8
	1363HR-4M40	4	63	40	50	250	2	2.8
	1363HR-4L40	4	63	40	50	300	2	3.2
	1363HR-4S42	4	63	42	50	150	2	1.9
	1363HR-4M42	4	63	42	50	250	2	3
	1363HR-4L42	4	63	42	50	300	2	3.5
	1363HR-5S32	5	63	32	50	150	2	1.5
	1363HR-5M32	5	63	32	50	250	2	2
	1363HR-5L32	5	63	32	50	300	2	2.3
	1363HR-5S40	5	63	40	50	150	2	1.8
	1363HR-5M40	5	63	40	50	250	2	2.8
	1363HR-5L40	5	63	40	50	300	2	3.2
	1363HR-5S42	5	63	42	50	150	2	1.9
	1363HR-5M42	5	63	42	50	250	2	3
	1363HR-5L42	5	63	42	50	300	2	3.5

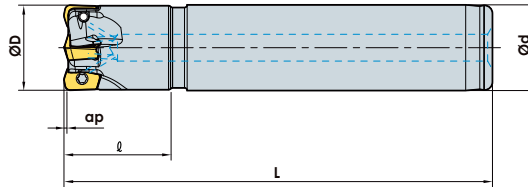
Available Inserts

		WMMX-MF			WMMX-ML					WMMX-MM							
		Cermet		Coated						Uncoated							
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
WMMX	130520ZNN-MF									•			•	•			
	130520ZNN-ML												•	•			
	130520ZNN-MM						•	•	•	•	•		•	•			

Parts

Specification	 Screw	 Wrench
Ø50-Ø63	FTKA0412B	TW15S

HFMS1000 **new**



AA
13°
• AR: -4°
• RR: -14°~ -7°

(mm)

Designation			ØD	Ød	l	L	ap	
HFMS	1008HR-1S10	1	8	10	20	80	0.4~0.5	0.03
	1008HR-1M10	1	8	10	25	100	0.4~0.5	0.03
	1008HR-1L10	1	8	10	35	120	0.4~0.5	0.03
	1010HR-2S08	2	10	8	20	80	0.4~0.5	0.03
	1010HR-2M08	2	10	8	25	100	0.4~0.5	0.04
	1010HR-2L08	2	10	8	35	120	0.4~0.5	0.04
	1010HR-2S10	2	10	10	20	80	0.4~0.5	0.04
	1010HR-2M10	2	10	10	25	105	0.4~0.5	0.05
	1010HR-2L10	2	10	10	35	120	0.4~0.5	0.06
	1011HR-2S10	2	11	10	20	80	0.4~0.5	0.04
	1011HR-2M10	2	11	10	25	105	0.4~0.5	0.06
	1011HR-2L10	2	11	10	35	120	0.4~0.5	0.07
	1012HR-3S10	3	12	10	20	80	0.4~0.5	0.05
	1012HR-3M10	3	12	10	25	105	0.4~0.5	0.06
	1012HR-3L10	3	12	10	35	120	0.4~0.5	0.07
	1012HR-3S12	3	12	12	20	80	0.4~0.5	0.06
	1012HR-3M12	3	12	12	25	105	0.4~0.5	0.08
	1012HR-3L12	3	12	12	35	120	0.4~0.5	0.09
	1013HR-3S12	3	13	12	20	80	0.4~0.5	0.06
	1013HR-3M12	3	13	12	25	105	0.4~0.5	0.09
1013HR-3L12	3	13	12	40	120	0.4~0.5	0.10	
1014HR-3S12	3	14	12	20	80	0.4~0.5	0.07	
1014HR-3M12	3	14	12	25	105	0.4~0.5	0.09	
1014HR-3L12	3	14	12	40	120	0.4~0.5	0.10	

Available Inserts

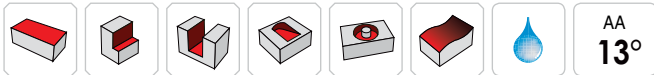
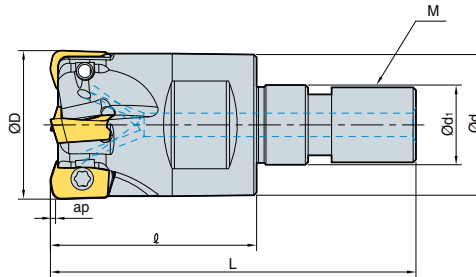
		LPMT-MF		LPMW						LPEW							
Designation		Cermet		Coated						Uncoated							
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
LPMT	040210R-MF							•					•	•			
	040220R-MF							•					•	•			
LPMW	040210R						•	•					•	•			
	040220R						•	•					•	•			
LPEW	040210R						•	•					•	•			
	040220R						•	•					•	•			

Parts

Specification		
Ø8~Ø10	FTKA01840	TW06S-A
Ø11~Ø14	FTKA01842	TW06S-A

CUTTING, DRILLING AND THREADING

HFMM **new**



AA
13°
• AR: -4°
• RR: -14°~-3°

(mm)

Designation		ØD	Ød	Ød1	ℓ	L	M	ap	
HFMM 1008HR-M06	1	8	9.5	6.5	17	32	M06	0.4~0.5	0.01
1010HR-M06	2	10	9.5	6.5	17	32	M06	0.4~0.5	0.01
1011HR-M06	2	11	9.5	6.5	17	32	M06	0.4~0.5	0.01
1012HR-M06	3	12	11	6.5	19	34	M6B	0.4~0.5	0.01
1013HR-M06	3	13	11	6.5	19	34	M6B	0.4~0.5	0.01
1016HR-M08	4	16	14.5	8.5	22	39	M08	0.4~0.5	0.03
1017HR-M08	4	17	14.5	8.5	22	39	M08	0.4~0.5	0.03
1020HR-M10	5	20	18	10.5	25	46	M10	0.4~0.5	0.06
1021HR-M10	5	21	18	10.5	25	46	M10	0.4~0.5	0.06
1025HR-M12	6	25	23	12.5	27	51	M12	0.4~0.5	0.11
1026HR-M12	6	26	23	12.5	27	51	M12	0.4~0.5	0.11
1030HR-M16	7	30	29	17	30	60	M16	0.4~0.5	0.17
1032HR-M16	8	32	29	17	30	60	M16	0.4~0.5	0.18
1033HR-M16	8	33	29	17	30	60	M16	0.4~0.5	0.18

Available Inserts

		LPMT-MF		LPMW								LPEW					
		Cermet		Coated								Uncoated					
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
LPMT	040210R-MF							•					•	•			
	040220R-MF							•					•	•			
LPMW	040210R						•	•					•				
	040220R						•	•					•				
LPEW	040210R						•	•					•				
	040220R						•	•					•				

Parts

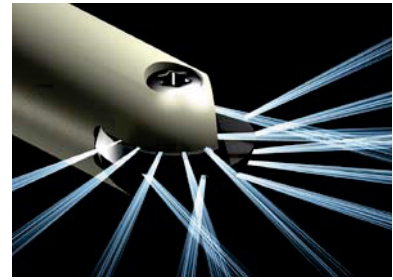
Specification		
Ø8~Ø10	FTKA01840	TW06S-A
Ø11~Ø33	FTKA01842	

CUTTING, DRILLING AND THREADING

Laser Mill

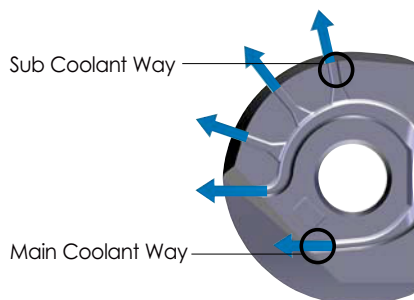
- Longer tool life is achieved due to the insert grade's excellent cutting performance.
- Optimum machining of molds has been achieved with the MQL's available system.
- Easy clamping with a simple screw on system.
- Various holder line up: steel shank, carbide shank and modular type.
- High accuracy indexable end mills for mold finishing

MQL System

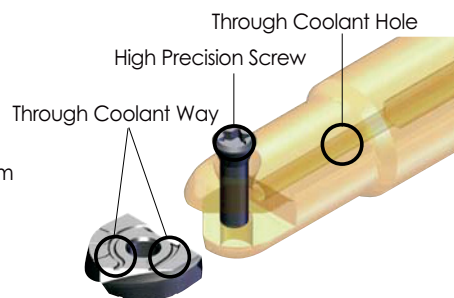


- Environmental Friendly System
- Decreased Coolant Cost
- Lubrication of Cutting-edge
- Improved Chip Control Property
- Increased Tool Life & Improved Surface Quality

Clamping System



- High Precision (ground internal diameter)
Run-out: 0.02 mm
Accuracy of 'R' part: below 0.01 mm
- Through Coolant System



Features

LBE



- Six types of inserts are available with one holder
- A single screw for the clamping of the insert: Easy clamping system
- Various types of holders (steel shank, carbide shank and modular type)
- MQL applicable- environmentally responsible with a longer tool life & improved surface quality.

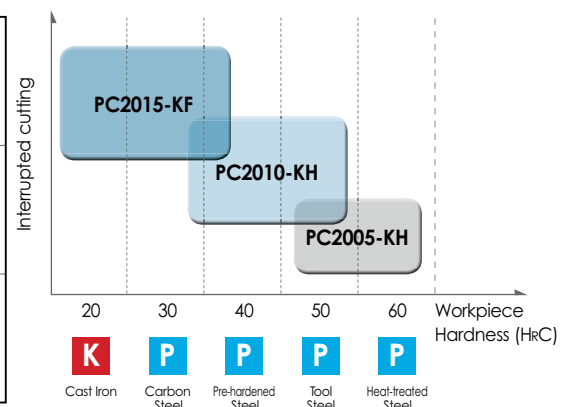
LBS and LR are order-made items

LBH-Ball	LRH-Corner Radius	LFH-High Feed	LCF-Chamfer	LBS-Ball type	LR-Corner R type
<ul style="list-style-type: none"> • Helical cutting-edge • Suitable for harder material with a high feed 	<ul style="list-style-type: none"> • Helical cutting-edge • Variety of nose -R 	<ul style="list-style-type: none"> • Helical cutting-edge • Suitable for a high feed 	<ul style="list-style-type: none"> • Straight cutting-edge • Center drilling and chamfering 	<ul style="list-style-type: none"> • Straight cutting-edge • Suitable for precise fitting 	<ul style="list-style-type: none"> • Straight cutting-edge • Variety of nose-R

Features of Laser Mill Grades

PC2005	<ul style="list-style-type: none"> • Extremely high hardness grade. • The harmony between an improved blade design and a strong chip breaker. • Optimized for machining heat-treated steel and high hardness steel.
PC2010	<ul style="list-style-type: none"> • High wear resistance and excellent toughness. • The harmony between an excellent thermal shock resistance and strong cutting-edges. • Optimized for machining tool steel and pre-hardened steel.
PC2015	<ul style="list-style-type: none"> • High welding resistance and excellent toughness. • The harmony between tough grade and excellent cutting-edge design. • Optimized for machining carbon steel.

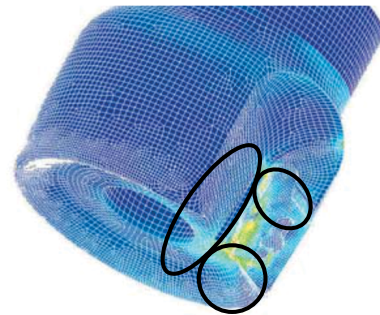
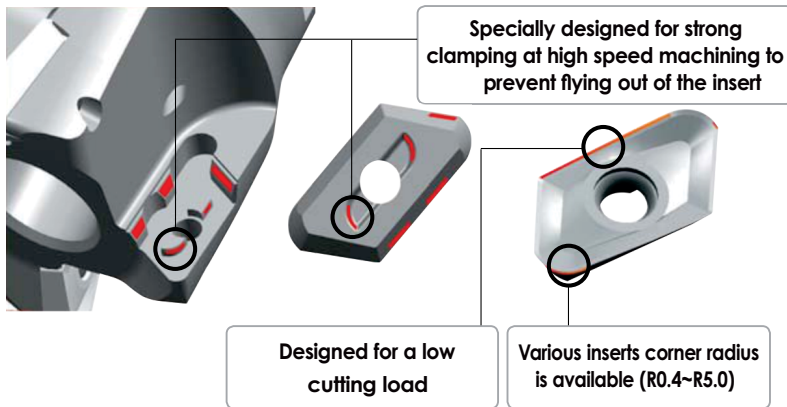
Application Guideline per Workpiece



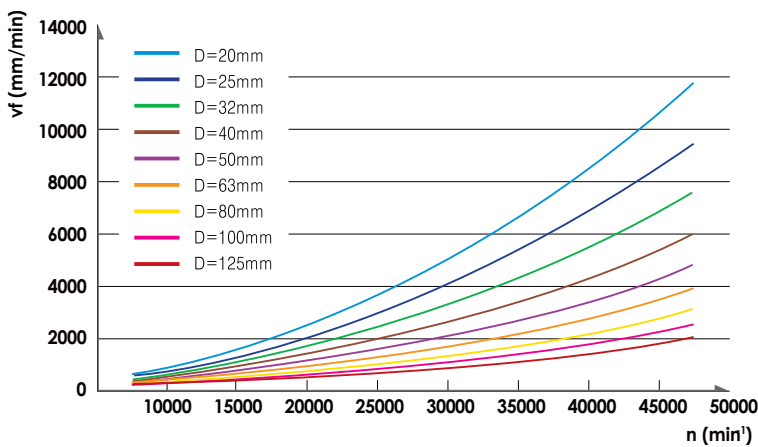
Pro-X Mill

- Strong clamping due to the concave design of the insert bottom.
- Good chip flow and less build up edge achieved with the buffed surface of the insert.
- High rake angle of the insert provides a good surface finish and low cutting load.
- Specially designed for the high speed machining of Aluminium.
- Suitable for square shouldering and curved surface machining.

Clamping System for High Speed



Centrifugal Force as per RPM



※ Screw Torque = 4 N m
※ Indexable insert: 6.8g

Marking [• Designation • Max. RPM]



Max. RPM as per Cutting Diameter

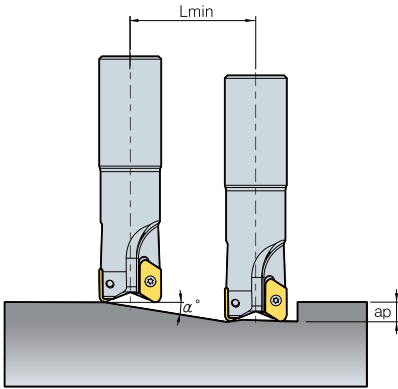
Cutting Diameter ØD (mm)	5000 Type		6000 Type	
	n (mm ⁻¹)	vc (m/min)	n (mm ⁻¹)	vc (m/min)
20	14,000	879	-	-
25	28,000	2,199	15,000	1,178
32	25,000	2,513	23,000	2,312
40	22,000	2,764	20,000	2,513
50	20,000	3,141	18,000	2,827
63	18,000	3,562	16,000	3,166
80	16,000	4,021	14,000	3,518
100	14,000	4,398	13,000	4,084
125	13,000	5,105	11,000	4,319

Workpiece		Cutting Diameter vc (m/min)	Feed fz (mm/t)
Aluminium Alloy	Rm280 < MPa	1200	0.30
	Rm280 > MPa	1000	0.25
Copper Alloy Thermal Plastic	Long chipping	400	0.20
	-	350	0.15
Aluminium Alloy	Si < 12%	1000	0.25
		300	0.23
Copper Alloy	Short chipping	500	0.20
Magnesium Alloy	-	450	0.20
Duroplastics	-	200	0.15

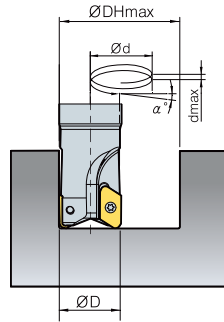
※ In case of actual machining accidental breakage of insert or tool could happen even under the written RPM special cover or door is necessary to prevent damage from broken insert or broken tool

Pro-X Mill Ramping & Helical Cutting Technical Data

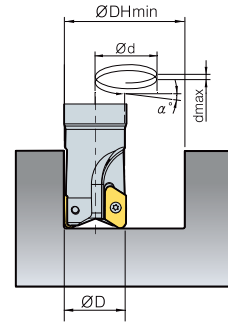
1. Ramping



2. Blind Hole Helical Cutting



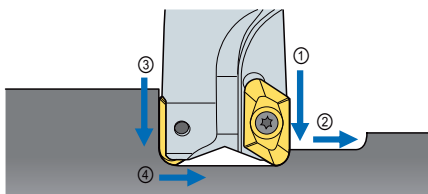
3. Thru Hole Helical Cutting



Designation	ØD (mm)	Ramping		Blind Hole Helical Cutting				Thru Hole Helical Cutting	
		α° (Max.)	L Min. (mm)	ØD H Max. (mm)	d Max. (mm)	ØD H Min. (mm)	d Max. (mm)	ØD H Min. (mm)	d Max. (mm)
PAXS5020HR	20	8.4	68	34	5.0	32	4.7	27	4.0
PAXS5025HR	25	13.2	43	44	10.4	42	9.9	34	8.0
PAXS5032HR	32	9.5	60	58	9.7	56	9.3	48	8.0
PAXS5040HR	40	7.1	80	74	9.3	72	9.0	64	8.0
PAXCM5050HR	50	5.4	105	94	9.0	92	8.8	84	8.0
PAXCM5063HR	63	4.2	138	120	8.7	118	8.6	110	8.0
PAXC(M)5080HR	80	3.2	180	154	8.6	152	8.4	144	8.0
PAXC(M)5100HR	100	2.5	230	194	8.4	192	8.3	184	8.0
PAXC(M)5125HR	125	2.0	293	244	8.3	242	8.3	234	8.0
PAXS6025HR	25	9.0	63	44	6.9	42	6.6	38	6.0
PAXS6032HR	32	6.6	87	58	6.7	56	6.5	52	6.0
PAXS6040HR	40	12.1	47	74	15.9	72	15.4	56	12.0
PAXCM6060HR	50	9.0	63	94	14.8	92	14.5	76	12.0
PAXCM6063HR	63	6.7	85	120	14.1	118	13.9	102	12.0
PAXC(M)6080HR	80	5.0	113	154	13.6	152	13.4	136	12.0
PAXC(M)6100HR	100	3.9	147	194	13.2	192	13.1	176	12.0
PAXC(M)6125HR	125	3.0	188	244	13.0	242	12.8	226	12.0

- Lmin: When ap = 10 mm
- Lmin: Minimum inclination cutting length $L/min = \frac{ap}{\tan \alpha}$ (mm)
- * ap: Depth of the cut

Plunging, Slotting & Drilling Technical Data



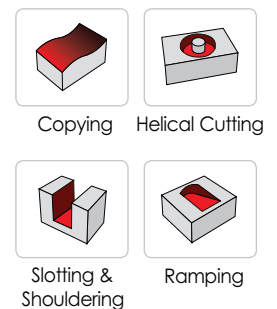
1. When drilling or the grooving machining sequence is ① → ② → ③ → ④
2. When drilling or the grooving, decrease the feed and cutting speed 30%~50% from the recommended data

• Cutting Condition for Drilling

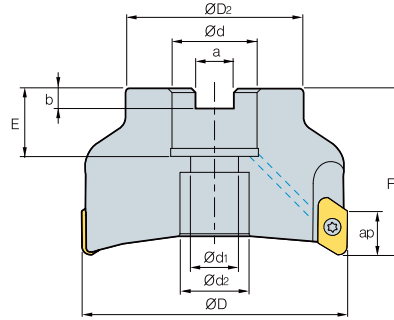
Holder	ap (mm)	
	5000 Type	6000 Type
Ø20	8	-
Ø25	4	11
Ø32	4	6
Ø40~125	4	6

Insert	ap (mm)
XETK19	4
XETK25	6

Uses



PAXC(M)5000



• AR: -4°
• RR: -14°~3°

(mm)

Designation		⊙	ØD	ØD ₂	Ød	Ød	Ød ₂	a	b	F	ap	kg
PAXCM	5040HR-4,B	3	40	34	16	9	14	8.4	5.6	19	40	25,800
	5050HR-4,B	4	50	42	22	11	18	10.4	6.3	21	50	23,000
	5063HR-4,B	5 (4)	63	49	22	11	18	10.4	6.3	21	50	20,500
PAXC	5080HR-4,B	5	80	57	25.4 (27)	14	20	9.5 (12.4)	6 (7)	24 (23)	50	18,200
	5100HR-4,B	6	100	67	31.75 (32)	18	26	12.7 (14.4)	8 (8)	32 (26)	63	16,300
	5125HR-4,B	7	125	87	38.1 (40)	22	32	15.9 (16.4)	10 (9)	35 (29)	63	14,600

• A type: Insert NoseR 0.4~3.2, B type: Insert NoseR 4.0~5.0

() Metric size

Available Inserts

XEKT-MA												XEKT-ML											
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PCY530	PC5300	PC5400	PD2000	ST30A	G10	H01	Coated		Uncoated			
XEKT	19M504FR-MA																						
	19M508FR-MA																						
	19M512FR-MA																						
	19M516FR-MA																						
	19M518FR-MA																						
	19M520FR-MA																						
	19M530FR-MA																						
	19M532FR-MA																						
	19M540FR-MA																						
	19M550FR-MA																						

Available Adapters

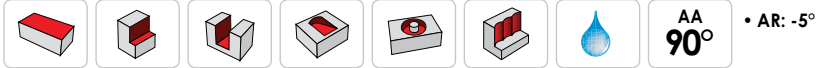
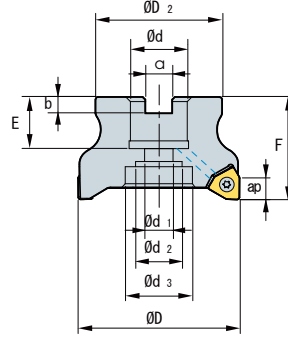
Designation		Ød	Available Arbors
PAXC(M)	5040HR-A,B	16	BT
	5050HR-A,B	22	BT
	5063HR-A,B		
	5080HR-A,B	25.4	BT -FMA25.4-
		27	BT
	5100HR-A,B	31.75	BT -FMA31.75-
		32	BT
5125HR-A,B	38.1	BT -FMA38.1-	
	40	BT	

Parts

Specification	Screw	Wrench
Ø40~Ø125	PTKA0408	TW 15S

RM3PC(M)4000

new



(mm)

Designation		⊙	ØD	ØD2	Ød	Ød1	Ød2	Ød3	a	b	E	F	ap	kg
RM3PCM	4040HR	3	40	35	16	9	14	-	8.4	5.6	19	40	8.0	0.19
	4040HR-M	4	40	35	16	9	14	-	8.4	5.6	19	40	8.0	0.19
	4050HR	4	50	42	22	11	18	-	10.4	6.3	20	40	8.0	0.28
	4050HR-M	5	50	42	22	11	18	-	10.4	6.3	20	40	8.0	0.29
	4063HR	5	63	49	22	11	18	-	10.4	6.3	20	40	8.0	0.54
	4063HR-M	6	63	49	22	11	18	-	10.4	6.3	20	40	8.0	0.53
RM3PC (RM3PCM)	4080HR	5	80	57	25.4 (27)	14	20	35	9.5 (12.4)	6 (7)	25 (23)	50	8.0	1.08
	4080HR-M	7	80	57	25.4 (27)	14	20	35	9.5 (12.4)	6 (7)	25 (23)	50	8.0	1.06
	4100HR	7	100	67	31.75 (32)	18	26	42	12.7 (14.4)	8 (8)	33 (25)	63 (50)	8.0	1.68
	4100HR-M	8	100	67	31.75 (32)	18	26	42	12.7 (14.4)	8 (8)	33 (25)	63 (50)	8.0	1.67
	4125HR	8	125	90	38.1 (40)	22	32	52	15.9 (16.4)	9 (10)	38 (29)	63	8.0	3.45
	4125HR-M	10	125	90	38.1 (40)	22	32	52	15.9 (16.4)	9 (10)	38 (29)	63	8.0	3.45

() Metric size

Available Inserts

		XNCT-MA			XNKT-ML				XNKT-MM								
Designation		Cermet		Coated								Uncoated					
		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3600	PC9530	PC6510	PC5300	PC5400	ST30A	G10	H01
XNCT	080504PNFR-MA																•
	080508PNFR-MA																•
	080512PNFR-MA																•
	080520PNFR-MA																•
XNKT	080508PNER-ML																
	080508PNSR-MM						•	•		•		•	•				
	080512PNER-ML																
	080512PNSR-MM						•	•		•		•	•				
	080516PNER-ML																
	080516PNSR-MM						•	•		•		•	•				
	080520PNER-ML																
	080520PNSR-MM						•	•		•		•	•				

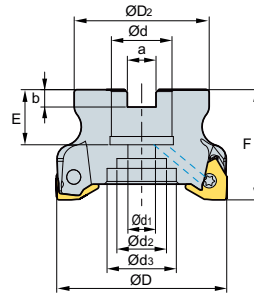
Available Arbors

Designation		Available Arbors			
		RM3PC		RM3PCM	
RM3PC(M)	4040HR	-	-	BT	-FMC16-
	4050HR	-	-	BT	-FMC22-
	4063HR	-	-	BT	-FMC27-
	4080HR	BT	-FMA25.4-	BT	-FMC32-
	4100HR	BT	-FMA31.75-	BT	-FMC40-
	4125HR	BT	-FMA38.1-	BT	-FMC40-

Parts

Specification		
Ø40~Ø125	FTNA0408	TW15S

RM6PC(M)-WN08



AA 90°
• AR: -6°
• RR: -14°~ -11°

(mm)

Designation	ØD	ØD ₂	Ød	Ød ₁	Ød ₂	Ød ₃	a	b	E	F	ap	kg		
RM6PCM	050R-22-4-WN08	4	50	42	22	11	18	-	10.4	6.3	20	40	8.2	0.28
	050R-22-5-WN08	5	50	42	22	11	18	-	10.4	6.3	20	40	8.2	0.27
	063R-22-5-WN08	5	63	49	22	11	18	-	10.4	6.3	20	40	8.2	0.45
	063R-22-6-WN08	6	63	49	22	11	18	-	10.4	6.3	20	40	8.2	0.45
	080R-27-7-WN08	7	80	57	27	14	20	35	12.4	7	23	50	8.2	0.90
	080R-27-9-WN08	9	80	57	27	14	20	35	12.4	7	23	50	8.2	0.89
	100R-32-8-WN08	8	100	67	32	18	26	42	14.4	8	25	50	8.2	1.47
	100R-32-11-WN08	11	100	67	32	18	26	42	14.4	8	25	50	8.2	1.45
	125R-40-11-WN08	11	125	90	40	22	32	52	16.4	10	29	63	8.2	2.94
125R-40-14-WN08	14	125	90	40	22	32	52	16.4	10	29	63	8.2	2.91	
RM6PC	080R-25.4-7-WN08	7	80	57	25.4	14	20	35	9.5	6	25	50	8.2	0.91
	080R-25.4-9-WN08	9	80	57	25.4	14	20	35	9.5	6	25	50	8.2	0.91
	100R-31.75-8-WN08	8	100	67	31.75	18	26	42	12.7	8	32	63	8.2	1.69
	100R-31.75-11-WN08	11	100	67	31.75	18	26	42	12.7	8	32	63	8.2	1.73
	125R-38.1-11-WN08	11	125	90	38.1	22	32	52	15.9	9	35	63	8.2	1.98
	125R-38.1-14-WN08	14	125	90	38.1	22	32	52	15.9	9	35	63	8.2	2.90

Available Inserts

		WNGX-MA							WNGX-ML							WNGX-MM																				
		Cermet		Coated			Uncoated		Cermet		Coated			Uncoated		Cermet		Coated			Uncoated															
Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC2510	PC3500	PC3530	PC3530	PC3530	PC3530	PC3530	ST30A	G10	H01	Designation		CN2000	CN30	NC5330	NC5340	NC5350	PC2505	PC3500	PC3500	PC3530	PC3530	PC3530	PC3530	ST30A	G10	H01		
WNGX	080604PNFR-MA																	WNGX	080616PNER-ML																	
	080608PNFR-MA																		WNGX	080620PNER-ML																
	080612PNFR-MA																			080604PNSR-MM																
	080616PNFR-MA																			080608PNSR-MM																
	080620PNFR-MA																			080612PNSR-MM																
WNGX	080604PNER-ML																	080616PNSR-MM																		
	080608PNER-ML																	080616PNSR-MM																		
	080612PNER-ML																	080620PNSR-MM																		

Available Arbors

Designation	NC Arbors
080R-25.4-7-WN08	BT -FMA25.4-
080R-25.4-9-WN08	
100R-31.75-8-WN08	
100R-31.75-11-WN08	BT -FMA31.75-
125R-38.1-11-WN08	
125R-38.1-14-WN08	BT
050R-22-4-WN08	BT -FMC22-
050R-22-5-WN08	

Designation	NC Arbors
063R-22-5-WN08	BT -FMC22-
063R-22-6-WN08	
080R-27-7-WN08	BT -FMC27-
080R-27-9-WN08	
100R-32-8-WN08	BT -FMC32-
100R-32-11-WN08	
125R-40-11-WN08	
125R-40-14-WN08	BT -FMC40-

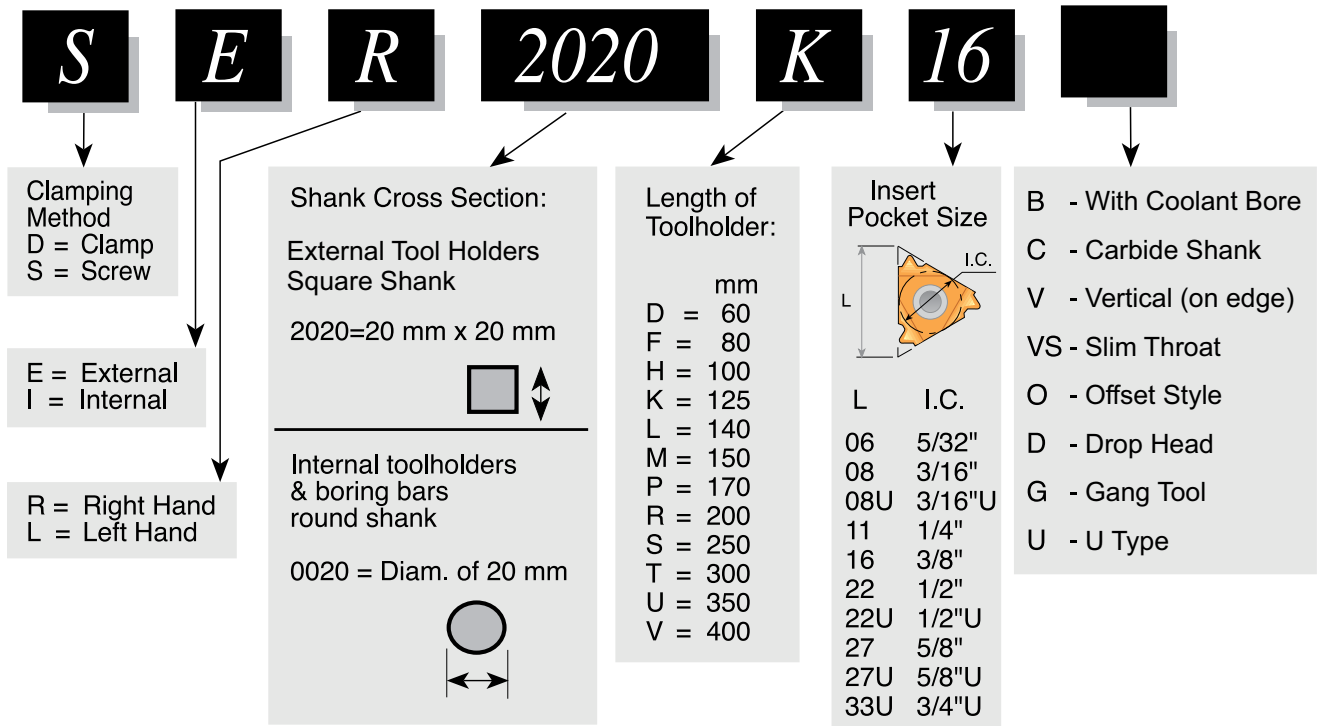
Parts

Specification	Screw	Wrench	Wrench
Ø50-Ø125	FTNA0512	-	TW20-100

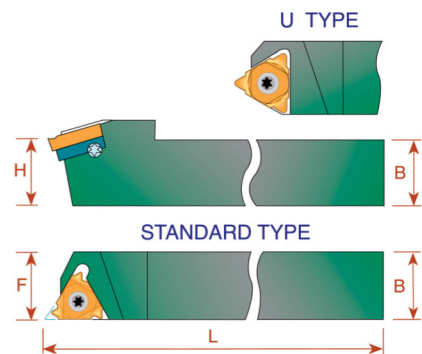
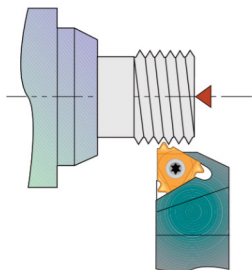


Product Identification

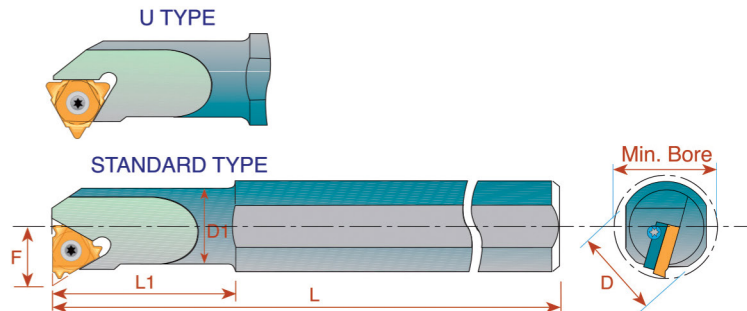
Threading Tool holders Ordering Codes



External Tool Holders

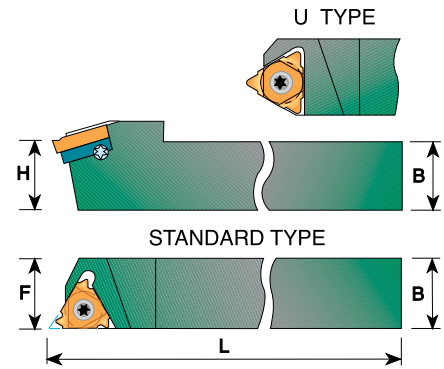
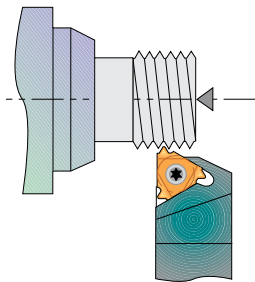



Internal Toolholders



CUTTING, DRILLING AND THREADING

External Tool Holders



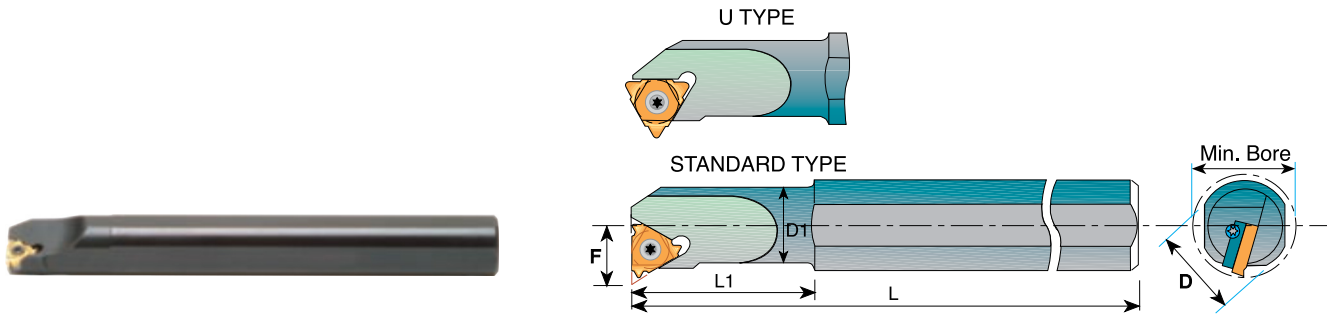
Ordering Code Right Hand		B = H	L	F	Insert Screw	Anvil Screw	Torx Key	RH Anvil	LH Anvil
* SER 8 8 H11	11	8	100	11	S11	-	K11	-	-
* SER 10 10 H11	11	10	100	11	S11	-	K11	-	-
* SER 10 10 M11	11	10	150	11	S11	-	K11	-	-
* SER 12 12 K11	11	12	125	12	S11	-	K11	-	-
* SER 12 12 M11	11	12	150	12	S11	-	K11	-	-
SER 12 12 F16	16	12	80	16	S16	A16	K16	AE16	AI16
SER 16 16 H16	16	16	100	16	S16	A16	K16	AE16	AI16
SER 20 20 K16	16	20	125	20	S16	A16	K16	AE16	AI16
SER 25 25 M16	16	25	150	25	S16	A16	K16	AE16	AI16
SER 32 32 P16	16	32	170	32	S16	A16	K16	AE16	AI16
SER 25 25 M22	22	25	150	25	S22	A22	K22	AE22	AI22
SER 32 32 P22	22	32	170	32	S22	A22	K22	AE22U	AI22U
SER 40 40 R22	22	40	200	40	S22	A22	K22	AE22U	AI22U
SER 25 25 M22U	22U	25	150	28	S22	A22	K22	AE22U	AI22U
SER 32 32 P22U	22U	32	170	32	S22	A22	K22	AE22	AI22
SER 40 40 R22U	22U	40	200	40	S22	A22	K22	AE22	AI22
SER 25 25 M27	27	25	150	32	S27	A27	K27	AE27	AI27
SER 32 32 P27	27	32	170	32	S27	A27	K27	AE27U	AI27U
SER 40 40 R27	27	40	200	40	S27	A27	K27	AE27U	AI27U
SER 25 25 M27U	27U	25	150	32	S27	A27	K27	AE27U	AI27U
SER 32 32 P27U	27U	32	170	32	S27	A27	K27	AE27	AI27
SER 40 40 R27U	27U	40	200	40	S27	A27	K27	AE27	AI27
* SER 25 25 M33U	33U	25	150	32	S33	-	K33	-	-
* SER 32 32 P33U	33U	32	170	32	S33	-	K33	-	-


*Tool Holders with no anvil.

For LEFT HAND tool holders, specify SEL instead of SER.

Tool holders are made with a 1.5° Helix Angle. For other Helix Angles, please consult the Helix Angle chart in the technical section.

Internal Toolholders



Ordering Code Right Hand		D	D1	Min. Bore Diam.	L	L1	F	Insert Screw	Anvil Screw	Torx Key	RH Anvil	LH Anvil
* SIR 0005 H06	6	12	5.1	6.0	100	12	4.3	S06	-	K06	-	-
* SIR 0007 K08	8	16	6.6	7.8	125	18	5.3	S08	-	K08	-	-
* SIR 0008 K08U	8U	16	7.3	9.0	125	21	6.6	S08	-	K08	-	-
* SIR 0010 H11	11	10	10	12	100	-	7.4	S11	-	K11	-	-
* SIR 0010 K11	11	16	10	12	125	25	7.4	S11	-	K11	-	-
* SIR 0013 L11	11	16	13	15	140	32	8.9	S11	-	K11	-	-
* SIR 0013 M16	16	16	13	16	150	32	10.2	S16S	-	K16	-	-
* SIR 0016 P16	16	20	16	19	170	40	11.7	S16S	-	K16	-	-
SIR 0020 P16	16	20	20	24	170	-	13.7	S16	A16	K16	AI16	AE16
SIR 0025 R16	16	25	25	29	200	-	16.2	S16	A16	K16	AI16	AE16
SIR 0032 S16	16	32	32	36	250	-	19.7	S16	A16	K16	AI16	AE16
SIR 0040 T16	16	40	40	44	300	-	23.7	S16	A16	K16	AI16	AE16
SIR 0050 U16	16	50	50	54	350	-	28.7	S16	A16	K16	AI16	AE16
* SIR 0020 P22	22	20	20	24	170	-	15.6	S22S	-	K22	-	-
SIR 0025 R22	22	25	25	29	200	-	18.1	S22	A22	K22	AI22	AE22
SIR 0032 S22	22	32	32	38	250	-	21.6	S22	A22	K22	AI22	AE22
SIR 0040 T22	22	40	40	46	300	-	25.6	S22	A22	K22	AI22	AE22
SIR 0050 U22	22	50	50	56	350	-	30.6	S22	A22	K22	AI22	AE22
SIR 0032 S22U	22U	32	32	38	250	-	24.4	S22	A22	K22	AI22U	AE22U
SIR 0040 T22U	22U	40	40	46	300	-	28.1	S22	A22	K22	AI22U	AE22U
SIR 0050 U22U	22U	50	50	57	350	-	30.8	S22	A22	K22	AI22U	AE22U
SIR 0032 S27	27	32	32	40	250	-	22.6	S27	A27	K27	AI27	AE27
SIR 0040 T27	27	40	40	48	300	-	26.6	S27	A27	K27	AI27	AE27
SIR 0050 U27	27	50	50	58	350	-	31.6	S27	A27	K27	AI27	AE27
SIR 0060 V27	27	60	60	68	400	-	36.6	S27	A27	K27	AI27	AE27
SIR 0032 S27U	27U	32	32	40	250	-	25.8	S27	A27	K27	AI27U	AE27U
SIR 0040 T27U	27U	40	40	48	300	-	29.4	S27	A27	K27	AI27U	AE27U
SIR 0050 U27U	27U	50	50	58	350	-	34.3	S27	A27	K27	AI27U	AE27U
SIR 0060 V27U	27U	60	60	68	400	-	39.7	S27	A27	K27	AI27U	AE27U
SIR 0050 U33U	33U	50	50	62	350	-	37.5	S33	-	K33	-	-

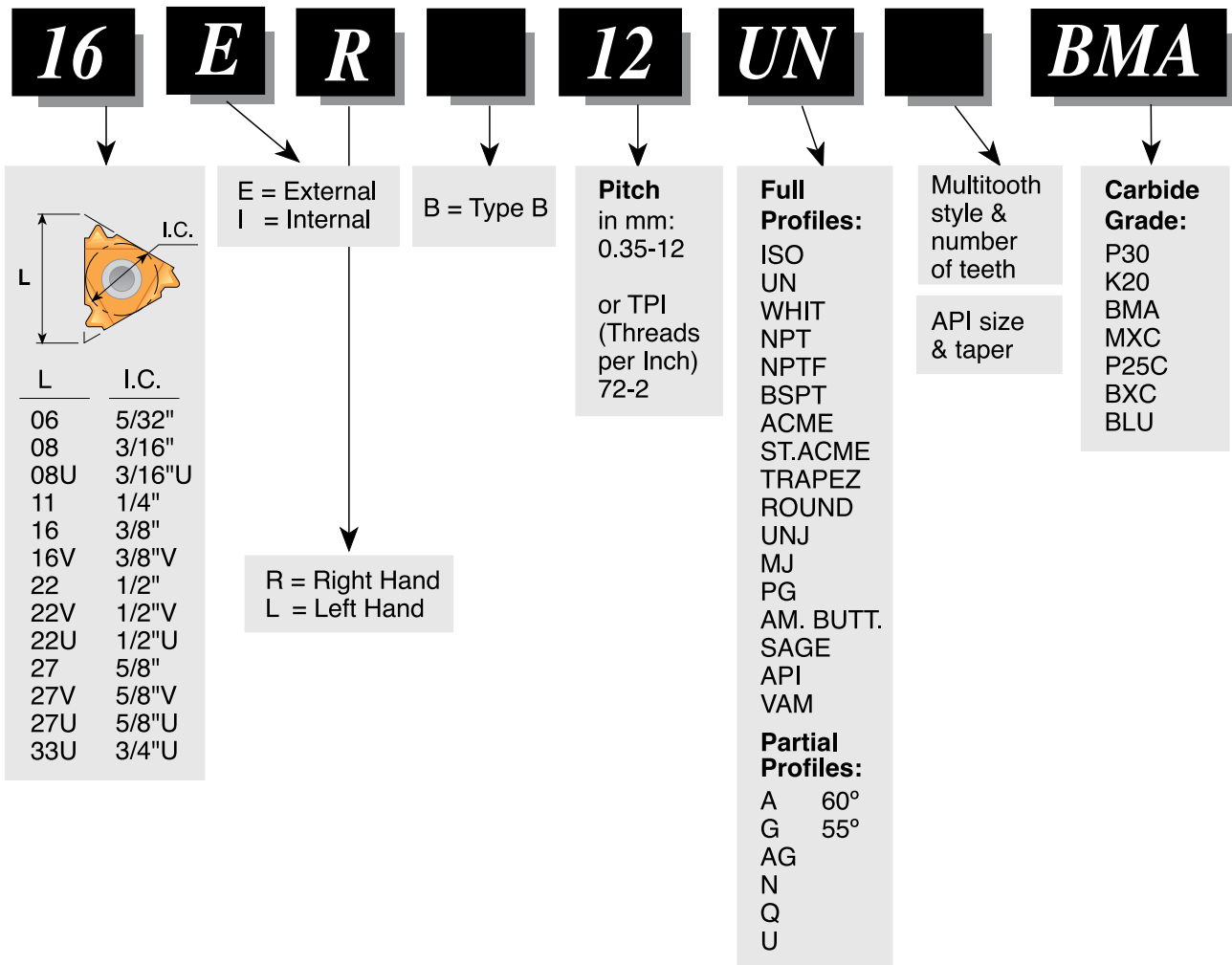
*Tool Holders with no anvil.

For LEFT HAND tool holders, specify SEL instead of SER.

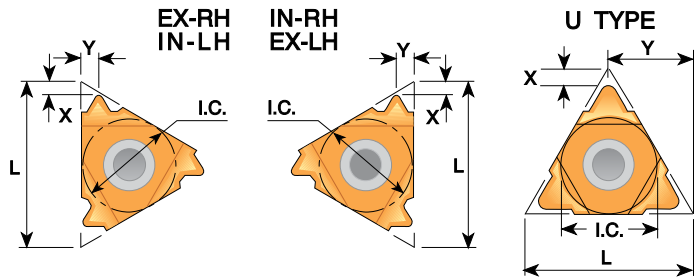
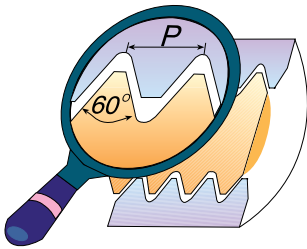
Tool holders are made with a 1.5° Helix Angle. For other Helix Angles, please consult the Helix Angle chart in the technical section.

Product Identification

Thread Turning Inserts Ordering Codes

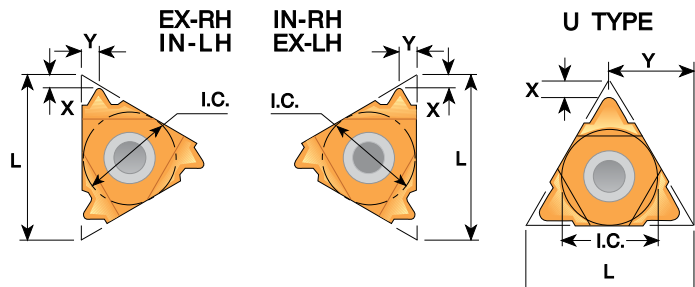
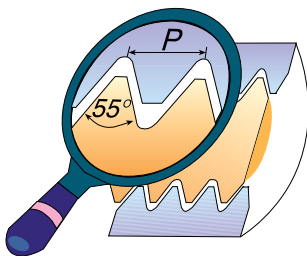


Partial Profile 60°



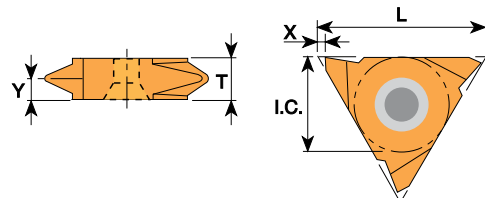
L	I.C.	Pitch Range		External Ordering Code		Internal Ordering Code		X	Y
		in	mm TPI	Right Hand	Left Hand	Right Hand	Left Hand		
11	1/4	0.5-1.5	48-16	11 ER A60	11 EL A60	11 IR A60	11 IL A60	0.8	0.9
22	1/2	3.5-5.0	7- 5	22 ER N60	22 EL N60	22 IR N60	22 IL N60	1.7	2.5

Partial Profile 55°



L	I.C.	Pitch Range		External Ordering Code		Internal Ordering Code		X	Y
		in	mm TPI	Right Hand	Left Hand	Right Hand	Left Hand		
6	5/32	0.5-1.25	48-20	ULTRA -MINI →		*06 IR A55	*06 IL A55	0.5	0.6
27U	5/8U	6.5-9.0	4-2.75	27U E/R/L U55				1.2	13.7

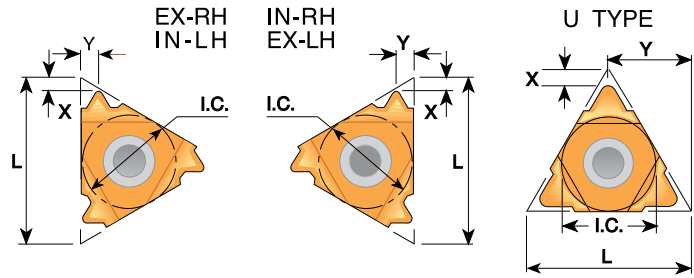
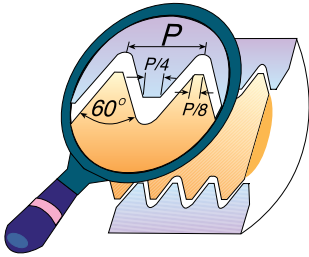
Partial Profile 60° - Vertical



L	I.C.	Pitch Range		External Ordering Code		Internal Ordering Code		X	Y	T
		in	mm TPI	Right Hand	Left Hand	Right Hand	Left Hand			
16	3/8	0.5 - 1.5	48-16	16V ER A60	16V EL A60			1.0	0.9	3.6
16	3/8	1.75- 3.0	14- 8	16V ER G60	16V EL G60			1.0	1.8	3.6
16	3/8	0.5 - 3.0	48- 8	16V ER AG60	16V EL AG60			1.0	1.8	3.6
22	1/2	1.75- 3.0	14- 8	22V ER G60	22V EL G60			1.2	1.7	4.0
22	1/2	0.5 - 5.0	7- 5	22V ER N60	22V EL N60			1.2	2.5	4.8
27	5/8	6.0-10.0	4- 2.5	27V ER V60	27V EL V60	27V IR V60	27V IL V60	1.8	5.2	10.4

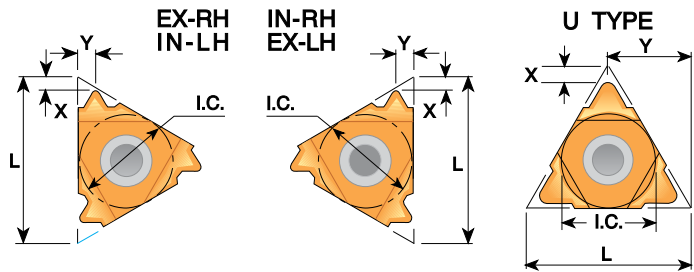
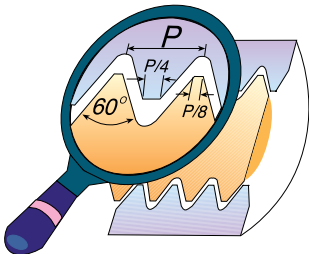
CUTTING, DRILLING AND THREADING

ISO - Metric



Pitch mm	L	I.C. in	External Ordering Code		X	Y	Internal Ordering Code		X	Y
			Right Hand	Left Hand			Right Hand	Left Hand		
			1.0	16			3/8	16 ER 1.0 ISO		
1.25	16	3/8	16 ER 1.25 ISO	16 EL 1.25 ISO	0.8	0.9	16 IR 1.25 ISO	16 IL 1.25 ISO	0.8	0.9
1.5	16	3/8	16 ER 1.5 ISO	16 EL 1.5 ISO	0.8	1.0	16 IR 1.5 ISO	16 IL 1.5 ISO	0.8	1.0
1.75	16	3/8	16 ER 1.75 ISO	16 EL 1.75 ISO	0.9	1.2	16 IR 1.75 ISO	16 IL 1.75 ISO	0.9	1.2
2.0	16	3/8	16 ER 2.0 ISO	16 EL 2.0 ISO	1.0	1.3	16 IR 2.0 ISO	16 IL 2.0 ISO	1.0	1.3
2.5	16	3/8	16 ER 2.5 ISO	16 EL 2.5 ISO	1.1	1.5	16 IR 2.5 ISO	16 IL 2.5 ISO	1.1	1.5
3.0	16	3/8	16 ER 3.0 ISO	16 EL 3.0 ISO	1.2	1.6	16 IR 3.0 ISO	16 IL 3.0 ISO	1.1	1.5
3.5	16	3/8	16 ER 3.5 ISO	16 EL 3.5 ISO	1.2	1.7	16 IR 3.5 ISO	16 IL 3.5 ISO	1.2	1.7

ISO - Metric



Pitch mm	L	I.C. in	External Ordering Code		X	Y	Internal Ordering Code		X	Y
			Right Hand	Left Hand			Right Hand	Left Hand		
			3.5	22			1/2	22 ER 3.5 ISO		
4.0	22	1/2	22 ER 4.0 ISO	22 EL 4.0 ISO	1.6	2.3	22 IR 4.0 ISO	22 IL 4.0 ISO	1.6	2.3
4.5	22	1/2	22 ER 4.5 ISO	22 EL 4.5 ISO	1.7	2.4	22 IR 4.5 ISO	22 IL 4.5 ISO	1.6	2.4
5.0	22	1/2	22 ER 5.0 ISO	22 EL 5.0 ISO	1.7	2.5	22 IR 5.0 ISO	22 IL 5.0 ISO	1.6	2.3

Standard Kits

Threading kits are a versatile solution for users that cut a variety of thread types in limited quantity and do not want to sacrifice thread quality.

External ISO Kit
Ordering Code: KEG

Inserts

16 ER A60 P25C
16 ER G60 P25C
16 ER 0.75 ISO P25C
16 ER 1.0 ISO P25C
16 ER 1.25 ISO P25C
16 ER 1.5 ISO P25C
16 ER 1.75 ISO P25C
16 ER 2.0 ISO P25C
16 ER 2.5 ISO P25C
16 ER 3.0 ISO P25C

Tool Holder

SER 2020 K16

Key

K16

Screw

S16

Internal ISO Kit
Ordering Code: KIG

Inserts

16 IR A60 P25C
16 IR G60 P25C
16 IR 0.75 ISO P25C
16 IR 1.0 ISO P25C
16 IR 1.25 ISO P25C
16 IR 1.5 ISO P25C
16 IR 1.75 ISO P25C
16 IR 2.0 ISO P25C
16 IR 2.5 ISO P25C
16 IR 3.0 ISO P25C

Tool Holder

SIR 0020 P16

Key

K16

Screw

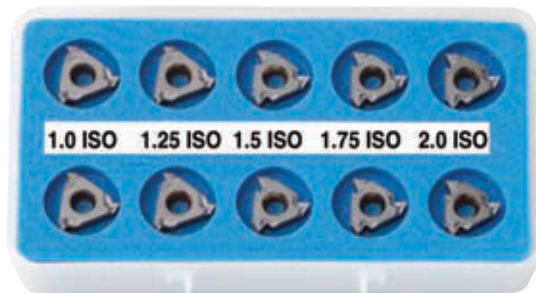
S16



If a larger tool holder with a 25 mm shank is required, add "25" to the kit. For example: KIG-25

Type B Threading Inserts

A combination of ground profile and sintered chip-breaker threading insert. BMG Grade: Sub-Micron carbide grade a with TiAlN Multi-Layer Coating.



External ISO Kit KEMB-BMA

16 ER B 1.0 ISO BMA 2 Pcs
16 ER B 1.25 ISO BMA 2 Pcs
16 ER B 1.5 ISO BMA 2 Pcs
16 ER B 1.75 ISO BMA 2 Pcs
16 ER B 2.0 ISO BMA 2 Pcs

Internal ISO Kit KIMB-BMA

16 IR B 1.0 ISO BMA 2 Pcs
16 IR B 1.25 ISO BMA 2 Pcs
16 IR B 1.5 ISO BMA 2 Pcs
16 IR B 1.75 ISO BMA 2 Pcs
16 IR B 2.0 ISO BMA 2 Pcs

Miniature & Ultra-miniature Kits



Ordering Code	Type	No. of Inserts	Contents		
			Insert	Boring Bar	Key
KU60M-BXC	Ultra	10	06 IR A60 BXC	SIR 0005 H06	K6
KM60M-BXC	Mini	10	08 IR A60 BXC	SIR 0007 K08	K8

Threading & Boring Combination Kit

A practical and convenient combination kit for ultra miniature threading and boring. It enables boring and threading of mini bores as small as 6 mm diameter with just one deep reaching carbide shank ultra mini boring bar.



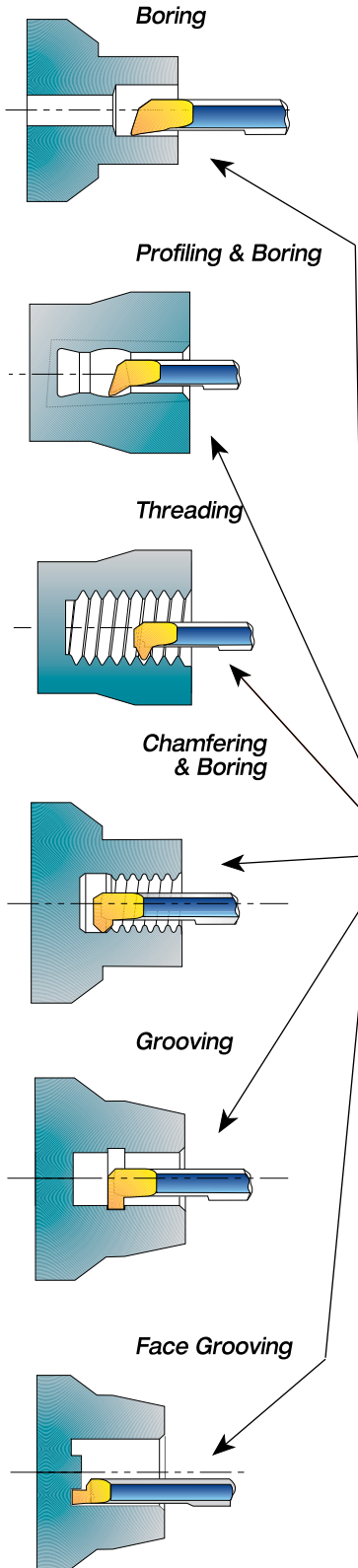
Ordering Code	Contents			
	Threading Insert	Turning Insert	Boring Bar	Key
KC6TM	06 IR A60 BXC 10 Pcs	06 IR TURN BMA 10 Pcs	SIR 0005 H06CB	K6

BMA - Coated carbide grade for medium to high cutting speeds







BXC - Coated carbide grade for low cutting speed - 40 to 90 m/min

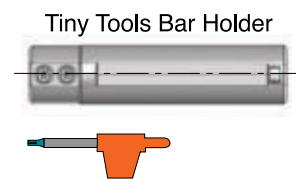
CB - Carbide shank boring bar with coolant bore

Tiny Tool Kits



KT4-20	KT5-20
MTR 4 R0.2 L10	MTR 5 R0.2 L15
MPR 4 R0.2 L10	MPR 5 R0.2 L15
MIR 4 L15 A60	MIR 5 L15 A60
MCR4 R0.2 L15	MCR5 R0.2 L15
MGR4 B1.5 L10	MGR5 B1.5 L15
MFR 4 B1.0 L15	MFR 5 B1.0 L22
SIM 0020 H4	SIM 0020 H5
K25	K25

-  Boring
-  Profiling
-  Threading
-  Chamfering
-  Grooving
-  Face Grooving

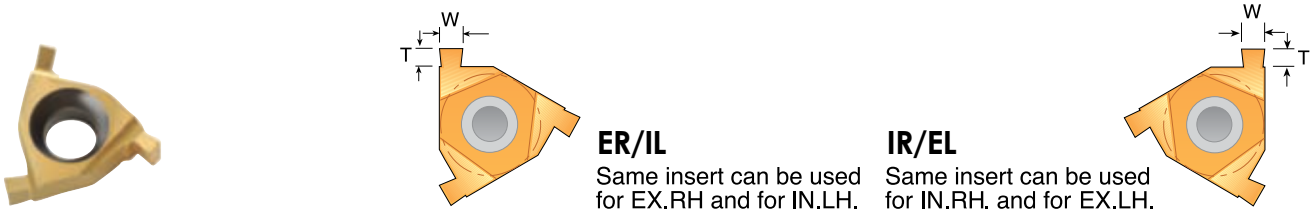


Order example: KT4-20

Kits with a 16 mm or 22 mm shank diameter bar holder are also available

Order example: KT4-16

Grooving Inserts



ER/IL

Same insert can be used for EX.RH and for IN.LH.

IR/EL

Same insert can be used for IN.RH. and for EX.LH.

W + 0.02	T	I.C. in	Ordering Code		Ordering Code	
			ER/IL Inserts	Anvil	IR/EL Inserts	Anvil
0.50	1.4	1/4	11 ER/IL 0.50	-	11 IR/EL 0.50	-
0.60	1.4	1/4	11 ER/IL 0.60	-	11 IR/EL 0.60	-
0.70	1.4	1/4	11 ER/IL 0.70	-	11 IR/EL 0.70	-
0.80	1.4	1/4	11 ER/IL 0.80	-	11 IR/EL 0.80	-
1.00	1.3	1/4	11 ER/IL 1.00	-	11 IR/EL 1.00	-
0.50	1.4	3/8	16 ER/IL 0.50	AE 16-0	16 IR/EL 0.50	AI 16-0
1.00	1.4	3/8	16 ER/IL 1.00	AE 16-0	16 IR/EL 1.00	AI 16-0
1.20	1.6	3/8	16 ER/IL 1.20	AE 16-0	16 IR/EL 1.20	AI 16-0
1.40	1.8	3/8	16 ER/IL 1.40	AE 16-0	16 IR/EL 1.40	AI 16-0
1.70	2.0	3/8	16 ER/IL 1.70	AE 16-0	16 IR/EL 1.70	AI 16-0
1.95	2.0	3/8	16 ER/IL 1.95	AE 16-0	16 IR/EL 1.95	AI 16-0
2.25	2.25	3/8	16 ER/IL 2.25	AE 16-0	16 IR/EL 2.25	AI 16-0

Order example: 16 ER/IL 1.20 BXC

* The inserts should be used with our standard threading toolholders

* Attention: The anvil must be changed to AE 16-0 or AI 16-0

* Other available blank sizes: I.C. 5/8", 1/2", 3/16" & 5/32"

Grooving Inserts for Snap Ring



ER / IL

Same insert can be used for EX.RH and for IN.LH.

IR / EL

Same insert can be used for IN.RH and for EX.LH.

R ±0.04	T	I.C. in	Ordering Code		Ordering Code	
			ER/IL Inserts	Anvil	IR/EL Inserts	Anvil
0.5	1.4	3/8	16 ER/IL R 0.50	AE 16 - 0	16 IR/EL R 0.50	AI 16 - 0
0.6	1.6	3/8	16 ER/IL R 0.60	AE 16 - 0	16 IR/EL R 0.60	AI 16 - 0
0.9	2.0	3/8	16 ER/IL R 0.90	AE 16 - 0	16 IR/EL R 0.90	AI 16 - 0
1.0	2.0	3/8	16 ER/IL R 1.00	AE 16 - 0	16 IR/EL R 1.00	AI 16 - 0
1.1	2.15	3/8	16 ER/IL R 1.10	AE 16 - 0	16 IR/EL R 1.10	AI 16 - 0
1.2	2.25	3/8	16 ER/IL R 1.20	AE 16 - 0	16 IR/EL R 1.20	AI 16 - 0

Order example: 16ER/IL R1.20 BXC

* The inserts should be used with our standard threading toolholders

* Attention: The anvil must be changed to AE 16-0 or AI 16-0

* Other available blank sizes: I.C. 5/8", 1/2", 1/4", 3/16" & 5/32"



ER/IL Insert KGRO-External			
16	ER / IL	1.0 BXC	1 unit
16	ER / IL	1.2 BXC	1 unit
16	ER / IL	1.4 BXC	1 unit
16	ER / IL	1.7 BXC	1 unit
16	ER / IL	1.95 BXC	1 unit
16	ER / IL	2.25 BXC	1 unit
ANVIL AE 16 - 0			1 unit

IR/EL Insert KGRO-Internal			
16	IR / EL	1.0 BXC	1 unit
16	IR / EL	1.2 BXC	1 unit
16	IR / EL	1.4 BXC	1 unit
16	IR / EL	1.7 BXC	1 unit
16	IR / EL	1.95 BXC	1 unit
16	IR / EL	2.25 BXC	1 unit
ANVIL AI 16 - 0			1 unit

NOTE:

Standard external and internal tool holders are to be used.

Example:

SER2525M16

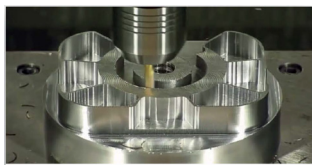
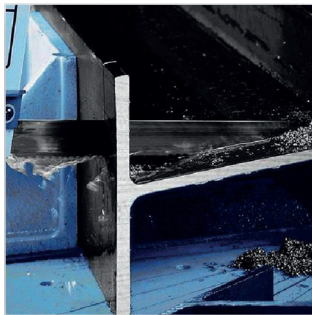
SIR0025R16

NOTE:

Grooving inserts for a snap ring are available on request.

Over the past four decades, our Cutting Tool Division has built a formidable reputation for supplying cutting tools that are able to compete against the very best in our local market. Our range of brands are well known worldwide and well respected in various engineering sectors.

WE ARE EXCLUSIVE AGENTS FOR THE FOLLOWING BRANDS:



- **KORLOY**
Indexable Carbide Inserts and Holders:
- Turning and Milling

- **YES TOOLS**
Highly Accurate Drills:
- Solid carbide
- Indexable type

- **JJTOOLS**
- Solid Carbide Round Tools

- **CARMEX**
Thread Milling tools:
- Solid
- Indexable threading

ABRASIVE PRODUCTS:

- **KINIK**
- Pedestal Grinding Wheels
- Surface and Cylindrical Grinding wheels
- Mounted points etc.
- **CUMI**
- Crank Shaft Grinding Wheels

- **ILIX**
HSS-Co series drills:
- Long
- Extra-long
- **DC**
Banded taps for specific applications such as:
- Aluminium
- Stainless steel
- Various Carbon Steels

BLADING PRODUCTS:

- **HONSBURG**
Band Saw Blades:
- Carbon Steel
- Bi-Metal
- **DoALL**
Band Saw Blades:
- Bi-Metal
- Tungsten Carbide
- Grit Edge