

**SECO
NEW
TOOLING &
EXPANSIONS**



**2017.2 NEW
PRODUCT LAUNCH**

WE WILL TAKE YOU IN THE RIGHT DIRECTION

Gain increased productivity and profitability when Seco engineers, technical experts and sales teams work closely with you to determine the best processes and tooling solutions that fit your specific needs. They will show you how the latest Seco innovations, many of which are featured in this brochure, can give you the competitive advantage needed to succeed in today's manufacturing world.

Within this **2017.2 New Product Launch**, you will discover several tooling advancements, including re-engineered drills with new anti-friction flute surfaces for fast and effective chip evacuation and reamers that compensate for tool wear. There are also ceramic inserts for machining superalloys, end mills optimized for knee implant machining and new applications of the latest coolant technology. Learn all about these tools and many more featured in this book.



FEATURED



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PERFOMAX®

Minimize chip contact with new "Wave Patterned Technology."



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FEEDMAX™ -P

-P drills go above and beyond steel and iron applications.



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MP2050

Tackle high strength heat resistant materials once and for all!



RANGE ADDITIONS

MILLING

R220.28 Copy Milling 66
 Square T4-12 66
 R220.21-SC High Feed 67
 High Feed 6 68
 SPMR19 69
 SNMU 69

TURNING - MDT/CUT-OFF

PCBN LCGN-LF 69
 396.20-4005 70
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 Inducers 70

SOLID END MILLING

Niagara Cutter™ VFP 72
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TOOLING SYSTEMS

EPB 5876
 Tapping Chucks 75
 EPB 393.14
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CUTTING DATA

Perfomax® 82
 Feedmax™ 90
 Precimaster® Plus 93
 Square 6™ 94
 Secomax™ CS300 96
 Jabro® CoCr 97
 Niagara Cutter™ -
 Diamond Router 100
 335.14 101

TECHNICAL INFO

ANSI to ISO 13399 - Quick
 Reference Guide 102-110

For additional product
 details and cutting data
 please visit: SECOTOOLS.COM

ADDITIONAL NEW PRODUCTS



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PRECIMASTER® PLUS



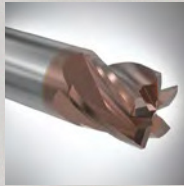
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150.10-JETI



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SQUARE 6™ PLUNGE MILL



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JABRO® CoCr



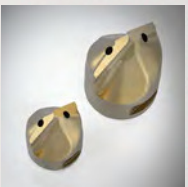
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CERAMIC CUTTERS



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NIAGARA CUTTER™ DIAMOND ROUTER



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MINIMASTER® PLUS



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THREADMILLS R335.14



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JET-GL TURNING HEADS



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MQL SHRINKFIT TOOLHOLDER
 / ACCESSORIES

NOW A DRILL BODY THAT STANDS THE TEST OF TIME

NEW PERFORMAX® - WE HAVE MADE AN EXCELLENT DRILL EVEN BETTER

Increase your drilling parameters and boost tool life with Seco's new **Performax** indexable insert drill with optimized chip flutes for optimum chip control and evacuation. The flutes on the bodies of the new drills feature recently developed anti-friction surfaces. The special "**wave patterned technology**" on these surfaces minimize the contact between chips and the flutes for higher application security. Seco also laser hardens the fronts of the flutes to a high surface hardness of HRC 60 which provides longer tool body life.



INDEXABLE INSERTS THAT WON'T BUILD YOU UP OR LET YOU DOWN

The new **DS2050** and **DS4050** insert grades have niobium nitride (NbN) top layers that do not chemically react with titanium. The prevention of that reaction - the most common wear factor with titanium - significantly extends tool life. The combination of both heat and wear resistant coating makes these inserts a first choice for drilling titanium, high temp superalloys as well as difficult stainless steel materials. The grades enhance productivity and extend tool life thanks to newly developed free-cutting MP and MC chip breakers.



HOLEMAKING

RANGE OVERVIEW:

Drill bodies:

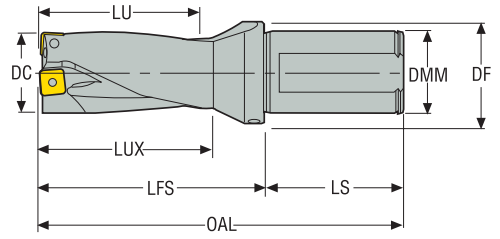
- Diameter range 0.594" - 2.375" (15 - 59 mm)
- Length to diameter ratios of 2xD, 3xD, 4xD and 5xD
- Intermediate diameters and lengths available at launch
- All standard spindle interfaces
- R7 shank for rotating and R7-C shank for stationary applications

Insert grades:

- **DS2050** - Periphery
- **DS4050** - Center

KEY BENEFITS:

- Effective chip control for long chipping ductile materials
- Fast and efficient chip evacuation
- Higher cutting parameters for increased drilling output
- Longer tool life gives reduced tool cost
- Exceptional process predictability and reliability
- Better hole surface finish



NEW PERFOMAX® SD522 - 2 x D, R7 & R7-C SHANKS - INCH

DIMENSIONS IN INCH			DESIGNATION	DIMENSIONS IN INCH						INSERT		RADIAL ADJUSTMENT	
DC	LU	ORDER NO.		OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+
0.5940	1.190	03080704	SD522-0594-119-1000R7	4.621	2.371	2.250	1.387	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013
0.6250	1.250	03080705	SD522-0625-125-1000R7	4.681	2.431	2.250	1.447	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015
0.6560	1.310	03080707	SD522-0656-131-1000R7	4.741	2.491	2.250	1.507	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019
0.6870	2.030	03080709	SD522-0687-137-1000R7	5.461	3.211	2.250	2.227	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020
0.7090	1.420	03080710	SD522-0709-142-1000R7	4.851	2.601	2.250	1.617	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008
0.7500	1.500	03080712	SD522-0750-150-1000R7	4.931	2.681	2.250	1.697	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017
0.7660	1.530	03080713	SD522-0766-153-1000R7	4.961	2.711	2.250	1.727	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020
0.7870	1.570	03080714	SD522-0787-157-1000R7	5.001	2.751	2.250	1.767	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018
0.8120	1.620	03080715	SD522-0812-162-1000R7	5.051	2.801	2.250	1.817	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020
0.8270	1.650	03080717	SD522-0827-165-1000R7	5.081	2.831	2.250	1.847	1.000	1.378	SPGX0602	SCGX060204	0.000	0.020
0.8750	1.750	03080718	SD522-0875-175-1000R7	5.181	2.931	2.250	1.947	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020
0.9060	1.810	03080720	SD522-0906-181-1000R7	5.241	2.991	2.250	2.007	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020
0.9220	1.840	03080721	SD522-0922-184-1000R7	5.271	3.021	2.250	2.037	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020
0.9370	1.870	03080722	SD522-0937-187-1000R7	5.301	3.051	2.250	2.067	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020
0.9840	1.970	03080724	SD522-0984-197-1250R7	5.526	3.151	2.375	2.167	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0000	2.000	03080725	SD522-1000-200-1250R7	5.556	3.181	2.375	2.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020
1.0320	2.060	03080727	SD522-1032-206-1250R7	5.616	3.241	2.375	2.257	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004
1.0620	2.120	03080728	SD522-1062-212-1250R7	5.676	3.301	2.375	2.317	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010
1.1250	2.250	03080730	SD522-1125-225-1250R7	5.806	3.431	2.375	2.447	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020
1.1870	2.370	03080732	SD522-1187-237-1250R7	5.926	3.551	2.375	2.567	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020
1.2500	2.500	03080735	SD522-1250-250-1500R7	6.306	3.681	2.625	2.697	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011
1.3120	2.620	03080736	SD522-1312-262-1500R7	6.426	3.801	2.625	2.817	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020
1.3750	2.750	03080737	SD522-1375-275-1500R7	6.556	3.931	2.625	2.947	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020
1.4370	2.870	03080739	SD522-1437-287-1500R7	6.676	4.051	2.625	3.067	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020
1.5000	3.000	03080743	SD522-1500-300-1500R7	6.806	4.181	2.625	3.197	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020
1.6250	3.250	03080748	SD522-1625-325-1500R7	7.056	4.431	2.626	3.447	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020
1.7500	3.500	03080756	SD522-1750-350-1500R7	7.306	4.681	2.625	3.697	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016
1.8750	3.750	03080763	SD522-1875-375-1500R7	7.556	4.931	2.625	3.947	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020
2.0000	4.000	03080769	SD522-2000-400-1500R7	7.806	5.181	2.625	4.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020
2.1250	4.250	03080773	SD522-2125-425-1500R7	8.056	5.431	2.625	4.447	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020
2.2500	4.500	03080779	SD522-2250-450-1500R7	8.306	5.681	2.625	4.697	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020
2.3750	4.750	03080783	SD522-2375-475-1500R7	8.556	5.931	2.625	4.947	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020
R7-C SHANKS													
0.625	1.25	03080706	SD522-0625-125-1000R7-C	5.378	2.628	2.75	1.447	1	1.378	SPGX0502	SCGX050204	0.005	0.015
0.687	1.37	03080708	SD522-0687-137-1000R7-C	5.498	2.748	2.75	1.567	1	1.378	SPGX0502	SCGX050204	0	0.02
0.75	1.5	03080711	SD522-0750-150-1000R7-C	5.628	2.878	2.75	1.697	1	1.378	SPGX0602	SCGX050204	0.003	0.018
0.812	1.62	03080716	SD522-0812-162-1000R7-C	5.748	2.998	2.75	1.817	1	1.378	SPGX0602	SCGX060204	0.001	0.02
0.875	1.75	03080719	SD522-0875-175-1000R7-C	5.878	3.128	2.75	1.947	1	1.378	SPGX0703	SCGX060204	0.015	0.02
0.937	1.87	03080723	SD522-0937-187-1000R7-C	5.998	3.248	2.75	2.067	1	1.378	SPGX0703	SCGX070308	0.004	0.02
1	2	03080726	SD522-1000-200-1250R7-C	6.128	3.378	2.75	2.197	1.25	1.654	SPGX0703	SCGX070308	0.004	0.02
1.062	2.12	03080729	SD522-1062-212-1250R7-C	6.059	3.309	2.75	2.128	1.25	1.654	SPGX0903	SCGX070308	0.020	0.01
1.125	2.25	03080731	SD522-1125-225-1250R7-C	6.378	3.628	2.75	2.447	1.25	1.654	SPGX0903	SCGX09T308	0.008	0.02
1.187	2.37	03080733	SD522-1187-237-1250R7-C	6.498	3.748	2.75	2.567	1.25	1.654	SPGX0903	SCGX09T308	0.005	0.02
1.25	2.5	03080734	SD522-1250-250-1500R7-C	6.628	3.878	2.75	2.697	1.5	1.969	SPGX11T3	SCGX09T308	0.020	0.011
1.375	2.75	03080738	SD522-1375-275-1500R7-C	6.878	4.128	2.625	2.947	1.5	1.969	SPGX11T3	SCGX11T308	0.009	0.02
1.5	3	03080742	SD522-1500-300-1500R7-C	7.128	4.378	2.75	3.197	1.5	1.969	SPGX12T3	SCGX11T308	0.020	0.02
1.75	3.5	03080757	SD522-1750-350-1500R7-C	7.628	4.878	2.625	3.697	1.5	1.969	SPGX1504	SCGX120408	0.020	0.016
2	4	03080770	SD522-2000-400-1500R7-C	8.128	5.378	2.75	4.197	1.5	2.337	SPGX1504	SCGX150512	0.008	0.02
2.125	4.25	03080774	SD522-2125-425-1500R7-C	8.378	5.628	2.75	4.447	1.5	2.337	SPGX1904	SCGX150512	0.020	0.02
2.25	4.5	03080780	SD522-2250-450-1500R7-C	8.628	5.878	2.75	4.697	1.5	2.337	SPGX1904	SCGX150512	0.013	0.02
2.375	4.75	03080784	SD522-2375-475-1500R7-C	8.878	6.128	2.75	4.947	1.5	2.48	SPGX1904	SCGX150512	0.004	0.02

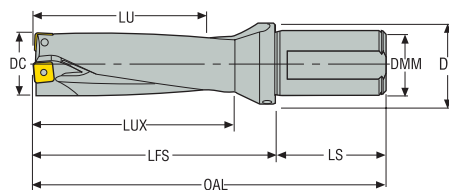
NEW PERFOMAX® SD522 - 2 x D, R7 SHANKS - METRIC

DC (MM)	DC (INCH)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN MM						INSERT		RADIAL ADJUSTMENT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+
15	0.5906	30	03080744	SD522-15-30-20R7	110	60	50	35	20	30	SPGX0502	SCGX050204	0.22	0.31
15	0.5906	30	03080745	SD522-15-30-25R7	116	60	56	35	25	35	SPGX0502	SCGX050204	0.22	0.31
15.5	0.6102	31	03080740	SD522-15.5-31-20R7	111	61	50	36	20	30	SPGX0502	SCGX050204	0.3	0.35
15.5	0.6102	31	03080741	SD522-15.5-31-25R7	117	61	56	36	25	35	SPGX0502	SCGX050204	0.17	0.36
16	0.6299	32	03080749	SD522-16-32-20R7	112	62	50	37	20	30	SPGX0502	SCGX050204	0.12	0.41
16	0.6299	32	03080750	SD522-16-32-25R7	118	62	56	37	25	35	SPGX0502	SCGX050204	0.12	0.41
16.5	0.6496	33	03080746	SD522-16.5-33-20R7	113	63	50	38	20	30	SPGX0502	SCGX050204	0.07	0.46
16.5	0.6496	33	03080747	SD522-16.5-33-25R7	119	63	56	38	25	35	SPGX0502	SCGX050204	0.07	0.46
17	0.6693	34	03080754	SD522-17-34-20R7	114	64	50	39	20	30	SPGX0502	SCGX050204	0.02	0.5
17	0.6693	34	03080755	SD522-17-34-25R7	120	64	56	39	25	35	SPGX0502	SCGX050204	0.1	0.5
17.5	0.689	35	03080752	SD522-17.5-35-20R7	115	65	50	40	20	30	SPGX0602	SCGX050204	0.43	0.1
17.5	0.689	35	03080753	SD522-17.5-35-25R7	121	65	56	40	25	35	SPGX0602	SCGX050204	0.43	0.1
18	0.7087	36	03080760	SD522-18-36-20R7	116	66	50	41	20	30	SPGX0602	SCGX050204	0.32	0.21
18	0.7087	36	03080761	SD522-18-36-25R7	122	66	56	41	25	35	SPGX0602	SCGX050204	0.32	0.21
18.5	0.7283	37	03080758	SD522-18.5-37-20R7	117	67	50	42	20	30	SPGX0602	SCGX050204	0.1	0.31
18.5	0.7283	37	03080759	SD522-18.5-37-25R7	123	67	56	42	25	35	SPGX0602	SCGX050204	0.22	0.31
19	0.748	38	03080765	SD522-19-38-20R7	118	68	50	43	20	30	SPGX0602	SCGX050204	0.11	0.42
19	0.748	38	03080766	SD522-19-38-25R7	124	68	56	43	25	35	SPGX0602	SCGX050204	0.11	0.42
19.5	0.7677	39	03080764	SD522-19.5-39-20R7	119	69	50	44	20	30	SPGX0602	SCGX060204	0.11	0.42
20	0.7874	40	03080771	SD522-20-40-25R7	126	70	56	45	25	35	SPGX0602	SCGX060204	0.07	0.46
21	0.8268	42	03080775	SD522-21-42-25R7	128	72	56	47	25	35	SPGX0602	SCGX060204	0.01	0.5
22	0.8661	44	03080777	SD522-22-44-25R7	130	74	56	49	25	35	SPGX0703	SCGX060204	0.44	0.46
23	0.9055	46	03080781	SD522-23-46-25R7	132	76	56	51	25	35	SPGX0703	SCGX070308	0.33	0.5
24	0.9449	48	03080785	SD522-24-48-25R7	134	78	56	53	25	35	SPGX0703	SCGX070308	0.11	0.5
25	0.9843	50	03080788	SD522-25-50-32R7	140	80	60	55	32	42	SPGX0703	SCGX070308	0.11	0.5
26	1.0236	52	03080790	SD522-26-52-32R7	142	82	60	57	32	42	SPGX0903	SCGX070308	0.5	0.11
27	1.063	54	03080792	SD522-27-54-32R7	144	84	60	59	32	42	SPGX0903	SCGX070308	0.5	0.26
28	1.1024	56	03080795	SD522-28-56-32R7	146	86	60	61	32	42	SPGX0903	SCGX070308	0.28	0.5
29	1.1417	58	03080796	SD522-29-58-32R7	148	88	60	63	32	42	SPGX0903	SCGX09T308	0.18	0.5
30	1.1811	60	03080798	SD522-30-60-32R7	150	90	60	65	32	42	SPGX0903	SCGX09T308	0.12	0.5
31	1.2205	62	03080801	SD522-31-62-32R7	152	92	60	67	32	42	SPGX0903	SCGX09T308	0.12	0.5
32	1.2598	64	03080802	SD522-32-64-32R7	154	94	60	69	32	42	SPGX11T3	SCGX09T308	0.5	0.31
32	1.2598	64	03080803	SD522-32-64-40R7	162	94	68	69	40	50	SPGX11T3	SCGX09T308	0.5	0.35
33	1.2992	66	03080805	SD522-33-66-32R7	156	96	60	71	32	42	SPGX11T3	SCGX09T308	0.5	0.46
33	1.2992	66	03080806	SD522-33-66-40R7	164	96	68	71	40	50	SPGX11T3	SCGX09T308	0.5	0.46
34	1.3386	68	03080808	SD522-34-68-32R7	158	98	60	73	32	42	SPGX11T3	SCGX09T308	0.22	0.5
34	1.3386	68	03080809	SD522-34-68-40R7	166	98	68	73	40	50	SPGX11T3	SCGX09T308	0.22	0.5
35	1.378	70	03080810	SD522-35-70-32R7	160	100	60	75	32	42	SPGX11T3	SCGX11T308	0.22	0.5
35	1.378	70	03080811	SD522-35-70-40R7	168	100	68	75	40	50	SPGX11T308	SCGX11T308	0.22	0.5
36	1.4173	72	03080813	SD522-36-72-32R7	162	102	60	77	32	42	SPGX11T3	SCGX11T308	0.09	0.5
36	1.4173	72	03080814	SD522-36-72-40R7	170	102	68	77	40	50	SPGX11T3	SCGX11T308	0.09	0.5
37	1.4567	74	03080816	SD522-37-74-32R7	164	104	60	79	32	42	SPGX11T3	SCGX11T308	0.09	0.5
37	1.4567	74	03080817	SD522-37-74-40R7	172	104	68	79	40	50	SPGX11T3	SCGX11T308	0.09	0.5
38	1.4961	76	03080818	SD522-38-76-32R7	166	106	60	81	32	42	SPGX12T3	SCGX11T308	0.07	0.46
38	1.4961	76	03080819	SD522-38-76-40R7	174	106	68	81	40	50	SPGX12T3	SCGX11T308	0.07	0.46
39	1.5354	78	03080821	SD522-39-78-32R7	168	108	60	83	32	42	SPGX12T3	SCGX11T308	0.07	0.46
39	1.5354	78	03080822	SD522-39-78-40R7	176	108	68	83	40	50	SPGX12T3	SCGX11T308	0.39	0.5
40	1.5748	80	03080823	SD522-40-80-32R7	170	110	60	85	32	50	SPGX12T3	SCGX11T308	0.19	0.5
40	1.5748	80	03080824	SD522-40-80-40R7	178	110	68	85	40	50	SPGX12T3	SCGX11T308	0.19	0.5
41	1.6142	82	03080826	SD522-41-82-40R7	180	112	68	87	40	50	SPGX12T3	SCGX120408	0.07	0.46
42	1.6535	84	03080828	SD522-42-84-40R7	182	114	68	89	40	50	SPGX12T3	SCGX120408	0.19	0.5
43	1.6929	86	03080830	SD522-43-86-40R7	184	116	68	91	40	50	SPGX12T3	SCGX120408	0.05	0.5
44	1.7323	88	03080832	SD522-44-88-40R7	186	118	68	93	40	50	SPGX1504	SCGX120408	0.5	0.41
45	1.7717	90	03080834	SD522-45-90-40R7	188	120	68	95	40	50	SPGX1504	SCGX150512	0.5	0.41
46	1.811	92	03080835	SD522-46-92-40R7	190	122	68	97	40	50	SPGX1504	SCGX150512	0.5	0.5
47	1.8504	94	03080836	SD522-47-94-40R7	192	124	68	99	40	50	SPGX1504	SCGX150512	0.5	0.5
48	1.8898	96	03080837	SD522-48-96-40R7	194	126	68	101	40	59	SPGX1504	SCGX150512	0.45	0.5
49	1.9291	98	03080838	SD522-49-98-40R7	196	128	68	103	40	59	SPGX1504	SCGX150512	0.2	0.5
50	1.9685	100	03080839	SD522-50-100-40R7	198	130	68	105	40	59	SPGX1504	SCGX150512	0.2	0.5
51	2.0079	102	03080840	SD522-51-102-40R7	200	132	68	107	40	59	SPGX1504	SCGX150512	0.2	0.5
52	2.0472	104	03080841	SD522-52-104-40R7	202	134	68	109	40	59	SPGX1904	SCGX150512	0.5	0.42
53	2.0866	106	03080842	SD522-53-106-40R7	204	136	68	111	40	59	SPGX1904	SCGX150512	0.5	0.42
54	2.126	108	03080843	SD522-54-108-40R7	206	138	68	113	40	59	SPGX1904	SCGX150512	0.5	0.5

NEW PERFOMAX® SD522 - 2 x D, R7 SHANKS & ABS 50 COMPATIBLE -R2 SHANKS - METRIC

DC (MM)	DC (INCH)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN MM						INSERT		RADIAL ADJUSTMENT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+
55	2.1654	110	03080844	SD522-55-110-40R7	208	140	68	115	40	59	SPGX1904	SCGX150512	0.50	0.5
56	2.2047	112	03080845	SD522-56-112-40R7	210	142	68	117	40	59	SPGX1904	SCGX150512	0.50	0.5
57	2.2441	114	03080846	SD522-57-114-40R7	212	144	68	119	40	59	SPGX1904	SCGX150512	0.39	0.5
58	2.2835	116	03080847	SD522-58-116-40R7	214	146	68	121	40	63	SPGX1904	SCGX150512	0.09	0.5
59	2.3228	118	03080848	SD522-59-118-40R7	216	148	68	123	40	59	SPGX1904	SCGX150512	0.15	0.5
ABS 50 COMPATIBLE SHANKS -R2														
15	0.5906	30	03081056	SD522-15-30-50R2	91	60	31	35	28	50	SPGX0502	SCGX050204	0.22	0.31
15.5	0.6102	31	03081057	SD522-15.5-31-50R2	92	61	31	36	28	50	SPGX0502	SCGX050204	0.30	0.35
16	0.6299	32	03080751	SD522-16-32-50R2	93	62	31	37	28	50	SPGX0502	SCGX050204	0.12	0.41
16.5	0.6496	33	03081058	SD522-16.5-33-50R2	94	63	31	38	28	50	SPGX0502	SCGX050204	0.07	0.46
17	0.6693	34	03081059	SD522-17-34-50R2	95	64	31	39	28	50	SPGX0502	SCGX050204	0.10	0.5
17.5	0.689	35	03081060	SD522-17.5-35-50R2	96	65	31	40	28	50	SPGX0602	SCGX050204	0.43	0.1
18	0.7087	36	03080762	SD522-18-36-50R2	97	66	31	41	28	50	SPGX0602	SCGX050204	0.32	0.21
18.5	0.7283	37	03081061	SD522-18.5-37-50R2	98	67	31	42	28	50	SPGX0602	SCGX050204	0.1	0.31
19	0.748	38	03080767	SD522-19-38-50R2	99	68	31	43	28	50	SPGX0602	SCGX050204	0.11	0.42
20	0.7874	40	03080772	SD522-20-40-50R2	101	70	31	45	28	50	SPGX0602	SCGX060204	0.1	0.46
20.62	0.8118	42	03080768	SD522-20.62-42-50R2	103	92	31	47	28	50	SPGX0602	SCGX060204	0.1	0.5
21	0.8268	42	03081062	SD522-21-42-50R2	103	72	31	47	28	50	SPGX0602	SCGX060204	0.1	0.5
22	0.8661	44	03080778	SD522-22-44-50R2	105	74	31	49	28	50	SPGX0703	SCGX060204	0.45	0.5
22.23	0.8752	45	03080776	SD522-22.23-45-50R2	106	75	31	50	28	50	SPGX0703	SCGX060204	0.2	0.5
23	0.9055	46	03080782	SD522-23-46-50R2	107	76	31	51	28	50	SPGX0703	SCGX070308	0.35	0.5
24	0.9449	48	03080786	SD522-24-48-50R2	109	78	31	53	28	50	SPGX0703	SCGX070308	0.11	0.5
25	0.9843	50	03080789	SD522-25-50-50R2	111	80	31	55	28	50	SPGX0703	SCGX070308	0.11	0.5
25.4	1	51	03080787	SD522-25.40-51-50R2	112	81	31	56	50	50	SPGX0703	SCGX070308	0.11	0.5
26	1.0236	52	03080791	SD522-26-52-50R2	113	82	31	57	28	50	SPGX0903	SCGX070308	0.5	0.15
27	1.063	54	03080793	SD522-27-54-50R2	115	84	31	59	28	50	SPGX0903	SCGX070308	0.5	0.26
28	1.1024	56	03081087	SD522-28-56-50R2	117	86	31	61	28	50	SPGX0903	SCGX070308	0.3	0.5
28.59	1.1256	58	03080794	SD522-28.59-58-50R2	119	88	31	63	28	50	SPGX0903	SCGX09T308	0.2	0.5
29	1.1417	58	03080797	SD522-29-58-50R2	119	88	31	63	28	50	SPGX0903	SCGX09T308	0.2	0.5
30	1.1811	60	03080799	SD522-30-60-50R2	121	90	31	65	28	50	SPGX0903	SCGX09T308	0.12	0.5
31	1.2205	62	03081063	SD522-31-62-50R2	123	92	31	67	28	50	SPGX0903	SCGX09T308	0.07	0.46
31.75	1.25	64	03080800	SD522-31.75-64-50R2	125	94	31	69	28	50	SPGX11T3	SCGX09T308	0.5	0.28
32	1.2598	64	03080804	SD522-32-64-50R2	125	94	31	69	28	50	SPGX11T3	SCGX09T308	0.5	0.35
33	1.2992	66	03080807	SD522-33-66-50R2	127	96	31	71	28	50	SPGX11T3	SCGX09T308	0.5	0.5
34	1.3386	68	03081064	SD522-34-68-50R2	129	98	31	73	28	50	SPGX11T3	SCGX09T308	0.22	0.5
35	1.378	70	03080812	SD522-35-70-50R2	131	100	31	75	28	50	SPGX11T3	SCGX11T308	0.07	0.46
36	1.4173	72	03080815	SD522-36-72-50R2	133	102	31	77	28	50	SPGX11T3	SCGX11T308	0.07	0.46
37	1.4567	74	03081065	SD522-37-74-50R2	135	104	31	79	28	50	SPGX11T3	SCGX11T308	0.07	0.46
38	1.4961	76	03080820	SD522-38-76-50R2	137	106	31	81	28	50	SPGX12T3	SCGX11T308	0.07	0.46
39	1.5354	78	03081066	SD522-39-78-50R2	139	108	31	83	28	50	SPGX12T3	SCGX11T308	0.07	0.46
40	1.5748	80	03080825	SD522-40-80-50R2	141	110	31	85	28	50	SPGX12T3	SCGX11T308	0.19	0.5
41	1.6142	82	03080827	SD522-41-82-50R2	143	112	31	87	28	50	SPGX12T3	SCGX120408	0.07	0.46
42	1.6535	84	03080829	SD522-42-84-50R2	145	114	31	89	28	50	SPGX12T3	SCGX120408	0.19	0.5
43	1.6929	86	03081067	SD522-43-86-50R2	147	116	31	91	28	50	SPGX12T3	SCGX120408	0.05	0.5
44.45	1.75	89	03080831	SD522-44.45-89-50R2	150	119	31	94	28	50	SPGX1504	SCGX120408	0.5	0.5





NEW PERFORMAX® SD523 - 3 x D, R7 & R7-C SHANKS - INCH

DIMENSIONS IN INCH				DIMENSIONS IN INCH							INSERT		RADIAL ADJUSTMENT	
DC	LU	ORDER NO.	DESIGNATION	OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+	
0.5940	1.780	03080486	SD523-0594-178-1000R7	5.211	2.961	2.250	1.977	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013	
0.6250	1.880	03080488	SD523-0625-188-1000R7	5.311	3.061	2.250	2.077	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015	
0.6560	1.970	03080490	SD523-0656-197-1000R7	5.401	3.151	2.250	2.167	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019	
0.6870	2.030	03080493	SD523-0687-206-1000R7	5.461	3.211	2.250	2.227	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020	
0.7090	2.130	03080494	SD523-0709-213-1000R7	5.561	3.311	2.250	2.327	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008	
0.7500	2.250	03080497	SD523-0750-225-1000R7	5.681	3.431	2.250	2.447	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017	
0.7660	2.300	03080499	SD523-0766-230-1000R7	5.731	3.481	2.250	2.497	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020	
0.7870	2.360	03080501	SD523-0787-236-1000R7	5.791	3.541	2.250	2.557	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018	
0.8120	2.440	03080503	SD523-0812-244-1000R7	5.871	3.621	2.250	2.637	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020	
0.8270	2.480	03080505	SD523-0827-248-1000R7	5.911	3.661	2.250	2.677	1.000	1.378	SPGX0602	SCGX060204	0.000	0.020	
0.8750	2.630	03080507	SD523-0875-263-1000R7	6.061	3.811	2.250	2.827	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020	
0.9060	2.720	03080509	SD523-0906-272-1000R7	6.151	3.901	2.250	2.917	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020	
0.9220	2.760	03080512	SD523-0922-276-1000R7	6.191	3.941	2.250	2.957	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020	
0.9370	2.810	03080514	SD523-0937-281-1000R7	6.241	3.991	2.250	3.007	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020	
0.9840	2.950	03080516	SD523-0984-295-1250R7	6.506	4.131	2.375	3.147	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020	
1.0000	3.000	03080518	SD523-1000-300-1250R7	6.556	4.181	2.375	3.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020	
1.0320	3.100	03080521	SD523-1032-310-1250R7	6.656	4.281	2.375	3.297	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004	
1.0620	3.190	03080522	SD523-1062-319-1250R7	6.746	4.371	2.375	3.387	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010	
1.1090	3.320	03080525	SD523-1109-332-1250R7	6.876	4.501	2.375	3.517	1.250	1.654	SPGX0903	SCGX070308	0.009	0.020	
1.1250	3.380	03080526	SD523-1125-338-1250R7	6.936	4.561	2.375	3.577	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020	
1.1720	3.510	03080528	SD523-1172-351-1250R7	7.066	4.691	2.375	3.707	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020	
1.1870	3.560	03080530	SD523-1187-356-1250R7	7.116	4.741	2.375	3.757	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020	
1.2500	3.750	03080533	SD523-1250-375-1500R7	7.556	4.931	2.625	3.947	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011	
1.3120	3.940	03080535	SD523-1312-394-1500R7	7.746	5.121	2.626	4.137	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020	
1.3440	4.030	03080537	SD523-1344-403-1500R7	7.836	5.211	2.626	4.227	1.500	1.969	SPGX11T3	SCGX09T308	0.006	0.020	
1.3750	4.130	03080539	SD523-1375-413-1500R7	7.936	5.311	2.625	4.327	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020	
1.4220	4.260	03080541	SD523-1422-426-1500R7	8.066	5.441	2.626	4.457	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020	
1.4370	4.310	03080542	SD523-1437-431-1500R7	8.116	5.491	2.625	4.507	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020	
1.5000	4.500	03080547	SD523-1500-450-1500R7	8.306	5.681	2.625	4.697	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020	
1.5620	4.690	03080550	SD523-1562-469-1500R7	8.496	5.871	2.626	4.887	1.500	1.969	SPGX12T3	SCGX11T308	0.010	0.020	
1.6250	4.880	03080555	SD523-1625-488-1500R7	8.686	6.061	2.625	5.077	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020	
1.6870	5.060	03080560	SD523-1687-506-1500R7	8.866	6.241	2.626	5.257	1.500	1.969	SPGX12T3	SCGX120408	0.004	0.020	
1.7500	5.250	03080565	SD523-1750-525-1500R7	9.056	6.431	2.626	5.447	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016	
1.8120	5.440	03080572	SD523-1812-544-1500R7	9.246	6.621	2.626	5.637	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020	
1.8750	5.630	03080577	SD523-1875-563-1500R7	9.436	6.811	2.625	5.827	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020	
1.9370	5.810	03080581	SD523-1937-581-1500R7	9.616	6.991	2.625	6.007	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020	
2.0000	6.000	03080588	SD523-2000-600-1500R7	9.806	7.181	2.625	6.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020	
2.0620	6.190	03080593	SD523-2062-619-1500R7	9.996	7.371	2.625	6.387	1.500	2.337	SPGX1904	SCGX150512	0.020	0.017	
2.1250	6.380	03080596	SD523-2125-638-1500R7	10.186	7.561	2.625	6.577	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020	
2.2500	6.750	03080603	SD523-2250-675-1500R7	10.556	7.931	2.625	6.947	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020	
2.3750	7.130	03080609	SD523-2375-713-1500R7	10.936	8.311	2.625	7.327	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020	
R7-C SHANKS														
0.5940	1.780	03080487	SD523-0594-178-1000R7-C	5.908	3.158	2.750	1.977	1.000	1.378	SPGX0502	SCGX050204	0.008	0.013	
0.6250	1.880	03080489	SD523-0625-188-1000R7-C	6.008	3.258	2.750	2.077	1.000	1.378	SPGX0502	SCGX050204	0.005	0.015	
0.6560	1.970	03080491	SD523-0656-197-1000R7-C	6.098	3.348	2.750	2.167	1.000	1.378	SPGX0502	SCGX050204	0.002	0.019	
0.6870	2.060	03080492	SD523-0687-206-1000R7-C	6.188	3.438	2.750	2.257	1.000	1.378	SPGX0502	SCGX050204	0.000	0.020	
0.7090	2.130	03080495	SD523-0709-213-1000R7-C	6.258	3.508	2.750	2.327	1.000	1.378	SPGX0602	SCGX050204	0.013	0.008	
0.7500	2.250	03080496	SD523-0750-225-1000R7-C	6.378	3.628	2.750	2.447	1.000	1.378	SPGX0602	SCGX050204	0.004	0.017	
0.7660	2.300	03080500	SD523-0766-230-1000R7-C	6.428	3.678	2.750	2.497	1.000	1.378	SPGX0602	SCGX050204	0.001	0.020	
0.7870	2.360	03080502	SD523-0787-236-1000R7-C	6.488	3.738	2.750	2.557	1.000	1.378	SPGX0602	SCGX060204	0.003	0.018	
0.8120	2.440	03080504	SD523-0812-244-1000R7-C	6.568	3.818	2.750	2.637	1.000	1.378	SPGX0602	SCGX060204	0.001	0.020	
0.8270	2.480	03080506	SD523-0827-248-1000R7-C	6.608	3.858	2.750	2.677	1.000	1.378	SPGX0602	SCGX060204	0.000	0.020	
0.8750	2.630	03080508	SD523-0875-263-1000R7-C	6.758	4.008	2.750	2.827	1.000	1.378	SPGX0703	SCGX060204	0.015	0.020	
0.9060	2.720	03080511	SD523-0906-272-1000R7-C	6.848	4.098	2.750	2.917	1.000	1.378	SPGX0703	SCGX070308	0.013	0.020	
0.9220	2.760	03080513	SD523-0922-276-1000R7-C	6.888	4.138	2.750	2.957	1.000	1.378	SPGX0703	SCGX070308	0.010	0.020	
0.9370	2.810	03080515	SD523-0937-281-1000R7-C	6.938	4.188	2.750	3.007	1.000	1.378	SPGX0703	SCGX070308	0.004	0.020	

NEW PERFORMAX® SD523 - 3 x D, R7-C SHANKS - INCH

DIMENSIONS IN INCH				DIMENSIONS IN INCH							INSERT		RADIAL ADJUSTMENT	
DC	LU	ORDER NO.	DESIGNATION	OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+	
0.9840	2.950	03080517	SD523-0984-295-1250R7-C	7.078	4.328	2.750	3.147	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020	
1.0000	3.000	03080519	SD523-1000-300-1250R7-C	7.128	4.378	2.750	3.197	1.250	1.654	SPGX0703	SCGX070308	0.004	0.020	
1.0320	3.100	03080520	SD523-1032-310-1250R7-C	7.228	4.478	2.750	3.297	1.250	1.654	SPGX0903	SCGX070308	0.020	0.004	
1.0620	3.190	03080523	SD523-1062-319-1250R7-C	7.318	4.568	2.750	3.387	1.250	1.654	SPGX0903	SCGX070308	0.020	0.010	
1.1090	3.320	03080524	SD523-1109-332-1250R7-C	7.448	4.698	2.750	3.517	1.250	1.654	SPGX0903	SCGX070308	0.009	0.020	
1.1250	3.380	03080527	SD523-1125-338-1250R7-C	7.508	4.758	2.750	3.577	1.250	1.654	SPGX0903	SCGX09T308	0.008	0.020	
1.1720	3.510	03080529	SD523-1172-351-1250R7-C	7.638	4.888	2.750	3.707	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020	
1.1870	3.560	03080531	SD523-1187-356-1250R7-C	7.688	4.938	2.750	3.757	1.250	1.654	SPGX0903	SCGX09T308	0.005	0.020	
1.2500	3.750	03080532	SD523-1250-375-1500R7-C	7.878	5.128	2.625	3.947	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.011	
1.3120	3.940	03080536	SD523-1312-394-1500R7-C	8.068	5.318	2.750	4.137	1.500	1.969	SPGX11T3	SCGX09T308	0.020	0.020	
1.3440	4.030	03080538	SD523-1344-403-1500R7-C	8.158	5.408	2.625	4.227	1.500	1.969	SPGX11T3	SCGX09T308	0.006	0.020	
1.3750	4.130	03080540	SD523-1375-413-1500R7-C	8.258	5.508	2.625	4.327	1.500	1.969	SPGX11T3	SCGX11T308	0.009	0.020	
1.4220	4.260	03080900	SD523-1422-426-1500R7-C	8.388	5.638	2.625	4.457	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020	
1.4370	4.310	03080543	SD523-1437-431-1500R7-C	8.438	5.688	2.625	4.507	1.500	1.969	SPGX11T3	SCGX11T308	0.004	0.020	
1.5000	4.500	03080546	SD523-1500-450-1500R7-C	8.628	5.878	2.750	4.697	1.500	1.969	SPGX12T3	SCGX11T308	0.020	0.020	
1.5620	4.690	03080551	SD523-1562-469-1500R7-C	8.818	6.068	2.625	4.887	1.500	1.969	SPGX12T3	SCGX11T308	0.010	0.020	
1.6250	4.880	03080556	SD523-1625-488-1500R7-C	9.008	6.258	2.625	5.077	1.500	1.969	SPGX12T3	SCGX120408	0.007	0.020	
1.6870	5.060	03080561	SD523-1687-506-1500R7-C	9.188	6.438	2.625	5.257	1.500	1.969	SPGX12T3	SCGX120408	0.004	0.020	
1.7500	5.250	03080566	SD523-1750-525-1500R7-C	9.378	6.628	2.750	5.447	1.500	1.969	SPGX1504	SCGX120408	0.020	0.016	
1.8120	5.440	03080573	SD523-1812-544-1500R7-C	9.568	6.818	2.750	5.637	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020	
1.8750	5.630	03080578	SD523-1875-563-1500R7-C	9.758	7.008	2.625	5.827	1.500	1.969	SPGX1504	SCGX150512	0.020	0.020	
1.9370	5.810	03080582	SD523-1937-581-1500R7-C	9.938	7.188	2.750	6.007	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020	
2.0000	6.000	03080589	SD523-2000-600-1500R7-C	10.128	7.378	2.750	6.197	1.500	2.337	SPGX1504	SCGX150512	0.008	0.020	
2.1250	6.380	03080598	SD523-2125-638-1500R7-C	10.508	7.758	2.750	6.577	1.500	2.337	SPGX1904	SCGX150512	0.020	0.020	
2.2500	6.750	03080604	SD523-2250-675-1500R7-C	10.878	8.128	2.750	6.947	1.500	2.337	SPGX1904	SCGX150512	0.013	0.020	
2.3750	7.130	03080610	SD523-2375-713-1500R7-C	11.258	8.508	2.750	7.327	1.500	2.480	SPGX1904	SCGX150512	0.004	0.020	

NEW PERFORMAX® SD523 - 3 x D, R7 SHANKS - METRIC

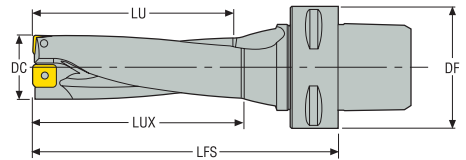
DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						INSERT		RADIAL ADJUSTMENT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+
15	0.5906	45	03080548	SD523-15-45-20R7	125	75	50	50	20	30	SPGX0502	SCGX050204	0.22	0.31
15	0.5906	45	03080549	SD523-15-45-25R7	131	75	56	50	25	35	SPGX0502	SCGX050204	0.22	0.31
15.5	0.6102	47	03080544	SD523-15.5-47-20R7	127	77	50	52	20	30	SPGX0502	SCGX050204	0.3	0.35
15.5	0.6102	47	03080545	SD523-15.5-47-25R7	133	77	56	52	25	35	SPGX0502	SCGX050204	0.3	0.35
16	0.6299	48	03080557	SD523-16-48-20R7	128	78	50	53	20	30	SPGX0502	SCGX050204	0.12	0.41
16	0.6299	48	03080558	SD523-16-48-25R7	134	78	56	53	25	35	SPGX0502	SCGX050204	0.12	0.41
16.5	0.6496	50	03080552	SD523-16.5-50-20R7	130	80	50	55	20	30	SPGX0502	SCGX050204	0.07	0.46
16.5	0.6496	50	03080554	SD523-16.5-50-25R7	136	80	56	55	25	35	SPGX0502	SCGX050204	0.07	0.46
17	0.6693	51	03080568	SD523-17-51-20R7	131	81	50	56	20	30	SPGX0502	SCGX050204	0.02	0.5
17	0.6693	51	03080569	SD523-17-51-25R7	137	81	56	56	25	35	SPGX0502	SCGX050204	0.02	0.5
17.5	0.6890	53	03080562	SD523-17.5-53-20R7	133	83	50	58	20	30	SPGX0602	SCGX050204	0.43	0.1
17.5	0.6890	53	03080563	SD523-17.5-53-25R7	139	83	56	58	25	35	SPGX0602	SCGX050204	0.43	0.1
18	0.7087	54	03080574	SD523-18-54-20R7	134	84	50	59	20	30	SPGX0602	SCGX050204	0.32	0.21
18	0.7087	54	03080575	SD523-18-54-25R7	140	84	56	59	25	35	SPGX0602	SCGX050204	0.32	0.21
18.5	0.7283	56	03080570	SD523-18.5-56-20R7	136	86	50	61	20	30	SPGX0602	SCGX050204	0.1	0.31
18.5	0.7283	56	03080571	SD523-18.5-56-25R7	142	86	56	61	25	35	SPGX0602	SCGX050204	0.1	0.31
19	0.7480	57	03080583	SD523-19-57-20R7	137	87	50	62	20	30	SPGX0602	SCGX050204	0.11	0.42
19	0.7480	57	03080584	SD523-19-57-25R7	143	87	56	62	25	35	SPGX0602	SCGX050204	0.11	0.42
19.5	0.7677	59	03080579	SD523-19.5-59-20R7	139	89	50	64	20	30	SPGX0602	SCGX060204	0.11	0.42
19.5	0.7677	59	03080580	SD523-19.5-59-25R7	145	89	56	64	25	35	SPGX0602	SCGX060204	0.11	0.42
20	0.7874	60	03080590	SD523-20-60-25R7	146	90	56	65	25	35	SPGX0602	SCGX060204	0.07	0.46
20.5	0.8071	62	03080586	SD523-20.5-62-25R7	148	92	56	67	25	35	SPGX0602	SCGX060204	0.1	0.5
21	0.8268	63	03080599	SD523-21-63-25R7	149	93	56	68	25	35	SPGX0602	SCGX060204	0.01	0.5
21.5	0.8465	65	03080595	SD523-21.5-65-25R7	151	95	56	70	25	35	SPGX0703	SCGX060204	0.1	0.5
22	0.8661	66	03080605	SD523-22-66-25R7	152	96	56	71	25	35	SPGX0703	SCGX060204	0.45	0.5
22.5	0.8858	68	03080602	SD523-22.5-68-25R7	154	98	56	73	25	35	SPGX0703	SCGX070308	0.42	0.47
23	0.9055	69	03080608	SD523-23-69-25R7	155	99	56	74	25	35	SPGX0703	SCGX070308	0.33	0.5
23.5	0.9252	71	03080607	SD523-23.5-71-25R7	157	101	56	76	25	35	SPGX0703	SCGX070308	0.1	0.5
24	0.9449	72	03080612	SD523-24-72-25R7	158	102	56	77	25	35	SPGX0703	SCGX070308	0.11	0.5
24.5	0.9646	74	03080611	SD523-24.5-74-25R7	160	104	56	79	25	35	SPGX0703	SCGX070308	0.11	0.5

NEW PERFORMAX® SD523 - 3 x D, R7 SHANKS & ABS 50 COMPATIBLE -R2 SHANKS - METRIC

DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						INSERT		RADIAL ADJUSTMENT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+
25	0.9843	75	03080616	SD523-25-75-32R7	165	105	60	80	32	42	SPGX0703	SCGX070308	0.11	0.5
25.5	1.0039	77	03080615	SD523-25.5-77-32R7	167	107	60	82	32	42	SPGX0703	SCGX070308	0.5	0.11
26	1.0236	78	03080619	SD523-26-78-32R7	168	108	60	83	32	42	SPGX0903	SCGX070308	0.5	0.15
26.5	1.0433	80	03080618	SD523-26.5-80-32R7	170	110	60	85	32	42	SPGX0903	SCGX070308	0.5	0.19
27	1.0630	81	03080622	SD523-27-81-32R7	171	111	60	86	32	42	SPGX0903	SCGX070308	0.5	0.26
27.5	1.0827	83	03080621	SD523-27.5-83-32R7	173	113	60	88	32	42	SPGX0903	SCGX070308	0.46	0.44
28	1.1024	84	03080626	SD523-28-84-32R7	174	114	60	89	32	42	SPGX0903	SCGX070308	0.3	0.5
28.5	1.1220	86	03080624	SD523-28.5-86-32R7	176	116	60	91	32	42	SPGX0903	SCGX070308	0.21	0.5
29	1.1417	87	03080629	SD523-29-87-32R7	177	117	60	92	32	42	SPGX0903	SCGX09T308	0.2	0.5
29.5	1.1614	89	03080628	SD523-29.5-89-32R7	179	119	60	94	32	42	SPGX0903	SCGX09T308	0.15	0.5
30	1.1811	90	03080632	SD523-30-90-32R7	180	120	60	95	32	42	SPGX0903	SCGX09T308	0.12	0.5
30.5	1.2008	92	03080631	SD523-30.5-92-32R7	182	122	60	97	32	42	SPGX0903	SCGX09T308	0.12	0.5
31	1.2205	93	03080636	SD523-31-93-32R7	183	123	60	98	32	42	SPGX0903	SCGX09T308	0.12	0.5
31.5	1.2402	95	03080634	SD523-31.5-95-32R7	185	125	60	100	32	42	SPGX11T3	SCGX09T308	0.5	0.2
32	1.2598	96	03080638	SD523-32-96-32R7	186	126	60	101	32	42	SPGX11T3	SCGX09T308	0.5	0.31
32	1.2598	96	03080639	SD523-32-96-40R7	194	126	68	101	40	50	SPGX11T3	SCGX09T308	0.5	0.31
33	1.2992	99	03080641	SD523-33-99-32R7	189	129	60	104	32	42	SPGX11T3	SCGX09T308	0.5	0.46
33	1.2992	99	03080642	SD523-33-99-40R7	197	129	68	104	40	50	SPGX11T3	SCGX09T308	0.5	0.5
34	1.3386	102	03080644	SD523-34-102-32R7	192	132	60	107	32	42	SPGX11T3	SCGX09T308	0.22	0.5
34	1.3386	102	03080645	SD523-34-102-40R7	200	132	68	107	40	50	SPGX11T3	SCGX09T308	0.22	0.5
35	1.3780	105	03080648	SD523-35-105-32R7	195	135	60	110	32	42	SPGX11T3	SCGX11T308	0.22	0.5
35	1.3780	105	03080649	SD523-35-105-40R7	203	135	68	110	40	50	SPGX11T3	SCGX11T308	0.22	0.5
35.5	1.3976	107	03080647	SD523-35.5-107-40R7	205	137	68	112	40	50	SPGX11T3	SCGX11T308	0.09	0.5
36	1.4173	108	03080651	SD523-36-108-32R7	198	138	60	113	32	42	SPGX11T3	SCGX11T308	0.09	0.5
36	1.4173	108	03080652	SD523-36-108-40R7	206	138	68	113	40	50	SPGX11T3	SCGX11T308	0.09	0.5
37	1.4567	111	03080653	SD523-37-111-32R7	201	141	60	116	32	42	SPGX11T3	SCGX11T308	0.07	0.46
37	1.4567	111	03080654	SD523-37-111-40R7	209	141	68	116	40	50	SPGX11T3	SCGX11T308	0.09	0.5
38	1.4961	114	03080655	SD523-38-114-32R7	204	144	60	119	32	42	SPGX12T3	SCGX11T308	0.07	0.46
38	1.4961	114	03080656	SD523-38-114-40R7	212	144	68	119	40	50	SPGX12T3	SCGX11T308	0.5	0.5
39	1.5354	117	03080658	SD523-39-117-32R7	207	147	60	122	32	42	SPGX12T3	SCGX11T308	0.39	0.5
39	1.5354	117	03080659	SD523-39-117-40R7	215	147	68	122	40	50	SPGX12T3	SCGX11T308	0.39	0.5
40	1.5748	120	03080661	SD523-40-120-32R7	210	150	60	125	32	50	SPGX12T3	SCGX11T308	0.19	0.5
40	1.5748	120	03080662	SD523-40-120-40R7	218	150	68	125	40	50	SPGX12T3	SCGX11T308	0.19	0.5
41	1.6142	123	03080665	SD523-41-123-40R7	221	153	68	128	40	50	SPGX12T3	SCGX120408	0.19	0.5
41.5	1.6339	125	03080663	SD523-41.5-125-40R7	223	155	68	130	40	50	SPGX12T3	SCGX120408	0.19	0.5
42	1.6535	126	03080666	SD523-42-126-40R7	224	156	68	131	40	50	SPGX12T3	SCGX120408	0.19	0.5
43	1.6929	129	03080667	SD523-43-129-40R7	227	159	68	134	40	50	SPGX12T3	SCGX120408	0.05	0.5
44	1.7323	132	03080670	SD523-44-132-40R7	230	162	68	137	40	50	SPGX1504	SCGX120408	0.5	0.41
44.5	1.7520	134	03080669	SD523-44.5-134-40R7	232	164	68	139	40	50	SPGX1504	SCGX120408	0.5	0.41
45	1.7717	135	03080672	SD523-45-135-40R7	233	165	68	140	40	50	SPGX1504	SCGX150512	0.5	0.41
46	1.8110	138	03080673	SD523-46-138-40R7	236	168	68	143	40	50	SPGX1504	SCGX150512	0.5	0.5
47	1.8504	141	03080675	SD523-47-141-40R7	239	171	68	146	40	50	SPGX1504	SCGX150512	0.5	0.5
47.5	1.8701	143	03080674	SD523-47.5-143-40R7	241	173	68	148	40	50	SPGX1504	SCGX150512	0.5	0.5
48	1.8898	144	03080676	SD523-48-144-40R7	242	174	68	149	40	59	SPGX1504	SCGX150512	0.45	0.5
49	1.9291	147	03080677	SD523-49-147-40R7	245	177	68	152	40	59	SPGX1504	SCGX150512	0.2	0.5
50	1.9685	150	03080678	SD523-50-150-40R7	248	180	68	155	40	59	SPGX1504	SCGX150512	0.2	0.5
51	2.0079	153	03080679	SD523-51-153-40R7	251	183	68	158	40	59	SPGX1504	SCGX150512	0.2	0.5
52	2.0472	156	03080680	SD523-52-156-40R7	254	186	68	161	40	59	SPGX1904	SCGX150512	0.5	0.42
53	2.0866	159	03080681	SD523-53-159-40R7	257	189	68	164	40	59	SPGX1904	SCGX150512	0.5	0.42
54	2.1260	162	03080682	SD523-54-162-40R7	260	192	68	167	40	59	SPGX1904	SCGX150512	0.5	0.5
55	2.1654	165	03080683	SD523-55-165-40R7	263	195	68	170	40	59	SPGX1904	SCGX150512	0.5	0.5
56	2.2047	168	03080684	SD523-56-168-40R7	266	198	68	173	40	59	SPGX1904	SCGX150512	0.5	0.5
57	2.2441	171	03080685	SD523-57-171-40R7	269	201	68	176	40	59	SPGX1904	SCGX150512	0.39	0.5
58	2.2835	174	03080686	SD523-58-174-40R7	272	204	68	179	40	63	SPGX1904	SCGX150512	0.09	0.5
59	2.3228	177	03080687	SD523-59-177-40R7	275	207	68	182	40	63	SPGX1904	SCGX150512	0.09	0.5
ABS 50 COMPATIBLE SHANKS -R2														
15	0.5906	45	03080864	SD523-15-45-50R2	106	75	31	50	28	50	SPGX0502	SCGX050204	0.22	0.31
15.5	0.6102	47	03080865	SD523-15.5-47-50R2	108	77	31	52	28	50	SPGX0502	SCGX050204	0.3	0.35
16	0.6299	48	03080559	SD523-16-48-50R2	109	78	31	53	28	50	SPGX0502	SCGX050204	0.12	0.41
16.5	0.6496	50	03080866	SD523-16.5-50-50R2	111	80	31	55	28	50	SPGX0502	SCGX050204	0.07	0.46
17	0.6693	51	03080867	SD523-17-51-50R2	112	81	31	56	28	50	SPGX0502	SCGX050204	0.1	0.5
17.5	0.6890	53	03080564	SD523-17.5-53-50R2	114	83	31	58	28	50	SPGX0602	SCGX050204	0.43	0.1
18	0.7087	54	03080576	SD523-18-54-50R2	115	84	31	59	28	50	SPGX0602	SCGX050204	0.32	0.21

NEW PERFOMAX® SD523 - 3 x D, ABS 50 COMPATIBLE -R2 SHANKS - METRIC

DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						INSERT		RADIAL ADJUSTMENT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	-	+
18.5	0.7283	56	03080868	SD523-18.5-56-50R2	116	86	31	61	28	50	SPGX0602	SCGX050204	0.1	0.31
19	0.7480	57	03080585	SD523-19-57-50R2	118	87	31	62	28	50	SPGX0602	SCGX050204	0.11	0.42
20	0.7874	60	03080591	SD523-20-60-50R2	121	90	31	65	28	50	SPGX0602	SCGX060204	0.1	0.46
20.62	0.8118	62	03080587	SD523-20.62-62-50R2	123	92	31	67	28	50	SPGX0602	SCGX060204	0.1	0.5
21	0.8268	63	03080600	SD523-21-63-50R2	124	93	31	68	28	50	SPGX0602	SCGX060204	0.1	0.5
22	0.8661	66	03080606	SD523-22-66-50R2	127	96	31	71	50	50	SPGX0703	SCGX060204	0.44	0.46
22.23	0.8752	67	03080601	SD523-22.23-67-50R2	128	97	31	72	28	50	SPGX0703	SCGX060204	0.2	0.5
23	0.9055	69	03080869	SD523-23-69-50R2	130	99	31	74	28	50	SPGX0703	SCGX070308	0.35	0.5
24	0.9449	72	03080613	SD523-24-72-50R2	133	102	31	77	28	50	SPGX0703	SCGX070308	0.11	0.5
25	0.9843	75	03080617	SD523-25-75-50R2	136	105	31	80	28	50	SPGX0703	SCGX070308	0.11	0.5
25.4	1.0000	77	03080614	SD523-25.40-77-50R2	138	107	31	82	28	50	SPGX0703	SCGX070308	0.11	0.5
26	1.0236	78	03080620	SD523-26-78-50R2	139	108	31	83	28	50	SPGX0903	SCGX070308	0.5	0.15
27	1.0630	81	03080623	SD523-27-81-50R2	142	111	31	86	28	50	SPGX0903	SCGX070308	0.5	0.26
28	1.1024	84	03080627	SD523-28-84-50R2	145	114	31	89	28	50	SPGX0903	SCGX070308	0.3	0.5
28.59	1.1256	86	03080625	SD523-28.59-86-50R2	147	116	31	91	28	50	SPGX0903	SCGX09T308	0.5	0.5
29	1.1417	87	03080630	SD523-29-87-50R2	148	117	31	92	28	50	SPGX0903	SCGX09T308	0.2	0.5
30	1.1811	90	03080633	SD523-30-90-50R2	151	120	31	95	28	50	SPGX0903	SCGX09T308	0.12	0.5
31	1.2205	93	03080637	SD523-31-93-50R2	154	123	31	98	28	50	SPGX0903	SCGX09T308	0.07	0.46
31.75	1.2500	96	03080635	SD523-31.75-96-50R2	157	126	31	101	28	50	SPGX11T3	SCGX09T308	0.5	0.28
32	1.2598	96	03080640	SD523-32-96-50R2	157	126	31	101	28	50	SPGX11T3	SCGX09T308	0.5	0.35
33	1.2992	99	03080643	SD523-33-99-50R2	160	129	31	104	28	50	SPGX11T3	SCGX09T308	0.5	0.5
34	1.3386	102	03080646	SD523-34-102-50R2	163	132	31	107	28	50	SPGX11T3	SCGX09T308	0.22	0.5
35	1.3780	105	03080650	SD523-35-105-50R2	166	135	31	110	28	50	SPGX11T3	SCGX11T308	0.07	0.46
36	1.4173	108	03080870	SD523-36-108-50R2	169	138	31	113	28	50	SPGX11T3	SCGX11T308	0.07	0.46
37	1.4567	111	03080871	SD523-37-111-50R2	172	141	31	116	28	50	SPGX11T3	SCGX11T308	0.07	0.46
38	1.4961	114	03080657	SD523-38-114-50R2	175	144	31	119	28	50	SPGX12T3	SCGX11T308	0.07	0.46
39	1.5354	117	03080660	SD523-39-117-50R2	178	147	31	122	28	50	SPGX12T3	SCGX11T308	0.07	0.46
40	1.5748	120	03080872	SD523-40-120-50R2	181	150	31	125	28	50	SPGX12T3	SCGX11T308	0.19	0.5
41	1.6142	123	03080873	SD523-41-123-50R2	184	153	31	128	28	50	SPGX12T3	SCGX120408	0.07	0.46
42	1.6535	126	03080874	SD523-42-126-50R2	187	156	31	131	28	50	SPGX12T3	SCGX120408	0.19	0.5
43	1.6929	129	03080875	SD523-43-129-50R2	190	159	31	134	28	50	SPGX12T3	SCGX120408	0.05	0.5
44	1.7323	132	03080671	SD523-44-132-50R2	193	162	31	137	28	50	SPGX1504	SCGX120408	0.5	0.41
44.45	1.7500	134	03080668	SD523-44.45-134-50R2	195	164	31	139	28	50	SPGX1504	SCGX120408	0.5	0.5



NEW PERFOMAX® SD523 - 3 x D, SECO-CAPTO™ C4 SHANK - METRIC

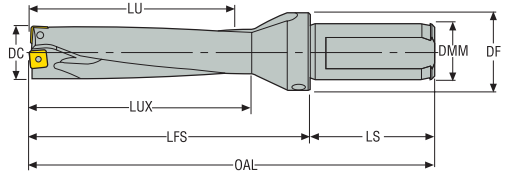
SHANK	DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC			INSERT		RADIAL ADJUSTMENT	
						LUX	LFS	DF	CENTER INSERT	PERIPH INSERT	-	+
	15	0.5906	45	03080920	SD523-15-45-C4	50	82	40	SPGX0502	SCGX050204	0.22	0.31
	15.5	0.6102	47	03080921	SD523-15.5-47-C4	52	84	40	SPGX0502	SCGX050204	0.22	0.31
	16	0.6299	48	03080922	SD523-16-48-C4	53	86	40	SPGX0502	SCGX050204	0.1	0.41
	16.5	0.6496	50	03080923	SD523-16.5-50-C4	55	88	40	SPGX0502	SCGX050204	0.15	0.4
	17	0.6693	51	03080925	SD523-17-51-C4	56	89	40	SPGX0502	SCGX050204	0.1	0.5
	17.5	0.6890	53	03080926	SD523-17.5-53-C4	58	92	40	SPGX0602	SCGX050204	0.43	0.1
	18	0.7087	54	03080927	SD523-18-54-C4	59	93	40	SPGX0602	SCGX050204	0.32	0.21
C4	18.5	0.7283	56	03080928	SD523-18.5-56-C4	61	95	40	SPGX0602	SCGX050204	0.1	0.31
	19	0.7480	57	03080929	SD523-19-57-C4	62	96	40	SPGX0602	SCGX050204	0.11	0.42
	20	0.7874	60	03080930	SD523-20-60-C4	65	101	40	SPGX0602	SCGX060204	0.1	0.46
	20.62	0.8118	62	03081006	SD523-20.62-62-C4	67	103	40	SPGX0602	SCGX060204	0.1	0.5
	21	0.8268	63	03080931	SD523-21-63-C4	68	104	40	SPGX0602	SCGX060204	0.1	0.5
	22	0.8661	66	03080932	SD523-22-66-C4	71	107	40	SPGX0703	SCGX060204	0.45	0.5
	22.23	0.8752	67	03081008	SD523-22.23-67-C4	72	108	40	SPGX0703	SCGX060204	0.45	0.5
	23	0.9055	69	03080933	SD523-23-69-C4	74	111	40	SPGX0703	SCGX070308	0.35	0.5
	24	0.9449	72	03080934	SD523-24-72-C4	77	115	40	SPGX0703	SCGX070308	0.11	0.5
25	0.9843	75	03080935	SD523-25-75-C4	80	119	40	SPGX0703	SCGX070308	0.11	0.5	

NEW PERFOMAX® SD523 - 3 x D, SECO-CAPTO™ C4, C5 & C6 SHANKS - METRIC

SHANK	DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC			INSERT		RADIAL ADJUSTMENT	
						LUX	LFS	DF	CENTER INSERT	PERIPH INSERT	-	+
C4	25.4	1.0000	77	03081009	SD523-25.4-77-C4	82	121	40	SPGX0703	SCGX070308	0.07	0.46
	26	1.0236	78	03080936	SD523-26-78-C4	83	122	40	SPGX0903	SCGX070308	0.5	0.15
	27	1.0630	81	03080937	SD523-27-81-C4	86	125	40	SPGX0903	SCGX070308	0.07	0.46
	28	1.1024	84	03080938	SD523-28-84-C4	89	129	40	SPGX0903	SCGX070308	0.3	0.5
	28.59	1.1256	86	03081010	SD523-28.59-86-C4	91	131	40	SPGX0903	SCGX09T308	0.2	0.5
	29	1.1417	87	03080939	SD523-29-87-C4	92	132	40	SPGX0903	SCGX09T308	0.2	0.5
	30	1.1811	90	03080940	SD523-30-90-C4	95	135	40	SPGX0903	SCGX09T308	0.15	0.5
	15	0.5906	45	03080941	SD523-15-45-C5	50	82	50	SPGX0502	SCGX050204	0.22	0.31
	15.5	0.6102	47	03080942	SD523-15.5-47-C5	52	84	50	SPGX0502	SCGX050204	0.22	0.31
	16	0.6299	48	03080943	SD523-16-48-C5	53	86	50	SPGX0502	SCGX050204	0.1	0.41
	16.5	0.6496	50	03080944	SD523-16.5-50-C5	55	88	50	SPGX0502	SCGX050204	0.15	0.4
	17	0.6693	51	03080945	SD523-17-51-C5	56	89	50	SPGX0502	SCGX050204	0.1	0.5
	17.5	0.6890	53	03080946	SD523-17.5-53-C5	58	92	50	SPGX0602	SCGX050204	0.43	0.1
	18	0.7087	54	03080947	SD523-18-54-C5	59	93	50	SPGX0602	SCGX050204	0.32	0.21
	18.5	0.7283	56	03080948	SD523-18.5-56-C5	61	95	50	SPGX0602	SCGX050204	0.1	0.31
	19	0.7480	57	03080949	SD523-19-57-C5	62	96	50	SPGX0602	SCGX050204	0.11	0.42
	20	0.7874	60	03080950	SD523-20-60-C5	65	101	50	SPGX0602	SCGX060204	0.1	0.46
	20.62	0.8118	62	03081001	SD523-20.62-62-C5	67	103	50	SPGX0602	SCGX060204	0.1	0.5
	21	0.8268	63	03080951	SD523-21-63-C5	68	104	50	SPGX0602	SCGX060204	0.1	0.5
	22	0.8661	66	03080952	SD523-22-66-C5	71	107	50	SPGX0703	SCGX060204	0.45	0.5
	22.23	0.8752	67	03081002	SD523-22.23-67-C5	72	108	50	SPGX0703	SCGX060204	0.45	0.5
	23	0.9055	69	03080953	SD523-23-69-C5	74	111	50	SPGX0703	SCGX070308	0.35	0.5
24	0.9449	72	03080954	SD523-24-72-C5	77	115	50	SPGX0703	SCGX070308	0.11	0.5	
25	0.9843	75	03080955	SD523-25-75-C5	80	119	50	SPGX0703	SCGX070308	0.11	0.5	
C5	25.4	1.0000	77	03081003	SD523-25.4-77-C5	82	121	50	SPGX0703	SCGX070308	0.07	0.46
	26	1.0236	78	03080956	SD523-26-78-C5	83	122	50	SPGX0903	SCGX070308	0.5	0.15
	27	1.0630	81	03080957	SD523-27-81-C5	86	125	50	SPGX0903	SCGX070308	0.07	0.46
	28	1.1024	84	03080958	SD523-28-84-C5	89	129	50	SPGX0903	SCGX070308	0.3	0.5
	28.59	1.1256	86	03081004	SD523-28.59-86-C5	91	131	50	SPGX0903	SCGX09T308	0.2	0.5
	29	1.1417	87	03080959	SD523-29-87-C5	92	132	50	SPGX0903	SCGX09T308	0.2	0.5
	30	1.1811	90	03080960	SD523-30-90-C5	95	135	50	SPGX0903	SCGX09T308	0.15	0.5
	31	1.2205	93	03080961	SD523-31-93-C5	98	138	50	SPGX0903	SCGX09T308	0.07	0.46
	31.75	1.2500	96	03081005	SD523-31.75-96-C5	101	142	50	SPGX11T3	SCGX09T308	0.5	0.28
	32	1.2598	96	03080962	SD523-32-96-C5	101	142	50	SPGX11T3	SCGX09T308	0.5	0.35
	33	1.2992	99	03080963	SD523-33-99-C5	104	145	50	SPGX11T3	SCGX09T308	0.5	0.5
	34	1.3386	102	03080964	SD523-34-102-C5	107	148	50	SPGX11T3	SCGX09T308	0.07	0.46
	35	1.3780	105	03080965	SD523-35-105-C5	110	151	50	SPGX11T3	SCGX11T308	0.07	0.46
	36	1.4173	108	03080966	SD523-36-108-C5	113	154	50	SPGX11T3	SCGX11T308	0.07	0.46
	37	1.4567	111	03080967	SD523-37-111-C5	116	157	50	SPGX11T3	SCGX11T308	0.07	0.46
	38	1.4961	114	03080968	SD523-38-114-C5	119	160	50	SPGX12T3	SCGX11T308	0.07	0.46
	39	1.5354	117	03080969	SD523-39-117-C5	122	163	50	SPGX12T3	SCGX11T308	0.07	0.46
	40	1.5748	120	03080970	SD523-40-120-C5	125	166	50	SPGX12T3	SCGX11T308	0.07	0.46
	15	0.5906	45	03080971	SD523-15-45-C6	50	84	63	SPGX0502	SCGX050204	0.22	0.31
	15.5	0.6102	47	03080972	SD523-15.5-47-C6	52	86	63	SPGX0502	SCGX050204	0.22	0.31
	16	0.6299	48	03080973	SD523-16-48-C6	53	88	63	SPGX0502	SCGX050204	0.1	0.41
	16.5	0.6496	50	03080974	SD523-16.5-50-C6	55	90	63	SPGX0502	SCGX050204	0.15	0.4
17	0.6693	51	03080975	SD523-17-51-C6	56	91	63	SPGX0502	SCGX050204	0.1	0.5	
17.5	0.6890	53	03080976	SD523-17.5-53-C6	58	94	63	SPGX0602	SCGX050204	0.43	0.1	
18	0.7087	54	03080977	SD523-18-54-C6	59	95	63	SPGX0602	SCGX050204	0.32	0.21	
18.5	0.7283	56	03080978	SD523-18.5-56-C6	61	97	63	SPGX0602	SCGX050204	0.1	0.31	
19	0.7480	57	03080979	SD523-19-57-C6	62	98	63	SPGX0602	SCGX050204	0.11	0.42	
20	0.7874	60	03080980	SD523-20-60-C6	65	103	63	SPGX0602	SCGX060204	0.1	0.46	
C6	20.62	0.8118	62	03081011	SD523-20.62-62-C6	67	105	63	SPGX0602	SCGX060204	0.1	0.5
	21	0.8268	63	03080981	SD523-21-63-C6	68	106	63	SPGX0602	SCGX060204	0.1	0.5
	22	0.8661	66	03080982	SD523-22-66-C6	71	109	63	SPGX0703	SCGX060204	0.45	0.5
	22.23	0.8752	67	03081012	SD523-22.23-67-C6	72	110	63	SPGX0703	SCGX060204	0.45	0.5
	23	0.9055	69	03080983	SD523-23-69-C6	74	113	63	SPGX0703	SCGX070308	0.35	0.5
	24	0.9449	72	03080984	SD523-24-72-C6	77	117	63	SPGX0703	SCGX070308	0.11	0.5
	25	0.9843	75	03080985	SD523-25-75-C6	80	121	63	SPGX0703	SCGX070308	0.11	0.5
	25.4	1.0000	77	03081013	SD523-25.4-77-C6	82	123	63	SPGX0703	SCGX070308	0.07	0.46
	26	1.0236	78	03080986	SD523-26-78-C6	83	124	63	SPGX0903	SCGX070308	0.5	0.15
	27	1.0630	81	03080987	SD523-27-81-C6	86	127	63	SPGX0903	SCGX070308	0.07	0.46
	28	1.1024	84	03080988	SD523-28-84-C6	89	131	63	SPGX0903	SCGX070308	0.3	0.5

NEW PERFOMAX® SD523 - 3 x D, SECO-CAPTO™ C6 SHANKS - METRIC

SHANK	DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC			INSERT		RADIAL ADJUSTMENT	
						LUX	LFS	DF	CENTER INSERT	PERIPH INSERT	-	+
						28.59	1.1256	86	03081014	SD523-28.59-86-C6	91	133
29	1.1417	87	03080989	SD523-29-87-C6	92	134	63	SPGX0903	SCGX09T308	0.2	0.5	
30	1.1811	90	03080990	SD523-30-90-C6	95	137	63	SPGX0903	SCGX09T308	0.15	0.5	
31	1.2205	93	03080991	SD523-31-93-C6	98	140	63	SPGX0903	SCGX09T308	0.07	0.46	
31.75	1.2500	96	03081015	SD523-31.75-96-C6	101	144	63	SPGX11T3	SCGX09T308	0.5	0.28	
32	1.2598	96	03080992	SD523-32-96-C6	101	144	63	SPGX11T3	SCGX09T308	0.5	0.35	
33	1.2992	99	03080993	SD523-33-99-C6	104	147	63	SPGX11T3	SCGX09T308	0.5	0.5	
34	1.3386	102	03080994	SD523-34-102-C6	107	150	63	SPGX11T3	SCGX09T308	0.07	0.46	
35	1.3780	105	03080995	SD523-35-105-C6	110	153	63	SPGX11T3	SCGX11T308	0.07	0.46	
36	1.4173	108	03080996	SD523-36-108-C6	113	156	63	SPGX11T3	SCGX11T308	0.07	0.46	
37	1.4567	111	03080997	SD523-37-111-C6	116	159	63	SPGX11T3	SCGX11T308	0.07	0.46	
38	1.4961	114	03080998	SD523-38-114-C6	119	162	63	SPGX12T3	SCGX11T308	0.07	0.46	
39	1.5354	117	03080999	SD523-39-117-C6	122	165	63	SPGX12T3	SCGX11T308	0.07	0.46	
40	1.5748	120	03081000	SD523-40-120-C6	125	168	63	SPGX12T3	SCGX11T308	0.07	0.46	



NEW PERFOMAX® SD524 - 4 x D, R7 SHANKS - INCH

DIMENSIONS IN INCH				DIMENSIONS IN INCH						INSERT	
DC	LU	ORDER NO.	DESIGNATION	OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT
0.5940	2.380	03080280	SD524-0594-238-1000R7	5.811	3.561	2.250	2.577	1.000	1.378	SPGX0502	SCGX050204
0.6250	2.500	03080281	SD524-0625-250-1000R7	5.931	3.681	2.250	2.697	1.000	1.378	SPGX0502	SCGX050204
0.6560	2.620	03080283	SD524-0656-262-1000R7	6.051	3.801	2.250	2.817	1.000	1.378	SPGX0502	SCGX050204
0.6870	2.750	03080285	SD524-0687-275-1000R7	6.181	3.931	2.250	2.947	1.000	1.378	SPGX0502	SCGX050204
0.7090	2.840	03080286	SD524-0709-284-1000R7	6.271	4.021	2.250	3.037	1.000	1.378	SPGX0602	SCGX050204
0.7500	3.000	03080288	SD524-0750-300-1000R7	6.431	4.181	2.250	3.197	1.000	1.378	SPGX0602	SCGX050204
0.7660	3.060	03080289	SD524-0766-306-1000R7	6.491	4.241	2.250	3.257	1.000	1.378	SPGX0602	SCGX050204
0.7870	3.150	03080290	SD524-0787-315-1000R7	6.581	4.331	2.250	3.347	1.000	1.378	SPGX0602	SCGX060204
0.8120	3.250	03080292	SD524-0812-325-1000R7	6.681	4.431	2.250	3.447	1.000	1.378	SPGX0602	SCGX060204
0.8270	3.310	03080294	SD524-0827-331-1000R7	6.741	4.491	2.250	3.507	1.000	1.378	SPGX0602	SCGX060204
0.8750	3.500	03080295	SD524-0875-350-1000R7	6.931	4.681	2.250	3.697	1.000	1.378	SPGX0703	SCGX060204
0.9060	3.620	03080297	SD524-0906-362-1000R7	7.051	4.801	2.250	3.817	1.000	1.378	SPGX0703	SCGX070308
0.9220	3.690	03080298	SD524-0922-369-1000R7	7.121	4.871	2.250	3.887	1.000	1.378	SPGX0703	SCGX070308
0.9370	3.750	03080299	SD524-0937-375-1000R7	7.181	4.931	2.250	3.947	1.000	1.378	SPGX0703	SCGX070308
0.9840	3.940	03080301	SD524-0984-394-1250R7	7.496	5.121	2.375	4.137	1.250	1.654	SPGX0703	SCGX070308
1.0000	4.000	03080302	SD524-1000-400-1250R7	7.556	5.181	2.375	4.197	1.250	1.654	SPGX0703	SCGX070308
1.0320	4.130	03080304	SD524-1032-413-1250R7	7.686	5.311	2.375	4.327	1.250	1.654	SPGX0903	SCGX070308
1.0620	4.250	03080305	SD524-1062-425-1250R7	7.806	5.431	2.375	4.447	1.250	1.654	SPGX0903	SCGX070308
1.1090	4.430	03080307	SD524-1109-443-1250R7	7.986	5.611	2.375	4.627	1.250	1.654	SPGX0903	SCGX070308
1.1250	4.500	03080308	SD524-1125-450-1250R7	8.056	5.681	2.375	4.697	1.250	1.654	SPGX0903	SCGX09T308
1.1720	4.690	03080310	SD524-1172-469-1250R7	8.246	5.871	2.375	4.887	1.250	1.654	SPGX0903	SCGX09T308
1.1870	4.750	03080311	SD524-1187-475-1250R7	8.306	5.931	2.375	4.947	1.250	1.654	SPGX0903	SCGX09T308
1.2500	5.000	03080314	SD524-1250-500-1500R7	8.806	6.181	2.625	5.197	1.500	1.969	SPGX11T3	SCGX09T308
1.3120	5.250	03080315	SD524-1312-525-1500R7	9.056	6.431	2.625	5.447	1.500	1.969	SPGX11T3	SCGX09T308
1.3440	5.380	03080317	SD524-1344-538-1500R7	9.186	6.561	2.625	5.573	1.500	1.969	SPGX11T3	SCGX09T308
1.3750	5.500	03080318	SD524-1375-550-1500R7	9.306	6.681	2.625	5.697	1.500	1.969	SPGX11T3	SCGX11T308
1.4370	5.750	03080320	SD524-1437-575-1500R7	9.556	6.931	2.625	5.947	1.500	1.969	SPGX11T3	SCGX11T308
1.5000	6.000	03080322	SD524-1500-600-1500R7	9.806	7.181	2.625	6.197	1.500	1.969	SPGX12T3	SCGX11T308
1.5620	6.250	03080323	SD524-1562-625-1500R7	10.056	7.431	2.625	6.447	1.500	1.969	SPGX12T3	SCGX11T308
1.6250	6.500	03080324	SD524-1625-650-1500R7	10.306	7.681	2.625	6.697	1.500	1.969	SPGX12T3	SCGX120408
1.6870	6.750	03080325	SD524-1687-675-1500R7	10.556	7.931	2.625	6.947	1.500	1.969	SPGX12T3	SCGX120408
1.7500	7.000	03080328	SD524-1750-700-1500R7	10.806	8.181	2.625	7.197	1.500	1.969	SPGX1504	SCGX120408
1.8120	7.250	03080332	SD524-1812-725-1500R7	11.056	8.431	2.625	7.447	1.500	1.969	SPGX1504	SCGX150512
1.8750	7.500	03080334	SD524-1875-750-1500R7	11.306	8.681	2.625	7.697	1.500	1.969	SPGX1504	SCGX150512
1.9370	7.750	03080335	SD524-1937-775-1500R7	11.556	8.931	2.625	7.947	1.500	2.337	SPGX1504	SCGX150512

NEW PERFOMAX® SD524 - 4 x D, R7 & R7-C SHANKS - INCH

DIMENSIONS IN INCH				DIMENSIONS IN INCH							INSERT	
DC	LU	ORDER NO.	DESIGNATION	OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	
2.0000	8.000	03080337	SD524-2000-800-1500R7	11.806	9.181	2.625	8.197	1.500	2.337	SPGX1504	SCGX150512	
2.0620	8.250	03080339	SD524-2062-825-1500R7	12.056	9.431	2.625	8.447	1.500	2.337	SPGX1904	SCGX150512	
2.1250	8.500	03080342	SD524-2125-850-1500R7	12.306	9.681	2.625	8.697	1.500	2.337	SPGX1904	SCGX150512	
2.2500	9.000	03080346	SD524-2250-900-1500R7	12.806	10.181	2.625	9.197	1.500	2.337	SPGX1904	SCGX150512	
2.3750	9.500	03080349	SD524-2375-950-1500R7	13.306	10.681	2.625	9.697	1.500	2.480	SPGX1904	SCGX150512	
R7-C SHANKS												
0.6250	2.500	03080282	SD524-0625-250-1000R7-C	6.628	3.878	2.750	2.697	1.000	1.378	SPGX0502	SCGX050204	
0.6870	2.750	03080284	SD524-0687-275-1000R7-C	6.878	4.128	2.750	2.947	1.000	1.378	SCGX0502	SCGX050204	
0.7500	3.000	03080287	SD524-0750-300-1000R7-C	7.128	4.378	2.750	3.197	1.000	1.378	SPGX0602	SCGX050204	
0.8120	3.250	03080293	SD524-0812-325-1000R7-C	7.378	4.628	2.750	3.447	1.000	1.378	SPGX0602	SCGX060204	
0.8750	3.500	03080296	SD524-0875-350-1000R7-C	7.628	4.878	2.750	3.697	1.000	1.378	SPGX0703	SCGX060204	
0.9370	3.750	03080300	SD524-0937-375-1000R7-C	7.878	5.128	2.750	3.947	1.000	1.378	SPGX0703	SCGX070308	
1.0000	4.000	03080303	SD524-1000-400-1250R7-C	8.128	5.378	2.750	4.197	1.250	1.654	SPGX0703	SCGX070308	
1.0620	4.250	03080306	SD524-1062-425-1250R7-C	8.378	5.628	2.750	4.447	1.250	1.654	SPGX0903	SCGX070308	
1.1250	4.500	03080309	SD524-1125-450-1250R7-C	8.628	5.878	2.750	4.697	1.250	1.654	SPGX0903	SCGX09T308	
1.1870	4.750	03080312	SD524-1187-475-1250R7-C	8.878	6.128	2.750	4.947	1.250	1.654	SPGX0903	SCGX09T308	
1.2500	5.000	03080313	SD524-1250-500-1500R7-C	9.128	6.378	2.750	5.197	1.500	1.969	SPGX11T3	SCGX09T308	
1.3120	5.250	03080316	SD524-1312-525-1500R7-C	9.378	6.628	2.625	5.447	1.500	1.969	SPGX11T3	SCGX09T308	
1.3750	5.500	03080319	SD524-1375-550-1500R7-C	9.628	6.878	2.625	5.697	1.500	1.969	SPGX11T3	SCGX11T308	
1.5000	6.000	03080321	SD524-1500-600-1500R7-C	10.128	7.378	2.750	6.197	1.500	1.969	SPGX12T3	SCGX11T308	
1.7500	7.000	03080329	SD524-1750-700-1500R7-C	10.341	8.378	2.625	7.197	1.500	1.969	SPGX1504	SCGX120408	
2.0000	8.000	03080338	SD524-2000-800-1500R7-C	12.128	9.378	2.750	8.197	1.500	2.337	SPGX1504	SCGX150512	
2.1250	8.500	03080343	SD524-2125-850-1500R7-C	12.628	9.878	2.750	8.697	1.500	2.337	SPGX1904	SCGX150512	
2.2500	9.000	03080347	SD524-2250-900-1500R7-C	13.128	10.378	2.750	9.197	1.500	2.337	SPGX1904	SCGX150512	
2.3750	9.500	03080350	SD524-2375-950-1500R7-C	13.628	10.878	2.750	9.697	1.500	2.480	SPGX1904	SCGX150512	

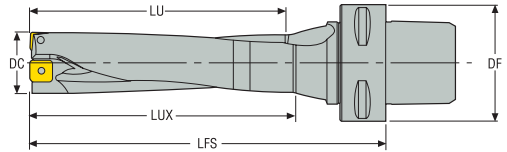
NEW PERFOMAX® SD524 - 4 x D, R7 SHANKS - METRIC

				DIMENSIONS IN METRIC							INSERT	
DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT
17	0.6693	68	03080330	SD524-17-68-25R7	154	98	56	73	25	35	SPGX0502	SCGX050204
17.5	0.6890	70	03080326	SD524-17.5-70-25R7	156	100	56	75	25	35	SPGX0602	SCGX050204
18	0.7087	72	03080333	SD524-18-72-25R7	158	102	56	77	25	35	SPGX0602	SCGX050204
18.5	0.7283	74	03080331	SD524-18.5-74-25R7	160	104	56	79	25	35	SPGX0602	SCGX050204
19	0.7480	76	03080336	SD524-19-76-25R7	162	106	56	81	25	35	SPGX0602	SCGX050204
20	0.7874	80	03080340	SD524-20-80-25R7	166	110	56	85	25	35	SPGX0602	SCGX060204
21	0.8268	84	03080344	SD524-21-84-25R7	170	114	56	89	25	35	SPGX0602	SCGX060204
22	0.8661	88	03080348	SD524-22-88-25R7	174	118	56	93	25	35	SPGX0703	SCGX060204
23	0.9055	92	03080351	SD524-23-92-25R7	178	122	56	97	25	35	SPGX0703	SCGX070308
24	0.9449	96	03080352	SD524-24-96-25R7	182	126	56	101	25	35	SPGX0703	SCGX070308
25	0.9843	100	03080353	SD524-25-100-32R7	190	130	60	105	32	42	SPGX0703	SCGX070308
26	1.0236	104	03080354	SD524-26-104-32R7	194	134	60	109	32	42	SPGX0903	SCGX070308
27	1.0630	108	03080355	SD524-27-108-32R7	198	138	60	113	32	42	SPGX0903	SCGX070308
28	1.1024	112	03080356	SD524-28-112-32R7	202	142	60	117	32	42	SPGX0903	SCGX070308
29	1.1417	116	03080357	SD524-29-116-32R7	206	146	60	121	32	42	SPGX0903	SCGX09T308
30	1.1811	120	03080358	SD524-30-120-32R7	210	150	60	125	32	42	SPGX0903	SCGX09T308
31	1.2205	124	03080360	SD524-31-124-32R7	214	154	60	129	32	42	SPGX0903	SCGX09T308
32	1.2598	128	03080361	SD524-32-128-40R7	226	158	68	133	40	50	SPGX11T3	SCGX09T308
33	1.2992	132	03080362	SD524-33-132-40R7	230	162	68	137	40	50	SPGX11T3	SCGX09T308
34	1.3386	136	03080363	SD524-34-136-40R7	234	166	68	141	40	50	SPGX11T3	SCGX09T308
35	1.3780	140	03080364	SD524-35-140-40R7	238	170	68	145	40	50	SPGX11T3	SCGX11T308
36	1.4173	144	03080365	SD524-36-144-40R7	242	174	68	149	40	50	SPGX11T3	SCGX11T308
37	1.4567	148	03080366	SD524-37-148-40R7	246	178	68	153	40	50	SPGX11T3	SCGX11T308
38	1.4961	152	03080367	SD524-38-152-40R7	250	182	68	157	40	50	SPGX12T3	SCGX11T308
39	1.5354	156	03080368	SD524-39-156-40R7	254	186	68	161	40	50	SPGX12T3	SCGX11T308
40	1.5748	160	03080369	SD524-40-160-40R7	258	190	68	165	40	50	SPGX12T3	SCGX11T308
41	1.6142	164	03080370	SD524-41-164-40R7	262	194	68	169	40	50	SPGX12T3	SCGX120408
42	1.6535	168	03080371	SD524-42-168-40R7	266	198	68	173	40	50	SPGX12T3	SCGX120408
43	1.6929	172	03080372	SD524-43-172-40R7	270	202	68	177	40	50	SPGX12T3	SCGX120408
44	1.7323	176	03080373	SD524-44-176-40R7	274	206	68	181	40	50	SPGX1504	SCGX120408
45	1.7717	180	03080374	SD524-45-180-40R7	278	210	68	185	40	50	SPGX1504	SCGX150512

NEW PERFOMAX® SD524 - 4 x D, R7 SHANKS & ABS 50 COMPATIBLE - R2 SHANKS - METRIC

DC (MM)	DC (INCH)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						INSERT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT
46	1.8110	184	03080375	SD524-46-184-40R7	282	214	68	159	40	50	SPGX1504	SCGX150512
47	1.8504	188	03080376	SD524-47-188-40R7	286	218	68	193	40	50	SPGX1504	SCGX150512
48	1.8898	192	03080377	SD524-48-192-40R7	290	222	68	197	40	59	SPGX1504	SCGX150512
49	1.9291	196	03080378	SD524-49-196-40R7	294	226	68	201	40	59	SPGX1504	SCGX150512
50	1.9685	200	03080379	SD524-50-200-40R7	298	230	68	205	40	59	SPGX1504	SCGX150512
51	2.0079	204	03080380	SD524-51-204-40R7	302	234	68	209	40	59	SPGX1504	SCGX150512
52	2.0472	208	03080381	SD524-52-208-40R7	306	238	68	213	40	59	SPGX1904	SCGX150512
53	2.0866	212	03080382	SD524-53-212-40R7	310	242	68	217	40	59	SPGX1904	SCGX150512
54	2.1260	216	03080383	SD524-54-216-40R7	314	246	68	221	40	59	SPGX1904	SCGX150512
55	2.1654	220	03080384	SD524-55-220-40R7	318	250	68	225	40	59	SPGX1904	SCGX150512
56	2.2047	224	03080385	SD524-56-224-40R7	322	254	68	229	40	59	SPGX1904	SCGX150512
57	2.2441	228	03080386	SD524-57-228-40R7	326	258	68	233	40	59	SPGX1904	SCGX150512
58	2.2835	232	03080387	SD524-58-232-40R7	330	262	68	237	40	63	SPGX1904	SCGX150512
59	2.3228	236	03080388	SD524-59-236-40R7	334	266	68	241	40	63	SPGX1904	SCGX150512
ABS 50 COMPATIBLE SHANKS - R2												
17	0.6693	68	03080208	SD524-17-68-50R2	129	98	31	73	28	50	SPGX0502	SCGX050204
17.5	0.6890	70	03080327	SD524-17.5-70-50R2	131	100	31	75	28	50	SPGX0602	SCGX050204
18	0.7087	72	03080209	SD524-18-72-50R2	133	102	31	77	28	50	SPGX0602	SCGX050204
18.5	0.7283	74	03080210	SD524-18.5-74-50R2	135	104	31	79	28	50	SPGX0602	SCGX050204
19	0.7480	76	03080422	SD524-19-76-50R2	137	106	31	81	28	50	SPGX0602	SCGX050204
20	0.7874	80	03080341	SD524-20-80-50R2	141	110	31	85	28	50	SPGX0602	SCGX060204
20.62	0.8118	83	03080215	SD524-20.62-83-50R2	144	113	31	88	28	50	SPGX0602	SCGX060204
21	0.8268	84	03080345	SD524-21-84-50R2	145	114	31	89	28	50	SPGX0602	SCGX060204
22	0.8661	88	03080193	SD524-22-88-50R2	149	118	31	93	28	50	SPGX0703	SCGX060204
22.23	0.8752	89	03080216	SD524-22.23-89-50R2	150	119	31	94	28	50	SPGX0703	SCGX060204
23	0.9055	92	03080194	SD524-23-92-50R2	153	122	31	97	28	50	SPGX0703	SCGX070308
24	0.9449	96	03080195	SD524-24-96-50R2	157	126	31	101	28	50	SPGX0703	SCGX070308
25	0.9843	100	03080196	SD524-25-100-50R2	161	130	31	105	28	50	SPGX0703	SCGX070308
25.4	1.0000	102	03080217	SD524-25.4-102-50R2	163	132	31	107	28	50	SPGX0703	SCGX070308
26	1.0236	104	03080423	SD524-26-104-50R2	165	134	31	109	28	50	SPGX0903	SCGX070308
27	1.0630	108	03080197	SD524-27-108-50R2	169	138	31	113	28	50	SPGX0903	SCGX070308
28	1.1024	112	03080424	SD524-28-112-50R2	173	142	31	117	28	50	SPGX0903	SCGX070308
28.59	1.1256	115	03080218	SD524-28.59-115-50R2	176	145	31	120	28	50	SPGX0903	SCGX070308
29	1.1417	116	03080198	SD524-29-116-50R2	177	146	31	121	28	50	SPGX0903	SCGX09T308
30	1.1811	120	03080199	SD524-30-120-50R2	181	150	31	125	28	50	SPGX0903	SCGX09T308
31	1.2205	124	03080200	SD524-31-124-50R2	185	154	31	129	28	50	SPGX0903	SCGX09T308
31.75	1.2500	127	03080359	SD524-31.75-127-50R2	188	157	31	132	28	50	SPGX11T3	SCGX09T308
32	1.2598	128	03080425	SD524-32-128-50R2	189	158	31	133	28	50	SPGX11T3	SCGX09T308
33	1.2992	132	03080201	SD524-33-132-50R2	193	162	31	137	28	50	SPGX11T3	SCGX09T308
34	1.3386	136	03080207	SD524-34-136-50R2	197	166	31	141	28	50	SPGX11T3	SCGX09T308
35	1.3780	140	03080202	SD524-35-140-50R2	201	170	31	145	28	50	SPGX11T3	SCGX11T308
36	1.4173	144	03080203	SD524-36-144-50R2	205	174	31	149	28	50	SPGX11T3	SCGX11T308
37	1.4567	148	03080204	SD524-37-148-50R2	209	178	31	153	28	50	SPGX11T3	SCGX11T308
38	1.4961	152	03080426	SD524-38-152-50R2	213	182	31	157	28	50	SPGX12T3	SCGX11T308
39	1.5354	156	03080205	SD524-39-156-50R2	217	186	31	161	28	50	SPGX12T3	SCGX11T308
40	1.5748	160	03080206	SD524-40-160-50R2	221	190	31	165	28	50	SPGX12T3	SCGX11T308



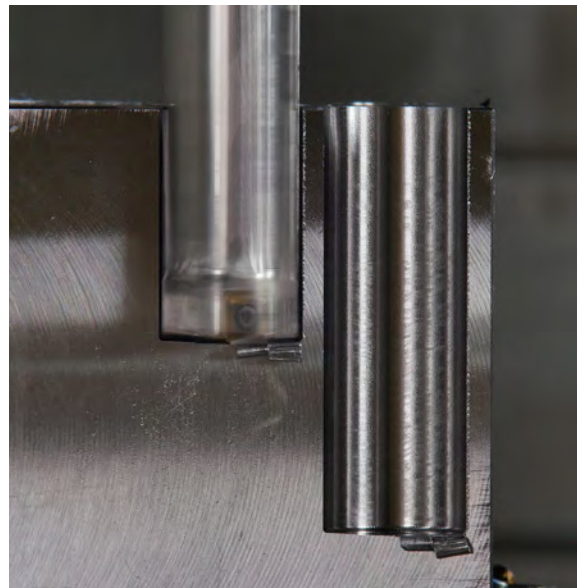
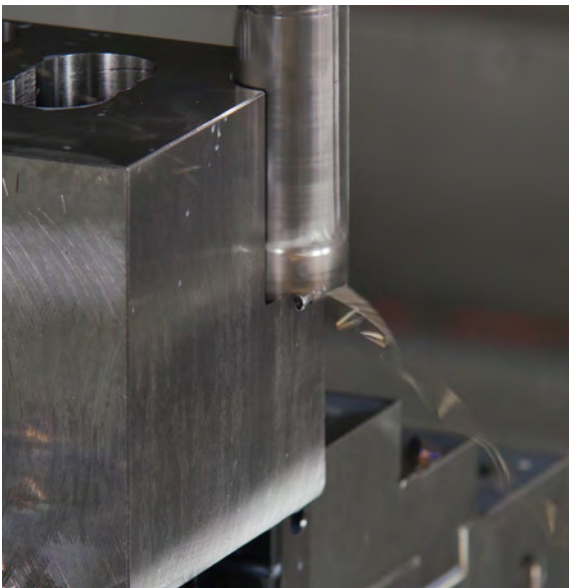


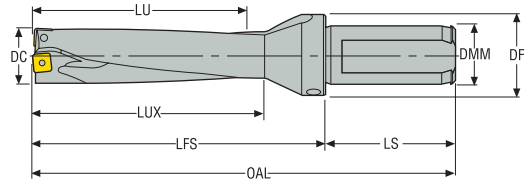
NEW PERFOMAX® SD524 - 4 x D, SECO-CAPTO™ C4 & C5 SHANK - METRIC

SHANK	DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC			INSERT		
						LUX	LFS	DF	CENTER INSERT	PERIPH INSERT	
C4	17	0.6693	68	03080219	SD524-17-68-C4	73	106	40	SPGX0502	SCGX050204	
	17.5	0.6890	70	03080220	SD524-17.5-70-C4	75	109	40	SPGX0602	SCGX050204	
	18	0.7087	72	03080221	SD524-18-72-C4	77	111	40	SPGX0602	SCGX050204	
	18.5	0.7283	74	03080222	SD524-18.5-74-C4	79	113	40	SPGX0602	SCGX050204	
	19	0.7480	76	03080223	SD524-19-76-C4	81	115	40	SPGX0602	SCGX050204	
	20	0.7874	80	03080224	SD524-20-80-C4	85	121	40	SPGX0602	SCGX060204	
	20.62	0.8118	83	03080413	SD524-20.62-83-C4	88	124	40	SPGX0602	SCGX060204	
	21	0.8268	84	03080225	SD524-21-84-C4	89	125	40	SPGX0602	SCGX060204	
	22	0.8661	88	03080226	SD524-22-88-C4	93	129	40	SPGX0703	SCGX060204	
	22.23	0.8752	89	03080414	SD524-22.23-89-C4	94	130	40	SPGX0703	SCGX060204	
	23	0.9055	92	03080227	SD524-23-92-C4	97	134	40	SPGX0703	SCGX070308	
	24	0.9449	96	03080228	SD524-24-96-C4	101	139	40	SPGX0703	SCGX070308	
	25	0.9843	100	03080229	SD524-25-100-C4	105	144	40	SPGX0703	SCGX070308	
	25.4	1.0000	102	03080415	SD524-25.4-102-C4	107	146	40	SPGX0703	SCGX070308	
	26	1.0236	104	03080230	SD524-26-104-C4	109	148	40	SPGX0903	SCGX070308	
	27	1.0630	108	03080231	SD524-27-108-C4	113	152	40	SPGX0903	SCGX070308	
	28	1.1024	112	03080232	SD524-28-112-C4	117	157	40	SPGX0903	SCGX070308	
	28.59	1.1256	115	03080416	SD524-28.59-115-C4	120	160	40	SPGX0903	SCGX070308	
	29	1.1417	116	03080233	SD524-29-116-C4	121	161	40	SPGX0903	SCGX09T308	
	30	1.1811	120	03080234	SD524-30-120-C4	125	165	40	SPGX0903	SCGX09T308	
	C5	17	0.6693	68	03080235	SD524-17-68-C5	73	106	50	SPGX0502	SCGX050204
		17.5	0.6890	70	03080237	SD524-17.5-70-C5	75	109	50	SPGX0602	SCGX050204
		18	0.7087	72	03080238	SD524-18-72-C5	77	111	50	SPGX0602	SCGX050204
		18.5	0.7283	74	03080239	SD524-18.5-74-C5	79	113	50	SPGX0602	SCGX050204
		19	0.7480	76	03080240	SD524-19-76-C5	81	115	50	SPGX0602	SCGX050204
		20	0.7874	80	03080241	SD524-20-80-C5	85	121	50	SPGX0602	SCGX060204
		20.62	0.8118	83	03080408	SD524-20.62-83-C5	88	124	50	SPGX0602	SCGX060204
		21	0.8268	84	03080242	SD524-21-84-C5	89	125	50	SPGX0602	SCGX060204
22		0.8661	88	03080243	SD524-22-88-C5	93	129	50	SPGX0703	SCGX060204	
22.23		0.8752	89	03080409	SD524-22.23-89-C5	94	130	50	SPGX0703	SCGX060204	
23		0.9055	92	03080244	SD524-23-92-C5	97	134	50	SPGX0703	SCGX070308	
24		0.9449	96	03080245	SD524-24-96-C5	101	139	50	SPGX0703	SCGX070308	
25		0.9843	100	03080246	SD524-25-100-C5	105	144	50	SPGX0703	SCGX070308	
25.4		1.0000	102	03080410	SD524-25.4-102-C5	107	146	50	SPGX0703	SCGX070308	
26		1.0236	104	03080247	SD524-26-104-C5	109	148	50	SPGX0903	SCGX070308	
27		1.0630	108	03080248	SD524-27-108-C5	113	152	50	SPGX0903	SCGX070308	
28		1.1024	112	03080249	SD524-28-112-C5	117	157	50	SPGX0903	SCGX070308	
28.59		1.1256	115	03080411	SD524-28.59-115-C5	120	160	50	SPGX0903	SCGX070308	
29		1.1417	116	03080250	SD524-29-116-C5	121	161	50	SPGX0903	SCGX09T308	
30		1.1811	120	03080251	SD524-30-120-C5	125	165	50	SPGX0903	SCGX09T308	
31		1.2205	124	03080252	SD524-31-124-C5	129	169	50	SPGX0903	SCGX09T308	
31.75		1.2500	127	03080412	SD524-31.75-127-C5	132	173	50	SPGX11T3	SCGX09T308	
32		1.2598	128	03080253	SD524-32-128-C5	133	174	50	SPGX11T3	SCGX09T308	
33		1.2992	132	03080254	SD524-33-132-C5	137	178	50	SPGX11T3	SCGX09T308	
34		1.3386	136	03080255	SD524-34-136-C5	141	182	50	SPGX11T3	SCGX09T308	
35		1.3780	140	03080256	SD524-35-140-C5	145	186	50	SPGX11T3	SCGX11T308	
36		1.4173	144	03080257	SD524-36-144-C5	149	190	50	SPGX11T3	SCGX11T308	
37		1.4567	148	03080258	SD524-37-148-C5	153	194	50	SPGX11T3	SCGX11T308	
38	1.4961	152	03080259	SD524-38-152-C5	157	198	50	SPGX12T3	SCGX11T308		
39	1.5354	156	03080260	SD524-39-156-C5	161	202	50	SPGX12T3	SCGX11T308		
40	1.5748	160	03080261	SD524-40-160-C5	165	206	50	SPGX12T3	SCGX11T308		

NEW PERFOMAX® SD524 - 4 x D, SECO-CAPTO™ C6 SHANK - METRIC

SHANK	DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC			INSERT	
						LUX	LFS	DF	CENTER INSERT	PERIPH INSERT
C6	17	0.6693	68	03080262	SD524-17-68-C6	73	108	63	SPGX0502	SCGX050204
	17.5	0.6890	70	03080263	SD524-17.5-70-C6	75	111	63	SPGX0602	SCGX050204
	18	0.7087	72	03080265	SD524-18-72-C6	77	113	63	SPGX0602	SCGX050204
	18.5	0.7283	74	03080266	SD524-18.5-74-C6	79	115	63	SPGX0602	SCGX050204
	19	0.7480	76	03080267	SD524-19-76-C6	81	117	63	SPGX0602	SCGX050204
	20	0.7874	80	03080268	SD524-20-80-C6	85	123	63	SPGX0602	SCGX060204
	20.62	0.8118	83	03080417	SD524-20.62-83-C6	88	126	63	SPGX0602	SCGX060204
	21	0.8268	84	03080269	SD524-21-84-C6	89	127	63	SPGX0602	SCGX060204
	22	0.8661	88	03080270	SD524-22-88-C6	93	131	63	SPGX0703	SCGX060204
	22.23	0.8752	89	03080418	SD524-22.23-89-C6	94	132	63	SPGX0703	SCGX060204
	23	0.9055	92	03080271	SD524-23-92-C6	97	136	63	SPGX0703	SCGX070308
	24	0.9449	96	03080272	SD524-24-96-C6	101	141	63	SPGX0703	SCGX070308
	25	0.9843	100	03080392	SD524-25-100-C6	105	146	63	SPGX0703	SCGX070308
	25.4	1.0000	102	03080419	SD524-25.4-102-C6	107	148	63	SPGX0703	SCGX070308
	26	1.0236	104	03080393	SD524-26-104-C6	109	150	63	SPGX0903	SCGX070308
	27	1.0630	108	03080394	SD524-27-108-C6	113	154	63	SPGX0903	SCGX070308
	28	1.1024	112	03080395	SD524-28-112-C6	117	159	63	SPGX0903	SCGX070308
	28.59	1.1256	115	03080420	SD524-28.59-115-C6	120	162	63	SPGX0903	SCGX070308
	29	1.1417	116	03080396	SD524-29-116-C6	121	163	63	SPGX0903	SCGX09T308
	30	1.1811	120	03080397	SD524-30-120-C6	125	167	63	SPGX0903	SCGX09T308
	31	1.2205	124	03080398	SD524-31-124-C6	129	171	63	SPGX0903	SCGX09T308
	31.75	1.2500	127	03080421	SD524-31.75-127-C6	132	175	63	SPGX0903	SCGX09T308
	32	1.2598	128	03080399	SD524-32-128-C6	133	176	63	SPGX11T3	SCGX09T308
	33	1.2992	132	03080400	SD524-33-132-C6	137	180	63	SPGX11T3	SCGX09T308
	34	1.3386	136	03080401	SD524-34-136-C6	141	184	63	SPGX11T3	SCGX09T308
	35	1.3780	140	03080402	SD524-35-140-C6	145	188	63	SPGX11T3	SCGX11T308
	36	1.4173	144	03080403	SD524-36-144-C6	149	192	63	SPGX11T3	SCGX11T308
	37	1.4567	148	03080404	SD524-37-148-C6	153	196	63	SPGX11T3	SCGX11T308
	38	1.4961	152	03080405	SD524-38-152-C6	157	200	63	SPGX12T3	SCGX11T308
	39	1.5354	156	03080406	SD524-39-156-C6	161	204	63	SPGX12T3	SCGX11T308
	40	1.5748	160	03080407	SD524-40-160-C6	165	208	63	SPGX12T3	SCGX11T308





NEW PERFOMAX® SD525 - 5 x D, R7 SHANKS - INCH

DIMENSIONS IN INCH			ORDER NO.	DESIGNATION	DIMENSIONS IN INCH						INSERT	
DC	LU	OAL			LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT	
0.7500	3.750	03079565	SD525-0750-375-1000R7	7.181	4.931	2.250	3.947	1.000	1.378	SPGX0602	SCGX050204	
0.8120	4.060	03079566	SD525-0812-406-1000R7	7.491	5.241	2.250	4.257	1.000	1.378	SPGX0602	SCGX060204	
0.8750	4.380	03079567	SD525-0875-438-1000R7	7.811	5.561	2.250	4.577	1.000	1.378	SPGX0703	SCGX060204	
0.9370	4.690	03079568	SD525-0937-469-1000R7	8.121	5.871	2.250	4.887	1.000	1.378	SPGX0703	SCGX070308	
1.0000	5.000	03079569	SD525-1000-500-1250R7	8.556	6.181	2.375	5.197	1.250	1.654	SPGX0703	SCGX070308	
1.0620	5.310	03079570	SD525-1062-531-1250R7	8.866	6.491	2.375	5.507	1.250	1.654	SPGX0903	SCGX070308	
1.1250	5.630	03079571	SD525-1125-563-1250R7	9.186	6.811	2.375	5.827	1.250	1.654	SPGX0903	SCGX09T308	
1.1870	5.940	03079572	SD525-1187-594-1250R7	9.496	7.121	2.375	6.137	1.250	1.654	SPGX0903	SCGX09T308	
1.2500	6.250	03079573	SD525-1250-625-1500R7	10.056	7.431	2.625	6.447	1.500	1.969	SPGX11T3	SCGX09T308	
1.3750	6.870	03079574	SD525-1375-687-1500R7	10.676	8.051	2.626	7.067	1.500	1.969	SPGX11T3	SCGX11T308	
1.5000	7.500	03079575	SD525-1500-750-1500R7	11.306	8.681	2.625	7.697	1.500	1.969	SPGX12T3	SCGX11T308	
1.6250	8.120	03079576	SD525-1625-812-1500R7	11.926	9.301	2.626	8.317	1.500	1.969	SPGX12T3	SCGX120408	
1.7500	8.750	03079577	SD525-1750-875-1500R7	12.556	9.931	2.626	8.947	1.500	1.969	SPGX1504	SCGX120408	
1.8750	9.370	03079578	SD525-1875-937-1500R7	13.176	10.551	2.626	9.567	1.500	1.969	SPGX1504	SCGX150512	
1.9370	9.680	03079579	SD525-1937-968-1500R7	13.486	10.861	2.625	9.877	1.500	2.337	SPGX1504	SCGX150512	
2.0000	10.000	03079581	SD525-2000-1000-1500R7	13.806	11.181	2.625	10.197	1.500	2.337	SPGX1504	SCGX150512	

NEW PERFOMAX® SD525 - 5 x D, R7 SHANKS - METRIC

DC (MM)	DC (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						INSERT	
					OAL	LFS	LS	LUX	DMM	DF	CENTER INSERT	PERIPH INSERT
19	0.7480	95	03079580	SD525-19-95-25R7	181	125	56	100	25	35	SPGX0602	SCGX050204
20	0.7874	100	03079582	SD525-20-100-25R7	186	130	56	105	25	35	SPGX0602	SCGX060204
21	0.8268	105	03079583	SD525-21-105-25R7	191	135	56	110	25	35	SPGX0602	SCGX060204
22	0.8661	110	03079584	SD525-22-110-25R7	196	140	56	115	25	35	SPGX0703	SCGX060204
23	0.9055	115	03079585	SD525-23-115-25R7	201	145	56	120	25	35	SPGX0703	SCGX070308
24	0.9449	120	03079586	SD525-24-120-25R7	206	150	56	125	25	35	SPGX0703	SCGX070308
25	0.9843	125	03079587	SD525-25-125-32R7	215	155	60	130	32	42	SPGX0703	SCGX070308
26	1.0236	130	03079588	SD525-26-130-32R7	220	160	60	135	32	42	SPGX0903	SCGX070308
27	1.0630	135	03079589	SD525-27-135-32R7	225	165	60	140	32	42	SPGX0903	SCGX070308
28	1.1024	140	03079590	SD525-28-140-32R7	230	170	60	145	32	42	SPGX0903	SCGX070308
29	1.1417	145	03079591	SD525-29-145-32R7	235	175	60	150	32	42	SPGX0903	SCGX09T308
30	1.1811	150	03079592	SD525-30-150-32R7	240	180	60	155	32	42	SPGX0903	SCGX09T308
31	1.2205	155	03079593	SD525-31-155-32R7	245	185	60	160	32	42	SPGX0903	SCGX09T308
32	1.2598	160	03079595	SD525-32-160-40R7	258	190	68	165	40	50	SPGX11T3	SCGX09T308
33	1.2992	165	03079596	SD525-33-165-40R7	263	195	68	170	40	50	SPGX11T3	SCGX09T308
34	1.3386	170	03079597	SD525-34-170-40R7	268	200	68	175	40	50	SPGX11T3	SCGX09T308
35	1.3780	175	03079598	SD525-35-175-40R7	273	205	68	180	40	50	SPGX11T3	SCGX11T308
36	1.4173	180	03079599	SD525-36-180-40R7	278	210	68	185	40	50	SPGX11T3	SCGX11T308
37	1.4567	185	03079600	SD525-37-185-40R7	283	215	68	190	40	50	SPGX11T3	SCGX11T308
38	1.4961	190	03079601	SD525-38-190-40R7	288	220	68	195	40	50	SPGX12T3	SCGX11T308
39	1.5354	195	03079602	SD525-39-195-40R7	293	225	68	200	40	50	SPGX12T3	SCGX11T308
40	1.5748	200	03079603	SD525-40-200-40R7	298	230	68	205	40	50	SPGX12T3	SCGX11T308
41	1.6142	205	03079604	SD525-41-205-40R7	303	235	68	210	40	50	SPGX12T3	SCGX120408
42	1.6535	210	03079605	SD525-42-210-40R7	308	240	68	215	40	50	SPGX12T3	SCGX120408
43	1.6929	215	03079606	SD525-43-215-40R7	313	245	68	220	40	50	SPGX12T3	SCGX120408
44	1.7323	220	03079607	SD525-44-220-40R7	318	250	68	225	40	50	SPGX1504	SCGX120408
45	1.7717	225	03079608	SD525-45-225-40R7	323	255	68	230	40	50	SPGX1504	SCGX150512



NEW PERFORMAX® INDEXABLE PERIPHERAL AND CENTER INSERTS MP & MC FOR SD522, SD523, SD524 & SD525

INSERTS	DESIGNATION	DIMENSIONS IN METRIC				GRADES (ORDER NO.)		INSERT STYLE
		SIZE	L	S	RE	DS2050	DS4050	
SCGX-MP Tolerances: L = ±0.025 S = ±0.13 RE = ±0.1	SCGX050204-MP	05	5.56	2.38	0.4	03134312	-	
	SCGX060204-MP	06	6.35	6.35	0.4	03134313	-	
	SCGX070308-MP	07	7.94	3.18	0.8	03134314	-	
	SCGX09T308-MP	09	9.53	3.97	0.8	03134315	-	
	SCGX11T308-MP	11	11.51	3.97	0.8	03134316	-	
	SCGX120408-MP	12	12.7	4.76	0.8	03134317	-	
	SCGX150512-MP	15	15.88	5.56	1.2	03134318	-	
SPGX-MC Tolerances: L = ±0.025 S = ±0.13	SPGX0502-MC	05	5.56	2.38	-	-	03134319	
	SPGX0602-MC	06	6.35	2.38	-	-	03134320	
	SPGX0703-MC	07	7.94	3.18	-	-	03134321	
	SPGX0903-MC	09	9.53	3.18	-	-	03134322	
	SPGX11T3-MC	11	11.51	3.97	-	-	03134323	
	SPGX12T3-MC	12	12.7	3.97	-	-	03134324	
	SPGX1504-MC	15	15.88	4.76	-	-	03134325	
	SPGX1904-MC	19	19.05	4.76	-	-	03134326	

PARAMOUNT DRILLING

NEW FEEDMAX™-P DRILLS GO ABOVE AND BEYOND EXISTING TECHNOLOGY

Boost holemaking performance in ISO P materials when you switch to Seco's new solid carbide **Feedmax -P** drill and experience increased productivity up to 35% as well as longer tool life, all thanks to the combination of a new geometry and an advanced coating. Enhanced chip evacuation ensures application security, while also maintaining high productivity. **Drill more holes in a shorter amount of time and use fewer drills to do so with Feedmax-P drills.**

The drills feature strong straight cutting edges with coolant holes close by for pinpointed cutting edge cooling, and narrow land margins also help minimize the effects of heat on the drills.



The Feedmax -P flute design features increased corner chamfers which protects the drill point and provides exceptional chip control and evacuation.

The combined design features of these drills optimize them for steel and cast iron workpiece applications. With a new advanced TiAlN coating, the Feedmax -P allows you to use your machine tools to their full drilling potential. Thanks to the drill's strong point geometry and its modern coating, cutting speeds have never been higher in SMG P5 without sacrificing tool life.



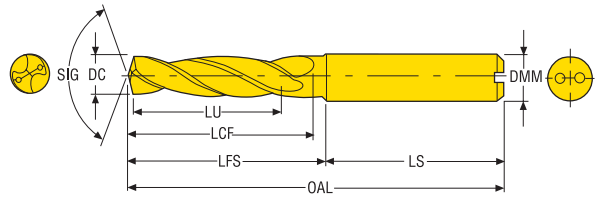
HOLEMAKING

RANGE OVERVIEW:

- Diameters 0.078" - 0.787" (2 - 20 mm)
- Length to diameter ratios of 3xD, 5xD and 7xD
- Internal coolant supply standard
- MQL compatible shanks
- Intermediate sizes available at launch

KEY BENEFITS:

- Increased drilling productivity through higher cutting speeds
- Longer tool life and reduced part costs
- Efficient chip evacuation
- Higher per-drill output
- Process predictability and reliability
- Good hole tolerance (IT8/9) and excellent surface finishes



NEW FEEDMAX™ SD203A-P - 3 x D - INCH

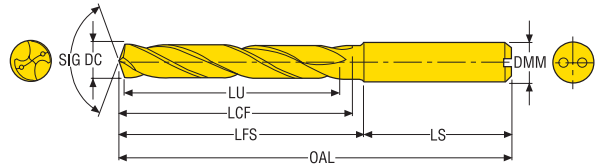
DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.0787	-	0.276	03045918	SD203A-0200-007-04R1-P	1.614	0.551	1.063	0.433	0.157
0.0827	-	0.276	03045919	SD203A-0210-007-04R1-P	1.614	0.551	1.063	0.433	0.157
0.0866	-	0.276	03045920	SD203A-0220-007-04R1-P	1.614	0.551	1.063	0.433	0.157
0.0906	-	0.315	03045921	SD203A-0230-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.0925	-	0.315	03138154	SD203A-0235-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.0937	3/32	0.315	03120476	SD203A-00937-031-0157R1-P	1.732	0.669	1.063	0.492	0.157
0.0945	-	0.315	03045922	SD203A-0240-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.0984	-	0.315	03045923	SD203A-0250-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.1024	-	0.315	03045924	SD203A-0260-008-04R1-P	1.732	0.669	1.063	0.492	0.157
0.1063	-	0.354	03045925	SD203A-0270-009-04R1-P	1.732	0.669	1.063	0.571	0.157
0.1094	7/64	0.354	03120495	SD203A-01095-035-0157R1-P	1.732	0.669	1.063	0.571	0.157
0.1102	-	0.354	03045926	SD203A-0280-009-04R1-P	1.732	0.669	1.063	0.571	0.157
0.1142	-	0.354	03045927	SD203A-0290-009-04R1-P	1.732	0.669	1.063	0.571	0.157
0.1181	-	0.551	03045928	SD203A-0300-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1220	-	0.551	03045929	SD203A-0310-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1250	1/8	0.551	03046061	SD203A-01250-055-0236R1-P	2.441	1.024	1.417	0.787	0.236
0.1260	-	0.551	03045930	SD203A-0320-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1280	-	0.551	03045931	SD203A-0325-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1299	-	0.551	03045932	SD203A-0330-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1339	-	0.551	03045933	SD203A-0340-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1378	-	0.551	03045934	SD203A-0350-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1406	9/64	0.551	03046062	SD203A-01406-055-0236R1-P	2.441	1.024	1.417	0.787	0.236
0.1417	-	0.551	03045935	SD203A-0360-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1437	-	0.551	03045936	SD203A-0365-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1457	-	0.551	03045937	SD203A-0370-014-06R1-P	2.441	1.024	1.417	0.787	0.236
0.1496	-	0.669	03045938	SD203A-0380-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1535	-	0.669	03045939	SD203A-0390-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1563	5/32	0.669	03046063	SD203A-01563-067-0236R1-P	2.598	1.181	1.417	0.945	0.236
0.1575	-	0.669	03045940	SD203A-0400-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1614	-	0.669	03045941	SD203A-0410-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1654	-	0.669	03045942	SD203A-0420-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1693	-	0.669	03045943	SD203A-0430-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1719	11/64	0.669	03046064	SD203A-01719-067-0236R1-P	2.598	1.181	1.417	0.945	0.236
0.1772	-	0.669	03045944	SD203A-0450-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1811	-	0.669	03045945	SD203A-0460-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1831	-	0.669	03045946	SD203A-0465-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1850	-	0.669	03045947	SD203A-0470-017-06R1-P	2.598	1.181	1.417	0.945	0.236
0.1875	3/16	0.787	03046065	SD203A-01875-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.1890	-	0.787	03045948	SD203A-0480-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.1929	-	0.787	03045949	SD203A-0490-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.1969	-	0.787	03045950	SD203A-0500-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2008	-	0.787	03045951	SD203A-0510-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2031	13/64	0.787	03046066	SD203A-02031-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.2047	-	0.787	03045952	SD203A-0520-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2087	-	0.787	03045953	SD203A-0530-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2126	-	0.787	03045954	SD203A-0540-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2165	-	0.787	03045955	SD203A-0550-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2185	-	0.787	03045956	SD203A-0555-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2187	7/32	0.787	03046067	SD203A-02188-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.2205	-	0.787	03045957	SD203A-0560-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2244	-	0.787	03045958	SD203A-0570-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2283	-	0.787	03045959	SD203A-0580-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2283	-	0.787	03045959	SD203A-0580-020-06R1-P	2.598	1.181	1.417	1.102	0.236

NEW FEEDMAX™ SD203A-P - 3 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.2323	-	0.787	03045960	SD203A-0590-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2344	15/64	0.787	03046068	SD203A-02344-079-0236R1-P	2.598	1.181	1.417	1.102	0.236
0.2362	-	0.787	03045961	SD203A-0600-020-06R1-P	2.598	1.181	1.417	1.102	0.236
0.2402	-	0.945	03045962	SD203A-0610-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2441	-	0.945	03045963	SD203A-0620-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2480	-	0.945	03045964	SD203A-0630-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2500	1/4	0.945	03046069	SD203A-02500-094-0315R1-P	3.110	1.693	1.417	1.339	0.315
0.2520	-	0.945	03045965	SD203A-0640-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2559	-	0.945	03045966	SD203A-0650-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2598	-	0.945	03045967	SD203A-0660-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2638	-	0.945	03045968	SD203A-0670-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2656	17/64	0.945	03046070	SD203A-02656-094-0315R1-P	3.110	1.693	1.417	1.339	0.315
0.2677	-	0.945	03045969	SD203A-0680-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2717	-	0.945	03045970	SD203A-0690-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2756	-	0.945	03045971	SD203A-0700-024-08R1-P	3.110	1.693	1.417	1.339	0.315
0.2795	-	1.142	03045972	SD203A-0710-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2813	9/32	1.142	03046071	SD203A-02813-114-0315R1-P	3.110	1.693	1.417	1.614	0.315
0.2835	-	1.142	03045973	SD203A-0720-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2874	-	1.142	03045974	SD203A-0730-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2913	-	1.142	03045975	SD203A-0740-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2953	-	1.142	03045976	SD203A-0750-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2969	19/64	1.142	03046072	SD203A-02969-114-0315R1-P	3.110	1.693	1.417	1.614	0.315
0.2972	-	1.142	03045977	SD203A-0755-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.2992	-	1.142	03045978	SD203A-0760-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3031	-	1.142	03045979	SD203A-0770-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3071	-	1.142	03045980	SD203A-0780-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3110	-	1.142	03045981	SD203A-0790-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3125	5/16	1.142	03046073	SD203A-03125-114-0315R1-P	3.110	1.693	1.417	1.614	0.315
0.3150	-	1.142	03045982	SD203A-0800-029-08R1-P	3.110	1.693	1.417	1.614	0.315
0.3189	-	1.378	03045983	SD203A-0810-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3228	-	1.378	03045984	SD203A-0820-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3268	-	1.378	03045985	SD203A-0830-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3281	21/64	1.378	03046074	SD203A-03281-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3307	-	1.378	03045986	SD203A-0840-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3346	-	1.378	03045987	SD203A-0850-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3386	-	1.378	03045988	SD203A-0860-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3425	-	1.378	03045989	SD203A-0870-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3437	11/32	1.378	03046075	SD203A-03438-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3465	-	1.378	03045990	SD203A-0880-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3504	-	1.378	03045991	SD203A-0890-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3543	-	1.378	03045992	SD203A-0900-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3583	-	1.378	03045993	SD203A-0910-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3594	23/64	1.378	03046076	SD203A-03594-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3622	-	1.378	03045994	SD203A-0920-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3661	-	1.378	03045995	SD203A-0930-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3701	-	1.378	03045996	SD203A-0940-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3740	-	1.378	03045997	SD203A-0950-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3750	3/8	1.378	03046077	SD203A-03750-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3760	-	1.378	03045998	SD203A-0955-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3780	-	1.378	03045999	SD203A-0960-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3819	-	1.378	03046000	SD203A-0970-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3858	-	1.378	03046001	SD203A-0980-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3898	-	1.378	03046002	SD203A-0990-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.3906	25/64	1.378	03046078	SD203A-03906-138-0394R1-P	3.504	1.929	1.575	1.850	0.394
0.3937	-	1.378	03046003	SD203A-1000-035-10R1-P	3.504	1.929	1.575	1.850	0.394
0.4016	-	1.575	03046004	SD203A-1020-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4063	12/32	1.575	03046079	SD203A-04063-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4094	-	1.575	03046005	SD203A-1040-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4134	-	1.575	03046006	SD203A-1050-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4173	-	1.575	03046007	SD203A-1060-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4219	27/64	1.575	03046080	SD203A-04219-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4252	-	1.575	03046008	SD203A-1080-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4252	-	1.575	03046008	SD203A-1080-040-12R1-P	4.016	2.244	1.772	2.165	0.472

NEW FEEDMAX™ SD203A-P - 3 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.4291	-	1.575	03046009	SD203A-1090-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4331	-	1.575	03046010	SD203A-1100-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4370	-	1.575	03046011	SD203A-1110-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4375	7/16	1.575	03046081	SD203A-04375-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4409	-	1.575	03046012	SD203A-1120-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4449	-	1.575	03046013	SD203A-1130-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4488	-	1.575	03046014	SD203A-1140-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4528	-	1.575	03046015	SD203A-1150-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4531	29/64	1.575	03046082	SD203A-04531-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4547	-	1.575	03046016	SD203A-1155-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4567	-	1.575	03046017	SD203A-1160-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4606	-	1.575	03046018	SD203A-1170-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4646	-	1.575	03046019	SD203A-1180-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4685	-	1.575	03046020	SD203A-1190-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4687	15/32	1.575	03046083	SD203A-04688-157-0472R1-P	4.016	2.244	1.772	2.165	0.472
0.4724	-	1.575	03046021	SD203A-1200-040-12R1-P	4.016	2.244	1.772	2.165	0.472
0.4764	-	1.693	03046022	SD203A-1210-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4803	-	1.693	03046023	SD203A-1220-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4844	31/64	1.693	03046084	SD203A-04844-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.4882	-	1.693	03046024	SD203A-1240-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4921	-	1.693	03046025	SD203A-1250-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.4961	-	1.693	03046026	SD203A-1260-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5000	1/2	1.693	03046085	SD203A-05000-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.5020	-	1.693	03046027	SD203A-1275-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5039	-	1.693	03046028	SD203A-1280-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5079	-	1.693	03046029	SD203A-1290-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5118	-	1.693	03046030	SD203A-1300-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5157	33/64	1.693	03046031	SD203A-05156-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.5197	-	1.693	03046032	SD203A-1320-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5236	-	1.693	03046033	SD203A-1330-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5276	-	1.693	03046034	SD203A-1340-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5313	17/32	1.693	03046086	SD203A-05312-169-0551R1-P	4.213	2.441	1.772	2.362	0.551
0.5315	-	1.693	03046035	SD203A-1350-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5354	-	1.693	03046036	SD203A-1360-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5394	-	1.693	03046037	SD203A-1370-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5433	-	1.693	03046038	SD203A-1380-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5472	-	1.693	03046039	SD203A-1390-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5512	-	1.693	03046040	SD203A-1400-043-14R1-P	4.213	2.441	1.772	2.362	0.551
0.5591	-	1.772	03046041	SD203A-1420-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5610	-	1.772	03138155	SD203A-1425-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5625	9/16	1.772	03046087	SD203A-05625-177-0630R1-P	4.528	2.638	1.890	2.559	0.630
0.5709	-	1.772	03046042	SD203A-1450-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5787	-	1.772	03046043	SD203A-1470-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5807	-	1.772	03046044	SD203A-1475-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5827	-	1.772	03046045	SD203A-1480-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5906	-	1.772	03046046	SD203A-1500-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.5945	-	1.772	03046047	SD203A-1510-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6024	-	1.772	03046048	SD203A-1530-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6102	-	1.772	03046049	SD203A-1550-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6181	-	1.772	03046050	SD203A-1570-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6220	-	1.772	03046051	SD203A-1580-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6250	5/8	1.772	03046088	SD203A-06250-177-0630R1-P	4.528	2.638	1.890	2.559	0.630
0.6299	-	1.772	03046052	SD203A-1600-045-16R1-P	4.528	2.638	1.890	2.559	0.630
0.6496	-	2.008	03046053	SD203A-1650-051-18R1-P	4.843	2.953	1.890	2.874	0.709
0.6693	-	2.008	03046054	SD203A-1700-051-18R1-P	4.843	2.953	1.890	2.874	0.709
0.6890	-	2.008	03046055	SD203A-1750-051-18R1-P	4.843	2.953	1.890	2.874	0.709
0.7087	-	2.008	03046056	SD203A-1800-051-18R1-P	4.843	2.953	1.890	2.874	0.709
0.7283	-	2.165	03046057	SD203A-1850-055-20R1-P	5.157	3.189	1.969	3.110	0.787
0.7480	-	2.165	03046058	SD203A-1900-055-20R1-P	5.157	3.189	1.969	3.110	0.787
0.7500	3/4	2.165	03046089	SD203A-07500-216-0787R1-P	5.157	3.189	1.969	3.110	0.787
0.7677	-	2.165	03046059	SD203A-1950-055-20R1-P	5.157	3.189	1.969	3.110	0.787
0.7795	-	2.165	03138156	SD203A-1980-055-20R1-P	5.157	3.189	1.969	3.110	0.787
0.7874	-	2.165	03046060	SD203A-2000-055-20R1-P	5.157	3.189	1.969	3.110	0.787



NEW FEEDMAX™ SD205A-P - 5 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.0787	-	0.472	03046131	SD205A-0200-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0827	-	0.472	03046132	SD205A-0210-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0866	-	0.472	03046133	SD205A-0220-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0906	-	0.472	03046134	SD205A-0230-012-04R1-P	1.811	0.748	1.063	0.591	0.157
0.0937	3/32	0.512	03120477	SD205A-00937-051-0157R1-P	1.969	0.906	1.063	0.689	0.157
0.0945	-	0.512	03046135	SD205A-0240-013-04R1-P	1.969	0.906	1.063	0.689	0.157
0.0984	-	0.512	03046136	SD205A-0250-013-04R1-P	1.969	0.906	1.063	0.689	0.157
0.1024	-	0.512	03046137	SD205A-0260-013-04R1-P	1.969	0.906	1.063	0.689	0.157
0.1063	-	0.591	03046138	SD205A-0270-015-04R1-P	1.969	0.906	1.063	0.807	0.157
0.1094	7/64	0.591	03120496	SD205A-01095-059-0157R1-P	1.969	0.906	1.063	0.807	0.157
0.1102	-	0.591	03046139	SD205A-0280-015-04R1-P	1.969	0.906	1.063	0.807	0.157
0.1142	-	0.591	03046141	SD205A-0290-015-04R1-P	1.969	0.906	1.063	0.807	0.157
0.1181	-	0.906	03046142	SD205A-0300-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1220	-	0.906	03046143	SD205A-0310-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1250	1/8	0.906	03046327	SD205A-01250-091-0236R1-P	2.598	1.181	1.417	1.024	0.236
0.1260	-	0.906	03046144	SD205A-0320-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1280	-	0.906	03046145	SD205A-0325-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1299	-	0.906	03046146	SD205A-0330-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1339	-	0.906	03046147	SD205A-0340-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1378	-	0.906	03046148	SD205A-0350-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1406	9/64	0.906	03046328	SD205A-01406-091-0236R1-P	2.598	1.181	1.417	1.024	0.236
0.1417	-	0.906	03046149	SD205A-0360-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1437	-	0.906	03046150	SD205A-0365-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1457	-	0.906	03046151	SD205A-0370-023-06R1-P	2.598	1.181	1.417	1.024	0.236
0.1496	-	1.142	03046152	SD205A-0380-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1535	-	1.142	03046153	SD205A-0390-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1563	5/32	1.142	03046329	SD205A-01563-114-0236R1-P	2.913	1.496	1.417	1.339	0.236
0.1575	-	1.142	03046154	SD205A-0400-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1614	-	1.142	03046155	SD205A-0410-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1654	-	1.142	03046157	SD205A-0420-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1693	-	1.142	03046158	SD205A-0430-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1719	11/64	1.142	03046330	SD205A-01719-114-0236R1-P	2.913	1.496	1.417	1.339	0.236
0.1732	-	1.142	03046159	SD205A-0440-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1772	-	1.142	03046160	SD205A-0450-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1811	-	1.142	03046161	SD205A-0460-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1831	-	1.142	03046162	SD205A-0465-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1850	-	1.142	03046163	SD205A-0470-029-06R1-P	2.913	1.496	1.417	1.339	0.236
0.1875	3/16	1.378	03046331	SD205A-01875-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.1890	-	1.378	03046164	SD205A-0480-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.1929	-	1.378	03046165	SD205A-0490-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.1969	-	1.378	03046166	SD205A-0500-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2008	-	1.378	03046167	SD205A-0510-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2031	13/64	1.378	03046332	SD205A-02031-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.2047	-	1.378	03046168	SD205A-0520-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2087	-	1.378	03046169	SD205A-0530-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2126	-	1.378	03046170	SD205A-0540-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2165	-	1.378	03046171	SD205A-0550-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2185	-	1.378	03046172	SD205A-0555-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2187	7/32	1.378	03046333	SD205A-02188-138-0236R1-P	3.228	1.811	1.417	1.732	0.236
0.2205	-	1.378	03046173	SD205A-0560-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2244	-	1.378	03046174	SD205A-0570-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2283	-	1.378	03046175	SD205A-0580-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2323	-	1.378	03046176	SD205A-0590-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2344	15/64	1.378	03046334	SD205A-02344-138-0236R1-P	3.228	1.811	1.417	1.732	0.236

NEW FEEDMAX™ SD205A-P - 5 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.2362	-	1.378	03046177	SD205A-0600-035-06R1-P	3.228	1.811	1.417	1.732	0.236
0.2402	-	1.693	03046179	SD205A-0610-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2441	-	1.693	03046180	SD205A-0620-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2480	-	1.693	03046181	SD205A-0630-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2500	1/4	1.693	03046335	SD205A-02500-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2520	-	1.693	03046182	SD205A-0640-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2559	-	1.693	03046183	SD205A-0650-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2598	-	1.693	03046184	SD205A-0660-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2638	-	1.693	03046185	SD205A-0670-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2656	17/64	1.693	03046336	SD205A-02656-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2677	-	1.693	03046186	SD205A-0680-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2717	-	1.693	03046187	SD205A-0690-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2756	-	1.693	03046188	SD205A-0700-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2795	-	1.693	03046190	SD205A-0710-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2813	9/32	1.693	03046337	SD205A-02813-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2835	-	1.693	03046191	SD205A-0720-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2874	-	1.693	03046192	SD205A-0730-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2913	-	1.693	03046193	SD205A-0740-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2953	-	1.693	03046194	SD205A-0750-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2969	19/64	1.693	03046338	SD205A-02969-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.2972	-	1.693	03046195	SD205A-0755-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.2992	-	1.693	03046196	SD205A-0760-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3031	-	1.693	03046197	SD205A-0770-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3071	-	1.693	03046198	SD205A-0780-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3110	-	1.693	03046199	SD205A-0790-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3125	5/16	1.693	03046339	SD205A-03125-169-0315R1-P	3.583	2.165	1.417	2.087	0.315
0.3150	-	1.693	03046200	SD205A-0800-043-08R1-P	3.583	2.165	1.417	2.087	0.315
0.3189	-	1.929	03046201	SD205A-0810-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3228	-	1.929	03046202	SD205A-0820-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3268	-	1.929	03046203	SD205A-0830-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3281	21/64	1.929	03046340	SD205A-03281-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3307	-	1.929	03046204	SD205A-0840-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3346	-	1.929	03046205	SD205A-0850-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3386	-	1.929	03046206	SD205A-0860-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3425	-	1.929	03046207	SD205A-0870-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3437	11/32	1.929	03046341	SD205A-03438-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3465	-	1.929	03046208	SD205A-0880-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3504	-	1.929	03046209	SD205A-0890-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3543	-	1.929	03046210	SD205A-0900-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3583	-	1.929	03046211	SD205A-0910-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3594	23/64	1.929	03046342	SD205A-03594-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3622	-	1.929	03046212	SD205A-0920-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3661	-	1.929	03046213	SD205A-0930-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3701	-	1.929	03046214	SD205A-0940-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3740	-	1.929	03046215	SD205A-0950-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3750	3/8	1.929	03046343	SD205A-03750-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3760	-	1.929	03046216	SD205A-0955-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3780	-	1.929	03046217	SD205A-0960-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3819	-	1.929	03046218	SD205A-0970-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3858	-	1.929	03046219	SD205A-0980-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3898	-	1.929	03046220	SD205A-0990-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3906	25/64	1.929	03046344	SD205A-03906-193-0394R1-P	4.055	2.480	1.575	2.402	0.394
0.3937	-	1.929	03046221	SD205A-1000-049-10R1-P	4.055	2.480	1.575	2.402	0.394
0.3976	-	2.205	03046222	SD205A-1010-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4016	-	2.205	03046223	SD205A-1020-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4055	-	2.205	03046224	SD205A-1030-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4063	12/32	2.205	03046345	SD205A-04063-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4094	-	2.205	03046225	SD205A-1040-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4134	-	2.205	03046226	SD205A-1050-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4173	-	2.205	03046227	SD205A-1060-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4213	-	2.205	03046228	SD205A-1070-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4219	27/64	2.205	03046346	SD205A-04219-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4252	-	2.205	03046229	SD205A-1080-056-12R1-P	4.646	2.874	1.772	2.795	0.472

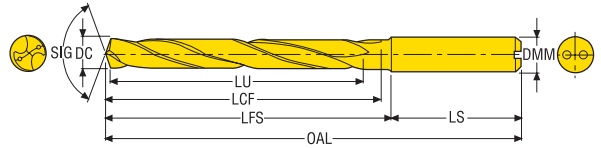
NEW FEEDMAX™ SD205A-P - 5 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.4291	-	2.205	03046230	SD205A-1090-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4331	-	2.205	03046231	SD205A-1100-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4370	-	2.205	03046232	SD205A-1110-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4375	7/16	2.205	03046347	SD205A-04375-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4409	-	2.205	03046233	SD205A-1120-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4449	-	2.205	03046234	SD205A-1130-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4488	-	2.205	03046235	SD205A-1140-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4528	-	2.205	03046236	SD205A-1150-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4531	29/64	2.205	03046348	SD205A-04531-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4547	-	2.205	03046237	SD205A-1155-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4606	-	2.205	03046239	SD205A-1170-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4646	-	2.205	03046240	SD205A-1180-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4685	-	2.205	03046241	SD205A-1190-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4687	15/32	2.205	03046349	SD205A-04688-220-0472R1-P	4.646	2.874	1.772	2.795	0.472
0.4724	-	2.205	03046242	SD205A-1200-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.4764	-	2.362	03046243	SD205A-1210-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4803	-	2.362	03046244	SD205A-1220-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4823	-	2.362	03046245	SD205A-1225-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4843	-	2.362	03138157	SD205A-1230-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4882	-	2.362	03046246	SD205A-1240-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4921	-	2.362	03046247	SD205A-1250-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.4961	-	2.362	03046248	SD205A-1260-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5000	1/2	2.362	03120497	SD205A-05000-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5020	-	2.362	03046249	SD205A-1275-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5039	-	2.362	03046250	SD205A-1280-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5079	-	2.362	03046251	SD205A-1290-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5118	-	2.362	03046252	SD205A-1300-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5157	33/64	2.362	03046253	SD205A-05156-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5197	-	2.362	03046254	SD205A-1320-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5236	-	2.362	03046255	SD205A-1330-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5276	-	2.362	03046256	SD205A-1340-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5313	17/32	2.362	03046350	SD205A-05312-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5315	-	2.362	03046257	SD205A-1350-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5335	-	2.362	03138158	SD205A-1355-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5354	-	2.362	03046258	SD205A-1360-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5394	-	2.362	03046259	SD205A-1370-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5433	-	2.362	03046260	SD205A-1380-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5469	35/64	2.362	03120498	SD205A-05469-236-0551R1-P	4.882	3.110	1.772	3.031	0.551
0.5472	-	2.362	03046261	SD205A-1390-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5512	-	2.362	03046262	SD205A-1400-060-14R1-P	4.882	3.110	1.772	3.031	0.551
0.5551	-	2.480	03046263	SD205A-1410-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5591	-	2.480	03046264	SD205A-1420-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5610	-	2.480	03138159	SD205A-1425-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5625	9/16	2.480	03046351	SD205A-05625-248-0630R1-P	5.236	3.346	1.890	3.268	0.630
0.5630	-	2.480	03046265	SD205A-1430-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5669	-	2.480	03046266	SD205A-1440-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5709	-	2.480	03046267	SD205A-1450-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5748	-	2.480	03046268	SD205A-1460-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5787	-	2.480	03046269	SD205A-1470-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5807	-	2.480	03046270	SD205A-1475-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6102	-	2.480	03046278	SD205A-1550-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.4567	-	2.205	03046238	SD205A-1160-056-12R1-P	4.646	2.874	1.772	2.795	0.472
0.5827	-	2.480	03046271	SD205A-1480-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5866	-	2.480	03046272	SD205A-1490-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5906	-	2.480	03046273	SD205A-1500-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5945	-	2.480	03046274	SD205A-1510-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.5984	-	2.480	03046275	SD205A-1520-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6004	-	2.480	03138160	SD205A-1525-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6024	-	2.480	03046276	SD205A-1530-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6063	-	2.480	03046277	SD205A-1540-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6142	-	2.480	03046280	SD205A-1560-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6181	-	2.480	03046281	SD205A-1570-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6220	-	2.480	03046282	SD205A-1580-063-16R1-P	5.236	3.346	1.890	3.268	0.630



NEW FEEDMAX™ SD205A-P - 5 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
-	5/8	2.480	03046352	SD205A-06250-248-0630R1-P	5.236	3.346	1.890	3.268	0.630
0.6260	-	2.480	03046283	SD205A-1590-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6299	-	2.480	03046284	SD205A-1600-063-16R1-P	5.236	3.346	1.890	3.268	0.630
0.6339	-	2.795	03046285	SD205A-1610-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6378	-	2.795	03046286	SD205A-1620-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6398	-	2.795	03138161	SD205A-1625-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6417	-	2.795	03046287	SD205A-1630-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6457	-	2.795	03046288	SD205A-1640-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6496	-	2.795	03046289	SD205A-1650-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6535	-	2.795	03046290	SD205A-1660-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6563	21/32	2.795	03120499	SD205A-06563-280-0709R1-P	5.630	3.740	1.890	3.661	0.709
0.6575	-	2.795	03046291	SD205A-1670-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6594	-	2.795	03046292	SD205A-1675-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6614	-	2.795	03046293	SD205A-1680-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6654	-	2.795	03046294	SD205A-1690-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6693	-	2.795	03046296	SD205A-1700-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6732	-	2.795	03046297	SD205A-1710-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6772	-	2.795	03046298	SD205A-1720-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6811	-	2.795	03046299	SD205A-1730-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6850	-	2.795	03046300	SD205A-1740-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6875	11/16	2.795	03120500	SD205A-06875-280-0709R1-P	5.630	3.740	1.890	3.661	0.709
0.6890	-	2.795	03046301	SD205A-1750-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6929	-	2.795	03046302	SD205A-1760-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.6969	-	2.795	03046303	SD205A-1770-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7008	-	2.795	03046304	SD205A-1780-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7047	-	2.795	03046305	SD205A-1790-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7087	-	2.795	03046306	SD205A-1800-071-18R1-P	5.630	3.740	1.890	3.661	0.709
0.7126	-	3.031	03046307	SD205A-1810-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7165	-	3.031	03046308	SD205A-1820-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7205	-	3.031	03046309	SD205A-1830-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7244	-	3.031	03046310	SD205A-1840-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7283	-	3.031	03046311	SD205A-1850-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7323	-	3.031	03046312	SD205A-1860-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7362	-	3.031	03046313	SD205A-1870-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7402	-	3.031	03046314	SD205A-1880-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7441	-	3.031	03046315	SD205A-1890-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7480	-	3.031	03046316	SD205A-1900-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7500	3/4	3.031	03046353	SD205A-07500-303-0787R1-P	6.024	4.055	1.969	3.976	0.787
0.7520	-	3.031	03046317	SD205A-1910-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7559	-	3.031	03046318	SD205A-1920-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7598	-	3.031	03046319	SD205A-1930-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7638	-	3.031	03046320	SD205A-1940-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7677	-	3.031	03046321	SD205A-1950-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7717	-	3.031	03046322	SD205A-1960-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7756	-	3.031	03046323	SD205A-1970-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7795	-	3.031	03046324	SD205A-1980-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7835	-	3.031	03046325	SD205A-1990-077-20R1-P	6.024	4.055	1.969	3.976	0.787
0.7874	-	3.031	03046326	SD205A-2000-077-20R1-P	6.024	4.055	1.969	3.976	0.787

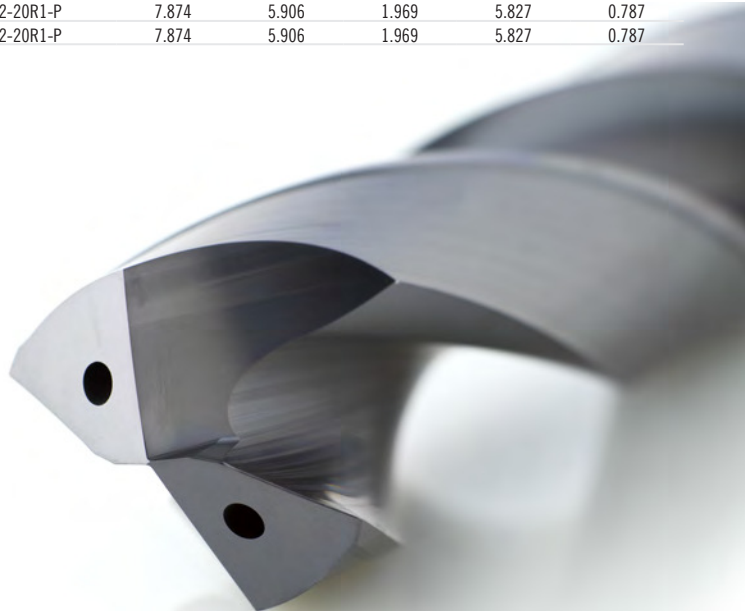


NEW FEEDMAX™ SD207A-P - 7 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.1181	-	1.181	03046358	SD207A-0300-030-06R1-P	2.913	1.496	1.417	1.417	0.236
0.1299	-	1.181	03046359	SD207A-0330-030-06R1-P	2.913	1.496	1.417	1.417	0.236
0.1378	-	1.181	03046360	SD207A-0350-030-06R1-P	2.913	1.496	1.417	1.417	0.236
0.1575	-	1.457	03046361	SD207A-0400-037-06R1-P	3.228	1.811	1.417	1.693	0.236
0.1772	-	1.457	03046412	SD207A-0450-037-06R1-P	3.228	1.811	1.417	1.693	0.236
0.1890	-	1.772	03046413	SD207A-0480-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.1969	-	1.772	03046414	SD207A-0500-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2047	-	1.772	03046362	SD207A-0520-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2165	-	1.772	03046363	SD207A-0550-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2283	-	1.772	03046407	SD207A-0580-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2362	-	1.772	03046364	SD207A-0600-045-06R1-P	3.701	2.283	1.417	2.205	0.236
0.2500	1/4	2.244	03046365	SD207A-02500-224-0315R1-P	4.331	2.913	1.417	2.638	0.315
0.2559	-	2.244	03046366	SD207A-0650-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2677	-	2.244	03046367	SD207A-0680-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2717	-	2.244	03046368	SD207A-0690-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2756	-	2.244	03046369	SD207A-0700-057-08R1-P	4.331	2.913	1.417	2.638	0.315
0.2953	-	2.244	03046370	SD207A-0750-057-08R1-P	4.331	2.913	1.417	2.835	0.315
0.3071	-	2.244	03046371	SD207A-0780-057-08R1-P	4.331	2.913	1.417	2.835	0.315
0.3150	-	2.244	03046372	SD207A-0800-057-08R1-P	4.331	2.913	1.417	2.835	0.315
0.3346	-	2.441	03046373	SD207A-0850-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3386	-	2.441	03046374	SD207A-0860-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3425	-	2.441	03046411	SD207A-0870-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3465	-	2.441	03046408	SD207A-0880-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3543	-	2.441	03046375	SD207A-0900-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3740	-	2.441	03046376	SD207A-0950-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3750	3/8	2.441	03046377	SD207A-03750-244-0394R1-P	4.803	3.228	1.575	3.150	0.394
0.3839	-	2.441	03046402	SD207A-0975-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.3858	-	2.441	03046403	SD207A-0980-062-10R1-P	4.803	3.228	1.575	3.150	0.394

NEW FEEDMAX™ SD207A-P - 7 x D - INCH

DC m7 (IN)	DC m7 (IN)	LU	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				
					OAL	LFS	LS	LCF	DMM
0.3937	-	2.441	03046378	SD207A-1000-062-10R1-P	4.803	3.228	1.575	3.150	0.394
0.4016	-	2.835	03046379	SD207A-1020-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4094	-	2.835	03046401	SD207A-1040-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4134	-	2.835	03046380	SD207A-1050-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4252	-	2.835	03046404	SD207A-1080-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4331	-	2.835	03046381	SD207A-1100-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4528	-	2.835	03046382	SD207A-1150-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4646	-	2.835	03046405	SD207A-1180-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4724	-	2.835	03046383	SD207A-1200-072-12R1-P	5.551	3.780	1.772	3.701	0.472
0.4823	-	3.268	03046415	SD207A-1225-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.4921	-	3.268	03046384	SD207A-1250-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5000	1/2	3.268	03046385	SD207A-05000-327-0551R1-P	6.102	4.331	1.772	4.252	0.551
0.5039	-	3.268	03046416	SD207A-1280-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5118	-	3.268	03046386	SD207A-1300-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5315	-	3.268	03046387	SD207A-1350-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5433	-	3.268	03046409	SD207A-1380-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5512	-	3.268	03046388	SD207A-1400-083-14R1-P	6.102	4.331	1.772	4.252	0.551
0.5610	-	3.622	03046417	SD207A-1425-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.5709	-	3.622	03046389	SD207A-1450-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.5827	-	3.622	03046418	SD207A-1480-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.5906	-	3.622	03046390	SD207A-1500-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6102	-	3.622	03046391	SD207A-1550-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6220	-	3.622	03046410	SD207A-1580-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6299	-	3.622	03046392	SD207A-1600-092-16R1-P	6.732	4.843	1.890	4.764	0.630
0.6496	-	4.055	03046393	SD207A-1650-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.6614	-	4.055	03046419	SD207A-1680-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.6693	-	4.055	03046394	SD207A-1700-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.6890	-	4.055	03046395	SD207A-1750-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.7008	-	4.055	03046420	SD207A-1780-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.7087	-	4.055	03046396	SD207A-1800-103-18R1-P	7.283	5.394	1.890	5.315	0.709
0.7283	-	4.409	03046397	SD207A-1850-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7402	-	4.409	03046421	SD207A-1880-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7480	-	4.409	03046398	SD207A-1900-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7500	3/4	4.409	03046399	SD207A-07500-441-0787R1-P	7.874	5.906	1.969	5.827	0.787
0.7795	-	4.409	03046406	SD207A-1980-112-20R1-P	7.874	5.906	1.969	5.827	0.787
0.7874	-	4.409	03046400	SD207A-2000-112-20R1-P	7.874	5.906	1.969	5.827	0.787

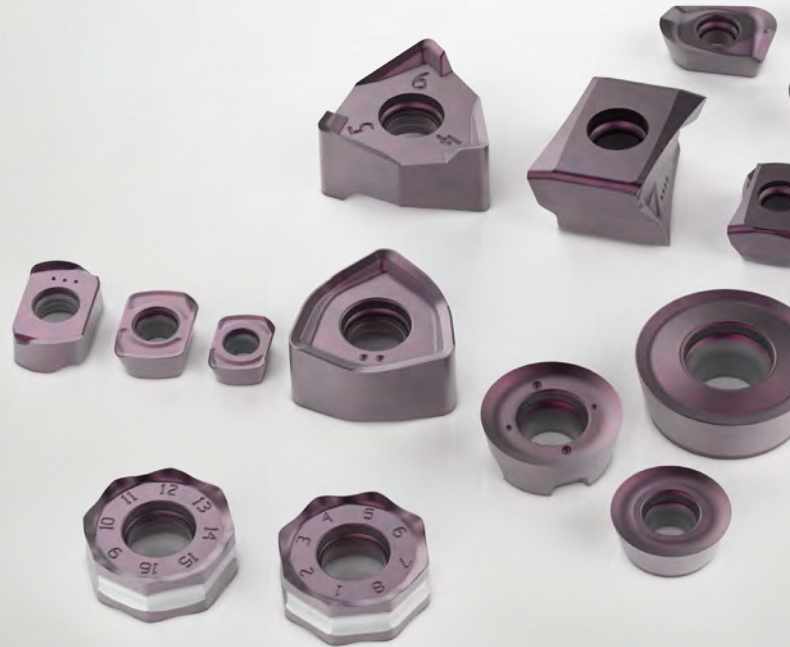


CONQUER THOSE DEFIANT MATERIALS

TACKLE HIGH STRENGTH HEAT RESISTANT MATERIALS WITH THE ALL NEW MP2050 INSERT GRADE

Effectively machine high strength, heat resistant materials with an optimized balance of toughness and wear resistance from Seco's new **MP2050** insert grade. Originally developed specifically for turbine blade machining in the power generation industry segment, this grade also excels in aerospace applications utilizing materials such as, austenitic and martensitic stainless steels and titanium.

Overcome unstable machining conditions such as those involving interrupted cuts, long tool overhangs and weak fixturing with MP2050 inserts. In addition, eliminate cutting edge build up thanks to the MP2050's completely new substrate and a post treatment applied to its coating that effectively prevents chip adhesion. The grade also allows cutting parameters to be increased, especially in dry machining conditions, while maintaining high reliability.



Wear predictability is another benefit of the insert's very reliable substrate. Even if the insert coating wears off, the substrate prevents the immediate, unexpected failure of the entire insert.



MILLING

RANGE OVERVIEW:

- Round inserts in sizes 10, 12, 16 and 20
- High Feed 2, 4 and 6 inserts
- Square shoulder inserts for Turbo, Square 6™ and Square T4
- Face milling inserts for Double Octomill™

KEY BENEFITS:

- High process stability and predictability
- Reduced tool costs through longer tool life
- Improved reliability at high cutting speeds
- Effective chip control

NEW MP2050 INSERTS

DESIGNATION	CUTTING RAKE	DIMENSIONS IN INCH						COATED GRADES (ORDER NO.)		INSERT STYLE
		RE	W1	INSL	IC	S1	BS	MP2050		
LOEX080408TR-M08	34°	0.031	0.173	0.366	-	-	-	03107572		
LOEX080416TR-M08	34°	0.063	0.173	0.366	-	-	-	03137245		
LOEX120708TR-M12	35°	0.031	0.295	0.599	-	-	-	03113834		
LOEX120708R-M09	36°	0.031	0.295	0.599	-	-	-	03113835		
LOEX120731R-M09	36°	0.122	0.295	0.599	-	-	-	03113836		
ONMU050410ANTN-M10	20°	-	-	-	0.472	0.157	0.012	03113825		
ONMU050410ANTN-M11	20°	-	-	-	0.472	0.157	0.039	03113826		
ONMU090510ANTN-M12	20°	-	-	-	0.866	0.228	-	03131707		
ONMU090520ANTN-M12	20°	-	-	-	0.866	0.228	0.018	03119420		
ONMU090520ANTN-M13	20°	-	-	-	0.866	0.228	0.083	03113824		

DESIGNATION	CUTTING RAKE	DIMENSIONS IN INCH				COATED GRADES (ORDER NO.)		INSERT STYLE
		RE	L	S	CCR	MP2050		
XNEX080608R-M08	24°	0.031	0.295	0.254	-	03113833		
218.21-230TR-06-M15	17°	0.063	-	0.234	0.906	03113822		
218.19-160T-04-M08	10°	0.047	-	0.187	0.630	03079913		

DESIGNATION	CUTTING RAKE	DIMENSIONS IN INCH				COATED GRADES (ORDER NO.)		INSERT STYLE
		RE	S	W1	CCER	MP2050		
LOHT060310TR-M07	20°	0.039	0.141	0.250	0.217	03113819		
LPHT060310TR-M06	11°	0.039	0.125	0.250	0.315	03113817		
LPKT05T210TR-M05	11°	0.039	0.100	0.200	0.252	03113818		

DESIGNATION	CUTTING RAKE	DIMENSIONS IN INCH						COATED GRADES (ORDER NO.)		INSERT STYLE
		RE	LE	INSD	S	BS	W1	MP2050		
XOEX10T308R-M06	15°	0.031	0.382	-	0.150	0.051	0.272	03113827		
XOEX10T331R-M06	15°	0.122	0.382	-	0.150	0.016	0.272	03113828		
XOEX120408R-M07	15°	0.031	0.472	-	0.198	0.063	0.323	03113830		
XOEX120431R-M07	15°	0.122	0.472	-	0.198	-	0.323	03113831		
XOMX10T308TR-ME07	20°	0.031	0.366	-	0.151	0.051	0.272	03113829		
XOMX10T331TR-ME07	20°	0.122	0.366	-	0.151	0.016	0.272	03102769		
RDHT10T3M0T-M05	16°	-	-	0.394	0.156	-	-	03079439		
RPHT1204M0-4-E05	20°	-	-	0.472	0.187	-	-	03113820		
RPHT1605M0T-M12	15°	-	-	0.630	0.219	-	-	03084591		
RPHT2006M0T-ME12	20°	-	-	0.787	0.250	-	-	03113821		

EXPAND YOUR REAMING POTENTIAL

NEW PRECIMASTER® PLUS REAMING HEADS COMPENSATE FOR TOOL WEAR

Get more holes per tool with new expandable **Precimaster Plus** reaming heads from Seco. Extend reamer life and thus use fewer tools to help reduce your overall production costs with the simple turn of a screw that compensates for tool OD wear.

Avoid having to replace reamers the instant they show the slightest amount of wear. Each Precimaster Plus reaming head lets you adjust for wear as many as five times and up to 30 µm to continue reaming while maintaining precise finished hole size. Quickly, easily and precisely expand the new heads with their conical fine-pitch tapered screws that apply soft expansion forces.



CUSTOM DESIGN HEADS

HOLEMAKING

RANGE OVERVIEW:

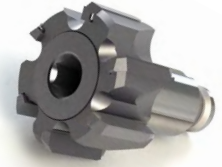
- Compatible with all existing Precimaster Plus toolholders
- Multiple flutes with brazed carbide or cermet tips on steel body
- Available in 10 - 32.5 mm diameters
- Up to 30-µm expandability
- Applicable for all material types

KEY BENEFITS:

- Longer tool life
- Reduced cost per hole
- Less required tool inventory
- Precision hole tolerances and superior surface finishes

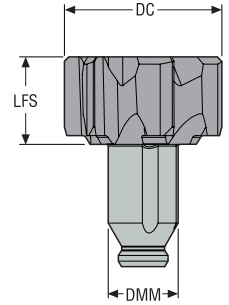
NEW PRECIMASTER® PLUS EXPANDABLE CUSTOM DESIGN HEADS FOR THROUGH & BLIND HOLES

DC	DESIGNATION		LFS	DMM	BODY SIZE	GEOMETRIES					GRADES							
						EB45	EB845	EB25	H15	CP20	RX2000	CF	RX1500	RN2010	RM2020	RM2090	RS2090	
10-14.499	PMX8-XX-XXX-XXXX	6	7	6	PM06-XX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.5-21.499	PMX8-XX-XXX-XXXX	6	10	8	PM08-XX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.5-32.499	PMX8-XX-XXX-XXXX	8	12	12	PM12-XX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



NEW PRECIMASTER® PLUS HEADS FOR THROUGH & BLIND HOLES

DC	DRILL SIZE*	DESIGNATION		LFS	DMM	BODY SIZE	GEOMETRIES					GRADES (ORDER NO.)					
							EB45	EB845	EB25	H15	CP20	RX2000	CF	RX1500			
Metric																	
8	7.8 / 7.9	PMX5-8H7-EB45	6	6	4.5	PMX05-XX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03123158	<input type="checkbox"/>	<input type="checkbox"/>
9	8.8 / 8.9	PMX5-9H7-EB45	6	6	4.5	PMX05-XX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03123159	<input type="checkbox"/>	<input type="checkbox"/>
8	7.8 / 7.9	PMX6-8H7-EB45	6	6	4.5	PMX06-XX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03123161	<input type="checkbox"/>	<input type="checkbox"/>
9	8.8 / 8.9	PMX6-9H7-EB45	6	6	4.5	PMX06-XX	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03123162	<input type="checkbox"/>	<input type="checkbox"/>

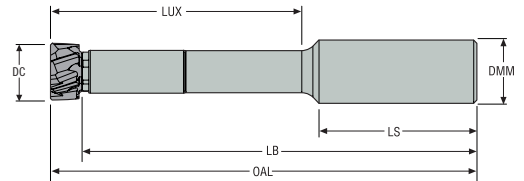


Note: RN2010, RM2020, RM2090, RS2090 are also available for custom design.

NEW PRECIMASTER® PLUS CUSTOM DESIGN HEADS FOR THROUGH & BLIND HOLES

DC	DESIGNATION		LFS	DMM	BODY SIZE	GEOMETRIES					GRADES						
						EB45	EB845	EB25	H15	CP20	RX2000	CF	RX1500	RN2010	RM2020	RM2090	RS2090
7.75-9.999	PMX5-XX-XXX-XXXX	6	6	4.5	PMX05-XX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	PMX6-XX-XXX-XXXX	6	6	4.5	PMX06-XX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*For further information on which drill to use and how to use it go to secotools.com Stock standard. Non stock standard. Subject to change refer to current price- and stock-list.



PRECIMASTER® PLUS SHANKS FOR THROUGH & BLIND HOLES

DC	TOOL HOLDER MATERIAL	ORDER NO.	DESIGNATION	DIMENSIONS IN MM				
				OAL	LB	LS	LUX	DMM
Metric								
7.75-9.999	Steel	03123012	PMX05-02800-10N1	69	63	40	28	10
	Steel	02929923	PMX05-04100-10N1	84	78	40	41	10
	Steel	03123013	PMX05-10000-10N1	143	137	40	100	10

PLUNGE INTO COST-EFFECTIVE MILLING

REMOVE MASS AMOUNTS OF MATERIAL WITH THE NEW SQUARE 6™ PLUNGE MILL

Increase value with Seco's new **Square 6** plunge mill that features left-hand inserts with six cutting edges and a right-hand cutter body. Due to the raised edges of inserts, the effective rake angle position is positive. This offers smoother cuts, better surface finishes, reliable performance and long tool life.

The new left-hand Square 6 inserts were developed specifically for straight and angular plunging operations such as those used to machine mold cavities. Additionally, Square 6 plunge mill cutter bodies are now made from new **IDUN Uddeholm** tool steel that is highly corrosion resistant and environmentally friendly.



MILLING

RANGE OVERVIEW:

Cutter bodies:

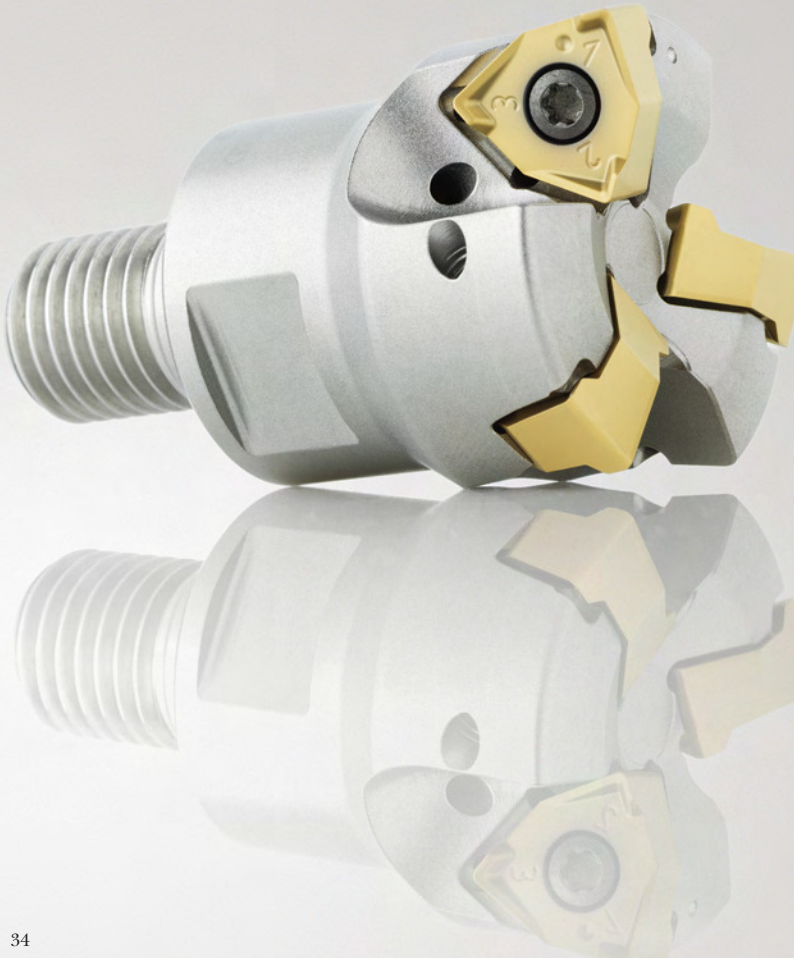
- Combimaster - M20 connection 1.50" (40 mm) diameters
- Arbors - 2.00", 2.50", 3.00", 4.00" (50, 63, 80, 100 mm) diameters

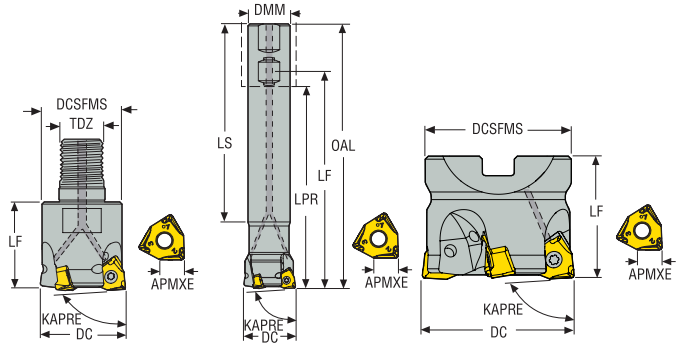
Inserts:

- XNEX080608TL-M13 in MP2500, F40M, MS2050, T350M grades
- XNEX080616TL-M13 in MP2500, F40M grades

KEY BENEFITS:

- Lower cost per cutting edge
- Process stability and reliability
- Smoother cutting and better surface finishes
- Smooth cutting and less required machine force due to 22° positive cutting rake angle of the inserts





NEW SQUARE 6™ R217/220.79-08

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN INCH/METRIC											KAPRE°		LB/KG		INSERT	
			APMXE	DC	DCSFMS	DMM	DCB	TDZ	OAL	LPR	LS	L	L						
Inch																			
03058337	R217.79-01.50-20RE-08-3A	Combimaster	0.28	1.50	1.38	-	-	M20	-	-	-	1.57	87°	3	0.9	11800	XNEX08..L		
03058336	R217.79-01.50-3-08-3A	Cyl.-Weldon	0.28	1.50	-	1.25	-	-	7.87	5.59	5.91	6.73	87°	3	2.6	11800	XNEX08..L		
03058348	R220.79-02.00-08-4A	Arbor	0.28	2.00	1.85	-	0.75	-	-	-	-	1.57	87°	4	0.9	10600	XNEX08..L		
03058349	R220.79-02.50-08-6A	Arbor	0.28	2.50	2.25	-	1.00	-	-	-	-	1.97	87°	6	2	9400	XNEX08..L		
03058350	R220.79-03.00-08-7A	Arbor	0.28	3.00	2.44	-	1.00	-	-	-	-	1.97	87°	7	2.4	8400	XNEX08..L		
03058351	R220.79-04.00-08-9A	Arbor	0.28	4.00	3.50	-	1.50	-	-	-	-	1.97	87°	9	4.4	7500	XNEX08..L		
Metric																			
03058302	R217.79-2040.RE-08-3A	Combimaster	7	40	37	-	-	M20	-	-	-	40	87°	3	0.4	11800	XNEX08..L		
03058304	R217.79-3240.3-08-3A	Cyl.-Weldon	7	40	-	32	-	-	200	140	150	164	87°	3	1.2	11800	XNEX08..L		
03058315	R220.79-0050-08-4A	Arbor	7	50	48	-	22	-	-	-	-	40	87°	4	0.4	10600	XNEX08..L		
03058316	R220.79-0050-08-5A	Arbor	7	50	48	-	22	-	-	-	-	40	87°	5	0.4	10600	XNEX08..L		
03058317	R220.79-0063-08-5A	Arbor	7	63	60	-	27	-	-	-	-	50	87°	5	0.8	9400	XNEX08..L		
03058318	R220.79-0063-08-6A	Arbor	7	63	60	-	27	-	-	-	-	50	87°	6	0.8	9400	XNEX08..L		
03058319	R220.79-0080-08-6A	Arbor	7	80	62	-	27	-	-	-	-	50	87°	6	1.1	8400	XNEX08..L		
03058320	R220.79-0080-08-7A	Arbor	7	80	62	-	27	-	-	-	-	50	87°	7	1.1	8400	XNEX08..L		
03058321	R220.79-0100-08-7A	Arbor	7	100	78	-	32	-	-	-	-	50	87°	7	1.7	7500	XNEX08..L		
03058322	R220.79-0100-08-9A	Arbor	7	100	78	-	32	-	-	-	-	50	87°	9	1.8	7500	XNEX08..L		

NEW XNEX08 LEFT HAND INSERTS

DESIGNATION	CUTTING RAKE	DIMENSIONS IN INCH			COATED GRADES (ORDER NO.)				INSERT STYLE
		RE	L	S	MP2500	MS2050	T350M	F40M	
Inch									
XNEX080608TL-M13	22°	0.031	0.295	0.254	02967954	03058369	03058368	02967953	
XNEX080616TL-M13	22°	0.031	0.295	0.254	02967956	-	-	02967955	

BS = Wiper Flat

PUT SOME THRUST IN YOUR MILLING PERFORMANCE

MORE INSERTS DELIVER HIGHER FEED RATES WITH NEW CERAMIC GRADE AND CUTTER BODIES

Shorten cycle times and produce more parts by incorporating new ceramic grades and cutter bodies that put more inserts in cut. You will gain immediate and significant cutting data increases over standard carbide milling tools when you incorporate our new **Secomax™ CS300** ceramic inserts and **R220.26/R217.26** cutter bodies developed specifically for nickel-based superalloy materials such as those typically used in the aerospace and power generation industries.



Designed to run flat round ceramic inserts, the new cutter bodies use our compact wedge lock design instead of conventional insert clamps. As a result, you get more inserts per cutter body diameter and higher feed rate capability. Plus, to ensure optimum chip evacuation and heat control, each wedge lock features internal coolant channels that pinpoint jet streams of air precisely into the cutting zone.

Get the toughness, strength and process stability necessary for aggressive milling of tough-to-machine superalloy materials when you pair our new Secomax™ CS300 ceramic milling inserts with the R220.26/R217.26 new cutter bodies.



MILLING

RANGE OVERVIEW:

**Cutter bodies: R220.26/
R217.26 - Arbor and
Combimaster**

- RN..45 Facing 2.0" - 3.0"
(50 - 125 mm)
- RN..1204.. Facing 32 - 50
mm only
- RP..1204.. Pocketing 32 -
50 mm only
- Positive insert orientation
- Ramping capability

Inserts:

- SiAlon grade
- 3 insert types
- Edges per insert (up to 8
on RN..1207.. and
RN..1204.. up to 4 on
RP..1204..)
- T-prep chamfers
- Clearance angles
- RN negative
- RP positive

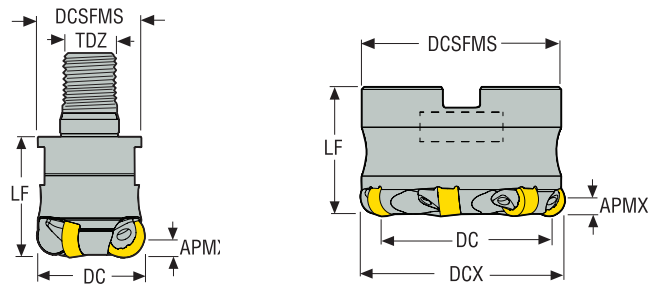
KEY BENEFITS:

- Shorter cycle times
through higher milling
feed rates
- Fast and efficient chip
evacuation
- Higher part quality and
process stability
- Reduced part costs due to
longer tool life
- Increased productivity per
insert cutting edge



NEW SECOMAX™ CS300 RN1204, RN1207 & RP1204 INSERTS

ANSI DESIGNATION	SIZE	DIMENSIONS IN INCH		ISO DESIGNATION	DIMENSIONS IN METRIC		UNCOATED GRADES (ORDER NO.)	INSERT STYLE
		INSD	S		INSD	S		
RNGN43T-00420	12	0.500	0.187	RNGN120400T-01020	12.7	4.76	61994	
RNGN45T-00420	12	0.500	0.313	RNGN120700T-01020	12.7	7.94	61983	
RPGN43T-00420	12	0.500	0.187	RPGN120400T-01020	12.7	4.76	62089	



NEW R220.26 & R217.26 CUTTER BODIES

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN INCH/METRIC							APM	APMX	LB/KG	INSERT
			APMX	DCX	DC	DCSFMS	DCB	TDZ	LF				
Inch													
03115723	R220.26-02.00-RN1207.5A	Arbor	0.236	2.00	1.50	1.75	0.75	-	2.00	5	1.1	11900	RN..45
03115724	R220.26-02.50-RN1207.6A	Arbor	0.236	2.50	2.00	2.25	1.00	-	2.00	6	1.8	10600	RN..45
03115725	R220.26-03.00-RN1207.7A	Arbor	0.236	3.00	2.50	2.75	1.25	-	2.00	7	2.6	9400	RN..45
Metric													
03115686	R217.26-1632.RE-RN1204.3A	Combimaster	6	32	19	30	27	M16	35	3	0.2	19100	RN..1204..
03115678	R217.26-1632.RE-RP1204.3	Combimaster	6	32	19	30	27	M16	35	3	0.2	20800	RN..1204..
03115687	R217.26-2040.RE-RN1204.4A	Combimaster	6	40	27	37	27	M20	40	4	0.4	17100	RN..1204..
03115679	R217.26-2040.RE-RP1204.4A	Combimaster	6	40	27	37	27	M20	40	4	0.3	18600	RP..1204..
03115702	R220.26-0050-RN1204.6A	Arbor	6	50	37	47	22	-	45	6	0.4	16700	RN..1204..
03133188	R220.26-0050-RP1204.6A	Arbor	6	50	37	47	22	-	45	6	0.4	16700	RN..1204..
03115710	R220.26-0050-RN1207.5A	Arbor	6	50	37	47	22	-	45	5	0.4	11900	RN..1207..
03115711	R220.26-0063-RN1207.6A	Arbor	6	63	50	60	27	-	50	6	0.8	10600	RN..1207..
03115712	R220.26-0063-RN1207.7A	Arbor	6	63	50	60	27	-	50	7	0.8	10600	RN..1207..
03115713	R220.26-0080-RN1207.7A	Arbor	6	80	67	77	32	-	50	7	1.3	9400	RN..1207..
03115714	R220.26-0080-RN1207.8A	Arbor	6	80	67	77	32	-	50	8	1.3	9400	RN..1207..
03115715	R220.26-0100-RN1207.8A	Arbor	6	100	87	90	40	-	63	8	2.5	8400	RN..1207..
03115716	R220.26-0125-RN1207.9A	Arbor	6	125	112	90	40	-	63	9	3.6	7500	RN..1207..

FEWER TOOLS. MORE VERSATILITY

MINIMASTER® PLUS TOOLING SYSTEM ADDS NEW CHAMFERING HEADS

Increase your versatility and optimize cost performance by performing center drilling, chamfering and deburring with a single tool. The legendary **Minimaster Plus** replaceable tip milling system now includes, in addition to the existing B90 heads, C90 chamfering heads with internal coolant channels that provide tool life advantages, especially in ISO M and ISO S materials.

Tackle a broad range of applications and materials - and do so with less tooling - through a wide variety of exchangeable Minimaster Plus heads and shanks. Easily maintain a run-out well within 10 microns thanks to the high-precision interface between the system's replaceable carbide inserts and shanks.



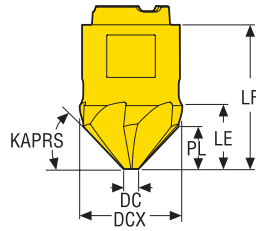
MILLING

RANGE OVERVIEW:

- F40M grade
- MP10, MP12 and MP16 sizes
- 2-flute head for center drilling and chamfering
- 6-flute head is first choice for deburring
- Internal coolant on 2-flute type extends tool life
- 4-flute ballnose heads, especially for semi-finishing and finishing
- Available in F40M and MP3000 in MP10, MP12 and MP16

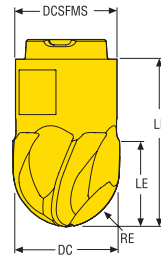
KEY BENEFITS:

- High levels of application versatility
- High precision
- Cost effectiveness
- Low maintenance
- High process reliability



NEW MINIMASTER® PLUS MP10-16 CENTER DRILLING TIPS

	DESIGNATION	DCX	DC	PL	LE	LF	KAPRS°	ZNP		COATED GRADES (ORDER NO.)	
										F40M	
Z2	Metric										
	MP10-10006C90Z2-M03	10	0.5	4.6	7.1	16	45°	2	✓		02880957
	MP12-12007C90Z2-M04	12	0.6	5.6	8.7	19	45°	2	✓		02880959
	MP16-16009C90Z2-M05	16	0.8	7.4	12	26.4	45°	2	✓		02880961
Z6	MP10-10006C90Z6-M03	10.1	1.95	4	4	14.5	45°	6	-		02880958
	MP12-12007C90Z6-M04	12.1	2.95	4.4	4.4	18.0	45°	6	-		02880960
	MP16-16009C90Z6-M05	16.4	3.95	6	6	23.8	45°	6	-		02880962



NEW MINIMASTER® PLUS MP10-16 BALL NOSE TIPS

	DESIGNATION	DIMENSIONS IN INCH/METRIC						COATED GRADES (ORDER NO.)	
		DC	RE	LE	DCSFMS	LF	ZNP	MP3000	F40M
Z4	Inch								
	MP10-00.375-.28-B90Z4-E02	0.375	0.187	0.276	0.370	0.630	4	-	02880994
	MP10-00.375-.28-B90Z4-M02	0.375	0.187	0.276	0.370	0.630	4	02880995	-
	MP12-0.500-.31-B90Z4-E03	0.500	0.250	0.315	0.453	0.736	4	-	02880996
	MP12-0.500-.31-B90Z4-M03	0.500	0.250	0.315	0.453	0.736	4	02880997	-
	MP16-0.625-.39-B90Z4-E04	0.625	0.312	0.394	0.606	0.969	4	-	02880998
	MP16-0.625-.39-B90Z4-M04	0.625	0.312	0.394	0.606	0.969	4	02880999	-
	Metric								
	MP10-10007B90Z4-E02	10	5	7	9.6	16	4	-	02880951
	MP10-10007B90Z4-M02	10	5	7	9.6	16	4	02880952	-
	MP12-12008B90Z4-E03	12	6	8	11.5	18.7	4	-	02880953
	MP12-12008B90Z4-M03	12	6	8	11.5	18.7	4	02880954	-
MP16-16010B90Z4-E04	16	8	10	15.4	24.6	4	-	02880955	
MP16-16010B90Z4-M04	16	8	10	15.4	24.6	4	02880956	-	

COOL AND STEADY

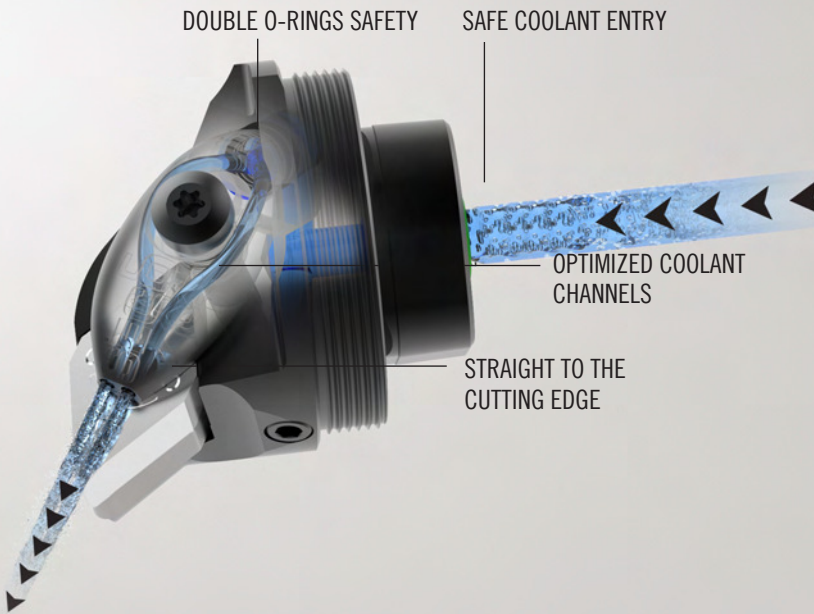
JET GL-TURNING HEADS REDUCE WEAR AND CONTROL CHIPS

Increase your productivity with the exceptional vibration damping, heat reduction and chip control capabilities of Seco's new **JET GL-Turning Heads** integrated with **Jetstream Tooling®** capability for use with the well-established Seco Steadyline® product range.

Apply high-pressure coolant straight to the cutting edge and eliminate issues with heat and chips - especially for the internal turning operations involving long tool overhangs and long time-in-cut operations - thanks to the unique 3D printed coolant clamps of the JET GL-Turning Heads. The coolant clamps' optimized internal coolant channels ensure maximized coolant flow.

Confidently operate at high coolant pressures of up to 2900 PSI thanks to added safety features such as secured coolant seals on the back end and double O-rings where the clamp connects to the head.

Index inserts and change heads fast and efficiently to reduce down time with the quick and easy insert clamping ability of the spring-loaded coolant clamps and the grab-and-lock ability of Seco's GL-Connection.



Consistently turn exceptionally accurate part IDs with the vibration damping strengths of Steadyline technology, which remains uncompromised even after the integration of the Jetstream Tooling features. The GL-Head connection gives a repeatability and indexing accuracy equal to that of Seco-Capto.



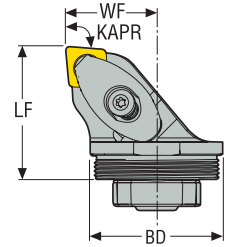
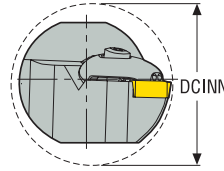
TURNING

RANGE OVERVIEW:

- 40 new JET GL-Turning Heads
- GL-connection sizes: GL32, GL40 and GL50
- **Negative inserts**
 - 22 heads
 - 4 inserts CN..4... DN..3... DN..4.. & WN..3..
 - 3 head styles DCLNR/L, DDUNR/L & DWLNR/L
- **Positive inserts**
 - 18 heads
 - 3 inserts CC..32.5.. DC..32.5.. & VB..3..
 - 6 head styles DCLCR/L, DDUCR/L & DVUBR/L
- **Coolant clamps**
 - 7 types
 - Optimized for different styles of heads and inserts

KEY BENEFITS:

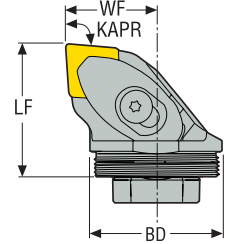
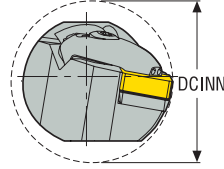
- Improved tool life and chip control
- Increased productivity
- Fast and easy insert indexing and head changing
- High accuracy and repeatability
- Safe high pressure operation
- Increased versatility for less required tooling inventory
- Reduced handling damages with improved packaging



NEW JETSTREAM TOOLING® TOOLHOLDERS FOR CCGT, CCGW, CCMT & CCMW

APPLICATION	SIZE		ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC				γ_0°	λ_s°		
					DCINN	BD	WF	LF				
95° 	GL32	09	02994382	GL32-DLCR-22032-09JET	40	32	22	32	0	-2	0.2	CC..32.5..
			02994379	GL32-DCLCL-22032-09JET	40	32	22	32	0	-2	0.2	CC..32.5..
	GL40	09	02994389	GL40-DLCR-27032-09JET	50	40	27	32	0	-2	0.2	CC..32.5..
			02994386	GL40-DCLCL-27032-09JET	50	40	27	32	0	-2	0.2	CC..32.5..
	GL50	09	02994395	GL50-DLCR-32032-09JET	60	50	32	32	0	-2	0.3	CC..32.5..
			02994392	GL50-DCLCL-32032-09JET	60	50	32	32	0	-2	0.3	CC..32.5..

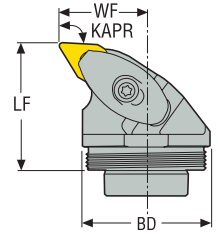
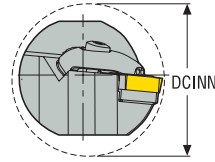
GAMO° = Rake angle, LAMS° = Inclination angle
 Right-hand version shown KAPR = 95°



NEW JETSTREAM TOOLING® TOOLHOLDERS FOR CNGG, CNMA, CNMG & CNMM

APPLICATION	SIZE		ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC				γ_0°	λ_s°		
					DCINN	BD	WF	LF				
95° 	GL32	12	02994325	GL32-DCLNR-22032-12JET	40	32	22	32	-6	-10	0.2	CN..43.
			02994324	GL32-DCLNL-22032-12JET	40	32	22	32	-6	-10	0.2	CN..43.
	GL40	12	02994341	GL40-DCLNR-27032-12JET	50	40	27	32	-6	-10	0.2	CN..43.
			02994340	GL40-DCLNL-27032-12JET	50	40	27	32	-6	-10	0.2	CN..43.
	GL50	12	02994354	GL50-DCLNR-32032-12JET	60	50	32	32	-6	-8	0.3	CN..43.
			02994351	GL50-DCLNL-32032-12JET	60	50	32	32	-6	-8	0.3	CN..43.

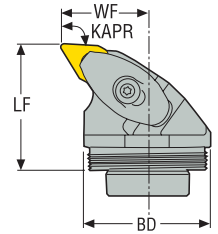
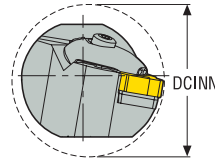
GAMO° = Rake angle, LAMS° = Inclination angle
 Right-hand version shown KAPR = 95°



NEW JETSTREAM TOOLING® TOOLHOLDERS FOR DCGT, DCGW, DCMT, DCMW & DCMX

APPLICATION	SIZE		ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC				γ_0°	λ_s°		
					DCINN	BD	WF	LF				
93° 	GL32	11	02994499	GL32-DDUCR-22032-11JET	63	32	22	32	0	-5	0.2	DC..32.5.
			02994496	GL32-DDUCL-22032-11JET	63	32	22	32	0	-5	0.2	DC..32.5.
	GL40	11	02994556	GL40-DDUCR-27032-11JET	63	40	27	32	0	-5	0.2	DC..32.5.
			02994555	GL40-DDUCL-27032-11JET	63	40	27	32	0	-5	0.2	DC..32.5.
	GL50	11	02994558	GL50-DDUCR-32032-11JET	60	50	32	32	0	-5	0.3	DC..32.5.
			02994557	GL50-DDUCL-32032-11JET	60	50	32	32	0	-5	0.3	DC..32.5.

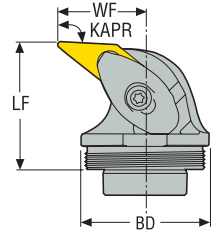
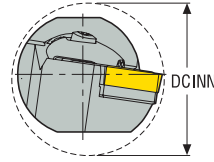
GAMO° = Rake angle, LAMS° = Inclination angle
 Right-hand version shown KAPR = 93°



NEW JETSTREAM TOOLING® TOOLHOLDERS FOR DNGG, DNGN, DNMA, DNMG, DNMM, DNMU & DNMX

APPLICATION	SIZE		ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC				γ_0°	λ_s°				
					DCINN	BD	WF	LF						
93° 	GL32	11	02994328	GL32-DDUNR-22032-11JET	40	32	22	32	-6	-10	0.2	DN..33.		
			02994326	GL32-DDUNL-22032-11JET	40	32	22	32	-6	-10	0.2	DN..33.		
			15	02994329	GL32-DDUNR-22032-15JET	40	32	22	32	-6	-14	0.2	DN..44.	
				02994327	GL32-DDUNL-22032-15JET	40	32	22	32	-6	-14	0.2	DN..44.	
			GL40	11	02994345	GL40-DDUNR-27032-11JET	50	32	27	32	-6	-10	0.2	DN..33.
					02994342	GL40-DDUNL-27032-11JET	50	32	27	32	-6	-10	0.2	DN..33.
15	02994346	GL40-DDUNR-27032-15JET	50	40	27	32	-6	-14	0.2	DN..44.				
	02994343	GL40-DDUNL-27032-15JET	50	40	27	32	-6	-14	0.2	DN..44.				
GL50	15	02994358	GL50-DDUNR-32032-15JET	60	50	32	32	-6	-14	0.4	DN..44.			
		02994357	GL50-DDUNL-32032-15JET	60	50	32	32	-6	-14	0.4	DN..44.			

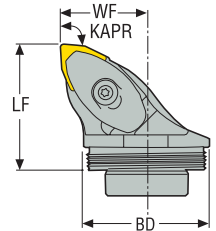
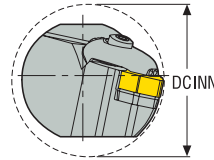
GAMO° = Rake angle, LAMS° = Inclination angle, Right-hand version shown KAPR = 93°



NEW JETSTREAM TOOLING® TOOLHOLDERS FOR VBGT, VBGW, VBMT & VBMW

APPLICATION	SIZE		ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC				γ_0°	λ_s°		KG	
					DCINN	BD	WF	LF					
93° 	GL32	16	02994507	GL32-DVUBR-22032-16JET	40	32	22	32	0	-8	0.2	VB..33.	
			02994506	GL32-DVUBL-22032-16JET	40	32	22	32	0	-8	0.2	VB..33.	
	GL40	16	02994515	GL40-DVUBR-27032-16JET	50	40	27	32	0	-3	0.2	VB..33.	
			02994514	GL40-DVUBL-27032-16JET	50	40	27	32	0	-3	0.2	VB..33.	
	GL50	16	02994522	GL50-DVUBR-32032-16JET	63	50	32	32	0	-3	0.3	VB..33.	
			02994521	GL50-DVUBL-32032-16JET	63	50	32	32	0	-3	0.3	VB..33.	

GAMO° = Rake angle, LAMS° = Inclination angle
 Right-hand version shown KAPR = 93°



Right-hand version shown
 KAPR = 95°

NEW JETSTREAM TOOLING® TOOLHOLDERS FOR WNGG, WNMA, WNMG & WNMM

APPLICATION	SIZE		ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC				γ_0°	λ_s°		KG	
					DCINN	BD	WF	LF					
95° 	GL32	06	02994332	GL32-DWLNR-22032-06JET	40	32	22	32	-5	-12	0.2	WN..33.	
			02994330	GL32-DWLNL-22032-06JET	40	32	22	32	-5	-12	0.2	WN..33.	
	GL40	06	02994349	GL40-DWLNR-27032-06JET	50	40	27	32	-5	-12	0.2	WN..33.	
			02994347	GL40-DWLNL-27032-06JET	50	40	27	32	-5	-12	0.2	WN..33.	
	GL50	06	02994361	GL50-DWLNR-32032-06JET	60	50	32	32	-5	-12	0.3	WN..33.	
			02994359	GL50-DWLNL-32032-06JET	60	50	32	32	-5	-12	0.3	WN..33.	

GAMO° = Rake angle, LAMS° = Inclination angle
 Right-hand version shown KAPR = 95°

CLEAN CUT-OFF

MORE MACHINES CAN NOW BENEFIT FROM SECO JETI HIGH-PRESSURE COOLANT TOOLING

Your machines with **Seco-Capto™** lathe turrets and **HSK-T** multi-tasking machine spindles can now boost cutting speeds and extend tool life with Seco's expanded family of **150.10-JETI** integrated high-pressure coolant cut-off blade adapters.

Ensure fast, precise pinpoint cooling within the cutting zone at both the top and bottom of the cutting tool edge thanks to the advanced Jetstream Tooling® technology in Seco's new blade adapters with the stability of high speed steel. The technology provides exceptional heat control, as well as fast and efficient chip evacuation - both of which contribute to extended tool life.

Additionally, the internal coolant delivery channels of the blade adapters eliminate the need for any external coolant hoses, tubing or other spare parts. Thus, the system requires less maintenance for an overall cost savings.



EASY HANDLING & FAST
BLADE CLAMPING

WIDELY ADJUSTABLE CUTTING DEPTH

JETSTREAM
COOLANT OVER
AND UNDER THE
CUTTING EDGE

COMPACT DESIGN



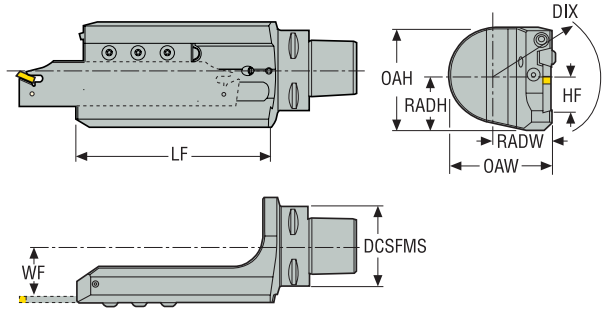
CUT-OFF

RANGE OVERVIEW:

- Face mount adapters for Seco-Capto™ C5, C6 and C8 turrets
- Star mount adapters for Seco-Capto™ C5, C6, C8 turrets and HSK-T 63 spindles
- Holds HSS cut-off blades in 1" and 1.250" sizes (20 mm and 25 mm)
- Compatible with MDT reinforced blades with internal coolant

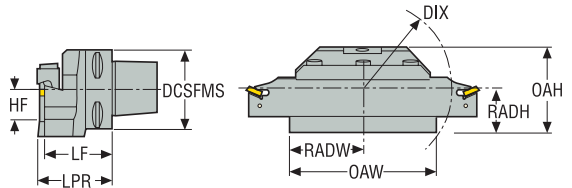
KEY BENEFITS:

- Sleek design
- Better workpiece accessibility
- No unnecessary accessories
- Reduced maintenance
- Optimized heat removal
- Effective chip control
- Long tool life
- Superior part quality



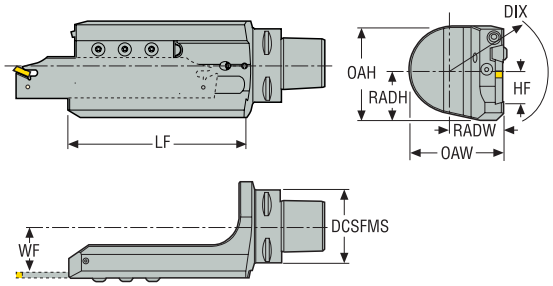
NEW ADAPTERS C-R/L150.10-..20/25JETI

APPLICATION	CAPTO SIZE	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH									
				DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF	LB
	C5	03134584	C5-R150.10-122-20JETI	3.35	1.97	2.20	1.22	1.26	2.30	4.80	0.79	1.02	3.09
		03134583	C5-L150.10-122-20JETI	3.35	1.97	2.20	1.22	1.26	2.30	4.80	0.79	1.02	3.09
	C6	03134586	C6-R150.10-160-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.30	0.98	1.26	5.51
		03134585	C6-L150.10-160-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.30	0.98	1.26	5.51
	C8	03134591	C8-R150.10-160-25JETI	4.37	3.15	3.37	1.79	1.46	2.72	6.30	0.98	1.59	7.50
		03134590	C8-L150.10-160-25JETI	4.37	3.15	3.37	1.79	1.46	2.72	6.30	0.98	1.59	7.50



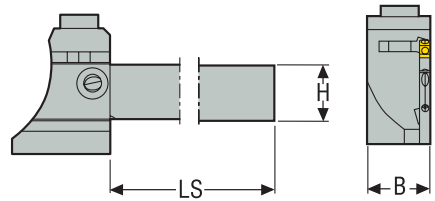
NEW ADAPTERS C-R/L150.10-..20/25JETI

APPLICATION	CAPTO SIZE	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH									
				DIX	DCSFMS	OAW	RADW	RADH	OAH	LPR	LF	HF	LB
	C5	03134581	C5-150.10-040-20JETI	3.78	1.97	3.15	1.57	1.18	3.15	1.57	1.38	0.79	1.98
	C6	03134582	C6-150.10-050-25JETI	4.06	2.48	3.23	1.61	1.46	3.23	1.97	1.77	0.98	3.53
	C8	03134589	C8-150.10-050-25JETI	4.06	3.15	3.23	1.61	1.46	3.23	1.97	1.77	0.98	5.29



NEW ADAPTERS E9364-R/L150.10..-25JETI

APPLICATION	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH										
			DIX	DCSFMS	OAW	RADW	RADH	OAH	LF	HF	WF	LB	
		Inch											
	03134588	E9364-R150.10-175-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.89	0.98	1.26	5.51	
	03134587	E9364-L150.10-175-25JETI	3.94	2.48	2.74	1.46	1.46	2.72	6.89	0.98	1.26	5.51	



NEW ADAPTERS R/L150.10-..15JETI

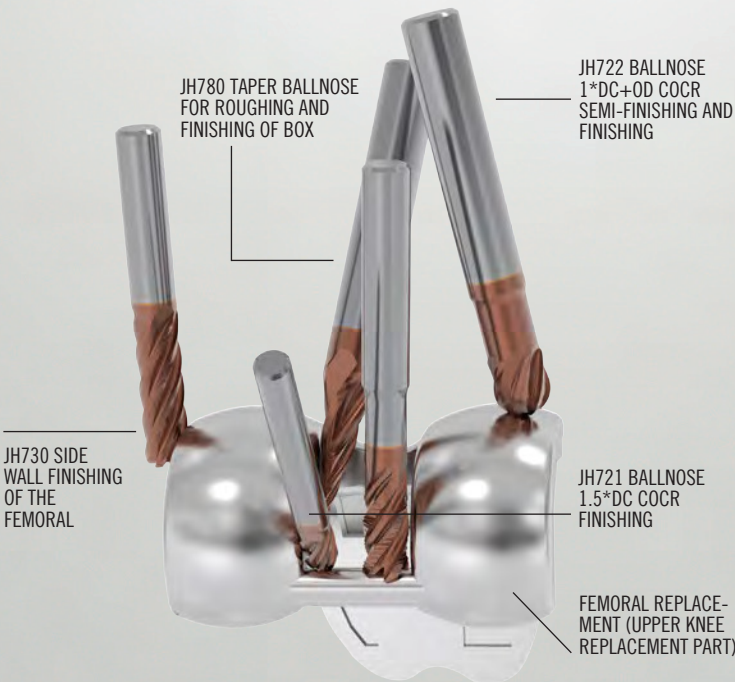
APPLICATION	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH			LB
			H	B	LS	
		Inch				
	03128625	R150.10-0500-15JETI	0.50	0.50	3.16	0.44
	03128627	R150.10-0625-15JETI	0.62	0.62	3.16	0.66
	03128629	R150.10-0750-15JETI	0.75	0.75	3.16	0.66
	03128631	R150.10-1000-15JETI	1.00	1.00	4.66	1.54
	03128626	L150.10-0500-15JETI	0.50	0.50	3.16	0.44
	03128628	L150.10-0625-15JETI	0.62	0.62	3.16	0.66
	03128630	L150.10-0750-15JETI	0.75	0.75	3.16	0.66
	03128632	L150.10-1000-15JETI	1.00	1.00	4.66	1.54

STANDARDIZE TO OPTIMIZE KNEE IMPLANT MILLING

SLASH MACHINING CYCLE TIMES WITH A NEW FULL RANGE OF TOOLS SPECIFICALLY FOR KNEE COMPONENTS

Significantly boost knee implant machining speeds to shorten part cycle times by as much as 50% with Seco's new **Jabro® CoCr** (cobalt chrome) range of solid-carbide cutting tools. The industry's first dedicated product line for knee implant machining, this new range includes 9 new advanced geometries and 39 tools, most of which are positioned in the **JH Tornado** high speed cutting family. These tools combine high speed and high feed machining strategies and are all designed for tibial tray and femoral knee implant parts. The range reduces, if not eliminates your need for secondary grinding operations, also known as polishing or fine finishing.

Exceptional part surface finishes and long tool life result from the tools' continuous grades and optimized coatings. You can also maximize machining performance for other medical implant components such as those for hip replacements, bone plates and many others because the new dedicated tooling can be used for machining Ti6Al4V ISO-S12 (3D printed) parts as well.



SOLID END MILLING

RANGE OVERVIEW:

Tibial Tray:

- JH770 - base rougher
- JH740 - base finisher w/wiper
- JH710 - wall finisher
- JH790 - T slot cutter
- JS506/509 - standard chamfers

Femoral:

- JH730 - box periphery cutter
- JHP994 - box rougher
- JH780 - box wall finisher
- JH721- box surface finisher
- JH722 - condyle mill

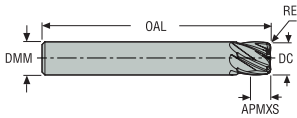
KEY BENEFITS:

- Shorter part cycle times
- Superior surface finishes
- Application versatility
- Process stability and consistency
- Longer tool life

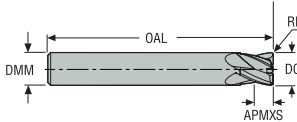


NEW JABRO® HSM/TORNADO JH770, JH740 & JH710

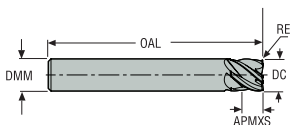
ORDER NO.	DESIGNATION	LENGTH INDEX	TOOL SHAPE	DIMENSIONS IN METRIC						RE	RE2	PSIR	CHW	FCDC	CYLINDRICAL
				DC	DMM	APMXS	OAL	LN	DN						



JH770 - Metric															
03127351	JH770060D2R050.0Z4-HXT	2	D	6	6	8	50	-	-	0.5	-	-	-	4	■
03127352	JH770080D2R050.0Z4-HXT	2	D	8	8	10	58	-	-	0.5	-	-	-	4	■
03127354	JH770080D2R050.0Z5-HXT	2	D	8	8	10	58	-	-	0.5	-	-	-	5	■
03127353	JH770080D2R100.0Z4-HXT	2	D	8	8	10	58	-	-	1	-	-	-	4	■
03127355	JH770080D2R100.0Z5-HXT	2	D	8	8	10	58	-	-	1	-	-	-	5	■
03127356	JH770080D2R100.0Z6-HXT	2	D	8	8	10	58	-	-	1	-	-	-	6	■
03127357	JH770100D2R100.0Z5-HXT	2	D	10	10	12	66	-	-	1	-	-	-	5	■
03127358	JH770100D2R100.0Z6-HXT	2	D	10	10	12	66	-	-	1	-	-	-	6	■



JH740 - Metric															
03127359	JH740060D2R025.0Z4-HXT	2	D	6	6	6	50	-	-	0.25	-	-	-	4	■
03127360	JH740060D2R050.0Z4-HXT	2	D	6	6	6	50	-	-	0.50	-	-	-	4	■
03127361	JH740080D2R025.0Z4-HXT	2	D	8	8	8	58	-	-	0.25	-	-	-	4	■
03127362	JH740080D2R050.0Z4-HXT	2	D	8	8	8	58	-	-	0.50	-	-	-	4	■
03127363	JH740100D2R025.0Z5-HXT	2	D	10	10	10	66	-	-	0.25	-	-	-	5	■
03127364	JH740100D2R050.0Z5-HXT	2	D	10	10	10	66	-	-	0.50	-	-	-	5	■

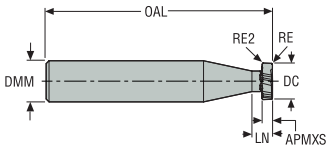


JH710 - Metric															
03127365	JH710060D2R025.0Z5-HXT	2	D	6	6	6	57	-	-	0.25	-	-	-	5	■
03127366	JH710060D2R050.0Z5-HXT	2	D	6	6	6	57	-	-	0.50	-	-	-	5	■
03127367	JH710080D2R025.0Z5-HXT	2	D	8	8	8	63	-	-	0.25	-	-	-	5	■
03127368	JH710080D2R050.0Z5-HXT	2	D	8	8	8	63	-	-	0.50	-	-	-	5	■
03127369	JH710080D2R100.0Z5-HXT	2	D	8	8	8	63	-	-	1	-	-	-	5	■

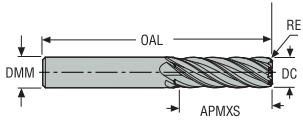
■ Stock standard. Subject to change refer to current price- and stock-list

NEW JABRO® HSM/TORNADO JH790, JH730, JHP994, JH780, JH721 & JH722

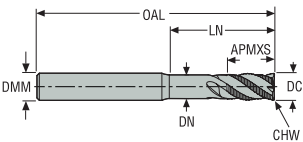
ORDER NO.	DESIGNATION	LENGTH INDEX	TOOL SHAPE	DIMENSIONS IN METRIC						RE	RE2	PSIR	CHW	FCEDC	CYLINDRICAL
				DC	DMM	APMXS	OAL	LN	DN						



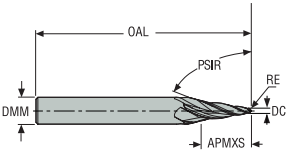
JH790 - Metric															
03127370	JH790095G2R025.0Z6-HXT	2	G	9.5	10	2.00	66	5	-	0.25	0.25	-	-	6	■
03127371	JH790095G2R050.0Z6-HXT	2	G	9.5	10	2.00	66	5	-	0.50	0.50	-	-	6	■
03127372	JH790095G3R025.0Z6-HXT	3	G	9.5	10	2.54	66	5	-	0.25	0.25	-	-	6	■
03127373	JH790095G3R050.0Z6-HXT	3	G	9.5	10	2.54	66	5	-	0.50	0.50	-	-	6	■



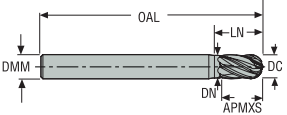
JH730 - Metric															
03127375	JH730080D2R050.0Z6-HXT	2	D	8	8	25	63	-	-	0.5	-	-	-	6	■
03127377	JH730080D2R100.0Z6-HXT	2	D	8	8	25	63	-	-	1	-	-	-	6	■
03127378	JH730080D2R150.0Z6-HXT	2	D	8	8	25	63	-	-	1.5	-	-	-	6	■
03127379	JH730080D2R200.0Z6-HXT	2	D	8	8	25	63	-	-	2	-	-	-	6	■
03127380	JH730100D2R100.0Z7-HXT	2	D	10	10	31	72	-	-	1	-	-	-	7	■
03127381	JH730100D2R250.0Z7-HXT	2	D	10	10	31	72	-	-	2.5	-	-	-	7	■



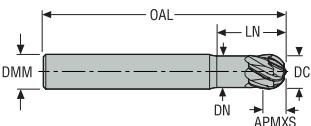
JHP994 - Metric															
03127382	JHP994060E3C.0Z4-HXT	3	E	6	6	14	63	24	5.6	-	-	-	0.2	4	■
03127383	JHP994080E3C.0Z4-HXT	3	E	8	8	18	69	32	7.4	-	-	-	0.2	4	■
03127384	JHP994100E3C.0Z4-HXT	3	E	10	10	22	88	40	9.4	-	-	-	0.2	4	■



JH780 - Metric															
03127386	JH780018N2R100.0Z4-HXT	2	N	1.83	8	23.5	63	-	-	1	-	5.18	-	4	■
03127387	JH780028N2R150.0Z4-HXT	2	N	2.80	8	23.5	63	-	-	1.5	-	3.89	-	4	■
03127388	JH780038N2R200.0Z4-HXT	2	N	3.82	8	23.5	63	-	-	2	-	2.60	-	4	■
03127389	JH780049N2R250.0Z4-HXT	2	N	4.89	8	23.5	63	-	-	2.5	-	1.30	-	4	■



JH721 - Metric															
03127390	JH721060E2B.0Z6-HXT	2	E	6	6	10	57	12	5.6	-	-	-	-	6	■
03127391	JH721080E2B.0Z6-HXT	2	E	8	8	13	58	16	7.4	-	-	-	-	6	■



JH722 - Metric															
03127392	JH722100E2B.0Z6-HXT	2	E	10	10	10	72	20	9.4	6	-	-	-	6	■

PUSH YOUR CFRP MACHINING OPERATIONS

MAXIMIZE STABILITY, PREVENT DELAMINATION AND ELIMINATE PART DISTORTION WITH THE NEW NIAGARA CUTTER™ DIAMOND ROUTER

Overcome the challenges of machining CFRP (carbon fiber reinforced plastic) materials with Niagara Cutter's new **DIARTRBE** and **DIARTREM** end mills designed to push rather than pull when slot and side milling (routing) large, thick panel forms. Because the pushing action directs cutting forces downward into the workpiece, the cutters prevent parts from being pulled loose from their fixturing, while also minimizing chatter and material delamination.

Achieve the highest possible CFRP material machining process reliability – even when using gantry machines and vacuum clamping – thanks to the innovative designs of the **DIARTRBE** and **DIARTREM** end mills. In addition to their left-hand helix/ right-hand cut geometry that directs cutting forces downward, the cutters feature edge serrations, an optimized coating and a compact design that minimizes overall tool length. This combination of features minimizes tool overhang and maximizes stability to ensure quality surface finishes and long tool life.



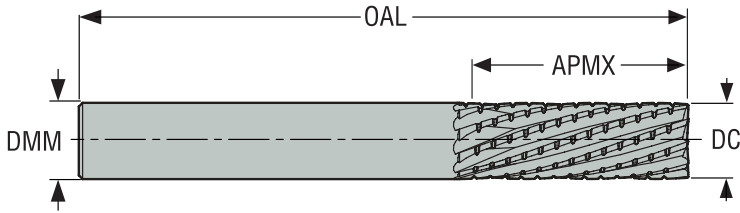
SOLID END MILLING

RANGE OVERVIEW:

- DIARTREM - end mill style, 2-flutes
- DIARTRBE - burr end style, 3- to 7-flutes
- Inch (1/8" - 1/2") diameters
- 10° Left-hand helix
- Right hand cut
- Chip splitters
- CVD Diamond coated

KEY BENEFITS:

- Fast and efficient cutting
- Prevention of delamination and part distortion
- Reduced part costs through longer tool life
- High process predictability and reliability
- Reduced chatter
- Maximum stability
- High quality surface finishes
- Less scrap



NEW NIAGARA CUTTER™ DIAMOND LEFT HAND HELIX - DIARTRBE & DIARTREM

ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				FLUTES	COATING
		FLUTE DIA (DC)	SHANK DIA (DMM)	LOC (APMX)	OVERALL LENGTH (OAL)		



DIARTRBE - Inch							
03134673	DIARTRBE-0.125-D2-S.0-Z6	1/8	1/8	1/4	1-1/2	6	CVDDIA
03134676	DIARTRBE-0.188-D2-S.0-Z6	3/16	3/16	3/8	2	6	CVDDIA
03134679	DIARTRBE-0.250-D2-S.0-Z8	1/4	1/4	1/2	2-1/2	8	CVDDIA
03134680	DIARTRBE-0.250-D3-S.0-Z8	1/4	1/4	3/4	2-1/2	8	CVDDIA
03134681	DIARTRBE-0.250-D3-S.0-Z10	1/4	1/4	3/4	2-1/2	10	CVDDIA
03134683	DIARTRBE-0.250-D4-S.0-Z8	1/4	1/4	1	3	8	CVDDIA
03134684	DIARTRBE-0.250-D4-S.0-Z10	1/4	1/4	1	3	10	CVDDIA
03134686	DIARTRBE-0.375-D2-S.0-Z12	3/8	3/8	3/4	2-1/2	12	CVDDIA
03134687	DIARTRBE-0.375-D3-S.0-Z12	3/8	3/8	1-1/8	3	12	CVDDIA
03134689	DIARTRBE-0.375-D4-S.0-Z12	3/8	3/8	1-1/2	4	12	CVDDIA
03134691	DIARTRBE-0.500-D2-S.0-Z14	1/2	1/2	1	3	14	CVDDIA



DIARTREM - Inch							
03134674	DIARTREM-0.125-D3-S.0-Z6	1/8	1/8	3/8	1-1/2	6	CVDDIA
03134675	DIARTREM-0.125-D4-S.0-Z8	1/8	1/8	1/2	1-1/2	8	CVDDIA
03134677	DIARTREM-0.188-D3-S.0-Z6	3/16	3/16	9/16	2	6	CVDDIA
03134678	DIARTREM-0.188-D4-S.0-Z8	3/16	3/16	3/4	2	8	CVDDIA
03134682	DIARTREM-0.250-D3-S.0-Z10	1/4	1/4	3/4	2-1/2	10	CVDDIA
03134685	DIARTREM-0.250-D4-S.0-Z10	1/4	1/4	1	3	10	CVDDIA
03134688	DIARTREM-0.375-D3-S.0-Z12	3/8	3/8	1-1/8	3	12	CVDDIA
03134690	DIARTREM-0.375-D4-S.0-Z12	3/8	3/8	1-1/2	4	12	CVDDIA
03134692	DIARTREM-0.500-D2-S.0-Z14	1/2	1/2	1	3	14	CVDDIA

THREAD BEYOND STANDARD TOOLING

NEW INTERCHANGEABLE DISC MILL TOOLS BOOST VERSATILITY AND PRECISION

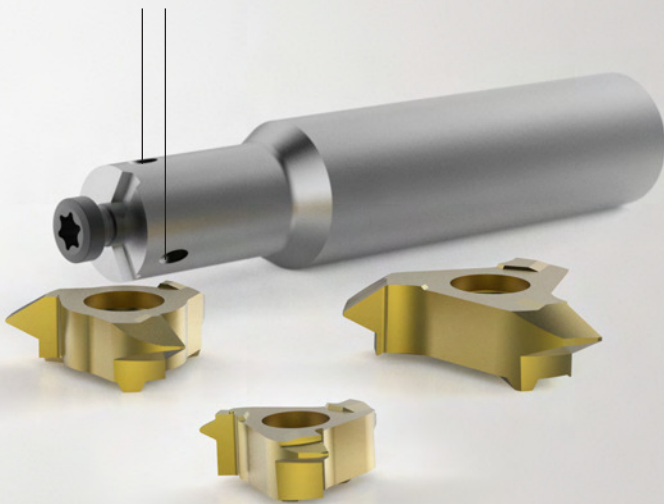
Generate precision threads in holes as deep as 4.170" with Seco's new single-roll **Disc Mill 335.14** interchangeable threading heads and matching holder shanks. You will also be able to boost processing speed and versatility, as each head performs both chamfering and threading operations. Additionally, performing two operations with the same tool helps reduce required tooling inventories.

Other threading tools are limited in terms of either thread size and/or maximum hole depths they can thread. The new heads, unlike standard thread mills, are single raw disc mills that circularly interpolate an entire hole depth and create threads pitch by pitch, which allows for greater achievable depths. The cutting action of the new heads also keeps chip sizes to a minimum and ensures taper-free deep-hole threading.

These new heads require less machine power and torque so smaller less powerful machine tools can now easily generate big threads because the new heads cut with a single point.



COOLANT FLOW OUTLETS



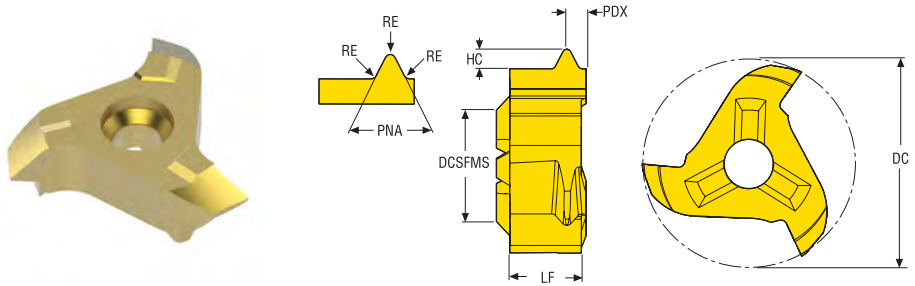
THREADING

RANGE OVERVIEW:

- Both carbide and steel shank types
- Internal coolant capability
- Over 31 different carbide-coated heads
- Applicable for all workpiece materials
- Head threads and diameters:
 - Diameter Cutter: 0.460" and 1.09"
 - Thread Forms: Metric 60° 1 - 6 mm, Pitch UN 60° 24 - 6 TPI, Whitworth 55° 19 - 11 TPI Partial Profile: 60° 14" - 2.5" TPI 1.75 - 10.00 mm

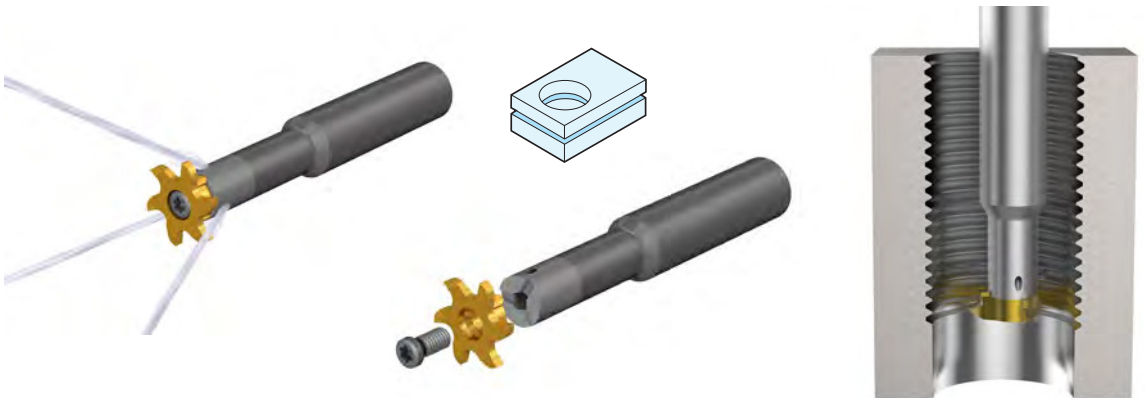
KEY BENEFITS:

- Capability to produce deeper and more accurate threads
- High process stability and reliability
- Increased versatility and reduced overall tool costs through interchangeability of heads
- Effective chip control

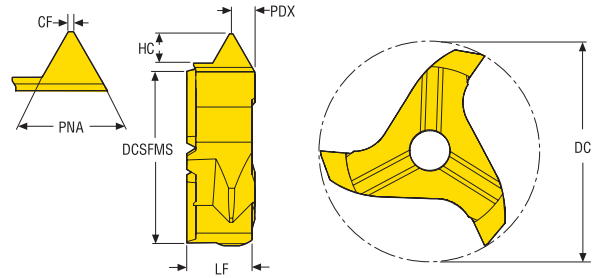


NEW R335.14 INSERT - THREADING PROFILE WHITWORTH

DESIGNATION	DIMENSIONS IN INCH								COATED GRADES (ORDER NO.)
	DC	DCSFMS (MM)	HC	LF	PDX	PNA (MM)	RE	ZEFP	F32M
Inch									
R335.14-117WXF11.06Z3	0.461	6	0.058	0.142	0.063	55	0.012	3	03137267
R335.14-117WXF14.06Z3	0.461	6	0.046	0.142	0.051	55	0.009	3	03137268
R335.14-117WXF19.06Z3	0.461	6	0.034	0.142	0.043	55	0.007	3	03137269
R335.14-157WXF14.08Z3	0.618	8	0.046	0.181	0.059	55	0.009	3	03137270
R335.14-177WXF11.09Z3	0.697	9	0.058	0.230	0.057	55	0.012	3	03137285
R335.14-177WXF14.09Z3	0.697	9	0.046	0.230	0.049	55	0.009	3	03137284
R335.14-177WXF19.09Z3	0.697	9	0.034	0.230	0.037	55	0.007	3	03137283



- A broad range of heads and shanks available for all your disc milling operation by circular interpolation or threadmilling linear slotting
- Strong, reliable and precise connection between the head and the cutter body
- Cover all type of material with universal M geometry and F32M grade



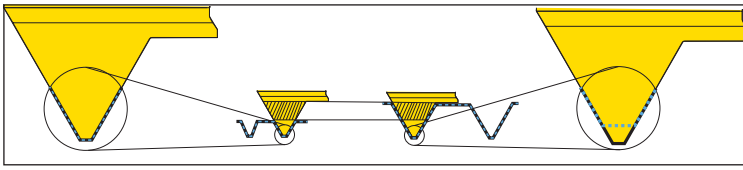
NEW 335.14 INSERT - THREADING PARTIAL PROFILE UN

DESIGNATION	PITCH		DIMENSIONS IN INCH								COATED GRADES (ORDER NO.)	
	TPN	TPX	DC	DCSFMS (MM)	CF	HC	LF	PDX	PNA (MM)	ZEFP	F32M	
											F32M	
Inch												
R335.14-117MNP100200.06Z3	0.039	0.079	0.461	6	0.005	0.049	0.142	0.031	60	3	03137308	
R335.14-117MNP200300.06Z3	0.079	0.118	0.461	6	0.010	0.070	0.142	0.047	60	3	03137307	
R335.14-157MNP150275.08Z3	0.059	0.108	0.618	8	0.007	0.066	0.181	0.043	60	3	03137309	
R335.14-157MNP250300.08Z3	0.098	0.118	0.618	8	0.012	0.070	0.181	0.047	60	3	03137310	
R335.14-177MNP100200.09Z3	0.039	0.079	0.697	9	0.005	0.047	0.230	0.045	60	3	03137311	
R335.14-177MNP150275.09Z3	0.059	0.108	0.697	9	0.007	0.064	0.230	0.049	60	3	03137312	
R335.14-177MNP200375.09Z3	0.079	0.148	0.697	9	0.010	0.087	0.230	0.065	60	3	03137313	
R335.14-177MNP300550.09Z3	0.118	0.217	0.697	9	0.015	0.128	0.230	0.089	60	3	03137314	
R335.14-217MNP100200.12Z3	0.039	0.079	0.854	12	0.005	0.047	0.230	0.049	60	3	03137315	
R335.14-217MNP200375.12Z3	0.079	0.148	0.854	12	0.010	0.087	0.230	0.065	60	3	03137316	
R335.14-217MNP250450.12Z3	0.098	0.177	0.854	12	0.010	0.106	0.230	0.085	60	3	03137317	
R335.14-217MNP350600.12Z3	0.138	0.236	0.854	12	0.017	0.151	0.230	0.104	60	3	03137318	
R335.14-277MNP250500.14Z3	0.098	0.197	1.091	14	0.015	0.115	0.260	0.102	60	3	03137319	
R335.14-277MNP400600.14Z3	0.157	0.236	1.091	14	0.020	0.181	0.260	0.118	60	3	03137320	

NEW 335.14 INSERT - THREADING PROFILE UN

DESIGNATION	DIMENSIONS IN INCH								COATED GRADES (ORDER NO.)	
	DC	DCSFMS (MM)	HC	LF	PDX	PNA (MM)	CF	ZEFP	F32M	
									F32M	
Inch										
R335.14-177UNNF10.09Z3	0.697	9	0.054	0.230	0.049	60	0.013	3	03137273	
R335.14-177UNNF11.09Z3	0.697	9	0.049	0.230	0.041	60	0.011	3	03137274	
R335.14-177UNNF12.09Z3	0.697	9	0.045	0.230	0.041	60	0.011	3	03137276	
R335.14-177UNNF14.09Z3	0.697	9	0.039	0.230	0.033	60	0.009	3	03137277	
R335.14-177UNNF16.09Z3	0.697	9	0.034	0.230	0.033	60	0.008	3	03137278	
R335.14-177UNNF18.09Z3	0.697	9	0.030	0.230	0.033	60	0.007	3	03137279	
R335.14-177UNNF20.09Z3	0.697	9	0.027	0.230	0.026	60	0.006	3	03137280	
R335.14-177UNNF24.09Z3	0.697	9	0.023	0.230	0.026	60	0.005	3	03137282	
R335.14-177UNNF6.09Z3	0.697	9	0.090	0.230	0.065	60	0.021	3	03137271	
R335.14-177UNNF8.09Z3	0.697	9	0.068	0.230	0.057	60	0.016	3	03137272	

Pitch (up to)



Actual Thread
 Standard thread form

Thread milling by circular interpolation can cause thread profile violation when using insert for partial thread. Keep this in mind during the process of selecting tool. The tool diameter needs to be small enough compared to the hole diameter. The pitch also needs to be considered.

Insert with partial profile for Metric ISO-Threads are multi tools. That means that each insert could machine different pitches. The insert is designed to meet the minimum pitch size (TPN); Machining this pitch will result in a standard conforming thread form.

The given maximum pitch size (TPX) can be machined also with this insert at the expense of standard conformity: The result will be a slightly deeper thread than the standard. The deeper thread is normally accepted, but the application and use needs to be evaluated.

Following table is a recommendation over maximum tool diameter in relation to the thread size and pitch:

ISO-THREAD, PARTIAL PROFILE (INCH)											
Pitch	M12	M16	M20	M24	M27	M30	M36	M42	M48	M56	M60
1	0.400	0.550	0.710	0.870	0.980	1.10	1.34	1.57	1.77	2.09	2.24
1.5	0.315	0.470	0.630	0.790	0.940	1.02	1.26	1.46	1.70	2.00	2.17
2	0.275	0.400	0.550	0.710	0.870	0.940	1.18	1.38	1.57	1.89	2.05
2.5	0.240	0.315	0.470	0.630	0.790	0.870	1.10	1.26	1.46	1.77	1.89
3		0.240	0.400	0.550	0.710	0.790	1.02	1.18	1.42	1.70	1.85
3.5				0.470	0.630	0.710	0.940	1.14	1.38	1.65	1.81
4							0.870	1.06	1.26	1.53	1.70
4.5								0.940	1.18	1.46	1.57
5								0.870	1.06	1.34	1.46
5.5								0.790	0.980	1.22	1.38
6								0.750	0.905	1.14	1.30

CODE KEY THREAD INSERT

R335.14-217MNP250500-12Z3

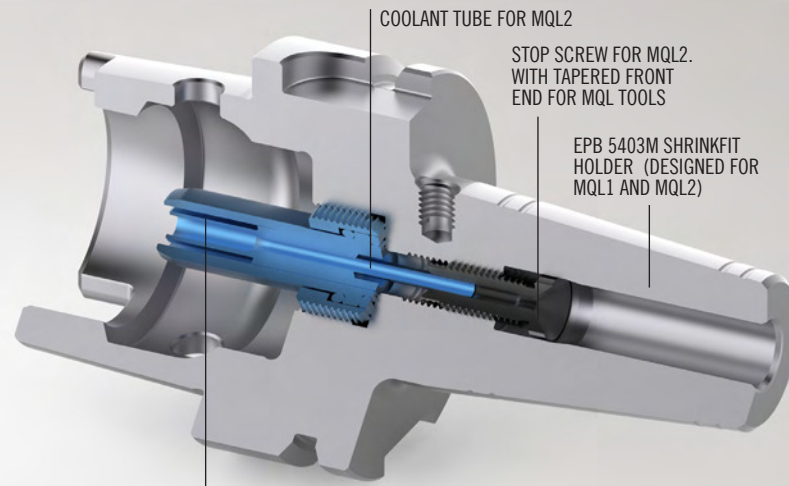
- R** = Right hand
- 335** = Disc milling code
- 14** = System
- 217** = Head diameter ex 21.7 mm
- M** = Thread type (W and UN)
- N** = Internal thread (E = external, X = internal/external)
- P** = Partial profile (F = Full profile)
- 250500** = Pitch size (2.50-5 mm or ex only a fixed pitch 2.5 mm, 16 tpi...)
- 12** = Connection size
- Z3** = No of teeth

MAXIMUM RESULTS WITH LESS COOLANT

CUT COSTS AND SAVE THE ENVIRONMENT WITH MQL SHRINKFIT TOOLHOLDERS

A cleaner coolant option that requires less maintenance, **MQL (minimum quantity lubrication)** uses a mixture of air and oil that coats cutting tool edges and workpieces. As compared with flood coolant, the MQL solutions significantly reduce the volume of coolant needed to prevent heat buildup and sufficiently lubricate machining operations. This approach reduces costs related to part cleaning and coolant reconditioning, as well as health hazards caused by fluid emissions in the air and on the skin of operators.

Seco's range of MQL Shrinkfit toolholders includes options for two different MQL solutions, **EPB 5403M1** holders are designed for MQL1 solutions, where the air and oil are mixed before they pass into the machine tool spindle, then through the toolholder and into the cutting tool. **EPB 5403M2** toolholders, are designed for MQL2 solutions, where the air and the oil are delivered through two distinct channels and mix in the toolholders' coolant tube chamber. These M1 and M2 Shrinkfit holders feature MQL coolant tubes and stop end screws and have coolant channels specifically for MQL.



MQL2: THE AIR AND THE OIL ARE DELIVERED SEPARATELY TO THE TOOLHOLDER AND ARE MIXED IN THIS CHAMBER.

In addition to the varied benefits of MQL, these shrinkfit holders provide you with the combination of extremely low run-out (max. 3μ at $3xD$), exceptional holding strength, rigidity and fine balancing. They improve overall high speed machining performance and reliability for all types of applications including milling, drilling and reaming.



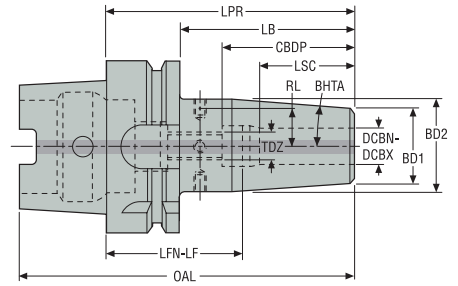
TOOLING SYSTEMS

RANGE OVERVIEW:

- HSK-A63 and HSK-A100 machine side connections
- Holder cutting tool diameters from 6 - 32 mm in various lengths
- EPB 5403M: for MQL1 and MQL2, delivered without accessories
- EPB 5403M1: for MQL1 delivered with MQL1 accessories mounted
- EPB 5403M2: for MQL2 delivered with MQL2 accessories mounted

KEY BENEFITS:

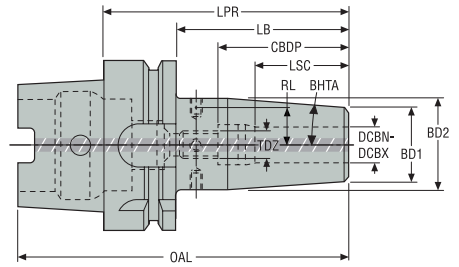
- Reduced overall coolant costs
- Increased operator safety and eco friendliness
- Reduced tool costs through longer cutting tool life
- High process predictability and reliability



NEW EPB 5603/5403 SHRINKFIT HOLDERS - HSK A63 & HSK A100

MACHINE SIDE	WORKPIECE SIDE	DIMENSIONS IN METRIC														KG	
TAPER	DCBN-DCBX	ORDER NO.	DESIGNATION	LPR	BD1	BD2	OAL	LB	LSC	CBDP	LFN-LF min-max	TDZ	BHTA°	RL (MM)	BALAN- CING *	KG	
Metric																	
HSK-A63	6	49800	E930454030680	80	21	27	112	54	22	37.5	44-58	M5x0.8	4.5	10.5	*	1	0.90
	6	50692	E9304540306120	120	21	27	152	94	22	37.5	84-98	M5x0.8	4.5	10.5	1	1.00	
	6	50695	E9304540306160	160	21	27	192	134	22	37.5	124-138	M5x0.8	4.5	10.5	1	1.20	
	8	51442	E930454030880	80	21	27	112	54	26	38	43.5-54	M6x1	4.5	10.5	*	1	0.90
	8	53694	E9304540308120	120	21	27	152	94	26	38	83.5-94	M6x1	4.5	10.5	1	1.00	
	8	53695	E9304540308160	160	21	27	192	134	26	38	123.5-134	M6x1	4.5	10.5	1	1.20	
	10	53696	E930454031085	85	24	32	117	59	31	43.5	43-54	M8x1	4.5	13	*	1	0.90
	10	53697	E9304540310120	120	24	32	152	94	31	43.5	78-89	M8x1	4.5	13	1	1.20	
	10	53698	E9304540310160	160	24	32	192	134	31	43.5	118-129	M8x1	4.5	13	1	1.30	
	12	53700	E930454031290	90	24	32	122	64	34	48	43.5-56	M10x1	4.5	13	*	1	0.90
	12	53705	E9304540312120	120	24	32	152	94	34	48	73.5-86	M10x1	4.5	13	1	1.10	
	12	53706	E9304540312160	160	24	32	192	134	34	48	113.5-126	M10x1	4.5	13	1	1.40	
	14	53707	E930454031490	90	27	34	122	64	34	49	42.5-56	M10x1	4.5	14	*	1	1.00
	14	53708	E9304540314120	120	27	34	152	94	34	49	72.5-86	M10x1	4.5	14	1	1.20	
	16	53709	E930454031695	95	27	34	127	69	39	52.5	45-56	M12x1	4.5	14	*	1	1.00
	16	53710	E9304540316120	120	27	34	152	94	39	52.5	71-81	M12x1	4.5	14	1	1.20	
	16	53711	E9304540316160	160	27	34	192	134	39	52.5	111-121	M12x1	4.5	14	1	1.40	
	18	53712	E930454031895	95	33	42	127	69	39	53	44.5-56	M12x1	4.5	18	*	1	1.20
	18	53714	E9304540318120	120	33	42	152	94	39	53	71-81	M12x1	4.5	18	1	1.40	
	20	53716	E9304540320100	100	33	42	132	74	41	55.5	47.5-59	M16x1	4.5	18	*	1	1.20
20	53717	E9304540320120	120	33	42	152	94	41	55.5	67.5-79	M16x1	4.5	18	1	1.40		
20	53718	E9304540320160	160	33	42	192	134	41	55.5	107.5-119	M16x1	4.5	18	1	1.80		
25	53719	E9304540325115	115	44	53	147	89	47	63.5	58-68	M16x1	4.5	23.5	*	1	1.80	
25	53720	E9304540325160	160	44	53	192	134	47	63.5	103-113	M16x1	4.5	23.5	1	2.60		
32	53721	E9304540332120	120	44	53	152	94	51	70	56.5-69	M16x1	4.5	23.5	*	1	1.70	
HSK-A100	6	53723	E930654030685	85	21	27	135	56	22	37.5	49-63	M5x0.8	4.5	10.5	*	1	2.20
	6	53724	E9306540306120	120	21	27	170	91	22	37.5	84-98	M5x0.8	4.5	10.5	1	2.40	
	6	53726	E9306540306160	160	21	27	210	131	22	37.5	124-138	M5x0.8	4.5	10.5	1	2.50	
	8	53727	E930654030885	85	21	27	135	56	26	38	48.5-59	M6x1	4.5	10.5	*	1	2.20
	8	53728	E9306540308120	120	21	27	170	91	26	38	83.5-94	M6x1	4.5	10.5	1	2.30	
	8	53730	E9306540308160	160	21	27	210	131	26	38	123.5-134	M6x1	4.5	10.5	1	2.50	
	10	53731	E930654031090	90	24	32	140	61	31	43.5	48-59	M8x1	4.5	13	*	1	2.30
	10	53733	E9306540310120	120	24	32	170	91	31	43.5	78-89	M8x1	4.5	13	1	2.50	
	10	53736	E9306540310160	160	24	32	210	131	31	43.5	118-129	M8x1	4.5	13	1	2.70	
	12	53737	E930654031295	95	24	32	145	66	34	48	48.5-61	M10x1	4.5	13	*	1	2.30
	12	53739	E9306540312120	120	24	32	170	91	34	48	73.5-86	M10x1	4.5	13	1	2.40	
	12	53740	E9306540312160	160	24	32	210	131	34	48	113.5-126	M10x1	4.5	13	1	2.70	
	14	53741	E930654031495	95	27	34	145	66	34	49	47.5-61	M10x1	4.5	14	*	1	2.30
	16	53745	E9306540316100	100	27	34	150	71	39	52.5	50-61	M12x1	4.5	14	*	1	2.30
	16	53746	E9306540316130	130	27	34	180	101	39	52.5	78-91	M12x1	4.5	14	1	2.50	
	16	53747	E9306540316160	160	27	34	210	131	39	52.5	108-121	M12x1	4.5	14	1	2.70	
	18	53748	E9306540318100	100	33	42	150	71	39	53	52.5-61	M12x1	4.5	18	*	1	2.50
	20	53749	E9306540320105	105	33	42	155	76	41	55.5	53-64	M16x1	4.5	18	*	1	2.50
	20	53750	E9306540320130	130	33	42	180	101	41	55.5	77.5-89	M16x1	4.5	18	1	2.80	
	20	53756	E9306540320160	160	33	42	210	131	41	55.5	107.5-119	M16x1	4.5	18	1	3.10	
25	53757	E9306540325115	115	44	53	165	86	47	63.5	58-68	M16x1	4.5	23.5	*	1	3.00	
25	53759	E9306540325160	160	44	53	210	131	47	63.5	103-113	M16x1	4.5	23.5	1	3.80		
32	53762	E9306540332120	120	44	53	170	91	51	70	56.5-69	M16x1	4.5	23.5	*	1	2.90	

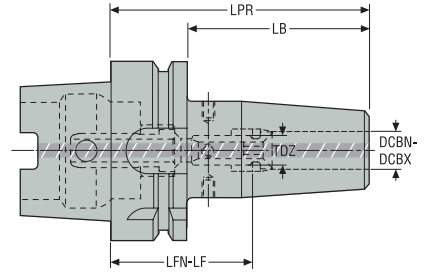
For Shrinkfit extensions, see MN Tooling Systems catalog, Additional equipment * Conform to DIN 69882-8



NEW EPB 5403M SHRINKFIT HOLDERS - HSK A63 & HSK A100

MACHINE SIDE	WORKPIECE SIDE	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC								TDZ	BHTA° (MM)	RL	*	BALAN- CING	KG
				LPR	BD1	BD2	OAL	LB	LSC	CDBP	DCBN-DCBX						
Metric																	
HSK-A63	6	03098401	E930454030680M	80	21	27	112	54	22	37.5	M5x0.8	4.5	10.5	*	1	0.90	
	6	03098402	E9304540306120M	120	21	27	152	94	22	37.5	M5x0.8	4.5	10.5	*	1	1.10	
	6	03098403	E9304540306160M	160	21	27	192	134	22	37.5	M5x0.8	4.5	10.5	*	1	1.20	
	8	03098404	E930454030880M	80	21	27	112	54	26	38	M6x1	4.5	10.5	*	1	0.90	
	8	03098405	E9304540308120M	120	21	27	152	94	26	38	M6x1	4.5	10.5	*	1	1.10	
	8	03098406	E9304540308160M	160	21	27	192	134	26	38	M6x1	4.5	10.5	*	1	1.20	
	10	03098407	E930454031085M	85	24	32	117	59	31	43.5	M8x1	4.5	13	*	1	0.90	
	10	03098408	E9304540310120M	120	24	32	152	94	31	43.5	M8x1	4.5	13	*	1	1.20	
	10	03098409	E9304540310160M	160	24	32	192	134	31	43.5	M8x1	4.5	13	*	1	1.40	
	12	03098410	E930454031290M	90	24	32	122	64	34	48	M10x1	4.5	13	*	1	1.0	
	12	03098411	E9304540312120M	120	24	32	152	94	34	48	M10x1	4.5	13	*	1	1.10	
	12	03098412	E9304540312160M	160	24	32	192	134	34	48	M10x1	4.5	13	*	1	1.40	
	14	03098413	E930454031490M	90	27	34	122	64	34	49	M10x1	4.5	14	*	1	1.0	
	14	03098414	E9304540314120M	120	27	34	152	94	34	49	M10x1	4.5	14	*	1	1.20	
	16	03098415	E930454031695M	95	27	34	127	69	39	52.5	M10x1	4.5	14	*	1	1.0	
	16	03098416	E9304540316120M	120	27	34	152	94	39	52.5	M10x1	4.5	14	*	1	1.20	
	16	03098417	E9304540316160M	160	27	34	192	134	39	52.5	M10x1	4.5	14	*	1	1.50	
	18	03098418	E930454031895M	95	33	42	127	69	39	53	M10x1	4.5	18	*	1	1.20	
	18	03098419	E9304540318120M	120	33	42	152	94	39	53	M10x1	4.5	18	*	1	1.50	
	20	03098420	E9304540320100M	100	33	42	132	74	41	55.5	M10x1	4.5	18	*	1	1.20	
	20	03098421	E9304540320120M	120	33	42	152	94	41	55.5	M10x1	4.5	18	*	1	1.40	
	20	03098422	E9304540320160M	160	33	42	192	134	41	55.5	M10x1	4.5	18	*	1	1.80	
	25	03098423	E9304540325115M	115	44	53	147	89	47	63.5	M10x1	4.5	23.5	*	1	1.80	
	25	03098424	E9304540325160M	160	44	53	192	134	47	63.5	M10x1	4.5	23.5	*	1	2.60	
32	03098425	E9304540332120M	120	44	53	152	94	51	70	M10x1	4.5	23.5	*	1	1.70		
HSK-A100	6	03098582	E930654030685M	85	21	27	135	56	22	37.5	M5x0.8	4.5	10.5	*	1	2.20	
	6	03098583	E9306540306120M	120	21	27	170	91	22	37.5	M5x0.8	4.5	10.5	*	1	2.40	
	6	03098584	E9306540306160M	160	21	27	210	131	22	37.5	M5x0.8	4.5	10.5	*	1	2.60	
	8	03098585	E930654030885M	85	21	27	135	56	26	38	M6x1	4.5	10.5	*	1	2.20	
	8	03098586	E9306540308120M	120	21	27	170	91	26	38	M6x1	4.5	10.5	*	1	2.40	
	8	03098587	E9306540308160M	160	21	27	210	131	26	38	M6x1	4.5	10.5	*	1	2.60	
	10	03098588	E930654031090M	90	24	32	140	61	31	43.5	M8x1	4.5	13	*	1	2.30	
	10	03098589	E9306540310120M	120	24	32	170	91	31	43.5	M8x1	4.5	13	*	1	2.50	
	10	03098590	E9306540310160M	160	24	32	210	131	31	43.5	M8x1	4.5	13	*	1	2.70	
	12	03098591	E930654031295M	95	24	32	145	66	34	48	M10x1	4.5	13	*	1	2.30	
	12	03098592	E9306540312120M	120	24	32	170	91	34	48	M10x1	4.5	13	*	1	2.50	
	12	03098593	E9306540312160M	160	24	32	210	131	34	48	M10x1	4.5	13	*	1	2.70	
	14	03098594	E930654031495M	95	27	34	145	66	34	49	M10x1	4.5	14	*	1	2.40	
	16	03098595	E9306540316100M	100	27	34	150	71	39	52.5	M10x1	4.5	14	*	1	2.40	
	16	03098596	E9306540316130M	130	27	34	180	101	39	52.5	M10x1	4.5	14	*	1	2.60	
	16	03098597	E9306540316160M	160	27	34	210	131	39	52.5	M10x1	4.5	14	*	1	2.80	
	18	03098598	E9306540318100M	100	33	42	150	71	39	53	M10x1	4.5	18	*	1	2.60	
	20	03098599	E9306540320105M	105	33	42	155	76	41	55.5	M10x1	4.5	18	*	1	2.60	
20	03098600	E9306540320130M	130	33	42	180	101	41	55.5	M10x1	4.5	18	*	1	2.80		
20	03098601	E9306540320160M	160	33	42	210	131	41	55.5	M10x1	4.5	18	*	1	3.20		
25	03098602	E9306540325115M	115	44	53	165	86	47	63.5	M10x1	4.5	23.5	*	1	3.10		
25	03098603	E9306540325160M	160	44	53	210	131	47	63.5	M10x1	4.5	23.5	*	1	3.90		
32	03098604	E9306540332120M	120	44	53	170	91	51	70	M10x1	4.5	23.5	*	1	3.10		

* Conform to DIN 69090-3



NEW EPB 5403M1 SHRINKFIT HOLDERS - HSK A63 & HSK A100

MACHINE SIDE	WORKPIECE SIDE	ORDER NO.	DESIGNATION	SPARE PARTS			DIMENSIONS IN METRIC					
				TAPER	DCBN-DCBX	TOOL HOLDERS	COLLANT TUBE MQL1	STOP SCREW MQL1	LPR	LB	LFN-LF	*
Metric												
HSK-A63	6	03098623	E930454030680M1	E930454030680M	20E9304	19MQL106S	80	54	44-54	*	M5x0.8	0.90
	6	03098624	E9304540306120M1	E9304540306120M	20E9304	19MQL106L	120	94	84-94	*	M5x0.8	1.10
	6	03098625	E9304540306160M1	E9304540306160M	20E9304	19MQL106L	160	134	124-134	*	M5x0.8	1.30
	8	03098626	E930454030880M1	E930454030880M	20E9304	19MQL108S	80	54	44-54	*	M6x1	0.90
	8	03098627	E9304540308120M1	E9304540308120M	20E9304	19MQL108L	120	94	84-94	*	M6x1	1.10
	8	03098628	E9304540308160M1	E9304540308160M	20E9304	19MQL108L	160	134	124-134	*	M6x1	1.20
	10	03098629	E930454031085M1	E930454031085M	20E9304	19MQL110S	85	59	44-54	*	M8x1	1.00
	10	03098630	E9304540310120M1	E9304540310120M	20E9304	19MQL110L	120	94	79-89	*	M8x1	1.20
	10	03098631	E9304540310160M1	E9304540310160M	20E9304	19MQL110L	160	134	119-129	*	M8x1	1.40
	12	03098632	E930454031290M1	E930454031290M	20E9304	19MQL112S	90	64	44-54	*	M10x1	1.00
	12	03098633	E9304540312120M1	E9304540312120M	20E9304	19MQL112L	120	94	74-84	*	M10x1	1.20
	12	03098634	E9304540312160M1	E9304540312160M	20E9304	19MQL112L	160	134	114-124	*	M10x1	1.40
	14	03098635	E930454031490M1	E930454031490M	20E9304	19MQL114S	90	64	44-54	*	M10x1	1.00
	14	03098636	E9304540314120M1	E9304540314120M	20E9304	19MQL114L	120	94	74-84	*	M10x1	1.20
	16	03098637	E930454031695M1	E930454031695M	20E9304	19MQL116S	95	69	46-56	*	M10x1	1.10
	16	03098638	E9304540316120M1	E9304540316120M	20E9304	19MQL116L	120	94	71-81	*	M10x1	1.20
	16	03098639	E9304540316160M1	E9304540316160M	20E9304	19MQL116L	160	134	111-121	*	M10x1	1.50
	18	03098640	E930454031895M1	E930454031895M	20E9304	19MQL118S	95	69	46-56	*	M10x1	1.20
	18	03098641	E9304540318120M1	E9304540318120M	20E9304	19MQL118L	120	94	71-81	*	M10x1	1.50
	20	03098642	E9304540320100M1	E9304540320100M	20E9304	19MQL120S	100	74	49-59	*	M10x1	1.30
20	03098643	E9304540320120M1	E9304540320120M	20E9304	19MQL120L	120	94	69-79	*	M10x1	1.50	
20	03098644	E9304540320160M1	E9304540320160M	20E9304	19MQL120L	160	134	109-119	*	M10x1	1.90	
25	03098645	E9304540325115M1	E9304540325115M	20E9304	19MQL125S	115	89	58-68	*	M10x1	1.80	
25	03098646	E9304540325160M1	E9304540325160M	20E9304	19MQL125L	160	134	103-113	*	M10x1	2.60	
32	03098647	E9304540332120M1	E9304540332120M	20E9304	19MQL132S	120	94	59-69	*	M10x1	1.70	
HSK-A100	6	03099158	E930654030685M1	E930654030685M	20E9306M1	19MQL106S	85	56	49-59	*	M5x0.8	2.30
	6	03099159	E9306540306120M1	E9306540306120M	20E9306M1	19MQL106L	120	91	84-94	*	M5x0.8	2.50
	6	03099160	E9306540306160M1	E9306540306160M	20E9306M1	19MQL106L	160	131	124-134	*	M5x0.8	2.60
	8	03099161	E930654030885M1	E930654030885M	20E9306M1	19MQL108S	85	56	49-59	*	M6x1	2.30
	8	03099162	E9306540308120M1	E9306540308120M	20E9306M1	19MQL108L	120	91	84-94	*	M6x1	2.50
	8	03099163	E9306540308160M1	E9306540308160M	20E9306M1	19MQL108L	160	131	124-134	*	M6x1	2.60
	10	03099164	E930654031090M1	E930654031090M	20E9306M1	19MQL110S	90	61	49-59	*	M8x1	2.40
	10	03099165	E9306540310120M1	E9306540310120M	20E9306M1	19MQL110L	120	91	79-89	*	M8x1	2.60
	10	03099166	E9306540310160M1	E9306540310160M	20E9306M1	19MQL110L	160	131	119-129	*	M8x1	2.80
	12	03099167	E930654031295M1	E930654031295M	20E9306M1	19MQL112S	95	66	49-59	*	M10x1	2.40
	12	03099168	E9306540312120M1	E9306540312120M	20E9306M1	19MQL112L	120	91	74-84	*	M10x1	2.50
	12	03099169	E9306540312160M1	E9306540312160M	20E9306M1	19MQL112L	160	131	114-124	*	M10x1	2.80
	14	03099170	E930654031495M1	E930654031495M	20E9306M1	19MQL114S	95	66	49-59	*	M10x1	2.50
	16	03099171	E9306540316100M1	E9306540316100M	20E9306M1	19MQL116S	100	71	51-61	*	M10x1	2.50
	16	03099172	E9306540316130M1	E9306540316130M	20E9306M1	19MQL116L	130	101	81-91	*	M10x1	2.70
	16	03099173	E9306540316160M1	E9306540316160M	20E9306M1	19MQL116L	160	131	111-121	*	M10x1	2.90
	18	03099174	E9306540318100M1	E9306540318100M	20E9306M1	19MQL118S	100	71	51-61	*	M10x1	2.60
	20	03099175	E9306540320105M1	E9306540320105M	20E9306M1	19MQL120S	105	76	54-64	*	M10x1	2.70
	20	03099176	E9306540320130M1	E9306540320130M	20E9306M1	19MQL120L	130	101	79-89	*	M10x1	2.90
	20	03099177	E9306540320160M1	E9306540320160M	20E9306M1	19MQL120L	160	131	109-119	*	M10x1	3.20
25	03099178	E9306540325115M1	E9306540325115M	20E9306M1	19MQL125S	115	86	58-68	*	M10x1	3.20	
25	03099179	E9306540325160M1	E9306540325160M	20E9306M1	19MQL125L	160	131	103-113	*	M10x1	4.00	
32	03099180	E9306540332120M1	E9306540332120M	20E9306M1	19MQL132S	120	91	59-69	*	M10x1	3.10	

* Conform to DIN 69090-3

NEW EPB 5403M2 SHRINKFIT HOLDERS - HSK A63

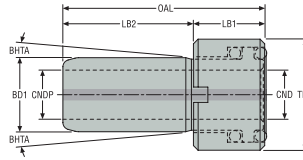
MACHINE SIDE	WORKPIECE SIDE	ADIF1 MM ²	ORDER NO.	DESIGNATION	SPARE PARTS			DIMENSIONS IN METRIC				
					TAPER	DCBN-DCBX	TOOL HOLDERS	COLLANT TUBE MQL1	STOP SCREW MQL1	LPR	LB	LFN-LF
Metric												
	6	2.01	03099193	E930454030680M2-1.9	E930454030680M	20E9304M2A02	19MQL2A01	80	54	44-54	M5x0.8	0.90
	6	4.15	03099194	E930454030680M2-2.8	E930454030680M	20E9304M2B02	19MQL2B01	80	54	44-54	M5x0.8	0.90
	6	2.01	03099195	E9304540306120M2-1.9	E9304540306120M	20E9304M2A06	19MQL2A01	120	94	84-94	M5x0.8	1.10
	6	4.15	03099196	E9304540306120M2-2.8	E9304540306120M	20E9304M2B09	19MQL2B01	120	94	84-94	M5x0.8	1.10
	6	2.01	03099197	E9304540306160M2-1.9	E9304540306160M	20E9304M2A10	19MQL2A01	160	134	124-134	M5x0.8	1.30
	6	4.15	03099198	E9304540306160M2-2.8	E9304540306160M	20E9304M2B16	19MQL2B01	160	134	124-134	M5x0.8	1.30
	8	2.01	03099206	E930454030880M2-1.9	E930454030880M	20E9304M2A02	19MQL2A02	80	54	44-54	M6x1	0.90
	8	4.15	03099207	E930454030880M2-2.8	E930454030880M	20E9304M2B02	19MQL2B02	80	54	44-54	M6x1	0.90
	8	2.01	03099208	E9304540308120M2-1.9	E9304540308120M	20E9304M2A06	19MQL2A02	120	94	84-94	M6x1	1.10
	8	4.15	03099209	E9304540308120M2-2.8	E9304540308120M	20E9304M2B09	19MQL2B02	120	94	84-94	M6x1	1.10
	8	2.01	03099210	E9304540308160M2-1.9	E9304540308160M	20E9304M2A10	19MQL2A02	160	134	124-134	M6x1	1.30
	8	4.15	03099211	E9304540308160M2-2.8	E9304540308160M	20E9304M2B16	19MQL2B02	160	134	124-134	M6x1	1.30
	10	2.01	03099223	E930454031085M2-1.9	E930454031085M	20E9304M2A02	19MQL2A03	85	59	44-54	M8x1	1.00
	10	4.15	03099224	E930454031085M2-2.8	E930454031085M	20E9304M2B02	19MQL2B03	85	59	44-54	M8x1	1.00
	10	2.01	03099225	E9304540310120M2-1.9	E9304540310120M	20E9304M2A05	19MQL2A03	120	94	79-89	M8x1	1.20
	10	4.15	03099226	E9304540310120M2-2.8	E9304540310120M	20E9304M2B08	19MQL2B03	120	94	79-89	M8x1	1.20
	10	2.01	03099227	E9304540310160M2-1.9	E9304540310160M	20E9304M2A09	19MQL2A03	160	134	119-129	M8x1	1.40
	10	4.15	03099228	E9304540310160M2-2.8	E9304540310160M	20E9304M2B15	19MQL2B03	160	134	119-129	M8x1	1.40
	12	2.01	03099241	E930454031290M2-1.9	E930454031290M	20E9304M2A01	19MQL2A04	90	64	44-54	M10x1	1.00
	12	4.15	03099242	E930454031290M2-2.8	E930454031290M	20E9304M2B01	19MQL2B04	90	64	44-54	M10x1	1.00
	12	9.08	03099243	E930454031290M2-4.0	E930454031290M	20E9304M2C01	19MQL2C01	90	64	44-54	M10x1	1.00
	12	2.01	03099244	E9304540312120M2-1.9	E9304540312120M	20E9304M2A04	19MQL2A04	120	94	74-84	M10x1	1.20
	12	4.15	03099245	E9304540312120M2-2.8	E9304540312120M	20E9304M2B07	19MQL2B04	120	94	74-84	M10x1	1.20
	12	9.08	03099246	E9304540312120M2-4.0	E9304540312120M	20E9304M2C06	19MQL2C01	120	94	74-84	M10x1	1.20
	12	2.01	03099247	E9304540312160M2-1.9	E9304540312160M	20E9304M2A08	19MQL2A04	160	134	114-124	M10x1	1.40
	12	4.15	03099248	E9304540312160M2-2.8	E9304540312160M	20E9304M2B14	19MQL2B04	160	134	114-124	M10x1	1.40
	12	9.08	03099249	E9304540312160M2-4.0	E9304540312160M	20E9304M2C11	19MQL2C01	160	134	114-124	M10x1	1.40
	14	2.01	03099289	E930454031490M2-1.9	E930454031490M	20E9304M2A01	19MQL2A05	90	64	44-54	M10x1	1.10
	14	4.15	03099290	E930454031490M2-2.8	E930454031490M	20E9304M2B01	19MQL2B05	90	64	44-54	M10x1	1.10
	14	9.08	03099291	E930454031490M2-4.0	E930454031490M	20E9304M2C01	19MQL2C02	90	64	44-54	M10x1	1.10
	14	2.01	03099292	E9304540314120M2-1.9	E9304540314120M	20E9304M2A04	19MQL2A05	120	94	74-84	M10x1	1.30
	14	4.15	03099293	E9304540314120M2-2.8	E9304540314120M	20E9304M2B07	19MQL2B05	120	94	74-84	M10x1	1.30
	14	9.08	03099294	E9304540314120M2-4.0	E9304540314120M	20E9304M2C06	19MQL2C02	120	94	74-84	M10x1	1.30
HSK-A63	16	2.01	03099313	E930454031695M2-1.9	E930454031695M	20E9304M2A01	19MQL2A06	95	69	46-56	M10x1	1.10
	16	4.15	03099314	E930454031695M2-2.8	E930454031695M	20E9304M2B01	19MQL2B06	95	69	46-56	M10x1	1.10
	16	9.08	03099315	E930454031695M2-4.0	E930454031695M	20E9304M2C01	19MQL2C03	95	69	46-56	M10x1	1.10
	16	2.01	03099316	E9304540316120M2-1.9	E9304540316120M	20E9304M2A03	19MQL2A06	120	94	71-81	M10x1	1.20
	16	4.15	03099317	E9304540316120M2-2.8	E9304540316120M	20E9304M2B06	19MQL2B06	120	94	71-81	M10x1	1.20
	16	9.08	03099318	E9304540316120M2-4.0	E9304540316120M	20E9304M2C05	19MQL2C03	120	94	71-81	M10x1	1.20
	16	2.01	03099319	E9304540316160M2-1.9	E9304540316160M	20E9304M2A07	19MQL2A06	160	134	111-121	M10x1	1.50
	16	4.15	03099320	E9304540316160M2-2.8	E9304540316160M	20E9304M2B13	19MQL2B06	160	134	111-121	M10x1	1.50
	16	9.08	03099321	E9304540316160M2-4.0	E9304540316160M	20E9304M2C10	19MQL2C03	160	134	111-121	M10x1	1.50
	18	2.01	03099444	E930454031895M2-1.9	E930454031895M	20E9304M2A01	19MQL2A07	95	69	46-56	M10x1	1.20
	18	4.15	03099445	E930454031895M2-2.8	E930454031895M	20E9304M2B01	19MQL2B07	95	69	46-56	M10x1	1.20
	18	9.08	03099446	E930454031895M2-4.0	E930454031895M	20E9304M2C01	19MQL2C04	95	69	46-56	M10x1	1.20
	18	2.01	03099447	E9304540318120M2-1.9	E9304540318120M	20E9304M2A03	19MQL2A07	120	94	71-81	M10x1	1.50
	18	4.15	03099448	E9304540318120M2-2.8	E9304540318120M	20E9304M2B06	19MQL2B07	120	94	71-81	M10x1	1.50
	18	9.08	03099449	E9304540318120M2-4.0	E9304540318120M	20E9304M2C05	19MQL2C04	120	94	71-81	M10x1	1.50
	20	4.15	03099454	E9304540320100M2-2.8	E9304540320100M	20E9304M2B01	19MQL2B08	100	74	49-59	M10x1	1.30
	20	9.08	03099455	E9304540320100M2-4.0	E9304540320100M	20E9304M2C01	19MQL2C05	100	74	49-59	M10x1	1.30
	20	16.62	03099456	E9304540320100M2-5.3	E9304540320100M	20E9304M2D01	19MQL2D01	100	74	49-59	M10x1	1.30
	20	4.15	03099457	E9304540320120M2-2.8	E9304540320120M	20E9304M2B05	19MQL2B08	120	94	69-79	M10x1	1.50
	20	9.08	03099458	E9304540320120M2-4.0	E9304540320120M	20E9304M2C04	19MQL2C05	120	94	69-79	M10x1	1.50
	20	16.62	03099459	E9304540320120M2-5.3	E9304540320120M	20E9304M2D04	19MQL2D01	120	94	69-79	M10x1	1.50
	20	4.15	03099460	E9304540320160M2-2.8	E9304540320160M	20E9304M2B12	19MQL2B08	160	134	109-119	M10x1	1.90
	20	9.08	03099461	E9304540320160M2-4.0	E9304540320160M	20E9304M2C09	19MQL2C05	160	134	109-119	M10x1	1.90
	20	16.62	03099462	E9304540320160M2-5.3	E9304540320160M	20E9304M2D07	19MQL2D01	160	134	109-119	M10x1	1.90
	25	4.15	03099535	E9304540325115M2-1.9	E9304540325115M	20E9304M2B03	19MQL2B09	115	89	58-68	M10x1	1.90
	25	9.08	03099536	E9304540325115M2-2.8	E9304540325115M	20E9304M2C02	19MQL2C06	115	89	58-68	M10x1	1.80
	25	16.62	03099537	E9304540325115M2-5.3	E9304540325115M	20E9304M2D02	19MQL2D02	115	89	58-68	M10x1	1.80
	25	4.15	03099538	E9304540325160M2-2.8	E9304540325160M	20E9304M2B11	19MQL2B09	160	134	103-113	M10x1	2.60
	25	9.08	03099539	E9304540325160M2-4.0	E9304540325160M	20E9304M2C08	19MQL2C06	160	134	103-113	M10x1	2.60
	25	16.62	03099540	E9304540325160M2-5.3	E9304540325160M	20E9304M2D06	19MQL2D02	160	134	103-113	M10x1	2.60
	32	4.15	03099558	E9304540332120M2-2.8	E9304540332120M	20E9304M2B03	19MQL2B10	120	94	59-69	M10x1	1.70
	32	9.08	03099559	E9304540332120M2-4.0	E9304540332120M	20E9304M2C02	19MQL2C07	120	94	59-69	M10x1	1.70
	32	16.62	03099560	E9304540332120M2-5.3	E9304540332120M	20E9304M2D02	19MQL2D03	120	94	59-69	M10x1	1.70

NEW EPB 5403M2 SHRINKFIT HOLDERS - HSK A100

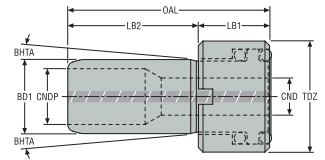
MACHINE SIDE	WORKPIECE SIDE	ADIF1 MM²	ORDER NO.	DESIGNATION	SPARE PARTS			DIMENSIONS IN METRIC					
					TOOL HOLDERS	COLLANT TUBE MQL1	STOP SCREW MQL1	LPR	LB	LFN-LF	TDZ	KG	
TAPER	DCBN-DCBX												
Metric													
	6	2.01	03099199	E930654030685M2-1.9	E930654030685M	20E9306M2A02	19MQL2A01	85	56	49-59	M5x0.8	2.30	
	6	4.15	03099200	E930654030685M2-2.8	E930654030685M	20E9306M2B02	19MQL2B01	85	56	49-59	M5x0.8	2.30	
	6	2.01	03099201	E9306540306120M2-1.9	E9306540306120M	20E9306M2A05	19MQL2A01	120	91	84-94	M5x0.8	2.50	
	6	4.15	03099202	E9306540306120M2-2.8	E9306540306120M	20E9306M2B06	19MQL2B01	120	91	84-94	M5x0.8	2.50	
	6	2.01	03099203	E9306540306160M2-1.9	E9306540306160M	20E9306M2A09	19MQL2A01	160	131	124-134	M5x0.8	2.70	
	6	4.15	03099204	E9306540306160M2-2.8	E9306540306160M	20E9306M2B12	19MQL2B01	160	131	124-134	M5x0.8	2.70	
	8	2.01	03099212	E930654030885M2-1.9	E930654030885M	20E9306M2A02	19MQL2A02	85	56	49-59	M6x1	2.30	
	8	4.15	03099213	E930654030885M2-2.8	E930654030885M	20E9306M2B02	19MQL2B02	85	56	49-59	M6x1	2.30	
	8	2.01	03099214	E9306540308120M2-1.9	E9306540308120M	20E9306M2A05	19MQL2A02	120	91	84-94	M6x1	2.50	
	8	4.15	03099215	E9306540308120M2-2.8	E9306540308120M	20E9306M2B06	19MQL2B02	120	91	84-94	M6x1	2.50	
	8	2.01	03099216	E9306540308160M2-1.9	E9306540308160M	20E9306M2A09	19MQL2A02	160	131	124-134	M6x1	2.60	
	8	4.15	03099217	E9306540308160M2-2.8	E9306540308160M	20E9306M2B12	19MQL2B02	160	131	124-134	M6x1	2.60	
	10	2.01	03099229	E930654031090M2-1.9	E930654031090M	20E9306M2A02	19MQL2A03	90	61	49-59	M8x1	2.40	
	10	4.15	03099230	E930654031090M2-2.8	E930654031090M	20E9306M2B02	19MQL2B03	90	61	49-59	M8x1	2.40	
	10	2.01	03099231	E9306540310120M2-1.9	E9306540310120M	20E9306M2A04	19MQL2A03	120	91	79-89	M8x1	2.60	
	10	4.15	03099232	E9306540310120M2-2.8	E9306540310120M	20E9306M2B04	19MQL2B03	120	91	79-89	M8x1	2.60	
	10	2.01	03099233	E9306540310160M2-1.9	E9306540310160M	20E9306M2A08	19MQL2A03	160	131	119-129	M8x1	2.80	
	10	4.15	03099234	E9306540310160M2-2.8	E9306540310160M	20E9306M2B11	19MQL2B03	160	131	119-129	M8x1	2.80	
	12	2.01	03099250	E930654031295M2-1.9	E930654031295M	20E9306M2A01	19MQL2A04	95	66	49-59	M10x1	2.40	
	12	4.15	03099251	E930654031295M2-2.8	E930654031295M	20E9306M2B01	19MQL2B04	95	66	49-59	M10x1	2.40	
	12	9.08	03099252	E930654031295M2-4.0	E930654031295M	20E9306M2C01	19MQL2C01	95	66	49-59	M10x1	2.40	
	12	2.01	03099253	E9306540312120M2-1.9	E9306540312120M	20E9306M2A03	19MQL2A04	120	91	74-84	M10x1	2.60	
	12	4.15	03099254	E9306540312120M2-2.8	E9306540312120M	20E9306M2B03	19MQL2B04	120	91	74-84	M10x1	2.60	
	12	9.08	03099255	E9306540312120M2-4.0	E9306540312120M	20E9306M2C02	19MQL2C01	120	91	74-84	M10x1	2.60	
	12	2.01	03099256	E9306540312160M2-1.9	E9306540312160M	20E9306M2A07	19MQL2A04	160	131	114-124	M10x1	2.80	
	12	4.15	03099257	E9306540312160M2-2.8	E9306540312160M	20E9306M2B10	19MQL2B04	160	131	114-124	M10x1	2.80	
	12	9.08	03099258	E9306540312160M2-4.0	E9306540312160M	20E9306M2C08	19MQL2C01	160	131	114-124	M10x1	2.80	
	14	2.01	03099295	E930654031495M2-1.9	E930654031495M	20E9306M2A01	19MQL2A05	95	66	49-59	M10x1	2.50	
	14	4.15	03099296	E930654031495M2-2.8	E930654031495M	20E9306M2B01	19MQL2B05	95	66	49-59	M10x1	2.50	
	14	9.08	03099297	E930654031495M2-4.0	E930654031495M	20E9306M2C01	19MQL2C02	95	66	49-59	M10x1	2.50	
	16	2.01	03099322	E9306540316100M2-1.9	E9306540316100M	20E9306M2A01	19MQL2A06	100	71	51-61	M10x1	2.50	
	16	4.15	03099323	E9306540316100M2-2.8	E9306540316100M	20E9306M2B01	19MQL2B06	100	71	51-61	M10x1	2.50	
	16	9.08	03099324	E9306540316100M2-4.0	E9306540316100M	20E9306M2C01	19MQL2C03	100	71	51-61	M10x1	2.50	
	16	2.01	03099325	E9306540316130M2-1.9	E9306540316130M	20E9306M2A04	19MQL2A06	130	101	81-91	M10x1	2.70	
	16	4.15	03099326	E9306540316130M2-2.8	E9306540316130M	20E9306M2B04	19MQL2B06	130	101	81-91	M10x1	2.70	
	16	9.08	03099327	E9306540316130M2-4.0	E9306540316130M	20E9306M2C03	19MQL2C03	130	101	81-91	M10x1	2.70	
	16	2.01	03099328	E9306540316160M2-1.9	E9306540316160M	20E9306M2A06	19MQL2A06	160	131	111-121	M10x1	2.90	
	16	4.15	03099329	E9306540316160M2-2.8	E9306540316160M	20E9306M2B09	19MQL2B06	160	131	111-121	M10x1	2.90	
	16	9.08	03099330	E9306540316160M2-4.0	E9306540316160M2	20E9306M2C07	19MQL2C03	160	131	111-121	M10x1	2.90	
	18	2.01	03099450	E9306540318100M2-1.9	E9306540318100M	20E9306M2A01	19MQL2A07	100	71	51-61	M10x1	2.60	
	18	4.15	03099451	E9306540318100M2-2.8	E9306540318100M	20E9306M2B01	19MQL2B07	100	71	51-61	M10x1	2.70	
	18	9.08	03099452	E9306540318100M2-4.0	E9306540318100M	20E9306M2C01	19MQL2C04	100	71	51-61	M10x1	2.70	
	20	4.15	03099463	E9306540320105M2-2.8	E9306540320105M	20E9306M2B01	19MQL2B08	105	76	54-64	M10x1	2.70	
	20	9.08	03099464	E9306540320105M2-4.0	E9306540320105M	20E9306M2C01	19MQL2C05	105	76	54-64	M10x1	2.70	
	20	16.62	03099465	E9306540320105M2-5.3	E9306540320105M	20E9306M2D01	19MQL2D01	105	76	54-64	M10x1	2.70	
	20	4.15	03099466	E9306540320130M2-2.8	E9306540320130M	20E9306M2B03	19MQL2B08	130	101	79-89	M10x1	2.90	
	20	9.08	03099467	E9306540320130M2-4.0	E9306540320130M	20E9306M2C02	19MQL2C05	130	101	79-89	M10x1	2.90	
	20	16.62	03099468	E9306540320130M2-5.3	E9306540320130M	20E9306M2D02	19MQL2D01	130	101	79-89	M10x1	2.90	
	20	4.15	03099469	E9306540320160M2-2.8	E9306540320160M	20E9306M2B08	19MQL2B08	160	131	109-119	M10x1	3.30	
	20	9.08	03099470	E9306540320160M2-4.0	E9306540320160M	20E9306M2C06	19MQL2C05	160	131	109-119	M10x1	3.30	
	20	16.62	03099471	E9306540320160M2-5.3	E9306540320160M	20E9306M2D05	19MQL2D01	160	131	109-119	M10x1	3.30	
	25	4.15	03099541	E9306540325115M2-2.8	E9306540325115M	20E9306M2B01	19MQL2B09	115	86	58-68	M10x1	3.20	
	25	9.08	03099542	E9306540325115M2-4.0	E9306540325115M	20E9306M2C01	19MQL2C06	115	86	58-68	M10x1	3.20	
	25	16.62	03099543	E9306540325115M2-5.3	E9306540325115M	20E9306M2D01	19MQL2D02	115	86	58-68	M10x1	3.20	
	25	4.15	03099544	E9306540325160M2-2.8	E9306540325160M	20E9306M2B07	19MQL2B09	160	131	103-113	M10x1	4.00	
	25	9.08	03099545	E9306540325160M2-4.0	E9306540325160M	20E9306M2C05	19MQL2C06	160	131	103-113	M10x1	4.00	
	25	16.62	03099546	E9306540325160M2-5.3	E9306540325160M	20E9306M2D04	19MQL2D02	160	131	103-113	M10x1	4.00	
	32	4.15	03099561	E9306540332120M2-2.8	E9306540332120M	20E9306M2B01	19MQL2B10	120	91	59-69	M10x1	3.10	
	32	9.08	03099562	E9306540332120M2-4.0	E9306540332120M	20E9306M2C01	19MQL2C07	120	91	59-69	M10x1	3.10	
	32	16.62	03099563	E9306540332120M2-5.3	E9306540332120M	20E9306M2D01	19MQL2D03	120	91	59-69	M10x1	3.10	



DESIGN 1



DESIGN 2

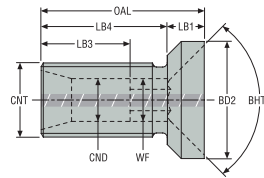


NEW ACCESSORIES - COOLANT TUBES FOR MQL1

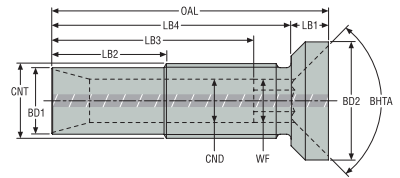
FOR HOLDERS	CND Ø	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC							TDZ (MM)	BHTA°	DESIGN	KG
				BD1	BD2	OAL	LB1	LB2	CNDP					
HSK-A100 & HSK-E100	8	03103663	Metric											
			20E9306M1	-	-	44	16	28	12	M24x1.5	1	2	0.1	



DESIGN 1

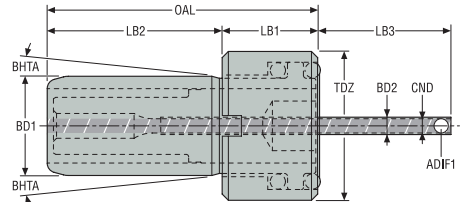


DESIGN 2



NEW ACCESSORIES - STOP SCREWS FOR MQL1

DESCRIPTION	CND Ø	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC									CNT (MM)	BHTA° (MM)	DESIGN	KG
				BD1	BD2	OAL	LB1	LB2	LB3	LB4	WF					
Short			Metric													
	3.0	02967758	19MQL106S	-	5.8	17	1.5	-	12	15.5	2.5	M5	90	1	0.1	
	3.5	02967759	19MQL108S	-	7.8	18	2.5	-	12	15.5	3	M6	90	1	0.1	
	4.7	02967760	19MQL110S	-	9.8	18	3	-	12	15	4	M8x1	90	1	0.1	
	5.8	02967761	19MQL112S	-	11.8	18	3	-	11	15	5	M10x1	90	1	0.1	
	5.8	02967762	19MQL114S	-	13.8	19.5	4	-	12.5	15.5	5	M10x1	90	1	0.1	
	5.8	02967763	19MQL116S	-	15.8	22	5	-	12	17	5	M10x1	90	1	0.1	
	5.8	02967764	19MQL118S	-	17.8	22	6	-	12	16	5	M10x1	90	1	0.1	
	5.8	02967765	19MQL120S	-	19.8	23.5	7	-	12	16.5	5	M10x1	90	1	0.1	
	5.8	02967766	19MQL125S	-	24.8	27.5	9.5	-	13	18	5	M10x1	90	1	0.1	
Long	5.8	02967767	19MQL132S	-	31.8	30.5	13	-	13	17.5	5	M10x1	90	1	0.1	
	3.0	02967768	19MQL106L	4.1	5.8	34	1.5	15	30	32.5	2.5	M5x0.8	90	2	0.1	
	3.5	02967769	19MQL108L	4.9	7.8	34	2.5	15	29	31.5	3	M6x1	90	2	0.1	
	4.7	02967770	19MQL110L	6.9	9.8	35	3	15	28	32	4	M8x1	90	2	0.1	
	5.8	02967771	19MQL112L	8.9	11.8	35	3	15	27	32	5	M10x1	90	2	0.1	
	5.8	02967772	19MQL114L	8.9	13.8	35.5	4	15.5	26	31.5	5	M10x1	90	2	0.1	
	5.8	02967773	19MQL116L	8.9	15.8	37	5	15	27	32	5	M10x1	90	2	0.1	
	5.8	02967774	19MQL118L	8.9	17.8	37.5	6	15.5	26	31.5	5	M10x1	90	2	0.1	
	5.8	02967775	19MQL120L	8.9	19.8	40	7	15	28	33	5	M10x1	90	2	0.1	
	5.8	02967776	19MQL125L	8.9	24.8	44	9.5	15	29	34.5	5	M10x1	90	2	0.1	
5.8	02967777	19MQL132L	8.9	31.8	45	13	14	27	32	5	M10x1	90	2	0.1		

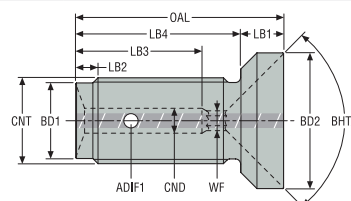


NEW ACCESSORIES COOLANT TUBES FOR MQL2

FOR HOLDERS	CND Ø	ADIF1 MM²	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						TDZ (MM)	BHTA° (MM)	KG
					BD1	BD2	OAL	LB1	LB2	LB3			
Metric													
HSK-A63 & HSK-E63	1.6	2.01	02967805	20E9304M2A01	12	1.9	48.8	11.5	24.3	13	M18x1	1	0.1
	1.6	2.01	02967806	20E9304M2A02	12	1.9	50	11.5	24.3	14.2	M18x1	1	0.1
	1.6	2.01	02967807	20E9304M2A03	12	1.9	73.8	11.5	24.3	38	M18x1	1	0.1
	1.6	2.01	02967808	20E9304M2A04	12	1.9	78.8	11.5	24.3	43	M18x1	1	0.1
	1.6	2.01	02967809	20E9304M2A05	12	1.9	85	11.5	24.3	49.2	M18x1	1	0.1
	1.6	2.01	02967810	20E9304M2A06	12	1.9	90	11.5	24.3	54.2	M18x1	1	0.1
	1.6	2.01	02967811	20E9304M2A07	12	1.9	113.8	11.5	24.3	78	M18x1	1	0.1
	1.6	2.01	02967812	20E9304M2A08	12	1.9	118.8	11.5	24.3	83	M18x1	1	0.1
	1.6	2.01	02967813	20E9304M2A09	12	1.9	125	11.5	24.3	89.2	M18x1	1	0.1
	1.6	2.01	02967814	20E9304M2A10	12	1.9	130	11.5	24.3	94.2	M18x1	1	0.1
	2.3	4.15	02967815	20E9304M2B01	12	2.8	48.8	11.5	24.3	13	M18x1	1	0.1
	2.3	4.15	02967816	20E9304M2B02	12	2.8	50	11.5	24.3	14.2	M18x1	1	0.1
	2.3	4.15	02967817	20E9304M2B03	12	2.8	54.1	11.5	24.3	18.3	M18x1	1	0.1
	2.3	4.15	02967818	20E9304M2B04	12	2.8	60.8	11.5	24.3	25	M18x1	1	0.1
	2.3	4.15	02967819	20E9304M2B05	12	2.8	70	11.5	24.3	34.2	M18x1	1	0.1
	2.3	4.15	02967820	20E9304M2B06	12	2.8	73.8	11.5	24.3	38	M18x1	1	0.1
	2.3	4.15	02967821	20E9304M2B07	12	2.8	78.8	11.5	24.3	43	M18x1	1	0.1
	2.3	4.15	02967822	20E9304M2B08	12	2.8	85	11.5	24.3	49.2	M18x1	1	0.1
	2.3	4.15	02967823	20E9304M2B09	12	2.8	90	11.5	24.3	54.2	M18x1	1	0.1
	2.3	4.15	02967824	20E9304M2B10	12	2.8	94.1	11.5	24.3	58.3	M18x1	1	0.1
	2.3	4.15	02967825	20E9304M2B11	12	2.8	99.1	11.5	24.3	63.3	M18x1	1	0.1
	2.3	4.15	02967826	20E9304M2B12	12	2.8	110	11.5	24.3	74.2	M18x1	1	0.1
	2.3	4.15	02967827	20E9304M2B13	12	2.8	113.8	11.5	24.3	78	M18x1	1	0.1
2.3	4.15	02967828	20E9304M2B14	12	2.8	118.8	11.5	24.3	83	M18x1	1	0.1	
2.3	4.15	02967829	20E9304M2B15	12	2.8	125	11.5	24.3	89.2	M18x1	1	0.1	
2.3	4.15	03098938	20E9304M2B16	12	2.8	130	11.5	24.3	94.2	M18x1	1	0.1	
HSK-A63 & HSK-E63	3.4	9.08	02967830	20E9304M2C01	12	4	48.8	11.5	24.3	13	M18x1	1	0.1
	3.4	9.08	02967831	20E9304M2C02	12	4	54.1	11.5	24.3	18.3	M18x1	1	0.1
	3.4	9.08	02967832	20E9304M2C03	12	4	60.8	11.5	24.3	25	M18x1	1	0.1
	3.4	9.08	02967833	20E9304M2C04	12	4	70	11.5	24.3	34.2	M18x1	1	0.1
	3.4	9.08	02967834	20E9304M2C05	12	4	73.8	11.5	24.3	38	M18x1	1	0.1
	3.4	9.08	02967835	20E9304M2C06	12	4	78.8	11.5	24.3	43	M18x1	1	0.1
	3.4	9.08	02967836	20E9304M2C07	12	4	94.1	11.5	24.3	58.3	M18x1	1	0.1
	3.4	9.08	02967837	20E9304M2C08	12	4	99.1	11.5	24.3	63.3	M18x1	1	0.1
	3.4	9.08	02967838	20E9304M2C09	12	4	110	11.5	24.3	74.2	M18x1	1	0.1
	3.4	9.08	02967839	20E9304M2C10	12	4	113.8	11.5	24.3	78	M18x1	1	0.1
	3.4	9.08	03098939	20E9304M2C11	12	4	118.8	11.5	24.3	83	M18x1	1	0.1
	4.6	16.62	02967840	20E9304M2D01	12	5.3	50	11.5	24.3	14.2	M18x1	1	0.1
	4.6	16.62	02967841	20E9304M2D02	12	5.3	54.1	11.5	24.3	18.3	M18x1	1	0.1
	4.6	16.62	02967842	20E9304M2D03	12	5.3	60.8	11.5	24.3	25	M18x1	1	0.1
	4.6	16.62	02967843	20E9304M2D04	12	5.3	70	11.5	24.3	34.2	M18x1	1	0.1
	4.6	16.62	02967844	20E9304M2D05	12	5.3	94.1	11.5	24.3	58.3	M18x1	1	0.1
	4.6	16.62	02967845	20E9304M2D06	12	5.3	99.1	11.5	24.3	63.3	M18x1	1	0.1
4.6	16.62	03098940	20E9304M2D07	12	5.3	110	11.5	24.3	74.2	M18x1	1	0.1	
HSK-A100 & HSK-E100	1.6	2.01	03098951	20E9306M2A01	12	1.9	55.1	15.4	28.2	11.5	M24x1.5	1	0.1
	1.6	2.01	03098952	20E9306M2A02	12	1.9	56.2	15.4	28.2	12.6	M24x1.5	1	0.1
	1.6	2.01	03098953	20E9306M2A03	12	1.9	80.6	15.4	28.2	37	M24x1.5	1	0.1
	1.6	2.01	03098954	20E9306M2A04	12	1.9	85.1	15.4	28.2	41.5	M24x1.5	1	0.1
	1.6	2.01	03098955	20E9306M2A05	12	1.9	91.6	15.4	28.2	48	M24x1.5	1	0.1
	1.6	2.01	03098956	20E9306M2A06	12	1.9	115.1	15.4	28.2	71.5	M24x1.5	1	0.1
	1.6	2.01	03098957	20E9306M2A07	12	1.9	120.1	15.4	28.2	76.5	M24x1.5	1	0.1
	1.6	2.01	03098958	20E9306M2A08	12	1.9	126.2	15.4	28.2	82.6	M24x1.5	1	0.1
	1.6	2.01	03098959	20E9306M2A09	12	1.9	131.2	15.4	28.2	87.6	M24x1.5	1	0.1
	2.3	4.15	03098960	20E9306M2B01	12	2.8	55.1	15.4	28.2	11.5	M24x1.5	1	0.1

NEW ACCESSORIES COOLANT TUBES FOR MQL2

FOR HOLDERS	CND ∅	ADIF1 MM ²	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC						TDZ (MM)	BHTA° (MM)	KG
					BD1	BD2	OAL	LB1	LB2	LB3			
HSK-A100 & HSK-E100	Metric												
	2.3	4.15	03098961	20E9306M2B02	12	2.8	56.2	15.4	28.2	12.6	M24x1.5	1	0.1
	2.3	4.15	03098962	20E9306M2B03	12	2.8	80.6	15.4	28.2	37	M24x1.5	1	0.1
	2.3	4.15	03098963	20E9306M2B04	12	2.8	85.1	15.4	28.2	41.5	M24x1.5	1	0.1
	2.3	4.15	03098964	20E9306M2B05	12	2.8	91.6	15.4	28.2	48	M24x1.5	1	0.1
	2.3	4.15	03098965	20E9306M2B06	12	2.8	95.6	15.4	28.2	52	M24x1.5	1	0.1
	2.3	4.15	03098966	20E9306M2B07	12	2.8	100.6	15.4	28.2	57	M24x1.5	1	0.1
	2.3	4.15	03098967	20E9306M2B08	12	2.8	110.6	15.4	28.2	67	M24x1.5	1	0.1
	2.3	4.15	03098968	20E9306M2B09	12	2.8	115.1	15.4	28.2	71.5	M24x1.5	1	0.1
	2.3	4.15	03098969	20E9306M2B10	12	2.8	120.1	15.4	28.2	76.5	M24x1.5	1	0.1
	2.3	4.15	03098970	20E9306M2B11	12	2.8	126.2	15.4	28.2	82.6	M24x1.5	1	0.1
	2.3	4.15	03098971	20E9306M2B12	12	2.8	131.2	15.4	28.2	87.6	M24x1.5	1	0.1
	3.4	9.08	03098972	20E9306M2C01	12	4	55.1	15.4	28.2	11.5	M24x1.5	1	0.1
	3.4	9.08	03098973	20E9306M2C02	12	4	80.6	15.4	28.2	37	M24x1.5	1	0.1
	3.4	9.08	03098974	20E9306M2C03	12	4	85.1	15.4	28.2	41.5	M24x1.5	1	0.1
	3.4	9.08	03098975	20E9306M2C04	12	4	95.6	15.4	28.2	52	M24x1.5	1	0.1
	3.4	9.08	03098976	20E9306M2C05	12	4	100.6	15.4	28.2	57	M24x1.5	1	0.1
	3.4	9.08	03098977	20E9306M2C06	12	4	110.6	15.4	28.2	67	M24x1.5	1	0.1
	3.4	9.08	03098978	20E9306M2C07	12	4	115.1	15.4	28.2	71.5	M24x1.5	1	0.1
	3.4	9.08	03098979	20E9306M2C08	12	4	120.1	15.4	28.2	76.5	M24x1.5	1	0.1
	4.6	16.62	03098980	20E9306M2D01	12	5.3	55.6	15.4	28.2	12	M24x1.5	1	0.1
	4.6	16.62	03098981	20E9306M2D02	12	5.3	80.6	15.4	28.2	37	M24x1.5	1	0.1
	4.6	16.62	03098982	20E9306M2D03	12	5.3	95.6	15.4	28.2	52	M24x1.5	1	0.1
	4.6	16.62	03098983	20E9306M2D04	12	5.3	100.6	15.4	28.2	57	M24x1.5	1	0.1
	4.6	16.62	03098984	20E9306M2D05	12	5.3	110.6	15.4	28.2	67	M24x1.5	1	0.1



NEW ACCESSORIES STOP SCREWS FOR MQL2

CND ∅	ADIF1 MM ²	ORDER NO.	DESIGNATION	DIMENSIONS IN METRIC								BHTA° (MM)	KG	
				BD1	BD2	OAL	LB1	LB2	LB3	LB4	WF			
Metric														
2.0	2.01	02967778	19MQL2A01	4	5.8	19.4	1.5	2.4	13.9	17.9	1.5	M5x0.8	90	1
2.0	2.01	02967779	19MQL2A02	4.8	7.8	19.8	2.5	1.8	13.6	17.3	1.5	M6x1	90	1
2.0	2.01	02967780	19MQL2A03	6.8	9.8	21	3	3	13.8	18	1.5	M8x1	90	1
2.0	2.01	02967781	19MQL2A04	8.8	11.8	21.4	3	3	13.8	18.4	1.5	M10x1	90	1
2.0	2.01	02967782	19MQL2A05	8.8	13.8	21.4	4	2	12.8	17.4	1.5	M10x1	90	1
2.0	2.01	02967783	19MQL2A06	8.8	15.8	24.2	5	2	14.7	19.2	1.5	M10x1	90	1
2.0	2.01	02967784	19MQL2A07	8.8	17.8	24.4	6	2.5	14.1	18.4	1.5	M10x1	90	1
2.9	4.15	02967785	19MQL2B01	4	5.8	19.4	1.5	2.4	13.9	17.9	2	M5x0.8	90	1
2.9	4.15	02967786	19MQL2B02	4.8	7.8	19.8	2.5	1.8	13.6	17.3	2	M6x1	90	1
2.9	4.15	02967787	19MQL2B03	6.8	9.8	21	3	3	13.8	18	2	M8x1	90	1
2.9	4.15	02967788	19MQL2B04	8.8	11.8	21.4	3	3	13.8	18.4	2	M10x1	90	1
2.9	4.15	02967789	19MQL2B05	8.8	13.8	21.4	4	2	12.8	17.4	2	M10x1	90	1
2.9	4.15	02967790	19MQL2B06	8.8	15.8	24.2	5	2	14.7	19.2	2	M10x1	90	1
2.9	4.15	02967791	19MQL2B07	8.8	17.8	24.4	6	2.5	14.1	18.4	2	M10x1	90	1
2.9	4.15	02967792	19MQL2B08	8.8	19.8	28	7	4	15.1	21	2	M10x1	90	1
2.9	4.15	02967793	19MQL2B09	8.8	24.8	32.2	9.5	4.5	16.2	22.7	2	M10x1	90	1
2.9	4.15	02967794	19MQL2B10	8.8	31.8	34.3	13	3.5	16	21.3	2	M10x1	90	1
4.1	9.08	02967795	19MQL2C01	8.8	11.8	21.4	3	3	13.8	18.4	3	M10x1	90	1
4.1	9.08	02967796	19MQL2C02	8.8	13.8	21.4	4	2	12.8	17.4	3	M10x1	90	1
4.1	9.08	02967797	19MQL2C03	8.8	15.8	24.2	5	2	14.7	19.2	3	M10x1	90	1
4.1	9.08	02967798	19MQL2C04	8.8	17.8	24.4	6	2.5	14.1	18.4	3	M10x1	90	1
4.1	9.08	02967799	19MQL2C05	8.8	19.8	28	7	4	15.1	21	3	M10x1	90	1
4.1	9.08	02967800	19MQL2C06	8.8	24.8	32.2	9.5	4.5	16.2	22.7	3	M10x1	90	1
4.1	9.08	02967801	19MQL2C07	8.8	31.8	34.3	13	3.5	16	21.3	3	M10x1	90	1
5.4	16.62	02967802	19MQL2D01	8.8	19.8	28	7	4	15.1	21	4	M10x1	90	1
5.4	16.62	02967803	19MQL2D02	8.8	24.8	32.2	9.5	4.5	16.2	22.7	4	M10x1	90	1
5.4	16.62	02967804	19MQL2D03	8.8	31.8	34.3	13.5	3.5	16	20.8	4	M10x1	90	1

MAKING STRIDES

For Seco, constant improvement is a way of life and sometimes that means dramatic introductions that impact the market at large, as embodied by our featured products. It also means range additions for expanding the application area of existing, productivity-enhancing solutions.



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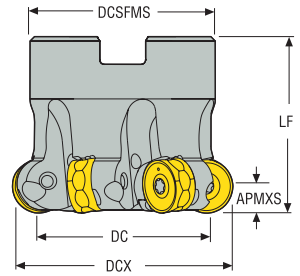
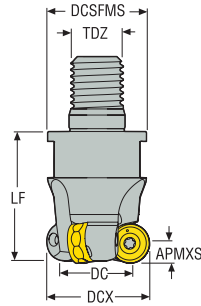
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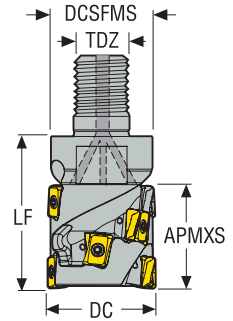
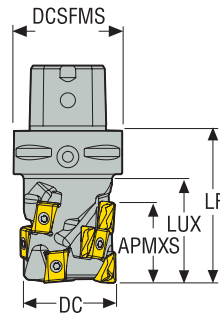
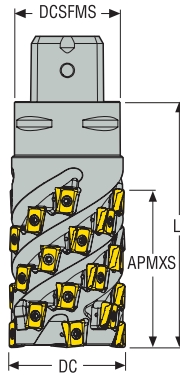
For additional product details and cutting data please visit: SECOTOOLS.COM



NEW COPY MILLING CUTTERS - R220.28.06

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN INCH/METRIC								RMPX°		LB/KG		INSERT
			APMXS	DCX	DC	DCSFMS	DCB	TDZ	LF						
Inch															
03137203	R220.28-04.00-06-10A	Arbor	0.236	4.00	3.528	3.543	1.500	-	1.97	0.11	10	3.97	8800	RNMU12..	
03137204	R220.28-04.00-06-12A	Arbor	0.236	4.00	3.528	3.543	1.500	-	1.97	0.11	12	3.97	8800	RNMU12..	
Metric															
03137201	R220.28-0100-06.10A	Arbor	6	100	88	77	32	-	50	0.11	10	1.6	8800	RNMU12..	
03137202	R220.28-0100-06.12A	Arbor	6	100	88	77	32	-	50	0.11	12	1.6	8800	RNMU12..	

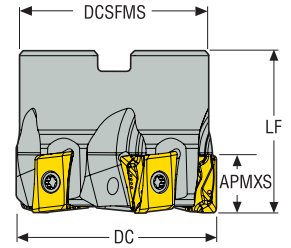
Pilot diameter = DCB, Ramping angle = RMPX



NEW SQUARE T4-12 HELICAL CUTTERS - R217.94.12

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN METRIC							ZEFP		KG		INSERT	
			APMXS	DC	DCSFMS	TDZ	LF	LUX							
Metric															
03135367	R217.94-2040.RE-035-12.2A	Combimaster	35	40	37	M20	50	73	2	6	0.4	11000	LOEX12..		
03134235	C5-R217.94-044-035-12.3A	Seco-Capto	35	44	50	-	70	48	3	9	0.8	10600	LOEX12..		
03134236	C5-R217.94-044-058-12.3A	Seco-Capto	58	44	50	-	95	73	3	15	0.9	10600	LOEX12..		
03134237	C5-R217.94-054-069-12.4A	Seco-Capto	69	54	50	-	105	84	4	24	1.3	9700	LOEX12..		
03134238	C6-R217.94-066-081-12.5A	Seco-Capto	81	66	63	-	115	102	5	35	2.2	8700	LOEX12..		

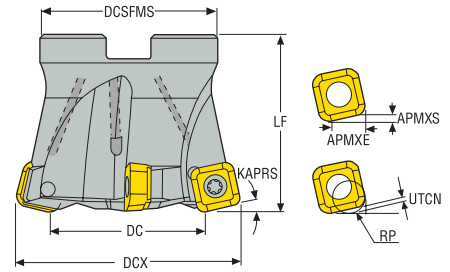
ZEFP = Effective number of teeth, Pilot diameter = DCB



NEW SQUARE T4-12 CUTTERS - R220.94-12

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN INCH						ZEPF				INSERT
			APMXS	DC	DCSFMS	DCB	LF						
Inch													
03137209	R220.94-06.00-12-14	Arbor	0.472	6.00	4.33	2.00	2.48	14	14	10.1	6200	LOEX12..	

ZEPF = Effective number of teeth, Pilot diameter = DCB

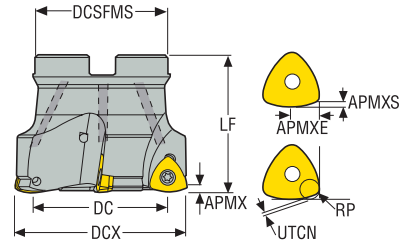


NEW HIGH FEED MILLING CUTTERS - R220.21-SC

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN INCH/METRIC												LB/KG		INSERT
			APMXE	APMXS	DCX	DC	DCSFMS	DCB	LF	UTCN	RP	KAPRS°	RMPX°				
Inch																	
03136677	R220.21-02.00-SC12.5A	Arbor	0.354	0.079	2.00	1.25	1.75	0.75	1.60	0.043	0.173	12.5	0.08	5	1.1	10700	SCET12..
03136678	R220.21-02.50-SC12.5A	Arbor	0.354	0.079	2.50	1.75	1.75	0.75	2.00	0.043	0.173	12.5	0.02	5	1.1	9600	SCET12..
03136679	R220.21-02.50-SC12.6A	Arbor	0.354	0.079	2.50	1.75	1.75	0.75	2.00	0.043	0.173	12.5	0.02	6	1.3	9600	SCET12..
03136680	R220.21-03.00-SC12.6A	Arbor	0.354	0.079	3.00	2.25	2.25	1.00	2.00	0.043	0.173	12.5	0.02	6	2.6	8500	SCET12..
03136681	R220.21-04.00-SC12.8A	Arbor	0.354	0.079	4.00	3.25	3.54	1.50	2.00	0.047	0.173	12.5	0.02	8	4.6	7600	SCET12..
Metric																	
03136672	R220.21-0050-SC12.5A	Arbor	9	2	50	31	42	22	40	1.1	4.4	12.5	2.1	5	0.4	10700	SCET12..
03138188	R220.21-0052-SC12.5A	Arbor	9	2	52	33	47	22	40	1.1	4.5	12.5	2	5	0.8	10500	SCET12..
03136673	R220.21-0063-SC12.6A	Arbor	9	2	63	44	50	27	50	1.1	4.4	12.5	0.6	6	0.7	9600	SCET12..
03138192	R220.21-0066-SC12.6A	Arbor	9	2	66	47.1	62	27	50	1.2	4.4	12.5	0.7	6	0.9	9400	SCET12..
03136674	R220.21-0080-SC12.7A	Arbor	9	2	80	61.1	62	27	50	1.2	4.4	12.5	0.8	7	1	8500	SCET12..
03136675	R220.21-0084-SC12.6A	Arbor	9	2	84	65.1	77	32	55	1.2	4.4	12.5	0.8	6	1.6	8300	SCET12..
03136676	R220.21-0100-SC12.8A	Arbor	9	2	100	81	77	32	50	1.2	4.4	12.5	0.6	8	1.5	7600	SCET12..

Pilot diameter = DCB
Ramping angle = RMPX

UTCN = Uncut thickness, deviation between programmed corner radii (RP) and generated machined profile.

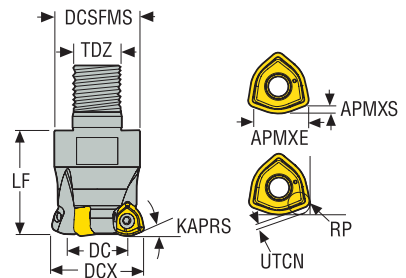


NEW HIGH FEED 6 CUTTERS - R220.21-R160

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN METRIC										RMPX°		KG		INSERT	
			APMXS	APMXE	DCX	DC	DCSFMS	DCB	LF	UTCN	RP							
Metric																		
03136664	R220.21-0050-R160.5A	Arbor	1.8	11	50	33.7	47	22	40	1.03	3.01	0.9	5	1.3	12900	218.19-160		
03136665	R220.21-0052-R160.5A	Arbor	1.8	11	52	35.7	47	22	40	1.03	3.03	0.8	5	0.6	12700	218.19-160		
03136666	R220.21-0063-R160.6A	Arbor	1.8	11	63	47.9	50	27	50	0.98	3.0	0.6	6	0.6	11500	218.19-160		
03136667	R220.21-0066-R160.6A	Arbor	1.8	11	66	50.9	62	27	50	1.05	3.0	0.5	6	1.2	11200	218.19-160		
03136668	R220.21-0080-R160.7A	Arbor	1.8	11	80	63.6	62	27	50	1.04	3.0	0.4	7	1.3	10200	218.19-160		
03136669	R220.21-0084-R160.7A	Arbor	1.8	11	84	67.6	77	32	50	1.03	3.0	0.4	7	1.3	10000	218.19-160		
03136670	R220.21-0084-R160.8A	Arbor	1.8	11	84	67.6	77	32	50	1.03	3.0	0.4	8	1.5	10000	218.19-160		
03136671	R220.21-0100-R160.9A	Arbor	1.8	11	100	83.6	77	32	50	1.03	3.0	0.3	9	1.6	9700	218.19-160		

Pilot diameter = DCB, Ramping angle = RMPX

UTCN = Uncut thickness. deviation between programmed corner radii (RP) and generated machined profile.



NEW HIGH FEED 6 CUTTERS - R217.21-R230

ORDER NO.	DESIGNATION	TYPE OF MOUNTING	DIMENSIONS IN METRIC										KAPRS°	RMPX°		KG		INSERT
			APMXS	APMXE	DCX	DC	DCSFMS	LF	UTCN	RP								
Metric																		
03136708	R217.21-2040.RE-R230.3A	Combimaster	1.8	10	40	25.6	36.5	45	0.88	3.32	-	1.4	3	0.4	12100	218.21-230		
03136709	R217.21-2042.RE-R230.3A	Combimaster	1.8	10	42	27.6	36.5	45	0.88	3.32	-	1.3	3	0.4	12100	218.21-230		

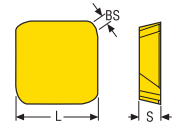
Ramping angle = RMPX

UTCN = Uncut thickness. deviation between programmed corner radii (RP) and generated machined profile.

NEW SPMR19 INSERTS

DESIGNATION	DIMENSIONS IN INCH				COATED GRADES (ORDER NO.)		INSERT STYLE
	RE	CUTTING RAKE	S	BS	MM4500	MP2050	

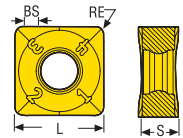
Inch							
SPMR1906ZETR-M17	0.063	17°	0.250	0.039	03122667	-	
SPMR1906ZETR-M17	0.063	17°	0.250	0.039	-	03122668	



NEW SNMU INSERTS

DESIGNATION	DIMENSIONS IN INCH				COATED GRADES (ORDER NO.)				INSERT STYLE
	RE	CUTTING RAKE	L	S	MP1500	MP2500	MK1500	MK2050	

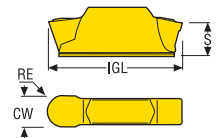
Inch								
SNMU120408TN-M10	0.031	20°	0.472	0.209	03122640	03122641	03122638	03122639
SNMU120408TN-MD13	0.031	-	0.472	0.197	03122644	03122645	03122642	03122643
SNMU160610TN-M10	0.039	20°	0.630	0.291	03122648	03122649	03122646	03122647
SNMU160610TN-MD16	0.039	-	0.630	0.260	03122652	03122653	03122650	03122651



NEW MDT SECOMAX™ PCBN LCGN-LF INSERT

DESIGNATION	SIZE	DIMENSIONS IN INCH			RE	COATED GRADES (ORDER NO.)	INSERT STYLE LCGN...MD-LF
		CW	IGL	S		CBN170C	

Inch						
LCGN1605MO-0500E25-LF	1605	0.197	0.677	0.169	0.098	02860203



Tolerances: CW = ±0.001 IGL = ±0.0016 S = ± 0.002 RE = ±0.001

NEW 396.20-4005 INSERTS - FOR FLUID ENDS

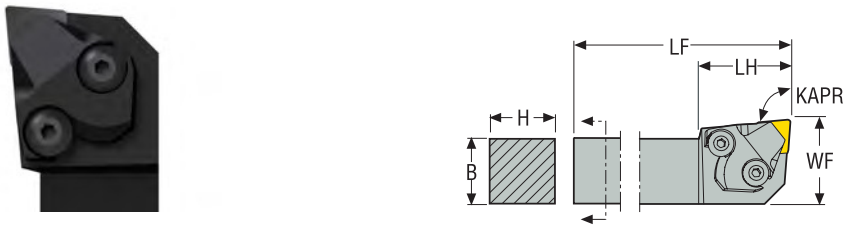
INSERTS	DESIGNATION	DIMENSIONS IN INCH		DIMENSIONS IN METRIC		COATED GRADES (ORDER NO.)	INSERT STYLE
		INSL	S	INSL	S		
For internal threading	396.20-4005.0N3ACME	1.575	0.193	40	4.9	03091541	
	396.20-4005.0N4ACME	1.575	0.193	40	4.9	03091542	
	396.20-4005.0N8ACME	1.575	0.193	40	4.9	03091543	
	396.20-4005-0N4BUT	1.575	0.193	40	4.9	02909990	

Tolerances: d = ± 0.00047" (0.012 mm) s = ± 0.001968" (0.05 mm) l = ± 0.000275" (0.007 mm)



R396.20 THREAD MILLING CUTTER - FOR FLUID ENDS

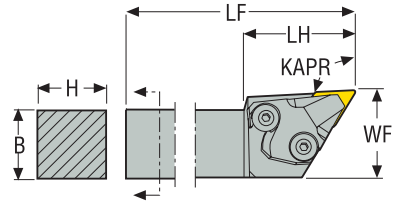
ORDER NO.	DESIGNATION	DIMENSIONS IN INCH					LBS		INSERT
		APMX	BD	DC	LF				
03000549	R396.20-02.478-4005-9AW	1.575	2.106	2.480	1.969	9	1.32	8600	396.20-4005



NEW JETSTREAM TOOLING® DUO TOOLHOLDERS W/ ROUGHING INDUCERS FOR INSERTS CNGA, CNGG, CNMA, CNMG & CNMM

APPLICATION 95°		ORDER NO.	DESIGNATION	DIMENSIONS IN INCH					GAMO°	LAMS°	lbs	
				H	B	LF	WF	LH				
	1/2	70475	PCLNR-16-4DJETLR	1.00	1.00	6.00	1.26	1.38	-6	-6	1.8	CN.43.
		70470	PCLNL-16-4DJETLR	1.00	1.00	6.00	1.26	1.38	-6	-6	1.8	CN.43.

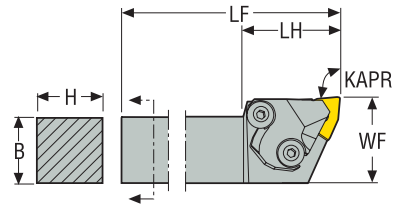
Right-hand version shown, KAPR = 95°



NEW JETSTREAM TOOLING® DUO TOOLHOLDERS W/ ROUGHING INDUCERS FOR INSERTS DNGA, DNGG, DNGM, DNMA, DNMG, DNMM & DNMX

APPLICATION 93° 		ORDER NO.	DESIGNATION	DIMENSIONS IN INCH					GAMO°	LAMS°	lbs	
				H	B	LF	WF	LH				
1/2		70463	PDJNR-16-4DJETLR	1.00	1.00	6.00	1.26	1.61	-6	-6	1.5	DN.43.
		70462	PDJNL-16-4DJETLR	1.00	1.00	6.00	1.26	1.61	-6	-6	1.5	DN.43.

Right-hand version shown, KAPR = 93°



NEW JETSTREAM TOOLING® DUO TOOLHOLDERS W/ ROUGHING INDUCERS FOR INSERTS WNGA, WNMA, WNMG & WNMM

APPLICATION 95° 		ORDER NO.	DESIGNATION	DIMENSIONS IN INCH					GAMO°	LAMS°	lbs	
				H	B	LF	WF	LH				
1/2		70469	PWLN-16-4DJETLR	1.00	1.00	6.00	1.26	1.42	-6	-6	1.8	WN.43.
		70467	PWLNL-16-4DJETLR	1.00	1.00	6.00	1.26	1.42	-6	-6	1.8	WN.43.

Right-hand version shown, KAPR = 95°

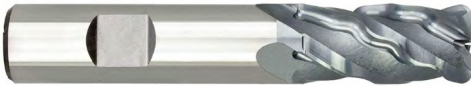
NEW NIAGARA CUTTER™ VFP 435SB, 435SBR, 635SB & 635SBR

ORDER NO.	DESIGNATION	DIMENSIONS IN INCH				FLUTES	COATING	RADIUS	CHAMFER
		FLUTE DIA (DC)	SHANK DIA (DMM)	LOC (APMX)	OVERALL LENGTH (DAL)				



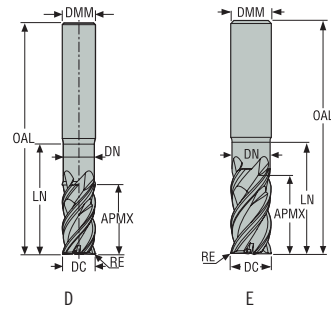
VFP435SB & VFP635SB

03136027	VFP435SB-1.250-D3-C040.3-Z4	1-1/4	1-1/4	3	5-1/2	4	AlCrN	-	0.040
03136028	VFP635SB-1.250-D3-C040.3-Z6	1-1/4	1-1/4	3	5-1/2	6	AlCrN	-	0.040
03136032	VFP635SB-1.250-D4-C040.3-Z6	1-1/4	1-1/4	4	6-1/2	6	AlCrN	-	0.040
03136036	VFP635SB-2.000-D1-C040.3-Z6	2	2	2	5-3/4	6	AlCrN	-	0.040
03136039	VFP635SB-2.000-D2-C040.3-Z6	2	2	3	6-3/4	6	AlCrN	-	0.040
03136042	VFP635SB-2.000-D3-C040.3-Z6	2	2	4	7-3/4	6	AlCrN	-	0.040
03136045	VFP635SB-2.000-D4-C040.3-Z6	2	2	6	9-3/4	6	AlCrN	-	0.040

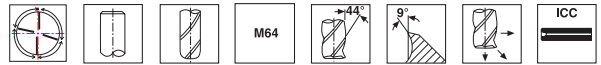


VFP435SBR & VFP635SBR

03136025	VFP435SBR-1.250-D2-R120.3-Z4	1-1/4	1-1/4	2	4-1/2	4	AlCrN	0.120	-
03136026	VFP635SBR-1.250-D2-R120.3-Z6	1-1/4	1-1/4	2	4-1/2	6	AlCrN	0.120	-
03136029	VFP635SBR-1.250-D3-R120.3-Z6	1-1/4	1-1/4	3	5-1/2	6	AlCrN	0.120	-
03136030	VFP635SBR-1.250-D3-R156.3-Z6	1-1/4	1-1/4	3	5-1/2	6	AlCrN	0.156	-
03136031	VFP435SBR-1.250-D4-R120.3-Z4	1-1/4	1-1/4	4	6-1/2	4	AlCrN	0.120	-
03136033	VFP635SBR-1.250-D4-R120.3-Z6	1-1/4	1-1/4	4	6-1/2	6	AlCrN	0.120	-
03136034	VFP635SBR-1.250-D4-R156.3-Z6	1-1/4	1-1/4	4	6-1/2	6	AlCrN	0.156	-
03136035	VFP635SBR-1.250-D6-R120.3-Z6	1-1/4	1-1/4	6	8-1/2	6	AlCrN	0.120	-
03136037	VFP635SBR-2.000-D1-R120.3-Z6	2	2	2	5-3/4	6	AlCrN	0.120	-
03136038	VFP635SBR-2.000-D1-R250.3-Z6	2	2	2	5-3/4	6	AlCrN	0.250	-
03136040	VFP635SBR-2.000-D2-R120.3-Z6	2	2	3	6-3/4	6	AlCrN	0.120	-
03136041	VFP635SBR-2.000-D2-R250.3-Z6	2	2	3	6-3/4	6	AlCrN	0.250	-
03136043	VFP635SBR-2.000-D3-R120.3-Z6	2	2	4	7-3/4	6	AlCrN	0.120	-
03136044	VFP635SBR-2.000-D3-R250.3-Z6	2	2	4	7-3/4	6	AlCrN	0.250	-
03136046	VFP635SBR-2.000-D4-R120.3-Z6	2	2	6	9-3/4	6	AlCrN	0.120	-
03136047	VFP635SBR-2.000-D4-R250.3-Z6	2	2	6	9-3/4	6	AlCrN	0.250	-

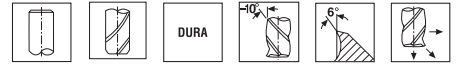
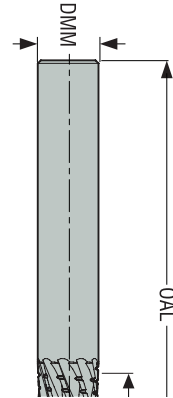


NEW JABRO® HPM JHP780



ORDER NO.	DESIGNATION	LENGTH INDEX	TOOL SHAPE	DIMENSIONS IN METRIC			LN	DN	RE	FCEDC	ICC	CYLINDRICAL	WELDON
				DMM	APMXS	OAL							
Metric													
03134984	JHP780060D1R030.0Z4A-M64	1	D	6	7.5	47	-	-	0.3	4	■	■	-
03134985	JHP780060D1R080.0Z4A-M64	1	D	6	7.5	47	-	-	0.8	4	■	■	-
03134986	JHP780080D1R040.0Z4A-M64	1	D	8	10	50	-	-	0.4	4	■	■	-
03134987	JHP780080D1R080.0Z4A-M64	1	D	8	10	50	-	-	0.8	4	■	■	-
03134988	JHP780100D1R040.0Z4A-M64	1	D	10	12.5	57	-	-	0.4	4	■	■	-
03134989	JHP780100D1R080.0Z4A-M64	1	D	10	12.5	57	-	-	0.8	4	■	■	-
03134990	JHP780120D1R040.0Z4A-M64	1	D	12	15	65	-	-	0.4	4	■	■	-
03134991	JHP780120D1R080.0Z4A-M64	1	D	12	15	65	-	-	0.8	4	■	■	-
03134992	JHP780060E2R030.0Z4A-M64	2	E	6	12	60	18	5.6	0.3	4	■	■	-
03134993	JHP780080E2R040.0Z4A-M64	2	E	8	16	65	24	7.4	0.4	4	■	■	-
03134994	JHP780100E2R040.0Z4A-M64	2	E	10	20	75	30	9.4	0.4	4	■	■	-
03134995	JHP780100E2R080.0Z4A-M64	2	E	10	20	75	30	9.4	0.8	4	■	■	-
03134996	JHP780120E2R040.0Z4A-M64	2	E	12	24	90	36	11.4	0.4	4	■	■	-
03134997	JHP780120E2R080.0Z4A-M64	2	E	12	24	90	36	11.4	0.8	4	■	■	-
03135000	JHP780160E2R040.0Z4A-M64	2	E	16	32	100	45	15.4	0.4	4	■	■	-
03135001	JHP780160E2R080.0Z4A-M64	2	E	16	32	100	45	15.4	0.8	4	■	■	-
Metric													
03135445	JHP780060D1R030.3Z4A-M64	1	D	6	7.5	47	-	-	0.3	4	■	-	■
03135446	JHP780060D1R080.3Z4A-M64	1	D	6	7.5	47	-	-	0.8	4	■	-	■
03135447	JHP780080D1R040.3Z4A-M64	1	D	8	10	50	-	-	0.4	4	■	-	■
03135449	JHP780080D1R080.3Z4A-M64	1	D	8	10	50	-	-	0.8	4	■	-	■
03135450	JHP780100D1R040.3Z4A-M64	1	D	10	12.5	57	-	-	0.4	4	■	-	■
03135451	JHP780100D1R080.3Z4A-M64	1	D	10	12.5	57	-	-	0.8	4	■	-	■
03135452	JHP780120D1R040.3Z4A-M64	1	D	12	15	65	-	-	0.4	4	■	-	■
03135453	JHP780120D1R080.3Z4A-M64	1	D	12	15	65	-	-	0.8	4	■	-	■
03135454	JHP780060E2R030.3Z4A-M64	2	E	6	12	60	18	5.6	0.3	4	■	-	■
03135455	JHP780080E2R040.3Z4A-M64	2	E	8	16	65	24	7.4	0.4	4	■	-	■
03135456	JHP780100E2R040.3Z4A-M64	2	E	10	20	75	30	9.4	0.4	4	■	-	■
03135457	JHP780100E2R080.3Z4A-M64	2	E	10	20	75	30	9.4	0.8	4	■	-	■
03134998	JHP780120E2R040.3Z4A-M64	2	E	12	24	90	36	11.4	0.4	4	■	-	■
03134999	JHP780120E2R080.3Z4A-M64	2	E	12	24	90	36	11.4	0.8	4	■	-	■
03135002	JHP780160E2R040.3Z4A-M64	2	E	16	32	100	45	15.4	0.4	4	■	-	■
03135003	JHP780160E2R080.3Z4A-M64	2	E	16	32	100	45	15.4	0.8	4	■	-	■

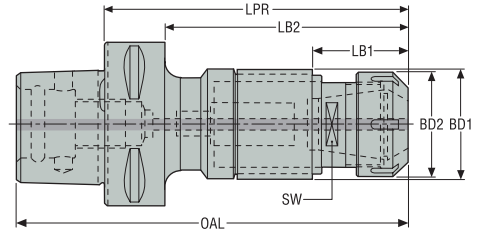
■ Stock standard. Subject to change refer to current price- and stock-list
 Tolerances: DMM=h5 DC=e7 RE=+/-0.02 mm



NEW JC876. JC877 SOLID CARBIDE END MILL - ADVANCED ROUTER - LEFT HAND HELIX - DOWNCUT

ORDER NO.	DESIGNATION	LENGTH INDEX	DIMENSIONS IN INCH/METRIC						CYLINDRICAL
			DC	DMM	OAL	APMX	CHW	FCEDC	
Inch									
03135125	JC876.250D2C.0Z8-DURA	2	0.250	0.250	2.500	0.625	0.003	8	■
03135126	JC876.250D2C.0Z10-DURA	2	0.250	0.250	2.500	0.625	0.003	10	■
03135127	JC876.375D2C.0Z12-DURA	2	0.375	0.375	3.000	1.000	0.005	12	■
03135128	JC876.500D2C.0Z14-DURA	2	0.500	0.500	3.000	1.250	0.006	14	■
Metric									
03135004	JC876030D2C.0Z6-DURA	2	3	3	50	7.5	0.04	6	■
03135005	JC876040D2C.0Z6-DURA	2	4	4	54	10	0.05	6	■
03135006	JC876060D2C.0Z8-DURA	2	6	6	62	15	0.08	8	■
03135007	JC876060D2C.0Z10-DURA	2	6	6	62	15	0.08	10	■
03135008	JC876080D2C.0Z8-DURA	2	8	8	70	20	0.10	8	■
03135009	JC876080D2C.0Z10-DURA	2	8	8	70	20	0.10	10	■
03135010	JC876100D2C.0Z10-DURA	2	10	10	82	25	0.13	10	■
03135011	JC876100D2C.0Z12-DURA	2	10	10	82	25	0.13	12	■
03135012	JC876120D2C.0Z14-DURA	2	12	12	95	30	0.15	14	■
Inch									
03135130	JC877.250D2C.0Z10-DURA	2	0.250	0.250	2.500	0.750	0.003	10	■
03135129	JC877.250D2C.0Z8-DURA	2	0.250	0.250	2.500	0.750	0.003	8	■
03135131	JC877.375D2C.0Z12-DURA	2	0.375	0.375	3.000	1.125	0.005	12	■
03135132	JC877.500D2C.0Z14-DURA	2	0.500	0.500	3.000	1.250	0.006	14	■
Metric									
03135013	JC877030D2C.0Z6-DURA	2	3	3	50	9	0.04	6	■
03135014	JC877040D2C.0Z6-DURA	2	4	4	54	12	0.05	6	■
03135015	JC877060D2C.0Z8-DURA	2	6	6	62	18	0.08	8	■
03135016	JC877060D2C.0Z10-DURA	2	6	6	62	18	0.08	10	■
03135017	JC877080D2C.0Z8-DURA	2	8	8	70	24	0.10	8	■
03135018	JC877080D2C.0Z10-DURA	2	8	8	70	24	0.10	10	■
03135019	JC877100D2C.0Z10-DURA	2	10	10	82	30	0.13	10	■
03135020	JC877100D2C.0Z12-DURA	2	10	10	82	30	0.13	12	■
03135021	JC877120D2C.0Z14-DURA	2	12	12	95	36	0.15	14	■

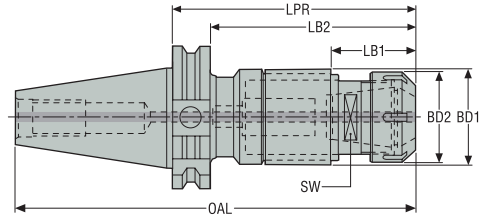
■ Stock standard. Subject to change refer to current price- and stock-list



NEW EPB 5867 - TAPPING CHUCKS FOR SYNCHRONIZED TAPPING W/ MICRO-COMPENSATION

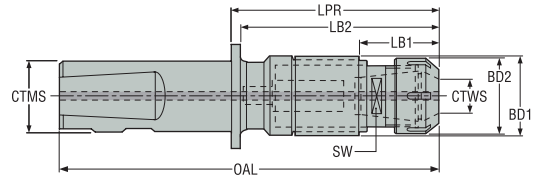
MACHINE SIDE	WORKPIECE SIDE	SIZE	ORDER NO.	DESIGNATION	DIMENSIONS IN INCH							*	LB
					LPR	BD1	BD2	OAL	LB1	LB2	SW		
C6	M20-M48	ER 50	03131173	C6-391.5867-50210	Inch							*	11.02
					8.268	3.386	3.071	9.764	3.091	5.374	2.213		

* ER 50 Designation C6-391.5867-50210 features a square size 1.141" (KWW) at the bottom of the collet housing



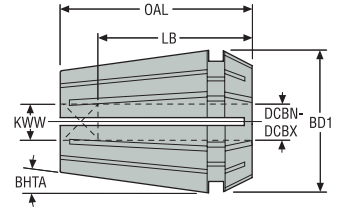
NEW EPB 5867 - TAPPING CHUCKS FOR SYNCHRONIZED TAPPING W/ MICRO-COMPENSATION

MACHINE SIDE	WORKPIECE SIDE	ORDER NO.	DESIGNATION	SIZE	DIMENSIONS IN INCH							LB
					LPR	BD1	BD2	OAL	LB1	LB2	SW	
CAT40 AD	M4-M12	03131168	E2622586720102	ER 20	4.024	1.378	1.339	6.711	1.587	3.276	0.866	2.87
		03131169	E2622586725122	ER 25	4.787	1.732	1.654	7.474	1.657	4.035	1.102	3.75
	M8-M20	03131170	E2624586720106	ER 20	4.181	1.378	1.339	8.181	1.587	3.433	0.866	6.61
CAT50 AD	M8-M20	03131171	E2624586725126	ER 25	4.945	1.732	1.654	5.008	1.657	4.193	1.102	7.50
	M16-M30	03131172	E2624586740155	ER 40	6.102	2.441	2.480	10.102	2.047	5.350	1.559	10.36



NEW EPB 5867 - TAPPING CHUCKS FOR SYNCHRONIZED TAPPING W/ MICRO-COMPENSATION

MACHINE SIDE	WORKPIECE SIDE	ORDER NO.	DESIGNATION	SIZE	DIMENSIONS IN INCH							LB
					LPR	BD1	BD2	OAL	LB1	LB2	SW	
1.000	M2-M5	03131176	BW925586711052	ER 11	2.043	0.925	0.748	4.043	0.992	-	0.500	0.66
		03131177	BW925586720069	ER 20	2.705	1.362	1.339	4.705	1.579	-	0.866	1.10
	M4-M12	03131178	BW925586725088	ER 25	3.469	1.732	1.654	5.469	1.720	-	1.102	1.98
40	M20-M48	03131179	BW240586750164	ER 50	Metric							5.30
					6.468	3.385	3.070	9.224	3.090	5.283	2.212	



NEW EPB 393.14 - ER TAPPING COLLETS W/ SQUARE DRIVE

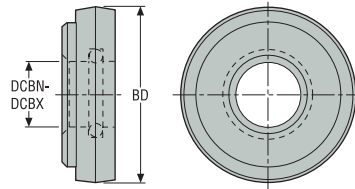
FOR COLLET CHUCK SIZE	ORDER NO.	DESIGNATION	DCBN-DCBX	DIMENSIONS IN INCH/METRIC				*	BHTA° (MM)
				KWW	BD1	LB	OAL		
Metric									
ER 11	03131636	393.14-11D025X021	2.5-2.5	2.1	11.3	12	18		8
	03131670	393.14-11D040X0315	4-4	3.1	11.3	14	18		8
	03131671	393.14-11D050X040	5-5	4	11.3	14	18		8
ER 20	03131672	393.14-20D035X027	3.5-3.5	2.7	20.8	14	31.5		8
	03131673	393.14-20D040X0315	4-4	3.2	20.8	15	31.5		8
	03131674	393.14-20D050X040	5-5	4	20.8	18	31.5		8
	03131675	393.14-20D055X043	5.5-5.5	4.3	20.8	18	31.5		8
	03131676	393.14-20D063X050	6.3-6.3	5	20.8	18	31.5		8
	03131677	393.14-20D071X056	7.1-7.1	5.6	20.8	18	31.5		8
	ER 25	03131691	393.14-25D060X049	6-6	4.9	25.8	18	34	
03131692		393.14-25D070X055	7-7	5.5	25.8	18	34		8
03131693		393.14-25D112X090	11.2-11.2	9	25.8	24.8	34		8
03131694		393.14-25D125X100	12.5-12.5	10	25.8	24.8	34		8
ER 40	03131695	393.14-40D125X100	12.5-12.5	10	41	24.8	46		8
ER 50	03131696	393.14-50D220X180	22-22	18	50	41	60		8
	03131697	393.14-50D250X200	25-25	20	50	41	60		8
	03131698	393.14-50D280X220	28-28	22	50	41	60		8
	03131700	393.14-50360	36-36	-	50	41	60	*	8
	03131700	393.14-50360	36-36	-	50	41	60	*	8
Inch									
ER 11	03131719	A393.14-11-0-6NO	0.141-0.141	0.110	0.445	0.551	0.709		8
	03131720	A393.14-11-8NO	0.168-0.168	0.131	0.445	0.551	0.709		8
	03131721	A393.14-11-10NO	0.194-0.194	0.152	0.445	0.551	0.709		8
ER 20	03131722	A393.14-20-8NO	0.168-0.168	0.131	0.819	0.709	1.240		8
	03131723	A393.14-20-10NO	0.194-0.194	0.152	0.819	0.701	1.240		8
	03131724	A393.14-20-12NO	0.220-0.220	0.165	0.819	0.701	1.240		8
	03131725	A393.14-20-1/4	0.255-0.255	0.191	0.819	0.701	1.240		8
	03131726	A393.14-20-5/16	0.318-0.318	0.238	0.819	0.858	1.240		8
	03131727	A393.14-20-7/16	0.323-0.323	0.242	0.819	0.858	1.240		8
	03131728	A393.14-20-1/2	0.367-0.367	0.275	0.819	0.866	1.240		8
	03131733	A393.14-20-3/8	0.381-0.381	0.286	0.819	0.858	1.240		8

Please check availability in current price and stock-list

* ER 50 Designation 393.14-50360 is without square like a standard ER collet. For Ø1.417" (36mm) tap shank. the square size 1.141" (29mm) is into the tapping holder

NEW EPB A393.14 - ER TAPPING COLLETS W/ SQUARE DRIVE

FOR COLLET CHUCK SIZE	ORDER NO.	DESIGNATION	DCBN-DCBX (INCH)	DIMENSIONS IN INCH				BHTA° (MM)
				KWW	BD1	LB	OAL	
ER 25		Inch						
	03131738	A393.14-25-1/4	0.255-0.255	0.191	1.016	0.701	1.339	8
	03131739	A393.14-25-5/16	0.318-0.318	0.238	1.016	0.858	1.339	8
	03131741	A393.14-25-7/16	0.323-0.323	0.242	1.016	0.858	1.339	8
	03131742	A393.14-25-1/2	0.367-0.367	0.275	1.016	0.858	1.339	8
	03131743	A393.14-25-3/8	0.381-0.381	0.286	1.016	0.858	1.339	8
	03131744	A393.14-25-9/16	0.429-0.429	0.322	1.016	0.976	1.339	8
	03131745	A393.14-25-1/8P	0.437-0.437	0.328	1.016	0.976	1.339	8
	03131746	A393.14-25-5/8	0.480-0.480	0.360	1.016	0.976	1.339	8
	03131747	A393.14-25-3/4	0.590-0.590	0.442	1.016	0.976	1.339	8
ER 40	03131748	A393.14-40-5/8	0.480-0.480	0.360	1.614	0.976	1.811	8
	03131749	A393.14-40-1/2P	0.687-0.687	0.515	1.614	0.976	1.811	8
	03131750	A393.14-40-M18	0.542-0.542	0.406z	1.614	0.976	1.811	8
	03131751	A393.14-40-1/8P	0.562-0.562	0.421	1.614	0.976	1.811	8
	03131752	A393.14-40-3/4	0.590-0.590	0.442	1.614	0.976	1.811	8
	03131753	A393.14-40-M20	0.652-0.652	0.489	1.614	0.976	1.811	8
	03131754	A393.14-40-7/8	0.697-0.697	0.523	1.614	0.976	1.811	8
	03131755	A393.14-40-3/8P	0.700-0.700	0.531	1.614	0.976	1.811	8
	03131756	A393.14-40-M24	0.760-0.760	0.570	1.614	1.094	1.811	8
	03131757	A393.14-40-1	0.800-0.800	0.600	1.614	1.094	1.811	8

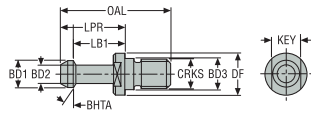


NEW EPB 5875 - ER SEALING RINGS

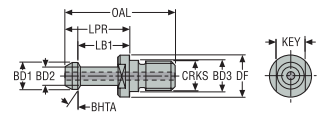
SEALING CAPACITY DCBN-DCBX (METRIC)	ORDER NO.	DESIGNATION	BD
		Metric	
4-4.5	03131184	01B587520045	16
4.5-5	03131182	01B58752005	16
5.5-6	02427909	01B58752006	16
6.5-7	02451138	01B58752007	16
7-7.5	03131185	01B587520075	16
7.5-8	02465404	01B58752008	16
8.5-9	02700032	01B58752009	16
9.5-10	02685743	01B58752010	16



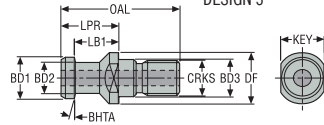
DESIGN 1



DESIGN 2



DESIGN 3



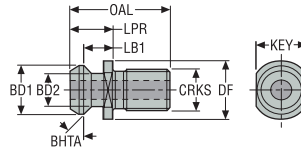
NEW PULL STUDS BT JIS

FOR TAPER	ORDER NO.	DESIGNATION	*	CRKS	DIMENSIONS IN INCH/METRIC								BHTA° (MM)	DESIGN	LB/KG
					BD1	BD2	BD3	DF	OAL	LPR	LB1	KEY			
Inch															
BT 40	03119985	PS-B40C-45-002		M16	0.587	0.390	0.669	0.858	2.362	1.378	1.102	0.689	45	2	0.66
BT 50	03119983	PS-B50-45-002		M24	0.906	0.665	0.984	1.370	3.339	1.772	1.378	1.185	45	1	0.66
Metric															
BT 30	03119886	PS-B30-45-001		M12	11	7	12.5	16.5	43	23	18	13	45	1	0.10
	03119889	PS-B30-60-001		M12	11	7	12.5	16.5	43	23	18	13	30	1	0.10
	03119887	PS-B30C-45-001		M12	11	7	12.5	16.5	43	23	18	13	45	2	0.10
	03119888	PS-B30C-45-002		M12	11	7	13	16.5	43	23	18	13	45	2	0.10
	03119939	PS-B30C-45-003		M12	11	8	12.5	16.5	43	23	18	13	45	2	0.10
	03119890	PS-B30C-60-001		M12	11	7	12.5	16.5	43	23	18	13	30	2	0.10
	03119891	PS-B30C-60-002		M12	11	7	12.5	16.5	43	23	18	13	30	2	0.10
Metric															
BT 40	03119894	PS-B40-45-001		M16	15	10	17	23	60	35	28	19	45	1	0.10
	03119906	PS-B40-60-001		M16	15	10	17	23	60	35	28	19	30	1	0.10
	03119884	PS-B40-90-001		M16	15	10	17	23	60	35	28	19	-	1	0.10
	03119895	PS-B40C-45-001		M16	15	10	17	23	60	35	28	19	45	2	0.10
	03119930	PS-B40C-60-001		M16	15	10	17	23	60	35	28	19	30	2	0.10
	03119885	PS-B40C-90-001		M16	15	10	17	23	60	35	28	19	-	1	0.10
Metric															
BT 50	03119931	PS-B50-45-001		M24	23	17	25	38	85	45	35	30	45	2	0.30
	03119937	PS-B50-60-001		M24	23	17	25	38	85	45	35	30	30	1	0.30
	03119934	PS-B50-90-001		M24	23	17	25	38	85	45	35	30	-	1	0.30
	03119932	PS-B50C-45-001		M24	23	17	25	38	85	45	35	30	45	2	0.30
	03119938	PS-B50C-60-001		M24	23	17	25	38	85	45	35	30	30	2	0.30
	03119933	PS-B50C-90-001		M24	24	18	25	36	71	31	23	30	-	2	0.30
	03119935	PS-B50C-90-002		M24	23	17	25	38	85	45	35	30	-	2	0.30
Inch															
CAT 40	03119956	PS-V40-45-001		5/8-11 UNC	0.591	0.394	0.614	0.941	2.252	1.272	0.988	0.744	45	1	0.44
	03119957	PS-V40-45-002		5/8-11 UNC	0.591	0.394	0.642	0.941	2.303	1.264	0.988	0.744	45	1	0.44
	03119990	PS-V40-45-004		5/8-11 UNC	0.591	0.394	-	0.909	2.264	1.264	1.000	0.744	45	1	0.44
	03119958	PS-V40-90-001		5/8-11 UNC	0.587	0.390	0.642	0.858	2.315	1.276	0.988	0.689	-	1	0.44
	03119961	PS-V40C-45-003		5/8-11 UNC	0.587	0.390	0.642	0.858	2.307	1.272	0.988	0.689	45	2	0.44
	03119980	PS-V40C-45-008		5/8-11 UNC	0.591	0.394	0.642	0.941	2.303	1.264	0.988	0.744	45	2	0.44
	03119986	PS-V40C-45-010		M16	0.587	0.394	0.669	0.933	2.252	1.264	0.988	0.744	45	2	0.44
	03119964	PS-V40C-75-001	*	5/8-11 UNC	0.744	0.547	0.642	0.906	2.063	1.024	0.787	0.740	15	3	0.44
	03119979	PS-V40C-75-002	*	5/8-11 UNC	0.744	0.547	0.642	0.906	2.008	1.028	0.791	0.740	15	3	0.44
	03119984	PS-V40C-75-003	*	5/8-11 UNC	0.744	0.551	0.642	0.870	2.059	1.020	0.787	0.748	15	3	0.44
	03119988	PS-V40C-75-004	*	5/8-11 UNC	0.744	0.547	0.642	0.906	2.122	1.024	0.787	0.740	15	3	0.44
Inch															
CAT 50	03119959	PS-V50-90-001		1-8 UNC	0.906	0.665	1.031	1.370	3.311	1.772	1.378	1.185	30	1	0.66
	03119968	PS-V50C-45-003		1-8 UNC	0.898	0.661	1.031	1.370	3.331	1.787	1.374	1.185	45	2	0.66
	03119976	PS-V50C-45-008	*	1-8 UNC	0.906	0.665	0.984	1.496	3.142	1.780	1.386	1.181	45	2	0.66
	03119971	PS-V50C-60-001	*	1-8 UNC	0.906	0.669	1.024	1.496	3.248	1.772	1.378	1.181	30	2	0.66
Metric															
DIN 50	03119951	PS-I50-90-001		M24	22	16	25	39	99.9	59.9	49.9	30	-	1	0.50
	03119941	PS-I50C-90-001		M24	20	13	20	38.5	70	32.5	26	30	-	2	0.30

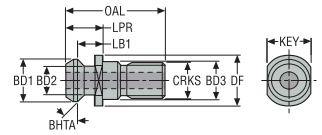
Please check availability in current price and stock-list * With external sealing ring



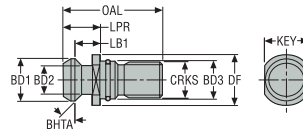
DESIGN 1



DESIGN 2



DESIGN 3



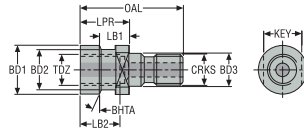
NEW PULL STUDS

FOR TAPER	ORDER NO.	DESIGNATION	*	CRKS	DIMENSIONS IN INCH/METRIC								BHTA° (MM)	DESIGN	LB/KG
					BD1	BD2	BD3	DF	OAL	LPR	LB1	KEY			
CAT 40	Inch														
	03119989	PS-V40-45-003	**	5/8-11 UNC	0.740	0.488	0.642	0.929	1.681	0.642	0.441	0.744	45	2	0.44
	03119960	PS-V40C-45-002		5/8-11 UNC	0.740	0.488	-	0.929	1.500	0.642	0.441	0.744	45	1	0.44
	03119963	PS-V40C-45-004		5/8-11 UNC	0.740	0.488	-	0.929	1.626	0.642	0.441	0.744	45	1	0.44
	03119965	PS-V40C-45-005		M16	0.740	0.492	0.669	0.929	1.650	0.642	0.441	0.752	45	2	0.44
	03119966	PS-V40C-45-006		M16	0.740	0.488	0.669	0.870	1.854	0.752	0.551	0.748	45	2	0.44
	03119977	PS-V40C-45-007		M16	0.740	0.492	-	0.929	1.500	0.642	0.441	0.744	45	1	0.44
03119981	PS-V40C-45-009		5/8-11 UNC	0.740	0.488	0.642	0.929	1.681	0.642	0.441	0.744	45	2	0.44	
CAT 50	Inch														
	03119967	PS-V50C-45-002		1-8 UNC	1.142	0.819	-	1.429	2.299	1.000	0.701	1.252	45	1	0.66
	03119969	PS-V50C-45-004		1-8 UNC	1.142	0.819	-	1.429	2.575	1.000	0.701	1.252	45	1	0.66
	03119970	PS-V50C-45-005	*	1-8 UNC	1.142	0.819	1.031	1.429	2.299	1.000	0.701	1.252	45	2	0.66
	03119972	PS-V50C-45-006		M24	1.142	0.819	0.984	1.429	2.579	1.000	0.701	1.252	45	2	0.66
03119974	PS-V50C-45-007		1-8 UNC	1.142	0.819	1.031	1.429	2.539	1.000	0.701	1.252	45	2	0.66	
ISO 40	Metric														
	03119898	PS-I40C-45-001		M16	18.95	12.95	17	22.5	44.4	16.4	11.15	18	45	2	0.10
DIN 40	Metric														
	03119947	PS-I40C-45-002		M16	18.8	12.45	17	21.8	41.25	16.25	11.18	19	45	3	0.10
03119950	PS-I40C-45-003		M16	18.796	12.446	17	22	44.106	19.106	14.026	19	45	2	0.10	
ISO 50	Metric														
	03119897	PS-I50-45-001	*	M24	29.1	19.6	25	37	65.55	25.55	17.95	30	45	2	0.30
	03119896	PS-I50C-45-001		M24	29.1	19.6	25	37	65.55	25.55	17.95	30	45	2	0.20
DIN 50	Metric														
	03119942	PS-I50C-45-002		M24	18.95	12.95	25	30	56.35	16.4	11.15	26	45	2	0.20
	03119949	PS-I50C-45-003		M24	28.956	20.828	25	36.6	65.4	25.4	17.78	30.15	45	2	0.30
03119948	PS-I50C-45-004	**	M24	28.956	20.828	25	36.6	65.4	25.4	17.78	30.15	45	2	0.30	
DIN/CAT 40, ANSI B5-50 metric thread	Metric														
	03119892	PS-V40C-45-001		M16	18.8	12.8	17	22	38	16.25	11	17.8	45	1	0.10
DIN/CAT 50, ANSI B5-50 metric thread	Metric														
	03119893	PS-V50C-45-001		M24	29	19.45	17	36.5	58.4	25.4	17.8	30	45	1	0.20

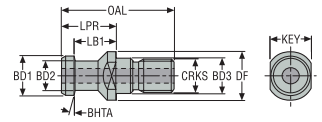
Please check availability in current price and stock-list. * With external sealing ring. ** With internal and external sealing rings for Mori Seiki machines



DESIGN 1



DESIGN 2



NEW PULL STUDS

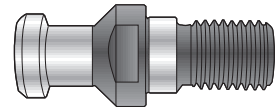
FOR TAPER	ORDER NO.	DESIGNATION	*	CRKS	DIMENSIONS IN INCH/METRIC								BHTA° (MM)	TDZ	DESIGN	LB/ KG	
					BD1	BD2	BD3	DF	OAL	LPR	LB1	KEY					
DIN 40	03119987	Inch		M16	0.748	0.547	0.669	0.906	2.126	1.024	0.787	0.740	15	-	1	0.66	
		Metric															
DIN 30	03119905	Metric		*	M12	13	9	13	17	44	24.	19	14	15	-	1	0.10
		Metric															
DIN 40	03119900	Metric		*	M16	19	14	17	23	54	26	20	19	15	-	1	0.10
	03119899	Metric															
	03119901	Metric															
	03119946	Metric															
	03119946	Metric															
DIN 50	03119903	Metric		*	M24	28	21	25	36	74	34	25	30	15	-	1	0.30
	03119944	Metric															
	03119945	Metric															
	03119902	Metric															
	03119904	Metric															
CAT/DIN 40 DIN 2080 compatible	03119936	Metric		M16	25.3	21.1	17	25.3	53.1	25.1	13.7	18	15	M16	1	0.10	
		Metric															
BT 40	03119940	Metric		**	M16	19	14	17	23	54	29	23	19	15	M16	2	0.10
BT 50	03119973	Metric			M24	28	21	25	38	74	34	25	30	15	M24	2	0.30

Please check availability in current price and stock-list. * With external sealing ring. ** With internal and external sealing rings for Mori Seiki machines

PULL STUDS - TIPS & TRICKS

Pull studs (also called retention knobs) are the link between the drawbar of the machine and the holder. The superior material and hardening quality of EPB pull studs is important, as the pulling forces exerted on them can be up to 6,700 lbs on SA 50 spindles. Precision machining of the pull studs guarantees precise positioning and safe locking of the holder in the spindle. Most machines require a standard pull stud design (DIN, ISO, BT, CAT), but some require a specific design. Specific pull studs are available on request, please enquire: a sketch or drawing should accompany the enquiry.

Warning: Tighten the small pull studs for SA 30 tapers with moderation, strong tightening may expand the holder's taper back-end.



COMPREHENSIVE & CONCISE CUTTING DATA

When Seco created Secolor in 1990, the company set a benchmark for simplifying materials classification in the cutting tool industry. Secolor gave way to the Seco Materials Group (SMG), an evolved system that helped users quickly and easily identify the most reliable tool and cutting data for a particular workpiece material.

Today, Seco has expanded and further simplified its SMG system. SMG V2 makes it even easier to understand the complicated interactions between cutting tools and workpiece materials during milling, turning and holmaking operations.

SMG V2 HIGHLIGHTS INCLUDE:

- A broader workpiece material classification for steels, titanium, composites and more
- New information on today’s advanced tool materials such as PCBN, PCD and ceramics
- Concise, highly structured materials lists that yield easy tool and cutting data searches
- Information that’s featured consistently across all of the company’s support materials

CUTTING DATA

Perfomax®	82
Feedmax™	90
Precimaster Plus®	93
Square 6™	94
Secomax™ CS300	96
Jabro® CoCr	97
Niagara Cutter™ - Diamond Router	100
335.14.....	101

TECHNICAL INFO

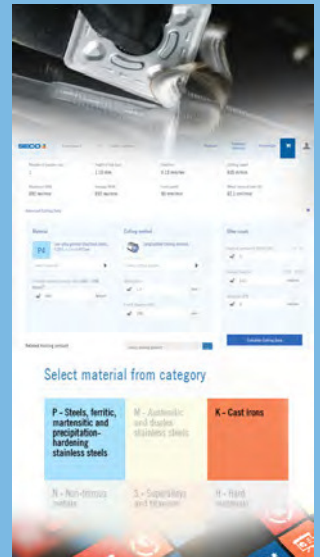
ANSI to ISO 13399 - Quick Reference Guide.....	102-110
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QUICK ACCESS

Now cutting data is just a few clicks away. Gain quick and easy access to this useful information through our website where standard products are easily searchable by description, grade, trademark or EDP. Simply enter your query in the search box at the top of the screen and upon selection of a product the cutting data is provided with the other product details. Initially the data is populated based on default values but you can modify different criteria to fit your requirements.

- Gain instant access to advanced cutting data
- Easily adjust cutting data by material and cutting method
- Or modify based on a variety of other options like desired number of passes, feed/tooth, RPM, machine power or torque with options like suggest.

SECOTOOLS.COM



SD522 - Ø 0.590-2.375 - Inch

SMG		f							v _c
		Ø 0.590-0.767	Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø 1.358-1.593	Ø 1.594-1.751	Ø 1.752-2.375	
P1	P1 DP2000	0.0024	0.0028	0.0033	0.0037	0.0043	0.0047	0.0051	1525
P2	P1 DP2000	0.0024	0.0028	0.0033	0.0039	0.0043	0.0047	0.0051	1475
P3	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	1150
P4	P2 DP3000	0.0047	0.0051	0.0063	0.0075	0.0087	0.0087	0.010	720
P5	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	690
P6	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	780
P7	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	730
P8	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	690
P11	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	710
P12	P2 DP3000	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	420
M1	P2 DP3000	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	850
M2	P2 DP3000	0.0031	0.0035	0.0043	0.0051	0.0055	0.0059	0.0067	690
M3	MP DS2050	0.0026	0.0030	0.0035	0.0039	0.0047	0.0051	0.0055	530
M4	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	460
M5	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	385
K1	P2 DP2000	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	820
K2	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	710
K3	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	600
K4	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	570
K5	P2 DP2000	0.0039	0.0043	0.0055	0.0063	0.0071	0.0075	0.0087	340
N1	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	1200
N2	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	770
N3	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	510
N11	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	1025
S1	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	195
S2	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	160
S3	MP DS2050	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	135
S11	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	285
S12	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	215
S13	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	170
H3	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	230
H5	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	430
H7	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	230
H8	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	430
H11	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	550
H12	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	500
H21	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	430

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

SD522 Cutting speed - Inch

SMG	v _c			
	DP2000	DP3000	T2500	DS2050
P1	1525	1350	1025	1350
P2	1475	1325	1000	1325
P3	1275	1150	870	1150
P4	930	720	460	-
P5	890	690	440	-
P6	1000	780	495	-
P7	940	730	465	-
P8	890	690	440	-
P11	920	710	455	-
P12	540	420	270	-
M1	-	850	530	-
M2	-	690	430	-
M3	-	530	330	530
M4	-	395	245	460
M5	-	330	205	385
K1	820	780	-	-
K2	710	680	-	-
K3	600	570	-	-
K4	570	550	-	-
K5	340	325	-	-
N1	-	1375	1200	1200
N2	-	890	770	770
N3	-	590	510	510
N11	-	1150	1025	1025
S1	-	-	130	195
S2	-	-	100	160
S3	-	-	100	135
S11	-	-	255	285
S12	-	-	195	215
S13	-	-	150	170
H3	-	230	230	-
H5	-	430	430	-
H7	-	230	230	-
H8	-	430	430	-
H11	-	550	550	-
H12	-	250	500	-
H21	-	430	430	-

SMG = Seco material group

v_c= sf/min

All cutting data are start values

SD523 - Ø 0.590-2.375 - Inch

SMG		f							v _c
		Ø 0.590-0.767	Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø 1.358-1.593	Ø 1.594-1.751	Ø 1.752-2.375	
P1	P1 DP2000	0.0024	0.0028	0.0033	0.0037	0.0043	0.0047	0.0051	1350
P2	P1 DP2000	0.0024	0.0028	0.0033	0.0039	0.0043	0.0047	0.0051	1325
P3	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	1025
P4	P2 DP3000	0.0047	0.0051	0.0063	0.0075	0.0087	0.0087	0.010	620
P5	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	590
P6	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	660
P7	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	630
P8	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	590
P11	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	610
P12	P2 DP3000	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	360
M1	P2 DP3000	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	800
M2	P2 DP3000	0.0031	0.0035	0.0043	0.0051	0.0055	0.0059	0.0067	650
M3	MP DS2050	0.0026	0.0030	0.0035	0.0039	0.0047	0.0051	0.0055	495
M4	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	395
M5	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	330
K1	P2 DP2000	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	740
K2	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	640
K3	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	550
K4	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	520
K5	P2 DP2000	0.0039	0.0043	0.0055	0.0063	0.0071	0.0075	0.0087	310
N1	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	1025
N2	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	650
N3	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	435
N11	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	860
S1	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	175
S2	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	140
S3	MP DS2050	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	120
S11	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	250
S12	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	190
S13	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	150
H3	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	195
H5	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	365
H7	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	195
H8	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	365
H11	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	465
H12	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	425
H21	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	365

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

SD523 Cutting speed - Inch

SMG	v _c			
	DP2000	DP3000	T2500	DS2050
P1	1350	1225	880	1225
P2	1325	1175	850	1175
P3	1125	1025	730	1025
P4	760	620	390	-
P5	720	590	375	-
P6	810	660	420	-
P7	770	630	395	-
P8	720	590	375	-
P11	750	610	385	-
P12	440	360	225	-
M1	-	800	450	-
M2	-	650	365	-
M3	-	495	280	495
M4	-	370	210	395
M5	-	310	175	330
K1	740	710	-	-
K2	640	610	-	-
K3	550	520	-	-
K4	520	495	-	-
K5	310	295	-	-
N1	-	1175	1025	1025
N2	-	760	650	650
N3	-	510	435	435
N11	-	990	860	860
S1	-	-	110	175
S2	-	-	85	140
S3	-	-	85	120
S11	-	-	215	250
S12	-	-	165	190
S13	-	-	130	150
H3	-	200	195	-
H5	-	370	365	-
H7	-	200	195	-
H8	-	370	365	-
H11	-	470	465	-
H12	-	215	425	-
H21	-	370	365	-

SMG = Seco material group

v_c= sf/min

All cutting data are start values

SD524 - Ø 0.590-2.375 - Inch

SMG		f							v _c
		Ø 0.590-0.767	Ø 0.768-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø 1.358-1.593	Ø 1.594-1.751	Ø 1.752-2.375	
P1	P1 DP2000	0.0024	0.0028	0.0033	0.0037	0.0043	0.0047	0.0051	1250
P2	P1 DP2000	0.0024	0.0028	0.0033	0.0039	0.0043	0.0047	0.0051	1225
P3	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	940
P4	P2 DP3000	0.0047	0.0051	0.0063	0.0075	0.0087	0.0087	0.010	550
P5	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	520
P6	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	580
P7	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	550
P8	P2 DP3000	0.0047	0.0055	0.0067	0.0075	0.0087	0.0087	0.010	520
P11	P2 DP3000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	540
P12	P2 DP3000	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	315
M1	P2 DP3000	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	770
M2	P2 DP3000	0.0031	0.0035	0.0043	0.0051	0.0055	0.0059	0.0067	620
M3	MP DS2050	0.0026	0.0030	0.0035	0.0039	0.0047	0.0051	0.0055	470
M4	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	345
M5	MP DS2050	0.0022	0.0026	0.0031	0.0035	0.0039	0.0043	0.0047	290
K1	P2 DP2000	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	690
K2	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	600
K3	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	500
K4	P2 DP2000	0.0043	0.0051	0.0063	0.0071	0.0079	0.0087	0.0094	480
K5	P2 DP2000	0.0039	0.0043	0.0055	0.0063	0.0071	0.0075	0.0087	285
N1	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	880
N2	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	570
N3	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	380
N11	P1 T250D	0.0047	0.0055	0.0067	0.0079	0.0087	0.0094	0.010	750
S1	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	155
S2	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	125
S3	MP DS2050	0.0033	0.0039	0.0047	0.0055	0.0063	0.0067	0.0075	110
S11	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	225
S12	MP DS2050	0.0043	0.0047	0.0059	0.0067	0.0075	0.0079	0.0094	175
S13	MP DS2050	0.0035	0.0043	0.0051	0.0059	0.0067	0.0071	0.0079	135
H3	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	170
H5	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	315
H7	P1 T250D	0.0020	0.0024	0.0028	0.0031	0.0037	0.0039	0.0043	170
H8	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	315
H11	P1 T250D	0.0030	0.0035	0.0043	0.0047	0.0055	0.0059	0.0067	405
H12	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	370
H21	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0043	0.0043	0.0051	315

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

SD524 Cutting speed - Inch

SMG	v _c			
	DP2000	DP3000	T2500	DS2050
P1	1250	1125	760	1125
P2	1225	1100	740	1100
P3	1050	940	640	940
P4	640	550	340	-
P5	610	520	325	-
P6	680	580	365	-
P7	640	550	345	-
P8	610	520	325	-
P11	620	540	335	-
P12	370	315	195	-
M1	-	770	395	-
M2	-	620	315	-
M3	-	470	240	470
M4	-	355	180	345
M5	-	295	150	290
K1	690	650	-	-
K2	600	570	-	-
K3	500	480	-	-
K4	480	455	-	-
K5	285	270	-	-
N1	-	1050	880	880
N2	-	670	570	570
N3	-	445	380	380
N11	-	870	750	750
S1	-	-	95	155
S2	-	-	75	125
S3	-	-	75	110
S11	-	-	190	225
S12	-	-	145	175
S13	-	-	110	135
H3	-	175	170	-
H5	-	325	315	-
H7	-	175	170	-
H8	-	325	315	-
H11	-	415	405	-
H12	-	190	370	-
H21	-	325	315	-

SMG = Seco material group

v_c= sf/min

All cutting data are start values

SD525 - Ø 0.750-2.000 - Inch

SMG		f					v _c
		Ø 0.750-0.885	Ø 0.886-1.121	Ø 1.122-1.357	Ø 1.358-1.593	Ø 1.594-2.000	
P1	P2 DP3000	0.0028	0.0033	0.0037	0.0043	0.0047	1050
P2	P2 DP3000	0.0028	0.0033	0.0039	0.0043	0.0047	1025
P3	P2 DP3000	0.0055	0.0067	0.0075	0.0087	0.0087	870
P4	P2 DP3000	0.0051	0.0063	0.0075	0.0087	0.0087	490
P5	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	465
P6	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	520
P7	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	495
P8	P2 DP3000	0.0055	0.0067	0.0075	0.0087	0.0087	465
P11	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	480
M1	P2 DP3000	0.0039	0.0047	0.0055	0.0063	0.0067	740
M2	P2 DP3000	0.0035	0.0043	0.0051	0.0055	0.0059	600
M3	MP DS2050	0.0030	0.0035	0.0039	0.0047	0.0051	455
M4	MP DS2050	0.0026	0.0031	0.0035	0.0039	0.0043	310
M5	MP DS2050	0.0026	0.0031	0.0035	0.0039	0.0043	260
K1	P2 DP3000	0.0055	0.0067	0.0079	0.0087	0.0094	610
K2	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	530
K3	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	450
K4	P2 DP3000	0.0051	0.0063	0.0071	0.0079	0.0087	430
K5	P2 DP3000	0.0043	0.0055	0.0063	0.0071	0.0075	255
N1	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	780
N2	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	500
N3	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	335
N11	P1 T250D	0.0055	0.0067	0.0079	0.0087	0.0094	660
S1	MP DS2050	0.0043	0.0051	0.0059	0.0067	0.0071	145
S2	MP DS2050	0.0043	0.0051	0.0059	0.0067	0.0071	115
S3	MP DS2050	0.0039	0.0047	0.0055	0.0063	0.0067	100
S11	MP DS2050	0.0047	0.0059	0.0067	0.0075	0.0079	210
S12	MP DS2050	0.0047	0.0059	0.0067	0.0075	0.0079	160
S13	MP DS2050	0.0043	0.0051	0.0059	0.0067	0.0071	125
H3	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0039	150
H5	P1 T250D	0.0035	0.0043	0.0047	0.0055	0.0059	280
H7	P1 T250D	0.0024	0.0028	0.0033	0.0037	0.0039	150
H8	P1 T250D	0.0028	0.0033	0.0037	0.0043	0.0043	280
H11	P1 T250D	0.0035	0.0043	0.0047	0.0055	0.0059	355
H12	P1 T250D	0.0028	0.0033	0.0037	0.0043	0.0043	325
H21	P1 T250D	0.0028	0.0033	0.0037	0.0043	0.0043	280

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

SD525 Cutting speed - Inch

SMG	v_c			
	DP2000	DP3000	T2500	DS2050
P1	1150	1050	680	1050
P2	1125	1025	660	1025
P3	970	870	570	870
P4	540	490	300	-
P5	520	465	290	-
P6	580	520	325	-
P7	550	495	305	-
P8	520	465	290	-
P11	530	480	295	-
P12	315	285	175	-
M1	-	740	350	-
M2	-	600	280	-
M3	-	455	215	455
M4	-	340	160	310
M5	-	285	135	260
K1	650	610	-	-
K2	560	530	-	-
K3	475	450	-	-
K4	450	430	-	-
K5	270	255	-	-
N1	-	930	780	780
N2	-	600	500	500
N3	-	400	335	335
N11	-	780	660	660
S1	-	-	85	145
S2	-	-	65	115
S3	-	-	65	100
S11	-	-	165	210
S12	-	-	130	160
S13	-	-	100	125
H3	-	155	150	-
H5	-	290	280	-
H7	-	155	150	-
H8	-	290	280	-
H11	-	370	355	-
H12	-	170	325	-
H21	-	290	280	-

SMG = Seco material group

 v_c = sf/min

All cutting data are start values

SD203A-P - Ø 0.079-0.315 - Inch

SMG	Drill Geometry	f						v _c
		Ø 0.079	Ø 0.118	Ø 0.157	Ø 0.197	Ø 0.236	Ø 0.315	
P1	P	0.0055	0.0067	0.0079	0.0094	0.0100	0.0130	600
P2	P	0.0055	0.0067	0.0079	0.0094	0.0100	0.0130	580
P3	P	0.0055	0.0063	0.0075	0.0087	0.0100	0.0130	500
P4	P	0.0039	0.0051	0.0059	0.0067	0.0075	0.0094	700
P5	P	0.0039	0.0047	0.0055	0.0067	0.0075	0.0087	670
P6	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	750
P7	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	710
P8	P	0.0043	0.0051	0.0059	0.0067	0.0075	0.0094	650
P11	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	690
P12	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	420
K1	P	0.0059	0.0071	0.0087	0.0100	0.0110	0.0140	570
K2	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	490
K3	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	415
K4	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	395
K5	P	0.0047	0.0059	0.0071	0.0079	0.0094	0.0110	235
H3	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	100
H5	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	180
H7	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	100
H8	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	180
H11	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	230
H12	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	255
H21	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	180

SD203A-P - Ø 0.394-0.787 - Inch

SMG	Drill Geometry	f						v _c
		Ø 0.394	Ø 0.472	Ø 0.551	Ø 0.630	Ø 0.709	Ø 0.787	
P1	P	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	600
P2	P	0.0150	0.0170	0.0190	0.0200	0.0220	0.0240	580
P3	P	0.0140	0.0170	0.0180	0.0200	0.0200	0.0220	500
P4	P	0.0110	0.0120	0.0130	0.0140	0.0150	0.0160	700
P5	P	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	670
P6	P	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	750
P7	P	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	710
P8	P	0.0110	0.0130	0.0130	0.0140	0.0150	0.0160	650
P11	P	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	690
P12	P	0.0087	0.0094	0.0100	0.0110	0.0120	0.0130	420
K1	P	0.0170	0.0190	0.0200	0.0220	0.0240	0.0260	570
K2	P	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	490
K3	P	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	415
K4	P	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	395
K5	P	0.0130	0.0150	0.0170	0.0180	0.0190	0.0200	235
H3	P	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	100
H5	P	0.0087	0.0094	0.0100	0.0110	0.0120	0.0130	180
H7	P	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	100
H8	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	180
H11	P	0.0087	0.0094	0.0100	0.0110	0.0120	0.0130	230
H12	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	255
H21	P	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	180

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

SD205A-P - \varnothing 0.079-0.315 - Inch

SMG	Drill Geometry	f						v _c
		\varnothing 0.079	\varnothing 0.118	\varnothing 0.157	\varnothing 0.197	\varnothing 0.236	\varnothing 0.315	
P1	P	0.0055	0.0067	0.0079	0.0094	0.0100	0.0130	550
P2	P	0.0055	0.0067	0.0079	0.0094	0.0100	0.0130	540
P3	P	0.0055	0.0063	0.0075	0.0087	0.0100	0.0130	460
P4	P	0.0039	0.0051	0.0059	0.0067	0.0075	0.0094	640
P5	P	0.0039	0.0047	0.0055	0.0067	0.0075	0.0087	610
P6	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	690
P7	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	650
P8	P	0.0043	0.0051	0.0059	0.0067	0.0075	0.0094	600
P11	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	630
P12	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	390
K1	P	0.0059	0.0071	0.0087	0.0100	0.0110	0.0140	520
K2	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	450
K3	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	380
K4	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	365
K5	P	0.0047	0.0059	0.0071	0.0079	0.0094	0.0110	215
H3	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	90
H5	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	165
H7	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	90
H8	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	165
H11	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	210
H12	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	235
H21	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	165

SD205A-P - \varnothing 0.394-0.787 - Inch

SMG	Drill Geometry	f						v _c
		\varnothing 0.394	\varnothing 0.472	\varnothing 0.551	\varnothing 0.630	\varnothing 0.709	\varnothing 0.787	
P1	P	0.0055	0.0067	0.0079	0.0094	0.0100	0.0130	550
P2	P	0.0055	0.0067	0.0079	0.0094	0.0100	0.0130	540
P3	P	0.0055	0.0063	0.0075	0.0087	0.0100	0.0130	460
P4	P	0.0039	0.0051	0.0059	0.0067	0.0075	0.0094	640
P5	P	0.0039	0.0047	0.0055	0.0067	0.0075	0.0087	610
P6	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	690
P7	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	650
P8	P	0.0043	0.0051	0.0059	0.0067	0.0075	0.0094	600
P11	P	0.0039	0.0047	0.0055	0.0063	0.0075	0.0087	630
P12	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	390
K1	P	0.0059	0.0071	0.0087	0.0100	0.0110	0.0140	520
K2	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	450
K3	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	380
K4	P	0.0055	0.0067	0.0079	0.0087	0.0100	0.0130	365
K5	P	0.0047	0.0059	0.0071	0.0079	0.0094	0.0110	215
H3	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	90
H5	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	165
H7	P	0.0022	0.0028	0.0031	0.0035	0.0039	0.0047	90
H8	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	165
H11	P	0.0033	0.0039	0.0047	0.0051	0.0059	0.0071	210
H12	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	235
H21	P	0.0026	0.0031	0.0035	0.0039	0.0047	0.0055	165

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

SD207A-P - \varnothing 0.118-0.787 - Inch

SMG	Drill Geometry	f										v _c
		\varnothing 0.118	\varnothing 0.197	\varnothing 0.236	\varnothing 0.315	\varnothing 0.394	\varnothing 0.472	\varnothing 0.551	\varnothing 0.630	\varnothing 0.709	\varnothing 0.787	
P1	P	0.0067	0.0094	0.0100	0.0130	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	510
P2	P	0.0067	0.0094	0.0100	0.0130	0.0150	0.0170	0.0190	0.0200	0.0220	0.0240	500
P3	P	0.0063	0.0087	0.0100	0.0130	0.0140	0.0170	0.0180	0.0200	0.0200	0.0220	430
P4	P	0.0051	0.0067	0.0075	0.0094	0.0110	0.0120	0.0130	0.0140	0.0150	0.0160	600
P5	P	0.0047	0.0067	0.0075	0.0087	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	580
P6	P	0.0047	0.0063	0.0075	0.0087	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	650
P7	P	0.0047	0.0063	0.0075	0.0087	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	610
P8	P	0.0051	0.0067	0.0075	0.0094	0.0110	0.0130	0.0130	0.0140	0.0150	0.0160	560
P11	P	0.0047	0.0063	0.0075	0.0087	0.0100	0.0120	0.0130	0.0130	0.0140	0.0150	590
K1	P	0.0071	0.0100	0.0110	0.0140	0.0170	0.0190	0.0200	0.0220	0.0240	0.0260	485
K2	P	0.0067	0.0087	0.0100	0.0130	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	420
K3	P	0.0067	0.0087	0.0100	0.0130	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	355
K4	P	0.0067	0.0087	0.0100	0.0130	0.0150	0.0170	0.0190	0.0200	0.0220	0.0220	340
K5	P	0.0059	0.0079	0.0094	0.0110	0.0130	0.0150	0.0170	0.0180	0.0190	0.0200	205
H3	P	0.0028	0.0035	0.0039	0.0047	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	85
H5	P	0.0039	0.0051	0.0059	0.0071	0.0087	0.0094	0.0100	0.0110	0.0120	0.0130	155
H7	P	0.0028	0.0035	0.0039	0.0047	0.0055	0.0063	0.0071	0.0075	0.0079	0.0079	85
H8	P	0.0031	0.0039	0.0047	0.0055	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	155
H11	P	0.0039	0.0051	0.0059	0.0071	0.0087	0.0094	0.0100	0.0110	0.0120	0.0130	200
H12	P	0.0031	0.0039	0.0047	0.0055	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	220
H21	P	0.0031	0.0039	0.0047	0.0055	0.0063	0.0075	0.0079	0.0087	0.0094	0.0094	155

SMG = Seco material group

f = in/rev

v_c = sf/min

All cutting data are start values

PM Plus...-EB45 - Inch

SMG		APMX (β)		f			V _c			
		z=6	z=8 / z=10	z=6	z=8	z=10	RN2010	RM2020	RM2090	RS2090
M1	PMX5/PMX6-EB45	.003-.006	.004-.008	.008-.025	.012-.030	.014-.039	-	80 (50-130)	130 (80-260)	-
M2	PMX5/PMX6-EB45	.003-.006	.004-.008	.008-.025	.012-.030	.014-.039	-	80 (50-130)	130 (80-260)	-
M3	PMX5/PMX6-EB45	.003-.006	.004-.008	.008-.025	.012-.030	.014-.039	-	80 (50-130)	130 (80-260)	-
M4	PMX5/PMX6-EB45	.003-.006	.004-.008	.008-.025	.012-.030	.014-.039	-	65 (30-100)	100 (65-195)	-
M5	PMX5/PMX6-EB45	.003-.006	.004-.008	.008-.025	.012-.030	.014-.039	-	65 (30-100)	100 (65-195)	-
N1	PMX5/PMX6-EB45	.004-.008	.004-.012	.012-.035	.016-.047	.020-.059	165 (100-330)	-	-	-
N2	PMX5/PMX6-EB45	.004-.008	.004-.012	.012-.035	.016-.047	.020-.059	165 (100-330)	-	-	-
N3	PMX5/PMX6-EB45	.004-.008	.004-.012	.012-.035	.016-.047	.020-.059	165 (100-330)	-	-	-
N11	PMX5/PMX6-EB45	.004-.008	.004-.012	.012-.035	.016-.047	.020-.059	165 (100-330)	-	-	-
S1	PMX5/PMX6-EB45	.003-.006	.004-.006	.008-.025	.012-.030	.014-.039	-	-	-	80 (40-100)
S2	PMX5/PMX6-EB45	.003-.006	.004-.006	.008-.025	.012-.030	.014-.039	-	-	-	80 (40-100)
S3	PMX5/PMX6-EB45	.003-.006	.004-.006	.008-.025	.012-.030	.014-.039	-	-	-	80 (40-100)
S11	PMX5/PMX6-EB45	.003-.006	.004-.006	.008-.025	.012-.030	.014-.039	-	-	-	165 (80-210)
S12	PMX5/PMX6-EB45	.003-.006	.004-.006	.008-.025	.012-.030	.014-.039	-	-	-	165 (80-210)
S13	PMX5/PMX6-EB45	.003-.006	.004-.006	.008-.025	.012-.030	.014-.039	-	-	-	165 (80-210)

PM Plus...-EB845 - Inch

SMG		APMX (β)		f			V _c		
		z=6	z=8 / z=10	z=6	z=8	z=10	RM2020	RM2090	RS2090
M1	PMX5/PMX6-EB845	.003-.006	.004-.008	.008-.025	.012-.030	.014-.040	80 (50-130)	35 (20-70)	-
M2	PMX5/PMX6-EB845	.003-.006	.004-.008	.008-.025	.012-.030	.014-.040	80 (50-130)	35 (20-70)	-
M3	PMX5/PMX6-EB845	.003-.006	.004-.008	.008-.025	.012-.030	.014-.040	80 (50-130)	35 (20-70)	-
M4	PMX5/PMX6-EB845	.003-.006	.004-.008	.008-.025	.012-.030	.014-.040	65 (30-100)	25 (15-50)	-
M5	PMX5/PMX6-EB845	.003-.006	.004-.008	.008-.025	.012-.030	.014-.040	65 (30-100)	25 (15-50)	-
S1	PMX5/PMX6-EB845	.003-.006	.004-.006	.008-.025	.012-.030	.014-.040	-	-	80 (40-100)
S2	PMX5/PMX6-EB845	.003-.006	.004-.006	.008-.025	.012-.030	.014-.040	-	-	80 (40-100)
S3	PMX5/PMX6-EB845	.003-.006	.004-.006	.008-.025	.012-.030	.014-.040	-	-	80 (40-100)
S11	PMX5/PMX6-EB845	.003-.006	.004-.006	.008-.025	.012-.030	.014-.040	-	-	165 (80-210)
S12	PMX5/PMX6-EB845	.003-.006	.004-.006	.008-.025	.012-.030	.014-.040	-	-	165 (80-210)
S13	PMX5/PMX6-EB845	.003-.006	.004-.006	.008-.025	.012-.030	.014-.040	-	-	165 (80-210)

SMG = Seco material group

a_p = APMX

f = in/rev

v_c = in/min

All cutting data are start values

R217.79-08 - Insert selection - Inch

SMG		f_z	a_{so}			
			100%	70%	50%	30%
P1	XNEX080608TL-M13 F40M	0.0071	0.0079	0.0079	0.0079	0.0094
P2	XNEX080608TL-M13 F40M	0.0075	0.0079	0.0079	0.0079	0.0094
P3	XNEX080608TL-M13 MP2500	0.0071	0.0079	0.0079	0.0079	0.0094
P4	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
P5	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
P6	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
P7	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
P8	XNEX080608TL-M13 MP2500	0.0071	0.0079	0.0079	0.0079	0.0094
P11	XNEX080608TL-M13 T350M	0.0067	0.0079	0.0079	0.0079	0.0094
P12	XNEX080608TL-M13 T350M	0.0043	0.0063	0.0063	0.0063	0.0071
M1	XNEX080608TL-M13 F40M	0.0075	0.0079	0.0079	0.0079	0.0094
M2	XNEX080608TL-M13 F40M	0.0067	0.0079	0.0079	0.0079	0.0094
M3	XNEX080608TL-M13 F40M	0.0055	0.0063	0.0063	0.0063	0.0071
M4	XNEX080608TL-M13 T350M	0.0047	0.0047	0.0047	0.0047	0.0055
M5	XNEX080608TL-M13 T350M	0.0047	0.0047	0.0047	0.0047	0.0055
K1	XNEX080608TL-M13 MP2500	0.0075	0.0079	0.0079	0.0079	0.0094
K2	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
K3	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
K4	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
K5	XNEX080608TL-M13 MP2500	0.0059	0.0079	0.0079	0.0079	0.0094
K6	XNEX080608TL-M13 MP2500	0.0067	0.0079	0.0079	0.0079	0.0094
K7	XNEX080608TL-M13 MP2500	0.0059	0.0079	0.0079	0.0079	0.0094
S1	XNEX080608TL-M13 T350M	0.0047	0.0047	0.0047	0.0047	0.0055
S2	XNEX080608TL-M13 T350M	0.0047	0.0047	0.0047	0.0047	0.0055
S3	XNEX080608TL-M13 T350M	0.0043	0.0047	0.0047	0.0047	0.0055
S11	XNEX080608TL-M13 MS2050	0.0055	0.0055	0.0055	0.0055	0.0063
S12	XNEX080608TL-M13 MS2050	0.0055	0.0055	0.0055	0.0055	0.0063
S13	XNEX080608TL-M13 MS2050	0.0047	0.0047	0.0047	0.0047	0.0055
H5	XNEX080608TL-M13 MP2500	0.0043	0.0063	0.0063	0.0063	0.0071
H8	XNEX080608TL-M13 MP2500	0.0035	0.0055	0.0055	0.0055	0.0063
H11	XNEX080608TL-M13 MP2500	0.0043	0.0063	0.0063	0.0063	0.0071
H12	XNEX080608TL-M13 MP2500	0.0035	0.0055	0.0055	0.0055	0.0063

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

a_e/DC = %

All cutting data are start values

R217.79-08 - Cutting data $v_c = (sf/min)$ - Inch

SMG	MP2500				F40M				T350M				MS2050			
	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%	100%	70%	50%	30%
P1	770	860	920	990	590	650	700	750	670	750	800	870	-	-	-	-
P2	740	820	880	950	560	620	670	720	640	720	770	830	-	-	-	-
P3	650	720	770	830	490	550	580	630	560	630	670	720	-	-	-	-
P4	580	650	690	750	440	490	520	570	510	570	600	650	-	-	-	-
P5	550	620	660	710	420	470	500	540	485	540	570	620	-	-	-	-
P6	620	700	740	800	470	530	560	610	540	610	650	700	-	-	-	-
P7	590	660	700	760	445	495	530	570	510	570	610	660	-	-	-	-
P8	540	610	650	700	410	460	490	530	475	530	560	610	-	-	-	-
P11	570	640	680	730	435	485	510	560	500	560	590	640	-	-	-	-
P12	390	435	465	500	295	330	350	380	340	380	405	440	-	-	-	-
M1	530	590	630	680	450	500	540	580	495	550	590	640	495	550	590	640
M2	445	500	530	570	380	420	450	485	415	465	495	530	415	465	495	530
M3	365	410	435	475	310	345	370	400	340	380	405	440	340	380	405	440
M4	295	325	350	375	250	275	295	320	275	305	325	350	275	305	325	350
M5	245	270	290	315	205	230	245	265	230	255	270	295	230	255	270	295
K1	590	650	700	750	445	495	530	570	-	-	-	-	-	-	-	-
K2	530	590	630	680	400	445	475	510	-	-	-	-	-	-	-	-
K3	445	500	530	570	340	375	400	435	-	-	-	-	-	-	-	-
K4	425	475	510	550	320	360	385	415	-	-	-	-	-	-	-	-
K5	265	295	315	340	200	225	240	255	-	-	-	-	-	-	-	-
K6	375	420	445	480	285	315	340	365	-	-	-	-	-	-	-	-
K7	340	375	400	435	255	285	305	330	-	-	-	-	-	-	-	-
S1	-	-	-	-	115	130	140	150	130	140	150	165	130	140	150	165
S2	-	-	-	-	95	105	110	120	105	115	120	130	105	115	120	130
S3	-	-	-	-	85	90	100	105	90	100	110	115	90	100	110	115
S11	-	-	-	-	160	175	190	205	175	195	205	225	175	195	205	225
S12	-	-	-	-	90	100	110	120	100	110	120	130	100	110	120	130
S13	-	-	-	-	75	85	90	95	80	90	100	105	80	90	100	105
H5	120	130	140	150	100	110	115	125	115	125	135	145	-	-	-	-
H8	125	140	150	160	105	115	125	135	120	135	145	155	-	-	-	-
H11	150	170	180	195	125	140	150	160	145	160	170	185	-	-	-	-
H12	250	275	295	320	190	210	225	240	215	240	255	280	-	-	-	-

Superalloys and titanium - Inch

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S3	Nickel-based superalloys		Inconel 718	2.530	0.21

Ceramic Roughing a_p 0.5 - 3 - Metric

SMG	CS300	
	v_c	f_z
S1	600- 1200	0.05- 0.15
S2	600- 1200	0.05- 0.15
S3	600- 1200	0.05- 0.15

Ceramic Roughing a_p 0.04 - 0.12 - Inch

SMG	CS300	
	v_c	f_z
S1	1.960- 3.930	0.002- 0.006
S2	1.960- 3.930	0.002- 0.006
S3	1.960- 3.930	0.002- 0.006

JH770 Side milling roughing FCEDC 4 - Metric

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0.75	0.13	0.030	0.040	50 (41 - 60)
S11	E	0.25	0.31	0.015	0.020	65 (55 - 90)
S12	E	0.25	0.31	0.015	0.020	50 (40 - 70)

JH770 Side milling roughing FCEDC 5 - Metric

SMG		a_e/DC	a_p/DC	f_z		v_c
				8	10	
S2	E	0.75	0.13	0.040	0.048	50 (41 - 60)
S11	E	0.25	0.31	0.020	0.024	65 (50 - 90)
S12	E	0.25	0.31	0.020	0.024	50 (40 - 70)

JH770 Side milling roughing FCEDC 6 - Metric

SMG		a_e/DC	a_p/DC	f_z		v_c
				8	10	
S2	E	0.75	0.13	0.050	0.060	55 (43 - 65)
S11	E	0.25	0.31	0.022	0.026	65 (55 - 95)
S12	E	0.25	0.31	0.022	0.026	50 (41 - 70)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH740 Side finishing and bottom finishing FCEDC 4 - Metric

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0.50	0.0063	0.044	0.060	50 (40 - 60)
S11	E	0.50	0.0063	0.044	0.060	65 (50 - 80)
S12	E	0.50	0.0063	0.044	0.060	50 (40 - 60)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH740 Side finishing and bottom finishing FCEDC 6 - Metric

SMG		a_e/DC	a_p/DC	f_z	v_c
				10	
S2	E	0.50	0.0065	0.046	48 (39 - 60)
S11	E	0.50	0.0065	0.046	65 (50 - 75)
S12	E	0.50	0.0065	0.046	48 (39 - 60)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH710 Side milling finishing - Metric

SMG		a _e /DC	a _p /DC	f _z		v _c
				6	8	
S2	E	0.0081	0.63	0.034	0.044	100 (80 - 120)
S11	E	0.0081	0.63	0.036	0.046	180 (155 - 205)
S12	E	0.0081	0.63	0.036	0.046	135 (120 - 155)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH790 (T) Side milling roughing - Metric

SMG		a _e /DC	a _p /DC	f _z	v _c
				9.5	
S2	E	0.19	0.21	0.030	39 (30 - 50)
S11	E	0.19	0.21	0.030	50 (40 - 65)
S12	E	0.19	0.21	0.030	39 (30 - 50)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH730 Side milling finishing FCEDC 6 - Metric

SMG		a _e /DC	a _p /DC	f _z	v _c
				8	
S2	E	0.063	2.5	0.026	75 (60 - 90)
S11	E	0.063	2.5	0.020	130 (105 - 155)
S12	E	0.063	2.5	0.020	100 (80 - 120)

JH730 Side milling finishing FCEDC 7 - Metric

SMG		a _e /DC	a _p /DC	f _z	v _c
				10	
S2	E	0.063	2.5	0.032	75 (60 - 90)
S11	E	0.063	2.5	0.024	130 (105 - 155)
S12	E	0.063	2.5	0.024	100 (80 - 120)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JHP994 Side milling roughing - Metric

SMG		a_e/DC	a_p/DC	f_z			v_c
				6	8	10	
S2	E	0.048	2.0	0.022	0.030	0.036	55 (40 - 70)
S11	E	0.44	0.63	0.026	0.034	0.042	50 (39 - 80)
S12	E	0.44	0.63	0.026	0.034	0.042	40 (30 - 60)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH780 Copy milling - Metric

SMG		a_e/DC	a_p/DC	f_z				v_c
				1.8	2.8	3.8	4.9	
S2	E	0.049	4.3	0.0075	0.012	0.016	0.020	65 (50 - 85)
S12	E	0.049	4.3	0.0055	0.0085	0.012	0.015	90 (70 - 115)

For cutting data recalculations. see page 110

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH721 Copy milling finishing - Metric

SMG		a_e/DC	a_p/DC	f_z		v_c
				6	8	
S2	E	0.043	0.040	0.053	0.070	120 (100 - 140)
S12	E	0.043	0.040	0.040	0.053	160 (140 - 180)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

JH722 Copy milling finishing - Metric

SMG		a_e/DC	a_p/DC	f_z	v_c
				10	
S2	E	0.050	0.15	0.080	125 (100 - 150)
S12	E	0.050	0.15	0.060	160 (140 - 180)

SMG = Seco material group

Coolant = A=air D=dry E=emulsion M=mist spray

v_c = m/min

f_z = mm/tooth

a_p (mm)/DC (mm)= factor

a_e (mm)/DC (mm)= factor

All cutting data are target values

DIARTRBE/DIARTREM - Inch

SIDE MILLING ROUGHING													
ISO GROUP	SMG	ap x DC	ae x DC	vc (sf/min)		Zn=6		Zn=8			Zn=10	Zn=12	Zn=14
						1/8	3/16	1/8	3/16	1/4	1/4	3/8	1/2
A Thermoset Carbon & Glass Fiber	CFRP	1.50	0.35	605 510 - 700	n [rev/min]	18489	12326	18489	12326	9244	9244	6163	4622
					fz [in]	0.0004	0.0006	0.0004	0.0006	0.0008	0.0008	0.0012	0.0016
					vf [in/min]	44.4	44.4	59.2	59.2	59.2	74.0	88.7	103.5
	CRP	1.50	0.35	410 330 - 490	n [rev/min]	12530	8353	12530	8353	6265	6265	4177	3132
					fz [in]	0.0004	0.0006	0.0004	0.0006	0.0008	0.0008	0.0012	0.0016
					vf [in/min]	30.1	30.1	40.1	40.1	40.1	50.1	60.1	70.2
A Thermoplast Carbon & Glass Fiber	CFRP	1.50	0.35	410 295 - 525	n [rev/min]	12530	8353	12530	8353	6265	6265	4177	3132
					fz [in]	0.0004	0.0006	0.0004	0.0006	0.0008	0.0008	0.0012	0.0016
					vf [in/min]	30.1	30.1	40.1	40.1	40.1	50.1	60.1	70.2
	CRP	1.50	0.35	195 120 - 270	n [rev/min]	5959	3973	5959	3973	2980	2980	1986	1490
					fz [in]	0.0004	0.0006	0.0004	0.0006	0.0008	0.0008	0.0012	0.0016
					vf [in/min]	14.3	14.3	19.1	19.1	19.1	23.8	28.6	33.4

DIARTRBE/DIARTREM - Inch

SLOTTING													
ISO GROUP	SMG	ap x DC	ae x DC	vc (sf/min)		Zn=6		Zn=8			Zn=10	Zn=12	Zn=14
						1/8	3/16	1/8	3/16	1/4	1/4	3/8	1/2
A Thermoset Carbon & Glass Fiber	CFRP	1.00	1.00	510 425 - 595	n [rev/min]	15586	10390	15586	10390	7793	7793	5195	3896
					fz [in]	0.0003	0.0004	0.0003	0.0004	0.0006	0.0006	0.0008	0.0011
					vf [in/min]	25.7	25.7	34.3	34.3	34.3	42.9	51.4	60.0
	CRP	1.00	1.00	330 260 - 400	n [rev/min]	10085	6723	10085	6723	5042	5042	3362	2521
					fz [in]	0.0003	0.0004	0.0003	0.0004	0.0006	0.0006	0.0008	0.0011
					vf [in/min]	16.6	16.6	22.2	22.2	22.2	27.7	33.3	38.8
A Thermoplast Carbon & Glass Fiber	CFRP	1.00	1.00	330 275 - 385	n [rev/min]	10085	6723	10085	6723	5042	5042	3362	2521
					fz [in]	0.0003	0.0004	0.0003	0.0004	0.0006	0.0006	0.0008	0.0011
					vf [in/min]	16.6	16.6	22.2	22.2	22.2	27.7	33.3	38.8
	CRP	1.00	1.00	165 100 - 230	n [rev/min]	5042	3362	5042	3362	2521	2521	1681	1261
					fz [in]	0.0003	0.0004	0.0003	0.0004	0.0006	0.0006	0.0008	0.0011
					vf [in/min]	8.3	8.3	11.1	11.1	11.1	13.9	16.6	19.4

Cutting speed Thread milling 335.14 - Inch

SMG	R335.14_THREAD	
	f_z	v_c
P1	0.0026	980
P2	0.0024	950
P3	0.0026	820
P4	0.0026	720
P5	0.0027	690
P6	0.0027	770
P7	0.0027	730
P8	0.0026	690
P11	0.0027	710
M1	0.0024	760
M2	0.0027	610
M3	0.0019	470
M4	0.0019	350
M5	0.0017	295
K1	0.0027	750
K2	0.0024	650
K3	0.0024	550
K4	0.0024	520
K5	0.0022	310
K6	0.0024	460
K7	0.0022	400
N1	0.0035	3425
N2	0.0035	2200
N3	0.0035	1475
N11	0.0035	1675
S1	0.0017	180
S2	0.0017	145
S3	0.0017	125
S11	0.0019	230
S12	0.0019	175
S13	0.0017	135
H5	0.0015	155
H8	0.0013	160
H11	0.0015	205
H12	0.0015	185
H21	0.0013	160

SMG = Seco material group

f_z = in/tooth

v_c = sf/min

All cutting data are start values

ISO 13399 UPDATE - As you can see in this product launch booklet, we have adapted to the new global ISO 13399 Cutting Tool Data Representation and Exchange Standard.

The reason is simple. The Digital Age!

Until now, all manufactures have used different terms to identify features of their cutting tools. In today's digital world, there needs to be a way to connect tooling to many different software and cloud based services, using the same dimensional language for all tooling, from all manufactures. The new ISO standard makes this a reality! Now, product data can be transmitted directly into CAD/CAM, simulation or tool management software, helping get the best tool for each machining operation with improved quality and speed.

Below is the complete list of previous Seco callouts, with the new ISO naming and definition.

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
aa	ANADJ	SECO adjustment	angle adjustment
ADIF1	ADIF1	SECO misc	miscellaneous text 1
ADIF2	ADIF2	SECO misc	miscellaneous text 2
ADIF3	ADIF3	SECO misc	miscellaneous text 3
adjln	ADJLN	SECO adjustment radial	adjustment limit minimum
adjln	ADJLN	cutting tool	adjustment limit minimum
adjlx	ADJLX	cutting tool	adjustment limit maximum
adjlx	ADJLX	SECO adjustment radial	adjustment limit maximum
adjrg	ADJRG	cutting tool	adjustment range
adjrg	ADJRG	adjustment	adjustment range
al	BHTA	end mill	body half taper angle
al	BHTA	mill	body half taper angle
al	TACH	SECO mill	cutting half taper angle
alch	CHA	SECO drill	chamfer angle
ALD	ALD	SECO drill	Active drill length
aln	AN	flank major	clearance angle major
als	AS	wiper edge	clearance angle wiper edge
ap	APMX	mill	depth of cut maximum
ap	APMX	TEMP rotating borer	depth of cut maximum
ap	APMX	SECO cutdata	depth of cut maximum
ap	CDRX	SECO turn	cutting depth radial maximum
ap	CW	turn	cutting width
ap_max	CWX	slotting cutter	cutting width maximum
ap_min	CWN	slotting cutter	cutting width minimum
ap_split	AP1	SECO end mill	depth of cut
APICode	APICODE	SECO threading profile	APICODE
APMXE	APMXE	SECO cutdata	depth of cut maximum in feed direction end
APMXS	APMXS	SECO cutdata	depth of cut maximum in feed direction side
ar	CDX	turn	cutting depth maximum
ar	CDX	mill	cutting depth maximum
ar	CDX	grooving parting profile	cutting depth maximum
arr	CDAX	SECO turn	cutting depth axial maximum
AZ	AZ	end mill	plunge depth maximum
AZ	AZ	cutting tool	plunge depth maximum
b	B	cartridge	shank width
b	B	cutting tool	shank width
b	B	prismatic tool holder	shank width
b	B	boring bar	shank width
b2	OAW	SECO clamping units	overall width
b2	OAW	turn	overall width
BAWS	BAWS	SECO turn	Workpiece side body angle
bc	WSC	SECO clamping units	clamping width
BD	BD	SECO turn	body diameter
BD	BD	extender	body diameter
BD	BD	rotating borer	body diameter
BD	BD	TEMP converter	body diameter
BD	BD	converter	body diameter
BD	BD	ream	body diameter
BD	BD	cutting tool	body diameter
BD	BD	turn	body diameter
BD1	BD1	cutting tool	body diameter 1
BD1	BD1	extender	body diameter 1
BD1	BD1	reducer	body diameter 1

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
BD1	BD1	adaptive item type	body diameter 1
BD1	BD1	converter	body diameter 1
BD2	BD2	adaptive item type	body diameter 2
BD2	BD2	converter	body diameter 2
BD2	BD2	cutting tool	body diameter 2
BD2	BD2	extender	body diameter 2
BD2	BD2	reducer	body diameter 2
BD3	BD3	converter	body diameter 3
BD3	BD3	cutting tool	body diameter 3
BD3	BD3	reducer	body diameter 3
BDX	BDX	converter	body diameter maximum
BEC	BEC	SECO mill	back end chamfer angle
bep	CHW	chamfered corner	corner chamfer width
BHTA	BHTA	cutting tool	body half taper angle
BHTA	BHTA	converter	body half taper angle
BHTA	BHTA	extender	body half taper angle
BHTA1	BHTA1	converter	body half taper angle 1
BHTA2	BHTA2	converter	body half taper angle 2
bkw	KWW	keyway	keyway width
blq	BLQ	extender	balance quality code
blq	BLQ	rotating borer	balance quality code
blq	BLQ	reducer	balance quality code
blq	BLQ	converter	balance quality code
bn	BN	cutting edge	face land width
bs	BS	wiper edge	wiper edge length
bs	BS	mill	wiper edge length
BSAE	BSAE	SECO wiper edge	effective wiper segment angle
BSG	BSG	SECO threading tap	basic standard group
c	C	SECO keyway	keyway depth
ca	CA	SECO end mill	collision angle
CBDP	CBDP	cutting tool	connection bore depth
CBDP	CBDP	converter	connection bore depth
CBDP	CBDP	rotating borer	connection bore depth
ccer	CCER	SECO end mill	curved cutting edge radius
ccer	CCER	SECO cutting edge	curved cutting edge radius
CCMS	CCMS	adaptive item type	connection code machine side
CCWS	CCWS	adaptive item type	connection code workpiece side
cdx	CDX	drill	cutting depth maximum
cdx	CDX	rotating borer	cutting depth maximum
CDXI	CDXI	grooving parting profile	cutting depth maximum insert
CDXI	CDXI	SECO grooving parting profile	cutting depth maximum insert
cecc	CECC	cutting edge condition	cutting edge condition code
ced	CED	SECO cutting edge	cutting edge designation
CEDC_ROUND	CEDC_ROUND	SECO round insert	cutting edge count round insert
CF	CF	SECO grooving parting profile	spot chamfer
CGT	CGT	SECO mill	cutting geometry type
ch	CHW	end mill	corner chamfer width
ch_a	KCH	mill	corner chamfer angle
ChBrkOpType	ChBrkOpType	SECO cutdata	chip breaker operation type
CHF1	CHF1	SECO threading profile	chip former 1
CHF2	CHF2	SECO threading profile	chip former 2
CHF3	CHF3	SECO threading profile	chip former 3
Cmax	Cmax	SECO cutdata	helical interpolation hole diameter maximum
Cmin	Cmin	SECO cutdata	helical interpolation hole diameter minimum
CND	CND	cutting tool	coolant entry diameter
CNDP	CNDP	SECO coolant supply	coolant entry depth
CNT	CNT	cutting tool	coolant entry thread size
CNT	CNT	coolant supply	coolant entry thread size
CNT	TDZ	coolant supply	thread diameter size
CompHeight	CompHeight	SECO misc	compartment height
CompLength	CompLength	SECO misc	compartment length
CompWidth	CompWidth	SECO misc	compartment width
ConditionSuitabilityID	ConditionSuitabilityID	SECO cutdata	condition suitability id
CP	CP	cutting tool	coolant pressure
CRKS	CRKS	cutting tool	connection retention knob thread size
ctf	CTF	SECO threading profile	cutting top face
CTMS	CTMS	SECO connection interface feature	connection text machine side
CTWS	CTWS	SECO connection interface feature	connection text workpiece side

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
CutDataModelID	CutDataModelID	SECO cutdata	cutting data model id
CutDirChuck	CUDICH	SECO spare part	cut direction chuck
CuttingMethodSuitabilityID	CuttingMethodSuitabilityID	SECO cutdata	cutting method suitability id
CW	CW	grooving parting profile	cutting width
CW	CW	slotting cutter	cutting width
CW	CW	cutting tool	cutting width
CZC	CZC	tool item type	connection size code
CZC	CZC	cutting tool	connection size code
CZC1	CZC1	adaptive item type	connection size code 1
CZC1	CZC1	converter	connection size code 1
CZC2	CZC2	adaptive item type	connection size code 2
CZC2	CZC2	converter	connection size code 2
d	CPNDIA	SECO mill	connection pin diameter
d	IC	inscribed circle	inscribed circle diameter
d	INSD	round insert	insert diameter
d1	D1	fixing hole	fixing hole diameter
d1	D1	cutting tool	fixing hole diameter
D5m	DCSFMS	mill	contact surface diameter machine side
D5m	DCSFMS	system tool	contact surface diameter machine side
D5m	DF	flange	flange diameter
D5m	DF	mill	flange diameter
D5t	DCSFWS	SECO mill	contact surface diameter work piece side
d9	BDX	reducer	body diameter maximum
DBC	DBC	cutting tool	diameter bolt circle
Dc	DC	mill	cutting diameter
Dc	DC	drill	cutting diameter
Dc	DC	ream	cutting diameter
Dc_variant	Dc_variant	SECO cutdata	dc variant
Dc1	DC1	SECO mill	cutting diameter 1
Dc2	DC2	SECO mill	cutting diameter 2
Dc2	DCX	mill	cutting diameter maximum
DCB	DCB	cutting tool	connection bore diameter
DCB	DCB	TEMP reducer	connection bore diameter
DCB	DCB	extender	connection bore diameter
DCB	DCB	rotating borer	connection bore diameter
DCB	DCB	TEMP converter	connection bore diameter
DCB1	DCB1	converter	connection bore diameter 1
DCB2	DCB2	converter	connection bore diameter 2
DCBN	DCBN	converter	connection bore diameter minimum
DCBN	DCBN	cutting tool	connection bore diameter minimum
DCBX	DCBX	converter	connection bore diameter maximum
DCBX	DCBX	cutting tool	connection bore diameter maximum
Dcby	BD	mill	body diameter
Dcby	BD	drill	body diameter
DCC	DCC	cutting tool	design configuration style code
DCINN	DCINN	cutting tool	cutting diameter internal minimum
DCINN	DCINN	turn	cutting diameter internal minimum
DCINN	DCINN	SECO turn	cutting diameter internal minimum
DCINN	DCINN	drill	cutting diameter internal minimum
DCINN	DCINN	rotating borer	cutting diameter internal minimum
DCINN3	DCINN3	SECO turn	cutting diameter internal minimum 3
Dcinx	DCINX	rotating borer	cutting diameter internal maximum
Dcinx	DCINX	cutting tool	cutting diameter internal maximum
Dcinx	DCINX	drill	cutting diameter internal maximum
Dcn	DCN	cutting tool	cutting diameter minimum
Dcn	DCN	mill	cutting diameter minimum
Dcn	DCN	ream	cutting diameter minimum
Dcn	DCN	drill	cutting diameter minimum
Dcn	DCN	rotating borer	cutting diameter minimum
Dcn1	DCN1	rotating borer	cutting diameter minimum 1
Dcn2	DCN2	rotating borer	cutting diameter minimum 2
Dcn3	DCN3	rotating borer	cutting diameter minimum 3
Dcn4	DCN4	rotating borer	cutting diameter minimum 4
DCON	DCON	rotating borer	connection diameter
DCON	DCON	adaptive item type	connection diameter
DCON	DCON	cutting tool	connection diameter
Dcr	DCR	SECO end mill	cutting diameter reduction

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
Dcx	DCX	cutting tool	cutting diameter maximum
Dcx	DCX	drill	cutting diameter maximum
Dcx	DCX	rotating borer	cutting diameter maximum
Dcx	DCX	ream	cutting diameter maximum
Dcx1	DCX1	rotating borer	cutting diameter maximum 1
Dcx2	DCX2	rotating borer	cutting diameter maximum 2
Dcx3	DCX3	rotating borer	cutting diameter maximum 3
Dcx4	DCX4	rotating borer	cutting diameter maximum 4
Depth	OAW	TEMP cutting tool	overall width
DF	DF	cutting tool	flange diameter
dhc1	DBC1	bolt hole circle	diameter bolt circle 1
dhc2	DBC2	bolt hole circle	diameter bolt circle 2
DKTY	DKTY	cutting tool	driving key type
Dm	CUTDIA	turn	work piece parting diameter maximum
Dmi_mod	DCINN2	SECO turn	cutting diameter internal minimum 2
Dmm	BDX	boring bar	body diameter maximum
Dmm	DCB	SECO mill	connection bore diameter
Dmm	DMM	rotating borer	shank diameter
Dmm	DMM	tool item type	shank diameter
Dmm	DMM	boring bar	shank diameter
Dmm	DMM	SECO turn	shank diameter
Dmm	DMM	cutting tool	shank diameter
Dmm	DMM	drill	shank diameter
Dmm	DMM	SECO clamping units	shank diameter
Dmm	DMM	adaptive item type	shank diameter
Dmm	DMM	mill	shank diameter
Dmm	DMM	ream	shank diameter
dmt	DCB	converter	connection bore diameter
dmt	DCB	reducer	connection bore diameter
DN	DN	end mill	neck diameter
DTL	DTL	SECO drill	drill tip length
E	THUB	tool hub	hub thickness
eppa	SIG	drill point	point angle
eppa	SIG	SECO end mill	point angle
eppa	SIG	chip management	point angle
eppa1	SIG1	SECO drill point	point angle_1
eppa2	SIG2	SECO drill point	point angle_2
epr	EPSR	equilateral nonequangular	insert included angle
epr	EPSR	nonequilateral equiangular	insert included angle
epr	EPSR	equilateral equiangular	insert included angle
epr	EPSR	nonequilateral nonequangular	insert included angle
f1	WF	turn	functional width
f1s	WFS	turn	functional width secondary
FCEDC	FCEDC	SECO end mill	face cutting edge count
FDESU	FDESU	SECO cutdata	feed direction suitability end
FDP	FDP	SECO reference system	feed direction primary
FDSSU	FDSSU	SECO cutdata	feed direction suitability side
FHA	FHA	tool item type	flute helix angle
FHH	FHH	chip management	flute helix hand
FLGT	FLGT	cutting tool	flange thickness
flgw	FLGW	flange	flange width
gaf	GAMF	turn	rake angle radial
gaf	GAMF	mill	rake angle radial
GAMO_ADJ	GAMO_ADJ	SECO cutdata	gamma adjustment
gan1	GB	cutting edge	face land angle
gan2	GAN	chip breaker	insert rake angle
gao	GAMO	mill	rake angle orthogonal
gao	GAMO	turn	rake angle orthogonal
gap	GAMP	turn	rake angle axial
gap	GAMP	mill	rake angle axial
Gradetype	Gradetype	SECO cutdata	grade type
h	H	SECO clamping units	shank height
h	H	cartridge	shank height
h	H	boring bar	shank height
h	H	prismatic tool holder	shank height
h1	HF	turn	functional height
h1y	HF	SECO adaptive item type	functional height
h2	OAH	SECO clamping units	overall height

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
h2	OAH	turn	overall height
hand	HAND	tool item type	hand
hand	IH	specific profile insert	insert hand
hand	IH	equilateral nonequangular	insert hand
hand	IH	nonequilateral equiangular	insert hand
hand	IH	turn	insert hand
hand	IH	equilateral equiangular	insert hand
hand	IH	nonequilateral nonequangular	insert hand
HC	HC	threading profile	thread height actual
Height	OAH	SECO misc	overall height
Height	OAH	TEMP cutting tool	overall height
HelixAngle	FHA	chip management	flute helix angle
hf	HF	SECO adapters	functional height
hf	HF	SECO clamping units	functional height
hf1	HF1	SECO adapters	functional height_1
hf2	HF2	SECO adapters	functional height_2
HLC	HLC	SECO workpiece drilling	hole cylindricity
HLC	HLC	SECO workpiece boring	hole cylindricity
HLDN	HLDN	SECO workpiece boring	hole diameter minimum
HLDN	HLDN	SECO workpiece drilling	hole diameter minimum
HLDX	HLDX	SECO workpiece drilling	hole diameter maximum
hry	HRV	SECO adaptive item type	lowest point from reference plane
htb	HTB	cutting tool	body height
IBA	IBA	SECO round insert	insert bottom angle
icc	ICC	SECO end mill	internal coolant channel
ics	ICS	SECO turn	insert clamping system
igl	IGL	SECO gauge	insert gauge length
INPLM	INPLM	SECO turn	Minimum initial plunge diameter
INPLM2	INPLM2	turn	minimum initial plunge diameter2
INPLX	INPLX	SECO turn	initial plunge maximum
insert_variant	insert_variant	SECO cutdata	insert variant
IntermittenceSuitabilityID	IntermittenceSuitabilityID	SECO cutdata	intermittence suitability id
is	IS	SECO specific profile insert	Insert style
is	IS	SECO threading profile	Insert style
kaep	KCH	chamfered corner	corner chamfer angle
KAPRC	KAPRC	SECO turn	tool cutting edge angle code
KAPRE	KAPRE	rotating borer	tool cutting edge angle in feed direction end
KAPRE	KAPRE	SECO cutdata	tool cutting edge angle in feed direction end
KAPRS	KAPRS	SECO cutdata	tool cutting edge angle in feed direction side
kar	KAPR	turn	tool cutting edge angle
kar	KAPR	mill	tool cutting edge angle
kar	KAPR	rotating borer	tool cutting edge angle
kar	KAPR	SECO drill	tool cutting edge angle
kar	KAPR	SECO threading profile	tool cutting edge angle
kar2	KAPR2	SECO turn	tool cutting edge angle-2
kar2_suit	KAPR2SUIT	SECO turn	tool cutting edge angle-2 suit
kars	KRINS	cutting tool	cutting edge angle major
kars	KRINS	SECO cutting edge major	cutting edge angle major
kars	KRINS	wiper edge	cutting edge angle major
KCHL	KCHL	grooving parting profile	corner chamfer angle left hand
KCHR	KCHR	grooving parting profile	corner chamfer angle right hand
KEY	KEY	cutting tool	driving key
KRINS	KRINS	SECO cutting edge	cutting edge angle major
KRINS	KRINS	TEMP cutting tool	cutting edge angle major
KWW	KWW	cutting tool	keyway width
l	L	cutting tool	cutting edge length
l	L	cutting edge major	cutting edge length
l1	LF	mill	functional length
l1	LF	ream	functional length
l1	LF	turn	functional length
l1	LFS	TEMP turn	functional length secondary
l1by	LB	chamfer drill	body length
l1s	LFS	SECO ream	functional length secondary
l1s	LFS	SECO drill	functional length secondary
l1s	LFS	turn	functional length secondary
l1sn	LFSN	SECO drill	functional length secondary minimum
l1sx	LFSX	SECO drill	functional length secondary maximum
l1x	WF	SECO adaptive item type	functional width

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SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
I1z	LF	SECO adaptive item type	functional length
I2	INSL	ball nosed profile	insert length
I2	INSL	nonequilateral nonequiangular	insert length
I2	INSL	specific profile insert	insert length
I2	OAL	tool item type	overall length
I2by	LB	SECO ream	body length
I2by	LBN	SECO ream	body length minimum
I3	LH	SECO reducer	head length
I3	LH	turn	head length
I3	LUX	mill	usable length maximum
I3s	LUX	ream	usable length maximum
I3s	LUX	drill	usable length maximum
I4	LU	SECO turn	usable length
I4	LU	ream	usable length
I4	LU	drill	usable length
I6	LCF	chip management	length chip flute
las	LAMS	turn	inclination angle
lb	LB	cutting tool	body length
lb	LB	converter	body length
lb	LB	double half side mill	body length
lb	LB	extender	body length
lb	LB	reducer	body length
lb	LB	rotating borer	body length
LB1	LB1	cutting tool	body length 1
LB1	LB1	reducer	body length 1
LB1	LB1	adaptive item type	body length 1
LB1	LB1	converter	body length 1
LB2	LB2	converter	body length 2
LB2	LB2	cutting tool	body length 2
LB2	LB2	reducer	body length 2
LB3	LB3	converter	body length 3
LB4	LB4	converter	body length 4
LC	LS	drill	shank length
LC	LS	mill	shank length
LC	LS	ream	shank length
LC	LS	reducer	shank length
LC	LS	SECO clamping units	shank length
LC	LS	turn	shank length
LCA	LCA	SECO tool item type	Possible reachable cutting depth
Icol_0	WDX0	SECO end mill	maximum working depth 0 degree
Icol_0.5	WDX05	SECO end mill	maximum working depth 0.5 degree
Icol_1	WDX1	SECO end mill	maximum working depth 1 degree
Icol_1.5	WDX15	SECO end mill	maximum working depth 1.5 degree
Icol_2	WDX2	SECO end mill	maximum working depth 2 degrees
Icol_3	WDX3	SECO end mill	maximum working depth 3 degrees
Ict	CBDP	reducer	connection bore depth
Ict	CBDP	SECO adaptive item type	connection bore depth
Ie	LE	cutting tool	cutting edge effective length
Ie	LE	cutting edge major	cutting edge effective length
Length	OAL	SECO cutting tool	overall length
Length	OAL	SECO misc	overall length
If	LF	SECO toolblock	functional length
If	LF	TEMP adaptive item type	functional length
If	LF	tool item type	functional length
If	LF	adaptive item type	functional length
If	LF	cutting tool	functional length
If	LF	SECO adapters	functional length
If1	LF1	cutting tool	functional length_1
If1	LF1	SECO adapters	functional length_1
If1	LF1	SECO clamping units	functional length_1
LF2	LF2	cutting tool	functional length_2
LF2	LF2	SECO adapters	functional length_2
LF2	LF2	SECO clamping units	functional length_2
LF2	LF2	turn	functional length2
If3	LF3	SECO adapters	functional length_3
LFN	LFN	converter	functional length minimum
Ifs	LFS	cutting tool	functional length secondary
LH	LH	cutting tool	head length

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
LH2	LH2	turn	head length2
ln	LN	end mill	neck length
ln1	LN1	SECO end mill	neck length 1
ln2	LN2	SECO end mill	neck length 2
lp	LPR	mill	protruding length
lpa	PL	drill point	point length
LPR	LPR	adaptive item type	protruding length
LPR	LPR	cutting tool	protruding length
LPR	LPR	SECO toolblock	protruding length
LPR	LPR	rotating borer	protruding length
LS	LS	converter	shank length
LS	LS	cutting tool	shank length
LS	LS	SECO boring bar	shank length
LS	LS	SECO prismatic tool holder	shank length
LSC	LSC	converter	clamping length
LSC	LSC	cutting tool	clamping length
lscn	LSCN	converter	clamping length minimum
lscx	LSCX	converter	clamping length maximum
ltl	LTl	SECO threading profile	lost thread length
ltz	LB	SECO clamping units	body length
LU	LU	SECO tool item type	usable length
LU	LU	converter	usable length
LU	LU	tool item type	usable length
LU	LU	reducer	usable length
lun1	LUN1	SECO chamfer module	usable length minimum_1
lun2	LUN2	SECO chamfer module	usable length minimum_2
lun3	LUN3	SECO chamfer module	usable length minimum_3
lun4	LUN4	SECO chamfer module	usable length minimum_4
lux1	LUX1	SECO chamfer module	usable length maximum_1
lux2	LUX2	SECO chamfer module	usable length maximum_2
lux3	LUX3	SECO chamfer module	usable length maximum_3
lux4	LUX4	SECO chamfer module	usable length maximum_4
lv	LENVAR	SECO end mill	length variant
m	LSCN	non replaceable cutting item	clamping length minimum
m	M	nonequilateral nonequangular	m-dimension
m	M	equilateral equiangular	m-dimension
m	M	equilateral nonequangular	m-dimension
m	TTP	mill	thread type
m2	M2	equilateral nonequangular	m2-dimension
MachiningSuitabilityID	MachiningSuitabilityID	SECO cutdata	machining suitability id
mhd	MHD	cutting tool	mounting hole distance
mhd	MHD	SECO turn	mounting hole distance
na	NA	SECO end mill	neck angle
nccr	NCCR	SECO end mill	non cutting radius
NoComp	NoComp	SECO misc	number of compartments
nof	NOF	tool item type	flute count
nof	NOF	mill	flute count
nt	NT	threading profile	tooth count
OAH	OAH	SECO toolblock	overall height
OAL	OAL	TEMP cutting tool	overall length
OAL	OAL	adaptive item type	overall length
OAL	OAL	TEMP tool item type	overall length
OAL	OAL	cutting tool	overall length
OAW	OAW	SECO toolblock	overall width
par	PAR	grooving parting profile	profile angle right hand
PCEDC	PCEDC	SECO end mill	pheripheral cutting edge count
pdx	PDX	threading profile	profile distance ex
pdy	PDY	threading profile	profile distance ey
pna	PNA	threading profile	profile included angle
pna	PNA	grooving parting profile	profile included angle
psirl	PSIRL	cutting edge major	cutting edge angle major left hand
psirr	PSIRR	cutting edge major	cutting edge angle major right hand
psr	PSIR	mill	tool lead angle
pth_max	TPX	threading profile	thread pitch maximum
pth_min	TPN	threading profile	thread pitch minimum
RA	RA	ball nosed profile	relief angle
Rbo	BSR	wiper edge	wiper edge radius
RE	RE	cutting tool	corner radius

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SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
rep	RE	rounded corner	corner radius
rep2	RE2	rounded corner	corner radius 2
RETL	RETL	grooving parting profile	flank radius left hand
RETR	RETR	grooving parting profile	flank radius right hand
REWC	REWC	SECO wiper edge	clearance corner radius wiper edge
RL	RL	SECO adaptive item type	radial location
RMPX	RMPX	SECO mill	ramping angle maximum
RMPX	RMPX	SECO turn	ramping angle maximum
RP	RP	SECO mill	programming radius
rpmx	RPMX	rotating borer	rotational speed maximum
rpmx	RPMX	cutting tool	rotational speed maximum
rpmx	RPMX	adaptive item type	rotational speed maximum
rpmx	RPMX	mill	rotational speed maximum
rpmx	RPMX1	TEMP rotating borer	rotational speed maximum 1
RPMX1	RPMX2	TEMP rotating borer	rotational speed maximum 2
s	CBTHN	SECO mill	connection body thickness
s	S	nonequilateral equiangular	insert thickness
s	S	equilateral nonequilateral	insert thickness
s	S	nonequilateral nonequilateral	insert thickness
s	S	specific profile insert	insert thickness
s	S	ball nosed profile	insert thickness
s	S	round insert	insert thickness
s	S	equilateral equiangular	insert thickness
s2	BW	specific profile insert	insert body width
sa	SA	SECO end mill	sphere angle
SC	SC	SECO nonequilateral equiangular	insert shape code
SC	SC	SECO round insert	insert shape code
SC	SC	SECO turn	insert shape code
SC	SC	SECO equilateral equiangular	insert shape code
SC	SC	SECO equilateral nonequilateral	insert shape code
SC	SC	SECO nonequilateral nonequilateral	insert shape code
SFHL	SFHL	SECO workpiece boring	surface finish hole
SFHL	SFHL	SECO workpiece drilling	surface finish hole
Shanktype	ShankType	SECO cutdata	shank type
SMGSuitabilityID	SMGSuitabilityID	SECO cutdata	smg suitability id
SRR	SRR	cutting tool	stock removal recommended
ssc	SSC	master insert	insert seat size code
ssc	SSC	turn	insert seat size code
ssc	SSC	ream	insert seat size code
ssc	SSC	round insert	insert seat size code
STA	STA	step drill	step included angle
STA	STA	centre drill	step included angle
sw	SW	SECO adaptive item type	wrench size
ta	TA	conical tap	taper angle
ta	TA	cutting tool	taper angle
tc	TC	equilateral equiangular	tolerance class insert
tc	TC	equilateral nonequilateral	tolerance class insert
tc	TC	nonequilateral equiangular	tolerance class insert
tc	TC	SECO specific profile insert	tolerance class insert
tc	TC	round insert	tolerance class insert
tc	TC	nonequilateral nonequilateral	tolerance class insert
tce	TCE	equilateral nonequilateral	tipped cutting edge code
tce	TCE	specific profile insert	tipped cutting edge code
tce	TCE	round insert	tipped cutting edge code
tce	TCE	equilateral equiangular	tipped cutting edge code
tce	TCE	nonequilateral nonequilateral	tipped cutting edge code
tctr	TCTR	specific profile insert	thread tolerance class
tctr	TCTR	tool item type	thread tolerance class
td	TD	tool item type	thread diameter
td	TD	cutting tool	thread diameter
tdz	TDZ	cutting tool	thread diameter size
tdz	TDZ	SECO adaptive item type	thread diameter size
tdz	TDZ	threading profile	thread diameter size
tdz	TDZ	threading tap	thread diameter size
tdz	TDZ	tool item type	thread diameter size
tdz	TDZ	threading die	thread diameter size
tdz1	TDZ1	cutting tool	thread diameter size 1
tdz2	TDZ2	cutting tool	thread diameter size 2

SECO PREVIOUS NAME	ISO 13399 SHORT NAME	ISO CLASS	ISO ATTRIBUTE
TGCONE	TGCONE	SECO threading profile	Taper gradient cone
TGTPF	TGTPF	SECO threading profile	Taper gradient taper per foot
thap1	THAP1	SECO threading profile	thread height above pitchline
thap2	THAP2	SECO threading profile	thread height below pitchline
THCHT	THCHT	SECO threading tap	thread chamfer type
THFT	THFT	threading profile	thread form type
THL1	THL1	SECO general component attributes	thread length 1
THLGTH	THLGTH	tool thread external	thread length
TIS	TIS	SECO specific profile insert	threading Insert Shape
toolshape	TSMOD	SECO end mill	toolshape model
TP1	TP1	SECO general component attributes	pitch 1
TPI_max	TPIX	threading profile	threads per inch maximum
TPI_min	TPIN	threading profile	threads per inch minimum
TPR	TPR	SECO adaptive item type	taper
TQ	TQ	cutting tool	torque
TreadingInsertShape	TIS	SECO threading profile	threading insert shape
Ts_cat	TSCAT	SECO end mill	toolshape catalog
ttl	TTL	SECO specific profile insert	true tip length
ttl	TTL	SECO equilateral nonequiangular	true tip length
ttl	TTL	SECO equilateral equiangular	true tip length
ttp	TTP	threading profile	thread type
TTT	TTT	SECO drill	tap thread type
TTTR	TTTR	SECO drill	tap thread type rolled
uldr	ULDR	SECO threading tap	usable length diameter ratio
UTCN	UTCN	SECO end mill	uncut thickness
UTCN	UTCN	SECO mill	uncut thickness
ver	VER	SECO toolblock	version
ver	VER	SECO turn	version
W	W1	ball nosed profile	insert width
W	W1	equilateral equiangular	insert width
W	W1	nonequilateral equiangular	insert width
W	W1	nonequilateral nonequiangular	insert width
W	W1	specific profile insert	insert width
wb	WB	cutting tool	body width
WB1	WB1	cutting tool	body width 1
WB2	WB2	cutting tool	body width 2
wf	WF	cutting tool	functional width
wf	WF	converter	functional width
wf	WF	SECO adapters	functional width
wf	WF	SECO toolblock	functional width
wf1	WF1	SECO toolblock	functional width_1
wf2	WF2	SECO toolblock	functional width_2
wf2	WF2	turn	functional width 2
wf2	WF2	SECO adapters	functional width_2
Width	OAW	SECO misc	overall width
WorkingArea	WorkingArea	SECO misc	working area
WorkingRangeModelID	WorkingRangeModelID	SECO cutdata	working range model id
Zc	ZEFP	mill	peripheral effective cutting edge count
Zc	ZEFP	rotating borer	peripheral effective cutting edge count
Zc	ZEFP	drill	peripheral effective cutting edge count
Zf	FRECEDC	SECO end mill	frontal effective cutting edge count
zn	CEDC	equilateral nonequiangular	cutting edge count
zn	CEDC	non replaceable cutting item	cutting edge count
zn	CEDC	nonequilateral equiangular	cutting edge count
zn	CEDC	specific profile insert	cutting edge count
zn	CEDC	round insert	cutting edge count
zn	CEDC	equilateral equiangular	cutting edge count
zn	CEDC	nonequilateral nonequiangular	cutting edge count
znf	ZNF	mill	face mounted insert count
znp	ZNP	mill	peripheral mounted insert count
znp	ZNP	rotating borer	peripheral mounted insert count



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