

**SECO
NEW
TOOLING &
EXPANSIONS**



**2017.1 NEW
PRODUCT LAUNCH**

CONSTANT INVESTMENT IN CONSTANT IMPROVEMENT

Every year, Seco invests 10% of our revenues in R&D to create and refine the tools you need to excel. Our global network of engineers, technical experts and sales people work together to identify the challenges you face today and the needs you'll have tomorrow. Then, they develop the products you need to overcome them. Products like those represented in this brochure.

Here you'll discover end mills with new corner radii designed to help aerospace manufacturers reduce part weight. We've expanded our range of solutions for challenging, sticky materials, such as titanium and heat-resistant superalloys. For those machining cast iron, we've applied Duratomic® technology to expand the versatility of your operations. And those are just the beginning. Each featured tool in this 2017.1 New Product Launch meets a specific need and will help you stay on the road of constant improvement.

FEATURED



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R217/220.28 CUTTER

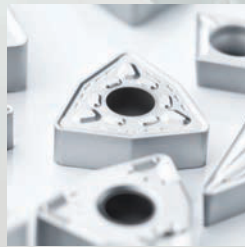
Cutter with double-sided round inserts provides easy indexing & high performance



6

R220.88 FACE MILLING CUTTER

Get face-to-face with better economy and reduced cutting forces



8

DURATOMIC® TP3501 GRADES

A grade you can trust, maximizing versatility & security

COMPETENCE DRIVEN SOLUTIONS

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

RANGE ADDITIONS



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To help you navigate the industry's most complex metalworking challenges, we've simplified and enhanced the **secotools.com** experience to provide the resources you need to improve productivity in one centralized location.

YOUR NEW SECOTOOLS.COM EXPERIENCE INCLUDES:

- Advanced search so you can find what you need quickly and easily on any device
- Comprehensive resources - from detailed product information and access to unmatched service and support to new features like Suggest - that guide you to the best solution
- Gain instant access to specifications, cutting data and CAD models on every standard Seco product
- Easily find tips on how to optimize your machining operations

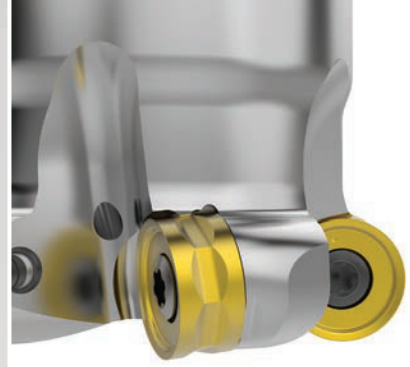
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TWICE AS NICE

CUTTER WITH DOUBLE-SIDED ROUND INSERTS PROVIDES ECONOMY & HIGH PERFORMANCE

Incorporating double-sided round inserts with 16 cutting edges each, the new R217/220.28 cutter provides high productivity while maintaining economical performance. The tool performs face milling, slotting and contouring in ISO M and ISO S materials, as well as some difficult-to-machine ISO P materials, such as martensitic stainless steel. A complement to our existing R217/220.29I range, the R217/R220.28 excels in Z-leveling applications and is ideal for exotic materials used in the aerospace and power generation segment.



With a completely new cutter body design, the R217/220.28 features safe and user-friendly indexing that saves time and provides trouble-free operation. Double negative positioning in the pocket seats allows the design to incorporate an extra insert per diameter when compared to the R217/R220.29I, providing further productivity gains.

NEW R217/220.28 INSERTS

DESCRIPTION	GRADES (EDP)									
	COATED									
	F40M	MK2050	MP2050	MP2500	MS2050	MS2500	T350M	MS2050	MS2500	T350M
RNMU1204MO-ME10	46907	-	46913	-	46908	46911	46909	13736	13737	82289
RNMU1204MOT-M10	-	46916	46926	46915	46924	46925	46917	-	-	-

AVAILABLE APRIL 3, 2017

MILLING

RANGE OVERVIEW:

- Diameters ranging from 1.25" - 3.00" (32 - 80 mm)
- PVD & CVD grades
- Insert size 12
- 2 geometries
- Normal- and close-pitch versions

KEY BENEFITS:

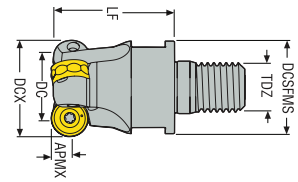
- Double-sided inserts increase economy
- Safe and user-friendly indexing system
- Additional insert per diameter increases productivity

ECONOMIC

HIGH PRODUCTIVITY

LOW TOOLING COSTS

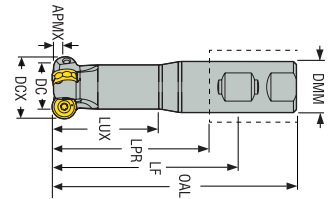
EASY INDEXING



NEW R217/220.28 - COMBIMASTER

EDP	DESCRIPTION	TYPE OF MOUNTING	DIMENSIONS IN INCH / METRIC						⌀	LB/KG		INSERT
			DC	DCX	APMX	TDZ	LF	DCSFMS				
Inch												
48328	R217.28-01.50-20RE-06-4A	Combimaster	1.055	1.500	0.236	M20	1.772	1.437	4	0.66	14000	RNMU12..
Metric												
47068	R217.28-1632.RE-06-3A	Combimaster	20.1	32.0	6.0	M16	40.0	30.0	3	0.20	15600	RNMU12..
47069	R217.28-2040.RE-06-4A	Combimaster	28.0	40.0	6.0	M20	45.0	36.5	4	0.40	14000	RNMU12..

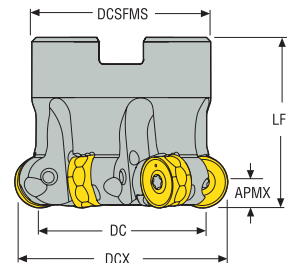
AVAILABLE APRIL 3, 2017 Note: To achieve the use of all 16 edges, max depth = 0.067" or (1.7 mm)



NEW R217/220.28 - WELDON

EDP	DESCRIPTION	TYPE OF MOUNTING	DIMENSIONS IN INCH								⌀	LB/KG		INSERT
			DC	DCX	APMX	LF	D	LUX	LPR	OAL				
Inch														
48327	R217.28-01.25-3-06-3A	Weldon	0.780	1.250	0.236	3.642	1.000	3	2.503	4.782	3	0.88	15600	RNMU12..

AVAILABLE APRIL 3, 2017 Note: To achieve the use of all 16 edges, max depth = 0.067" or (1.7 mm)



NEW R217/220.28 - ARBOR

EDP	DESCRIPTION	TYPE OF MOUNTING	DIMENSIONS IN INCH / METRIC					⌀	LB/KG		INSERT
			DC	DCX	APMX	LF	DCSFMS				
Inch											
48329	R220.28-01.50-06-4A	Arbor	1.055	1.500	0.236	1.500	1.260	4	0.44	14000	RNMU12..
48330	R220.28-02.00-06-5A	Arbor	1.528	2.000	0.236	1.500	1.654	5	0.66	12500	RNMU12..
48331	R220.28-02.00-06-6A	Arbor	1.547	2.000	0.236	1.500	1.654	6	0.66	12500	RNMU12..
48332	R220.28-02.50-06-7A	Arbor	2.028	2.500	0.236	1.500	1.850	7	1.10	11200	RNMU12..
48333	R220.28-03.00-06-8A	Arbor	2.524	3.000	0.236	2.000	2.441	8	2.20	10000	RNMU12..
Metric											
48183	R220.28-0040-06-4A	Arbor	28.7	40.0	6.0	40.0	35.0	4	0.20	14000	RNMU12..
48184	R220.28-0050-06-5A	Arbor	38.0	50.0	6.0	40.0	42.0	5	0.30	12500	RNMU12..
48185	R220.28-0050-06-6A	Arbor	38.0	50.0	6.0	40.0	42.0	6	0.30	12500	RNMU12..
48313	R220.28-0052-06-5A	Arbor	40.0	52.0	6.0	40.0	47.0	5	0.30	12300	RNMU12..
48314	R220.28-0063-06-6A	Arbor	51.0	63.0	6.0	40.0	47.0	6	0.50	11200	RNMU12..
48316	R220.28-0063-06-8A	Arbor	51.0	63.0	6.0	40.0	47.0	8	0.50	10000	RNMU12..
48317	R220.28-0066-06-7A	Arbor	54.0	66.0	6.0	50.0	62.0	7	0.60	10900	RNMU12..
48320	R220.28-0080-06-8A	Arbor	67.9	80.0	6.0	50.0	62.0	8	1.00	10000	RNMU12..

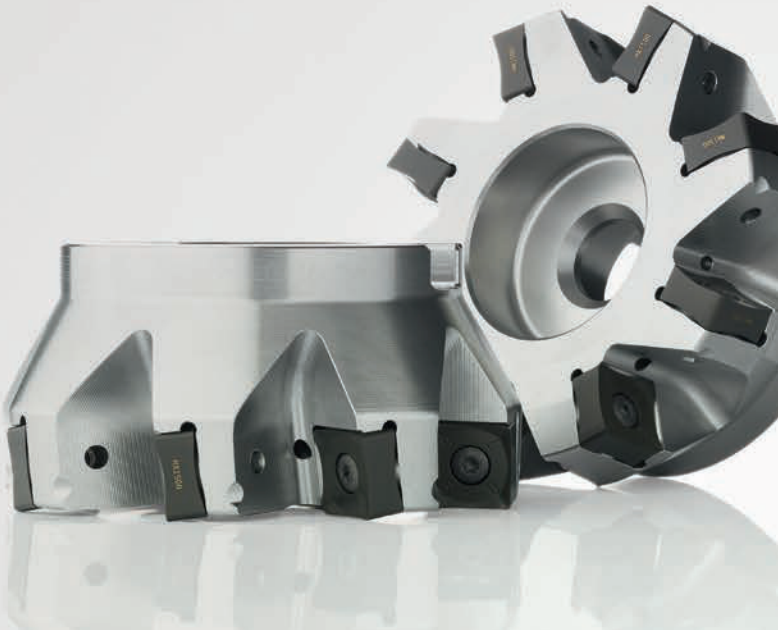
AVAILABLE APRIL 3, 2017 Note: To achieve the use of all 16 edges, max depth = 0.067" or (1.7 mm)

GET FACE-TO-FACE WITH BETTER ECONOMY

NEW R220.88 FACE MILLING CUTTER

Our new R220.88 cutter meets today's needs for an economical near 90° face milling solution via eight cutting edges per insert. Incorporating an 88° lead angle provides the ability to machine close to sidewalls, fixture clamps or other obstacles in the machining process. This feature also allows for high DOC capabilities with a smaller I.C. insert to enhance the cutter's economy.

The R220.88 with SNMU inserts is available in two different insert sizes, 12 - 16 mm. The cutter is available in a right-hand version as standard, with the flexibility of an insert that can be used in left-handed versions in a special cutter body. This allows integration into systems with dual spindles performing simultaneous cutting.



Designed for roughing and semi-finishing applications, the R220.88 is ideal for machining cast iron and steels in the general machining and automotive segments. An integrated wiper flat ensures a good surface finish in semi-finishing operations. The positive M10 geometry addresses various demands in the machining process for both size 12 and size 16. The MD13 geometry offers heavy edge protection for size 12, while the MD16 provides the same benefit for size 16.



MILLING

RANGE OVERVIEW:

- Diameters from 2" - 6" (50 - 160 mm) as standard
- Max depth: 0.354" (9 mm) for size 12 and 0.511" (13 mm) for size 16
- Insert geometries: M10, MD13, MD16
- Insert grades: MK1500, MK2050, MP1500, MP2500, MS2500 and F40M
- Neutral insert that can be used in right-handed or left-handed cutters
- Left-handed cutters available only as a special

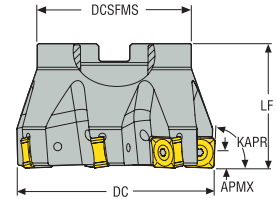
KEY BENEFITS:

- Eight cutting edges per insert for economical face milling solution
- Integrated wiper flat for improved surface finish
- Optimized geometry and grade for steel and cast iron

**ECONOMICAL
REDUCED CUTTING FORCES
LONGER TOOL LIFE**

NEW R220.88 INSERTS

DESCRIPTION	GRADES (EDP)					
	COATED					
	F40M	MK1500	MK2050	MP1500	MP2500	MS2500
SNMU120410TN-M10	48150	48145	48146	48147	48148	48149
SNMU120410TN-MD13	48157	48151	48152	48154	48155	48156
SNMU160612TN-M10	48165	48158	48161	48162	48163	48164
SNMU160612TN-MD16	48172	48166	48168	48169	48170	48171



NEW R220.88 CUTTERS

EDP	DESCRIPTION	MOUNTING SIZE / TYPE	DIMENSIONS IN INCH / METRIC					KAPRS		LB/KG		INSERT
			DC	APMX	DCSFMS	LF	KAPRS					
Inch												
47094	R220.88-02.00-12-4SA	0.75 Arbor	2.00	0.315	1.85	1.57	88°	4	1.1	12600	SMNU12	
47108	R220.88-02.00-12-5SA	0.75 Arbor	2.00	0.315	1.85	1.57	88°	5	1.1	12600	SMNU12	
47095	R220.88-02.50-12-6SA	0.75 Arbor	2.50	0.354	1.85	1.57	88°	6	1.1	11200	SMNU12	
47109	R220.88-02.50-12-7SA	0.75 Arbor	2.50	0.354	1.85	1.57	88°	7	1.3	11200	SMNU12	
47096	R220.88-03.00-12-7SA	1.00 Arbor	3.00	0.354	2.44	1.97	88°	7	2.2	9900	SMNU12	
47112	R220.88-03.00-12-9SA	1.00 Arbor	3.00	0.354	2.44	1.97	88°	9	2.2	9900	SMNU12	
47113	R220.88-04.00-12-11SA	1.50 Arbor	4.00	0.354	3.03	1.97	88°	11	3.7	8900	SMNU12	
47097	R220.88-04.00-12-8SA	1.50 Arbor	4.00	0.354	3.03	1.97	88°	8	3.7	8900	SMNU12	
47098	R220.88-05.00-12-10SA	1.50 Arbor	5.00	0.354	3.54	2.48	88°	10	8.2	7900	SMNU12	
47159	R220.88-05.00-12-14SA	1.50 Arbor	5.00	0.354	3.54	2.48	88°	14	8.2	7900	SMNU12	
47099	R220.88-06.00-12-12S	2.00 Arbor	6.00	0.354	4.33	2.48	88°	12	10.6	7000	SMNU12	
47160	R220.88-06.00-12-16S	2.00 Arbor	6.00	0.354	4.33	2.48	88°	16	10.6	7000	SMNU12	
Metric												
46904	R220.88-0050-12-4SA	22.0 Arbor	50.0	9.0	47.0	40.0	88°	4	0.5	12600	SMNU12	
47100	R220.88-0050-12-5SA	22.0 Arbor	50.0	9.0	47.0	40.0	88°	5	0.5	12600	SMNU12	
46906	R220.88-0063-12-6SA	22.0 Arbor	63.0	9.0	47.0	40.0	88°	6	0.5	11200	SMNU12	
47101	R220.88-0063-12-7SA	22.0 Arbor	63.0	9.0	47.0	40.0	88°	7	0.5	11200	SMNU12	
47072	R220.88-0080-12-7SA	27.0 Arbor	80.0	9.0	62.0	50.0	88°	7	1.0	9900	SMNU12	
47103	R220.88-0080-12-9SA	27.0 Arbor	80.0	9.0	62.0	50.0	88°	9	1.0	9900	SMNU12	
47104	R220.88-0100-12-11SA	32.0 Arbor	100	9.0	77.0	50.0	88°	11	1.7	8900	SMNU12	
47076	R220.88-0100-12-8SA	32.0 Arbor	100	9.0	77.0	50.0	88°	8	1.7	8900	SMNU12	
47077	R220.88-0125-12-10SA	40.0 Arbor	125	9.0	90.0	63.0	88°	10	3.2	7900	SMNU12	
47106	R220.88-0125-12-14SA	40.0 Arbor	125	9.0	90.0	63.0	88°	14	3.3	7900	SMNU12	
47093	R220.88-8160-12-12S	40.0 Arbor	160	9.0	90.0	63.0	88°	12	5.3	7000	SMNU12	
47107	R220.88-8160-12-16S	40.0 Arbor	160	9.0	90.0	63.0	88°	16	5.5	7000	SMNU12	
Inch												
47585	R220.88-03.00-16-6SA	1.00 Arbor	3.00	0.512	2.44	1.97	88°	6	2.2	6300	SMNU16	
48141	R220.88-03.00-16-7SA	1.00 Arbor	3.00	0.531	2.44	1.97	88°	7	2.2	6300	SMNU16	
47586	R220.88-04.00-16-8SA	1.50 Arbor	4.00	0.512	3.03	1.97	88°	8	4.2	5600	SMNU16	
48142	R220.88-04.00-16-9SA	1.50 Arbor	4.00	0.531	3.03	1.97	88°	9	3.7	5600	SMNU16	
48131	R220.88-05.00-16-10SA	1.50 Arbor	5.00	0.512	3.54	2.48	88°	10	6.4	5000	SMNU16	
48143	R220.88-05.00-16-11SA	1.50 Arbor	5.00	0.531	3.54	2.48	88°	11	6.2	5000	SMNU16	
48132	R220.88-06.00-16-12S	2.00 Arbor	6.00	0.512	4.33	2.48	88°	12	12.1	4400	SMNU16	
48144	R220.88-06.00-16-13S	2.00 Arbor	6.00	0.531	4.33	2.48	88°	13	11.7	4400	SMNU16	
Metric												
47162	R220.88-0063-16-4SA	22.0 Arbor	63.0	13.0	47.0	40.0	88°	4	0.6	7100	SMNU16	
48133	R220.88-0063-16-5SA	22.0 Arbor	63.0	13.0	47.0	40.0	88°	5	0.5	7100	SMNU16	
47164	R220.88-0080-16-6SA	27.0 Arbor	80.0	13.0	62.0	50.0	88°	6	1.2	6300	SMNU16	
48134	R220.88-0080-16-7SA	27.0 Arbor	80.0	13.0	62.0	50.0	88°	7	1	6300	SMNU16	
47582	R220.88-0100-16-8SA	32.0 Arbor	100	13.0	77.0	50.0	88°	8	1.9	5600	SMNU16	
48135	R220.88-0100-16-9SA	32.0 Arbor	100	13.0	77.0	50.0	88°	9	7.2	5600	SMNU16	
47583	R220.88-0125-16-10SA	40.0 Arbor	125	13.0	90.0	63.0	88°	10	3.3	5000	SMNU16	
48139	R220.88-0125-16-11SA	40.0 Arbor	125	13.0	90.0	63.0	88°	11	3.3	5000	SMNU16	
47584	R220.88-8160-16-12S	40.0 Arbor	160	13.0	90.0	63.0	88°	12	5.5	4400	SMNU16	
48140	R220.88-8160-16-13S	40.0 Arbor	160	13.0	90.0	63.0	88°	13	5.5	4400	SMNU16	

A GRADE YOU CAN TRUST

NEW DURATOMIC® TP3501 MAXIMIZES VERSATILITY & SECURITY

Our industry benchmark family of Duratomic-technology-based TP grades has been expanded to include TP3501, a grade designed to provide optimal versatility and application security. The grade is an ideal first choice for steel turning applications featuring heavy interruptions, less stable machines, small internal features or weak set-ups due to part size or shape. This versatile grade is also well-suited for stainless steel machining.

TP3501 results from Seco's EDGE INTELLIGENCE concept - an integration of our extensive high-performance insert experience and knowledge to make every cutting edge count. The grade features Chrome Used-Edge Detection, which allows a user to instantly identify when an edge has been used, thus reducing potential waste.

HELPFUL HINT

When choosing between TP2501 and TP3501, if higher productivity is the main goal, select TP2501. If reliability is the priority, select TP3501.



TURNING

RANGE OVERVIEW:

- Range includes nearly 400 inserts
- Wide variety of available geometries
- Includes the well-established M6 chip breaker

KEY BENEFITS:

- High reliability for unstable conditions
- Handles lower speeds and heavy interruptions
- Chrome Used-Edge Detection minimizes waste

HIGH RELIABILITY

REDUCED WASTE

LOWER TOOLING COSTS

MORE STABILITY

WEAR RESISTANT

COMPETENCE DRIVEN SOLUTIONS

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



RANGE ADDITIONS

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335.10 Disc Mill	11

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Square 6™ LH	12
MS2050, MP2050, F40M	12

TURNING

Duratomic® TK	
Chrome Geometries	13
TH1000	13
Seco-Capto™ Holders	14
Steadyline®	
D60 & D80	14-15

SOLID END MILLING

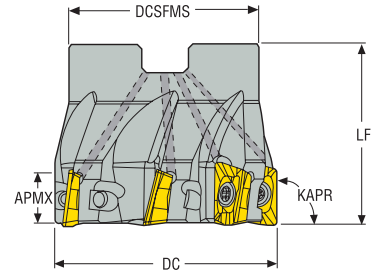
Niagara Cutter™	
Multi-Flute	16-18
Jabro® JS522 & JS554	19
JCO710	19-20
JHP770 & JHP780	21

HOLEMAKING/REAMING

Precimaster® Plus	22
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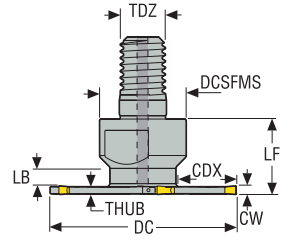
TOOLING SYSTEMS

EPB 5835	
Hydraulic Chucks	23
584 Holder	24



NEW TURBO 18 METRIC MILLS

EDP	DESCRIPTION	MOUNTING TYPE	DIMENSIONS IN METRIC							⚙️	KG	🔧	INSERT
			DC	APMX	DCSFMS	LF	KAPR	°	mm				
Metric													
61747	R220.69-0040-18-4AN	Arbor	40	17	35	40	90 °	4	0.2	9900	XO..18..		
61750	R220.69-0040-18-3AN	Arbor	40	17	35	40	90 °	3	0.5	9900	XO..18..		

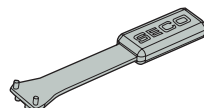


NEW 335.10 DISC MILLS

EDP	DESCRIPTION	MOUNTING TYPE	DIMENSIONS IN INCH / METRIC								⚙️	LB/KG	🔧	INSERT
			CW Min/Max	TDZ	DC	LF	LB	DCSFMS	CDX	APMX				
Inch														
61046	R335.10-01.50-10RE-02-4A	Combimaster	0.089/0.098	M10	1.50	0.79	0.20	0.73	0.47	0.09	4	0.22	3970	-2.25N/2.5N
61039	R335.10-01.50-10RE-03-4A	Combimaster	0.122	M10	1.50	0.79	0.16	0.73	0.48	0.12	4	0.22	3970	-3N
61047	R335.10-02.00-12RE-02-5A	Combimaster	0.089/0.098	M12	2.00	0.79	0.21	0.91	0.62	0.09	5	0.22	3970	-2.25N/2.5N
61040	R335.10-02.00-12RE-03-5A	Combimaster	0.122	M12	2.00	0.79	0.17	0.91	0.63	0.12	5	0.22	3970	-3N
61048	R335.10-02.50-16RE-02-7A	Combimaster	0.089/0.098	M16	2.50	0.91	-	1.18	0.63	0.09	7	0.44	2520	-2.25N/2.5N
61041	R335.10-02.50-16RE-03-7A	Combimaster	0.122	M16	2.50	0.91	-	1.18	0.63	0.12	7	0.44	2520	-3N
Metric														
00456	R335.10-1040.RE-02-4A	Combimaster	2.25/2.50	M10	40	20	5.3	18.5	12.7	2.25	4	0.1	3970	-2.25N/2.5N
00459	R335.10-1040.RE-03-4A	Combimaster	3.10	M10	40	20	4.3	18.5	12.9	3.1	4	0.1	3970	-3N
00457	R335.10-1250.RE-02-5A	Combimaster	2.25/2.50	M12	50	20	5.3	23	15.4	2.25	5	0.1	3970	-2.25N/2.5N
00460	R335.10-1250.RE-03-5A	Combimaster	3.10	M12	50	20	4.3	23	15.6	3.1	5	0.1	3970	-3N
61042	R335.10-1663.RE-02-7A	Combimaster	2.25/2.50	M16	63	23	-	30	15.7	2.25	7	0.2	2520	-2.25N/2.5N
61036	R335.10-1663.RE-03-7A	Combimaster	3.10	M16	63	23	-	30	15.9	3.1	7	0.2	2520	-3N
61043	R335.10-1680.RE-02-9A	Combimaster	2.25/2.50	M16	80	23	-	30	24.1	2.25	9	0.2	1980	-2.25N/2.5N
61037	R335.10-1680.RE-03-9A	Combimaster	3.10	M16	80	23	-	30	24.3	3.1	9	0.3	1980	-3N
61045	R335.10-20100.RE-02-11A	Combimaster	2.25/2.50	M20	100	25	-	36.5	30.4	2.25	11	0.4	1580	-2.25N/2.5N
61038	R335.10-20100.RE-03-11A	Combimaster	3.10	M20	100	25	-	36.5	30.6	3.1	11	0.4	1580	-3N

Spare Parts - NEW INSERT REMOVAL KEY

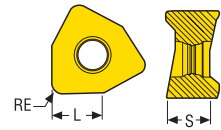
EDP	DESCRIPTION
61090	335.10-155





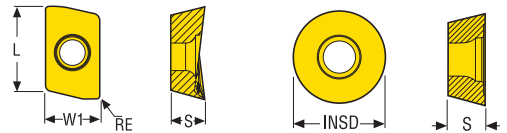
NEW LOEX1207 INSERTS

DESCRIPTION	RE	GRADES (EDP)							
		COATED							
		F40M	MM4500	MP2500	MP3000	MS2050	MS2500	T25M	T350M
LOEX120708R-M09	0.8	52941	52939	52927	52928	52940	60201	52942	52926
LOEX120716R-M09	1.6	52946	-	-	52944	52945	60203	-	52943
LOEX120724R-M09	2.4	52950	-	-	52948	52949	60204	-	52947
LOEX120731R-M09	3.1	52957	52955	-	52954	52956	60206	52959	52953
LOEX120740R-M09	4.0	61063	61065	-	-	61064	-	-	-
LOEX120750R-2-M09	5.0	61076	61082	-	-	61079	-	-	-
LOEX120763R-2-M09	6.3	61083	61087	-	-	61084	-	-	-



NEW SQUARE 6 LH INSERTS

DESCRIPTION	S	L	RE	GRADES (EDP)	
				COATED	
				MS2050	T350M
XNEX080608TL-M13	0.25	0.295	0.0315	02670	-
XNEX080608TL-M13	0.25	0.295	0.0315	-	02666



NEW MS2050, MP2050, F40M INSERTS

DESCRIPTION	S	L	RE	W1 (IN)	INSD (MM)	GRADES (EDP)		
						COATED		
						MS2050	F40M	MP2050
XOMX120424TR-ME08	0.200	0.472	0.094	0.322	-	46276	-	-
XOEX120420R-M07	0.198	0.472	0.079	0.322	-	46277	-	-
XOMX10T304TR-ME07	0.151	0.394	0.016	0.270	-	46281	-	-
XOMX10T308TR-ME07	0.151	0.394	0.031	0.270	-	46282	-	-
XOMX10T312TR-ME07	0.151	0.394	0.047	0.270	-	46283	-	-
XOMX10T320TR-ME07	0.151	0.394	0.079	0.270	-	46273	-	-
XOMX10T324TR-ME07	0.151	0.394	0.094	0.270	-	46274	-	-
XOMX10T331TR-ME07	0.151	0.394	0.122	0.270	-	46275	-	-
XOEX10T302R-M06	0.150	0.394	0.008	0.270	-	-	46278	-
RPHT1204M0T-4-M13	0.187	-	-	-	12	-	-	01790
RPKT1204M0T-4-M10	0.187	-	-	-	12	-	-	55152



NEW TK CHROME GEOMETRIES

DESCRIPTION	GRADES (EDP)	
	TK0501	TK1501
CCMT21.51-F1	46637	46638
CCMT21.51-M3	46639	46640
CCMT21.52-M3	-	46641
CNMA432-MR9	46320	46322
CNMA433-MR9	46323	46327
CNMA434-MR9	46328	46330
CNMA543-MR9	46295	46296
CNMA544-MR9	46297	46299

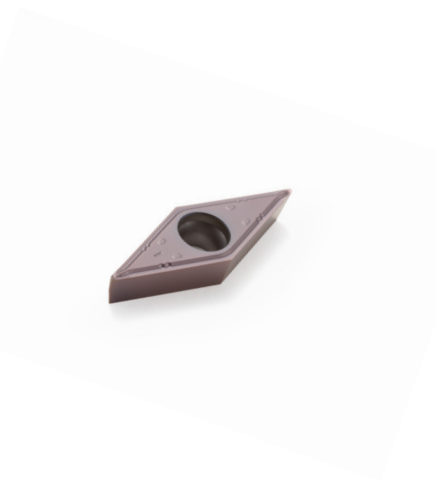
DESCRIPTION	GRADES (EDP)	
	TK0501	TK1501
DNMA433-MR9	46300	46301
DNMA443-MR9	46302	46304
SNMA433-MR9	46305	46306
SNMA434-MR9	46307	46308
SNMA544-MR9	46309	46312

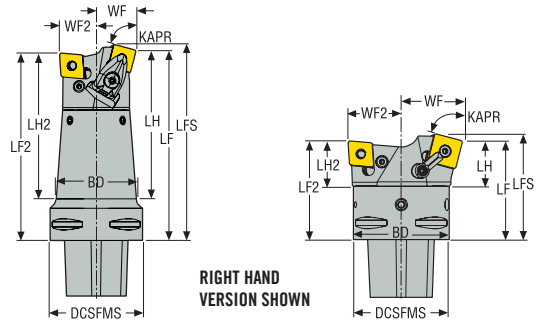
DESCRIPTION	GRADES (EDP)	
	TK0501	TK1501
TNMA333-MR9	46314	46315
TNMA334-MR9	46316	46317
TNMA434-MR9	46318	46319
WNMA432-MR9	46331	46336
WNMA433-MR9	46337	46338
WNMA434-MR9	46339	46340

The **MR9** is a new roughing chipbreaker for cast iron K1, K2 and K3 in moderate to high depth of cuts and feed rates. It excels in intermitted or rough cast skin. A chamfer-protected cutting edge and large support surfaces, improves bulk and edge strength. Heat transport from cutting zone through the insert is more efficient, improving tool life.

NEW TH1000 GRADE

DESCRIPTION	S	IC	RE	GRADES (EDP)
				COATED
				TH1000
VBMT333-F1	0.187	0.375	0.047	46896

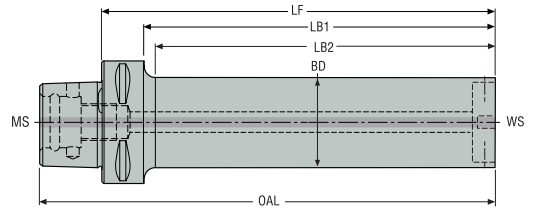
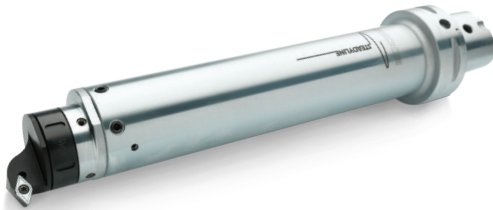




PERFORMING OD & ID MACHINING via one toolholder minimizes time spent on tool changes and saves space on your tooling turret. Seco's innovative Twin Head toolholders combine OD beveling and facing with ID boring in a single process. These products represent our commitment to offering comprehensive tooling solutions for oil & gas, while also benefiting manufacturers working across all industry segments in applications that involve ID/OD work.

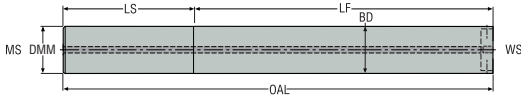
NEW TWIN HEAD CAPTO HOLDERS

EDP	DESCRIPTION	CAPTO SIZE	HAND	DIMENSIONS IN METRIC											LAMS	KG
				BD	DCSFMS	LF	LFS	LF2	LH	LH2	WF	WF2	KAPR			
Metric																
00986	C6-DSKN2713015-PCLN2712816	C6	Right	55	63	130	134	128	101.5	99.5	27	25	75°	-10°	2.1	
00998	C8-MSKN4508019-PCLN4508016C	C8	Left	-	80	80	85	80	-	-	45	45	75°	-10°	3.1	
59019	C6-DSKNL2713015-PCLNR2512816C	C6	Left	55	63	130	134	128	101.5	99.5	27	25	75°	-10°	2.1	
59072	C6-MSKNR4006519-PCLNL3506516	C6	Right	-	63	65	69.8	65	-	-	40	35	75°	-10°	1.5	
59073	C8-MSKNR4508019-PCLNL4508016	C8	Right	-	80	80	85	80	-	-	45	45	75°	-10°	3.1	
59074	C6-MSKNL4006519-PCLNR3506516C	C6	Right	-	63	65	69.8	65	-	-	40	35	75°	-10°	1.5	

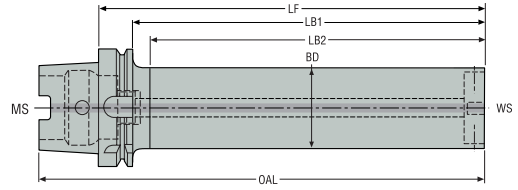


NEW STEADYLITE® TURNING - D60 AND D80

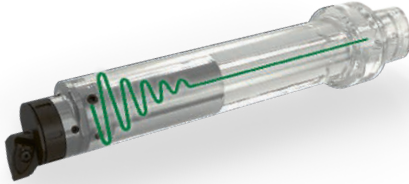
EDP	DESCRIPTION	CAPTO SIZE	CTWS	DIMENSIONS IN METRIC								OAL	KG	RPMX	
				A	D	L	L1S	I ₁	LB ₂	LF					
Metric															
46602	C6-D60-301-BA060	C6	BA060	301	60	339	276	301	273	301	339	7.8	4000		
46603	C6-D60-421-BA060	C6	BA060	421	60	459	396	421	393	421	459	10.6	3000		
46604	C8-D60-301-BA060	C8	BA060	301	60	349	268	301	263	301	349	8.6	4000		
46607	C8-D60-421-BA060	C8	BA060	421	60	469	388	421	383	421	469	11.4	3000		
46608	C8-D60-541-BA060	C8	BA060	541	60	589	508	541	503	541	589	14.0	2000		
46830	C8-D80-421-BA080	C8	BA080	421	80	469	373	421	383	421	469	18.8	3000		
46831	C8-D80-581-BA080	C8	BA080	581	80	629	533	581	543	581	629	25.1	2000		



Cylindrical



HSKT/A

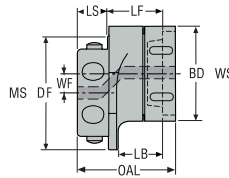


RANGE OVERVIEW:

- Metric Diameters: 60 mm and 80 mm
- Inch Diameters: 2.5” and 3”
- Lengths: 6xD, 8xD and 10xD
- Machine-side connections:
Cylindrical shanks $\phi 60$ and $\phi 80$ mm/2.5” and 3.0” Seco-Capto C6 and C8
HSK-T/A100

NEW STEADYLINE® TURNING - D60 AND D80 (CON'T)

EDP	DESCRIPTION	MOUNTING TYPE	CTWS	DIMENSIONS IN INCH / METRIC												OAL	LB/KG	RPMX
				A	D	L	L1S	L5-S	I ₁	LB ₁	LB ₂	LF	LS					
Metric																		
46597	D60-301-BA060	Cylindrical	BA060	301	60	541	-	-	301	301	201	301	240	541	12.5	-		
46598	D60-541-BA060	Cylindrical	BA060	541	60	781	-	-	541	541	441	541	240	781	18.1	-		
46610	D80-421-BA080	Cylindrical	BA080	421	80	741	-	-	421	421	321	421	320	741	30.2	-		
46613	D80-741-BA080	Cylindrical	BA080	741	80	1061	-	-	741	741	641	741	320	1061	43.4	-		
Inch																		
46686	DA40-12.50-BA06I	Cylindrical	BA06I	12.50	2.50	22.50	-	-	12.50	12.50	8.56	12.50	10	22.50	1.28	-		
46687	DA40-22.50-BA06I	Cylindrical	BA06I	22.50	2.50	32.50	-	-	22.50	22.50	18.56	22.50	10	32.50	1.84	-		
46688	DA48-15.50-BA08I	Cylindrical	BA08I	15.50	3.00	27.50	-	-	15.50	15.50	11.56	15.50	12	27.50	2.27	-		
46690	DA48-27.50-BA08I	Cylindrical	BA08I	27.50	3.00	39.50	-	-	27.50	27.50	23.56	27.50	12	39.50	3.27	-		
Metric																		
46599	E9376-D60-301-BA060	HSKT/A	BA060	301	60	351	272	267	301	256	251	301	-	351	8.9	4000		
46600	E9376-D60-421-BA060	HSKT/A	BA060	421	60	471	392	387	421	376	371	421	-	471	11.9	3000		
46601	E9376-D60-541-BA060	HSKT/A	BA060	541	60	591	512	507	541	496	491	541	-	591	14.5	2000		
46676	E9376-D80-421-BA080	HSKT/A	BA080	421	80	471	371	366	421	376	371	421	-	471	19.7	3000		
46677	E9376-D80-581-BA080	HSKT/A	BA080	581	80	531	531	526	581	536	531	581	-	631	31.7	2000		



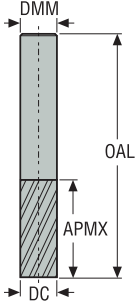
NEW STEADYLINE® TURNING - D60 AND D80 ADAPTERS



GL CONNECTION SIZE	EDP	DESCRIPTION	CCMS	DIMENSIONS IN METRIC							OAL	LB/KG
				BD	DF	LB	LF	LS	WF			
Metric												
GL50	46837	BA06I-06.75-27-GL50	BA06I	50	63.5	21.5	27	16	6.75	50.4	1.0	
	46836	BA080-23-27-GL50	BA080	50	80	21.5	27	22	23	56.4	0.9	
	46834	BA060-10-27-GL50	BA060	50	60	21.5	27	16	10	50.4	1.0	
	46835	BA080-15-27-GL50	BA080	50	80	21.5	27	22	15	56.4	0.9	
	46833	BA060-05-27-GL50	BA060	50	60	21.5	27	16	5	50.4	1.0	
	46838	BA06I-11.75-27-GL50	BA06I	50	63.5	21.5	27	16	11.75	50.4	1.0	
	46839	BA08I-13.10-27-GL50	BA08I	50	76.2	21.5	27	22	13.1	56.4	0.9	
	46840	BA08I-21.10-27-GL50	BA08I	50	76.2	21.5	27	22	21.1	56.4	0.9	

NEW NIAGARA CUTTER™ MULTI-FLUTE END MILLS - CYLINDRICAL

The introduction of the Niagara Cutter Multi Flute range of products has been one of the most successful product families to be launched in Niagara's history. Because of this success, Niagara Cutter is now expanding the range to include sizes down to 1/8" diameter, necked versions, 6-flute ball nose configurations and even a brand new chip splitter design. With these additions the product family's versatility has reached new heights in high speed side milling, contour milling and optimized roughing applications.



S638 - END

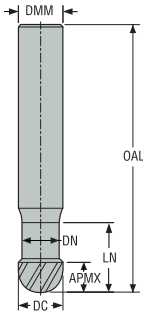
SOLID CARBIDE	HELIX 38°	SQUARE END	RADIUS	BALL END	CENTER CUTTING
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EDP	DESCRIPTION	DIMENSIONS IN INCH						NO. OF FLUTES	COATING	RADIUS
		FLUTE DIA (DC)	SHANK DIA (DMM)	LOC (APMX)	OVERALL LENGTH (OAL)	NECK DIA (DN)	REACH LENGTH (LN)			
N15378	S638-0.125-F3-S.0-Z6	1/8	1/4	5/16	2	-	-	6	AITiN	-
N15380	S638-0.188-F3-S.0-Z6	3/16	1/4	1/2	2	-	-	6	AITiN	-
N15382	S638-0.250-D3-S.0-Z6	1/4	1/4	5/8	2	-	-	6	AITiN	-
N15388	S638-0.313-D2-S.0-Z6	5/16	5/16	3/4	2	-	-	6	AITiN	-
N15379	S638R-0.125-F3-R010.0-Z6	1/8	1/4	5/16	2	-	-	6	AITiN	0.010
N15381	S638R-0.188-F3-R010.0-Z6	3/16	1/4	1/2	2	-	-	6	AITiN	0.010
N15383	S638R-0.250-D3-R015.0-Z6	1/4	1/4	5/8	2	-	-	6	AITiN	0.015
N15384	S638R-0.250-D3-R030.0-Z6	1/4	1/4	5/8	2	-	-	6	AITiN	0.030
N15389	S638R-0.313-D2-R015.0-Z6	5/16	5/16	3/4	2	-	-	6	AITiN	0.015
N15390	S638R-0.313-D2-R030.0-Z6	5/16	5/16	3/4	2	-	-	6	AITiN	0.030
N15385	SB638-0.250-D1-B.0-Z6	1/4	1/4	1/4	2	-	-	6	AITiN	-
N15386	SB638-0.250-D3-B.0-Z6	1/4	1/4	5/8	2	-	-	6	AITiN	-
N15391	SB638-0.313-D1-B.0-Z6	5/16	5/16	5/16	2	-	-	6	AITiN	-
N15392	SB638-0.313-D2-B.0-Z6	5/16	5/16	3/4	2	-	-	6	AITiN	-
N15394	SB638-0.375-D1-B.0-Z6	3/8	3/8	3/8	2	-	-	6	AITiN	-
N15395	SB638-0.375-D3-B.0-Z6	3/8	3/8	1	2 1/2	-	-	6	AITiN	-
N15403	SB638-0.500-D1-B.0-Z6	1/2	1/2	1/2	2 1/2	-	-	6	AITiN	-
N15404	SB638-0.500-D3-B.0-Z6	1/2	1/2	1 1/4	3	-	-	6	AITiN	-
N15415	SB638-0.625-D1-B.0-Z6	5/8	5/8	5/8	3	-	-	6	AITiN	-
N15416	SB638-0.625-D3-B.0-Z6	5/8	5/8	1 5/8	4	-	-	6	AITiN	-
N15427	SB638-0.750-D1-B.0-Z6	3/4	3/4	3/4	3	-	-	6	AITiN	-
N15428	SB638-0.750-D2-B.0-Z6	3/4	3/4	1 3/4	4	-	-	6	AITiN	-
N15438	SB638-1.000-D1-B.0-Z6	1	1	1	4	-	-	6	AITiN	-
N15439	SB638-1.000-D2-B.0-Z6	1	1	2	5	-	-	6	AITiN	-

NEW NIAGARA CUTTER™ MULTI-FLUTE END MILLS - CYLINDRICAL (CON'T)

RANGE OVERVIEW:

- S638/S638R range will have additional sizes from 1/8” through 5/16” diameter.
- SN638/SN638R will have additions of a necked version with 2 times the diameter flute length and 4 times the diameter reach length.
- SB638/SBN638 ball nose series will range in size from 1/4” up to 1” diameter and feature 1 times the diameter flute length and 3 times the diameter reach length.
- SCS638/SCS638R, SCS738R and SCS938 chip splitter series will range in size from 1/4” up to 1” diameter and feature a flute length of approx. 3.2 times the diameter.



SBN638 - END

SOLID CARBIDE	HELIX 38°	SQUARE END	RADIUS	BALL END	CENTER CUTTING	NON CENTER CUTTING	CHIPSPLITTER
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EDP	DESCRIPTION	DIMENSIONS IN INCH						NO. OF FLUTES	COATING	RADIUS
		FLUTE DIA (DC)	SHANK DIA (DMM)	LOC (APMX)	OVERALL LENGTH (OAL)	NECK DIA (DN)	REACH LENGTH (LN)			



N15387	SBN638-0.250-E1-B.0-Z6	1/4	1/4	1/4	2	0.240	3/4	6	AITIN	-
N15393	SBN638-0.313-E1-B.0-Z6	5/16	5/16	5/16	2 1/2	0.300	1	6	AITIN	-
N15396	SBN638-0.375-E1-B.0-Z6	3/8	3/8	3/8	2 1/2	0.360	1 1/4	6	AITIN	-
N15405	SBN638-0.500-E1-B.0-Z6	1/2	1/2	1/2	3	0.480	1 1/2	6	AITIN	-
N15417	SBN638-0.625-E1-B.0-Z6	5/8	5/8	5/8	4	0.600	1 7/8	6	AITIN	-
N15429	SBN638-0.750-E1-B.0-Z6	3/4	3/4	3/4	5	0.720	2 1/4	6	AITIN	-
N15440	SBN638-1.000-E1-B.0-Z6	1	1	1	6	0.960	3	6	AITIN	-





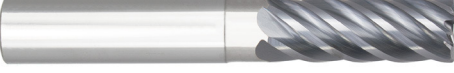


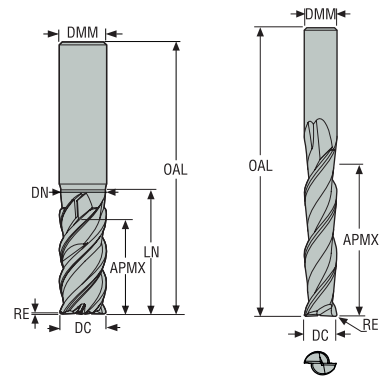
N15400	SCS638-0.375-D3-S.0-Z6	3/8	3/8	1 1/4	3	-	-	6	AITIN	-
N15410	SCS638-0.500-D3-S.0-Z6	1/2	1/2	1 5/8	4	-	-	6	AITIN	-
N15422	SCS638-0.625-D3-S.0-Z6	5/8	5/8	2	4	-	-	6	AITIN	-
N15434	SCS638-0.750-D3-S.0-Z6	3/4	3/4	2 1/2	5	-	-	6	AITIN	-



N15401	SCS638R-0.375-D3-R015.0-Z6	3/8	3/8	1 1/4	3	-	-	6	AITIN	0.015
N15402	SCS638R-0.375-D3-R030.0-Z6	3/8	3/8	1 1/4	3	-	-	6	AITIN	0.030
N15411	SCS638R-0.500-D3-R015.0-Z6	1/2	1/2	1 5/8	4	-	-	6	AITIN	0.015
N15412	SCS638R-0.500-D3-R030.0-Z6	1/2	1/2	1 5/8	4	-	-	6	AITIN	0.030
N15413	SCS638R-0.500-D3-R060.0-Z6	1/2	1/2	1 5/8	4	-	-	6	AITIN	0.060
N15414	SCS638R-0.500-D3-R120.0-Z6	1/2	1/2	1 5/8	4	-	-	6	AITIN	0.120

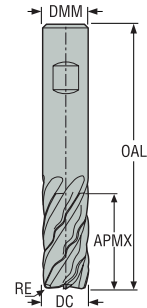
NEW NIAGARA CUTTER™ MULTI FLUTE END MILLS - CYLINDRICAL (CON'T)

EDP	DESCRIPTION	DIMENSIONS IN INCH						NO. OF FLUTES	COATING	RADIUS
		FLUTE DIA (DC)	SHANK DIA (DMM)	LOC (APMX)	NECK DIA (DN)	OVERALL LENGTH (OAL)	REACH LENGTH (LN)			
										
N15423	SCS638R-0.625-D3-R015.0-Z6	5/8	5/8	2	-	4	-	6	AITiN	0.015
N15424	SCS638R-0.625-D3-R030.0-Z6	5/8	5/8	2	-	4	-	6	AITiN	0.030
N15425	SCS638R-0.625-D3-R060.0-Z6	5/8	5/8	2	-	4	-	6	AITiN	0.060
N15426	SCS638R-0.625-D3-R120.0-Z6	5/8	5/8	2	-	4	-	6	AITiN	0.120
N15435	SCS638R-0.750-D3-R030.0-Z6	3/4	3/4	2 1/2	-	5	-	6	AITiN	0.030
N15436	SCS638R-0.750-D3-R060.0-Z6	3/4	3/4	2 1/2	-	5	-	6	AITiN	0.060
N15437	SCS638R-0.750-D3-R120.0-Z6	3/4	3/4	2 1/2	-	5	-	6	AITiN	0.120
N15446	SCS638R-1.000-D3-R030.0-Z6	1	1	3 1/8	-	6	-	6	AITiN	0.030
N15447	SCS638R-1.000-D3-R120.0-Z6	1	1	3 1/8	-	6	-	6	AITiN	0.120
N15448	SCS638R-1.000-D3-R250.0-Z6	1	1	3 1/8	-	6	-	6	AITiN	0.250
										
N15449	SCS738R-0.250-D3-R015.0-Z7	1/4	1/4	3/4	-	2 1/2	-	7	AITiN	0.015
N15450	SCS738R-0.250-D5-R015.0-Z7	1/4	1/4	1 1/4	-	3	-	7	AITiN	0.015
N15451	SCS738R-0.375-D3-R015.0-Z7	3/8	3/8	1	-	3	-	7	AITiN	0.015
N15452	SCS738R-0.375-D4-R015.0-Z7	3/8	3/8	1 1/2	-	3 1/2	-	7	AITiN	0.015
N15453	SCS738R-0.500-D3-R030.0-Z7	1/2	1/2	1 1/4	-	3	-	7	AITiN	0.030
N15454	SCS738R-0.500-D4-R030.0-Z7	1/2	1/2	2	-	4	-	7	AITiN	0.030
										
N15455	SCS938R-0.625-D3-R030.0-Z9	5/8	5/8	1 5/8	-	4	-	9	AITiN	0.030
N15456	SCS938R-0.625-D4-R030.0-Z9	5/8	5/8	2 1/2	-	5	-	9	AITiN	0.030
N15457	SCS938R-0.750-D3-R030.0-Z9	3/4	3/4	2 1/4	-	5	-	9	AITiN	0.030
N15458	SCS938R-0.750-D4-R030.0-Z9	3/4	3/4	3 1/4	-	6	-	9	AITiN	0.030
N15459	SCS938R-1.000-D3-R030.0-Z9	1	1	3 1/4	-	6	-	9	AITiN	0.030
N15460	SCS938R-1.000-D4-R030.0-Z9	1	1	4 1/8	-	7	-	9	AITiN	0.030
										
N15397	SN638-0.375-E3-S.0-Z6	3/8	3/8	1	0.360	3	1 1/2	6	AITiN	-
N15406	SN638-0.500-E2-S.0-Z6	1/2	1/2	1 1/8	0.480	4	2	6	AITiN	-
N15418	SN638-0.625-E2-S.0-Z6	5/8	5/8	1 3/8	0.600	5	2 1/2	6	AITiN	-
N15430	SN638-0.750-E2-S.0-Z6	3/4	3/4	1 3/4	0.720	6	3	6	AITiN	-
										
N15398	SN638R-0.375-E3-R015.0-Z6	3/8	3/8	1	0.360	3	1 1/2	6	AITiN	0.015
N15399	SN638R-0.375-E3-R030.0-Z6	3/8	3/8	1	0.360	3	1 1/2	6	AITiN	0.030
N15407	SN638R-0.500-E2-R030.0-Z6	1/2	1/2	1 1/8	0.480	4	2	6	AITiN	0.030
N15408	SN638R-0.500-E2-R060.0-Z6	1/2	1/2	1 1/8	0.480	4	2	6	AITiN	0.060
N15409	SN638R-0.500-E2-R120.0-Z6	1/2	1/2	1 1/8	0.480	4	2	6	AITiN	0.120
N15419	SN638R-0.625-E2-R015.0-Z6	5/8	5/8	1 3/8	0.600	5	2 1/2	6	AITiN	0.015
N15420	SN638R-0.625-E2-R030.0-Z6	5/8	5/8	1 3/8	0.600	5	2 1/2	6	AITiN	0.030
N15421	SN638R-0.625-E2-R060.0-Z6	5/8	5/8	1 3/8	0.600	5	2 1/2	6	AITiN	0.060
N15431	SN638R-0.750-E2-R030.0-Z6	3/4	3/4	1 3/4	0.720	6	3	6	AITiN	0.030
N15432	SN638R-0.750-E2-R060.0-Z6	3/4	3/4	1 3/4	0.720	6	3	6	AITiN	0.060
N15433	SN638R-0.750-E2-R120.0-Z6	3/4	3/4	1 3/4	0.720	6	3	6	AITiN	0.120
N15441	SN638R-1.000-E2-R030.0-Z6	1	1	2 1/4	0.960	7	4 1/8	6	AITiN	0.030
N15442	SN638R-1.000-E2-R060.0-Z6	1	1	2 1/4	0.960	7	4 1/8	6	AITiN	0.060
N15443	SN638R-1.000-E2-R090.0-Z6	1	1	2 1/4	0.960	7	4 1/8	6	AITiN	0.090
N15444	SN638R-1.000-E2-R120.0-Z6	1	1	2 1/4	0.960	7	4 1/8	6	AITiN	0.120
N15445	SN638R-1.000-E2-R250.0-Z6	1	1	2 1/4	0.960	7	4 1/8	6	AITiN	0.250



NEW JABRO® JS522 AND JS554

EDP	DESCRIPTION	SHANK TYPE	DIMENSIONS IN METRIC						FCEDC
			APMX	DC	DN	LN	OAL	RE	
Metric									
48912	JS554250E2R600.0Z4-SIRA	Cylindrical	52	25	23.8	65	125	6	4
48910	JS554160E2R600.0Z4-SIRA	Cylindrical	34	16	15.2	42	92	6	4
48913	JS554160E2R600.3Z4-SIRA	Weldon	34	16	15.2	42	92	6	4
48914	JS554250E2R600.3Z4-SIRA	Weldon	52	25	23.8	65	125	6	4
48909	JS522320D4R600.0Z2-M64	Cylindrical	160	32	-	-	245	6	2
48907	JS522200D4R600.0Z2-M64	Cylindrical	100	20	-	-	175	6	2
46903	JS522160D4R600.0Z2-M64	Cylindrical	80	16	-	-	150	6	2
48908	JS52250D4R600.0Z2-M64	Cylindrical	125	25	-	-	205	6	2



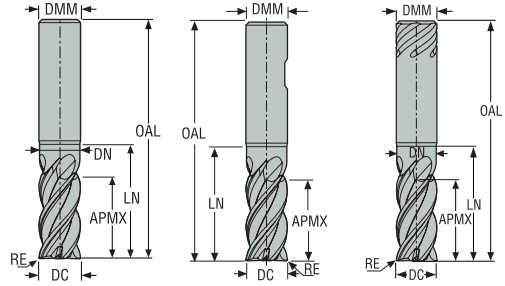
NEW JABRO® JC0710

EDP	DESCRIPTION	SHANK TYPE	DIMENSIONS IN METRIC					FCEDC
			APMX	DC	DMM	OAL	RE	
Metric								
49112	JC0710200D2R250.3Z4-SIRA	Weldon	38	20	20	114	2.5	4
49103	JC0710160D2R100.3Z4-SIRA	Weldon	32	16	16	92	1	4
49101	JC0710320D2R100.3Z6A-SIRA	Weldon	53	32	32	132	1	6
49132	JC0710320D4R100.3Z6-SIRA	Weldon	130	32	32	200	1	6
49104	JC0710160D2R250.3Z4-SIRA	Weldon	32	16	16	92	2.5	4
49111	JC0710200D2R100.3Z4-SIRA	Weldon	38	20	20	114	1	4
49130	JC0710320D2R400.3Z4-SIRA	Weldon	53	32	32	132	4	4
49140	JC0710500D2R400.3Z6-SIRA	Weldon	75	50	50	177	4	6
49136	JC0710400D4R100.3Z6-SIRA	Weldon	160	40	40	240	1	6
49114	JC0710200D2R400.3Z4-SIRA	Weldon	38	20	20	114	4	4
49079	JC0710160D2R250.3Z4A	Weldon	32	16	16	92	2.5	4
49088	JC0710250D2R250.3Z6A	Weldon	45	25	25	121	2.5	6
49118	JC0710250D2R100.3Z4-SIRA	Weldon	45	25	25	121	1	4



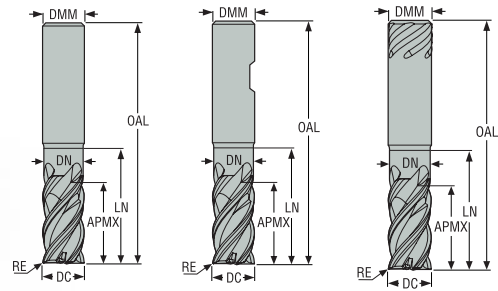
NEW JABRO® JC0710 (CON'T)

EDP	DESCRIPTION	SHANK TYPE	DIMENSIONS IN METRIC									
			APMX	APMXE	DC	DMM	L	LE	LSCN	OAL	RE	FCEDC
Metric												
49127	JC0710250D4R400.3Z6-SIRA	Weldon	110	12.5	25	25	110	110	56	178	4	6
49102	JC0710320D2R400.3Z6A-SIRA	Weldon	53	16	32	32	53	53	60	132	4	6
49117	JC0710200D4R400.3Z6-SIRA	Weldon	80	10	20	20	80	80	56	146	4	6
49090	JC0710320D2R400.3Z6A	Weldon	53	16	32	32	53	53	60	132	4	6
49091	JC0710160D2R100.3Z4A-SIRA	Weldon	32	8	16	16	32	32	48	92	1	4
49091	JC0710160D2R100.3Z4A-SIRA	Weldon	32	8	16	16	32	32	48	92	1	4
49138	JC0710400D4R400.3Z6-SIRA	Weldon	160	20	40	40	160	160	70	240	4	6
49110	JC0710160D4R400.3Z4-SIRA	Weldon	65	8	16	16	65	65	48	127	4	4
49116	JC0710200D4R250.3Z6-SIRA	Weldon	80	10	20	20	80	80	50	146	2.5	6
49087	JC0710250D2R400.3Z6A	Weldon	45	12.5	25	25	45	45	56	121	4	6
49083	JC0710200D2R100.3Z4A	Weldon	38	10	20	20	38	38	50	114	1	4
49098	JC0710250D2R100.3Z6A-SIRA	Weldon	45	12.5	25	25	45	45	56	121	1	6
49124	JC0710250D4R100.3Z6-SIRA	Weldon	110	12.5	25	25	110	110	56	178	1	6
49128	JC0710320D2R100.3Z4-SIRA	Weldon	53	16	32	32	53	53	60	132	1	4
49113	JC0710200D2R310.3Z4-SIRA	Weldon	38	10	20	20	38	38	50	114	3.1	4
49121	JC0710250D2R250.3Z6-SIRA	Weldon	45	12.5	25	25	45	45	56	121	2.5	6
49115	JC0710200D4R100.3Z6-SIRA	Weldon	80	10	20	20	80	80	50	146	1	6
49092	JC0710160D2R250.3Z4A-SIRA	Weldon	32	8	16	16	32	32	48	92	2.5	4
49078	JC0710160D2R100.3Z4A	Weldon	32	8	16	16	32	32	48	92	1	4
49129	JC0710320D2R100.3Z6-SIRA	Weldon	53	16	32	32	53	53	60	132	1	6
49122	JC0710250D2R400.3Z4-SIRA	Weldon	45	12.5	25	25	45	45	56	121	4	4
49086	JC0710250D2R100.3Z6A	Weldon	45	12.5	25	25	45	45	56	121	1	6
49106	JC0710160D2R400.3Z4-SIRA	Weldon	32	8	16	16	32	32	48	92	4	4
49145	JC0710500D4R400.3Z6-SIRA	Weldon	200	25	50	50	200	200	80	298	4	6
49096	JC0710200D2R250.3Z4A-SIRA	Weldon	38	10	20	20	38	38	50	114	2.5	4
49093	JC0710160D2R400.3Z4A-SIRA	Weldon	32	8	16	16	32	32	48	92	4	4
49120	JC0710250D2R250.3Z4-SIRA	Weldon	45	12.5	25	25	45	45	56	121	2.5	4
49133	JC0710320D4R400.3Z6-SIRA	Weldon	130	16	32	32	130	130	60	200	4	6
49105	JC0710160D2R310.3Z4-SIRA	Weldon	32	8	16	16	32	32	48	92	3.1	4
49125	JC0710250D4R250.3Z6-SIRA	Weldon	110	12.5	25	25	110	110	56	178	2.5	6
49135	JC0710400D2R400.3Z6-SIRA	Weldon	63	20	40	40	63	63	70	155	4	6
49089	JC0710320D2R100.3Z6A	Weldon	53	16	32	32	53	53	60	132	1	6
49084	JC0710200D2R250.3Z4A	Weldon	38	10	20	20	38	38	50	114	2.5	4
49123	JC0710250D2R400.3Z6-SIRA	Weldon	45	12.5	25	25	45	45	56	121	4	6
49119	JC0710250D2R100.3Z6-SIRA	Weldon	45	12.5	25	25	45	45	56	121	1	6
49107	JC0710160D4R100.3Z4-SIRA	Weldon	65	8	16	16	65	65	48	127	1	4
49099	JC0710250D2R400.3Z6A-SIRA	Weldon	45	12.5	25	25	45	45	56	121	4	6
49085	JC0710200D2R400.3Z4A	Weldon	38	10	20	20	38	38	50	114	4	4
49134	JC0710400D2R100.3Z6-SIRA	Weldon	63	20	40	40	63	63	70	155	1	6
49097	JC0710200D2R400.3Z4A-SIRA	Weldon	38	10	20	20	38	38	50	114	4	4
49100	JC0710250D2R250.3Z6A-SIRA	Weldon	45	12.5	25	25	45	45	56	121	2.5	6
49094	JC0710200D2R100.3Z4A-SIRA	Weldon	38	10	20	20	38	38	50	114	1	4
49139	JC0710500D2R100.3Z6-SIRA	Weldon	75	25	50	50	75	75	80	177	1	6
49141	JC0710500D4R100.3Z6-SIRA	Weldon	200	25	50	50	200	200	80	298	1	6
49108	JC0710160D4R250.3Z4-SIRA	Weldon	65	8	16	16	65	65	48	127	2.5	4
49082	JC0710160D2R400.3Z4A	Weldon	32	8	16	16	32	32	48	92	4	4
49131	JC0710320D2R400.3Z6-SIRA	Weldon	53	16	32	32	53	53	60	132	4	6



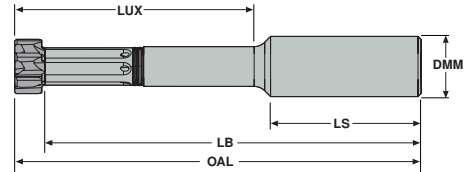
NEW JABRO® JHP770

EDP	DESCRIPTION	SHANK TYPE	DIMENSIONS IN METRIC											FCEDC
			APMX	DC	DMM	DN	L	LE	LN	LSCN	OAL	RE		
Metric														
48917	JHP770250E2R600.0Z5A-SIRA	Cylindrical	50	25	25	24.4	50	50	65	56	130	6	4	
48925	JHP770160E2R600.3Z5A-SIRA	Cylindrical	40	20	20	19.4	40	40	55	50	115	6	4	
48927	JHP770200E2R600.3Z5A-SIRA	Cylindrical	32	16	16	15.4	32	32	45	48	100	6	4	
48930	JHP770250E2R600.9Z5A-SIRA	Weldon	50	25	25	24.4	50	50	65	56	130	6	4	
48926	JHP770160E2R600.9Z5A-SIRA	Weldon	40	20	20	19.4	40	40	55	50	115	6	4	
48915	JHP770160E2R600.0Z5A-SIRA	Weldon	32	16	16	15.4	32	32	45	48	100	6	4	
48916	JHP770200E2R600.0Z5A-SIRA	Safe-lock	50	25	25	24.4	50	50	65	56	130	6	4	
48928	JHP770200E2R600.9Z5A-SIRA	Safe-lock	32	16	16	15.4	32	32	45	48	100	6	4	
48929	JHP770250E2R600.3Z5A-SIRA	Safe-lock	40	20	20	19.4	40	40	55	50	115	6	4	



NEW JABRO® JHP780

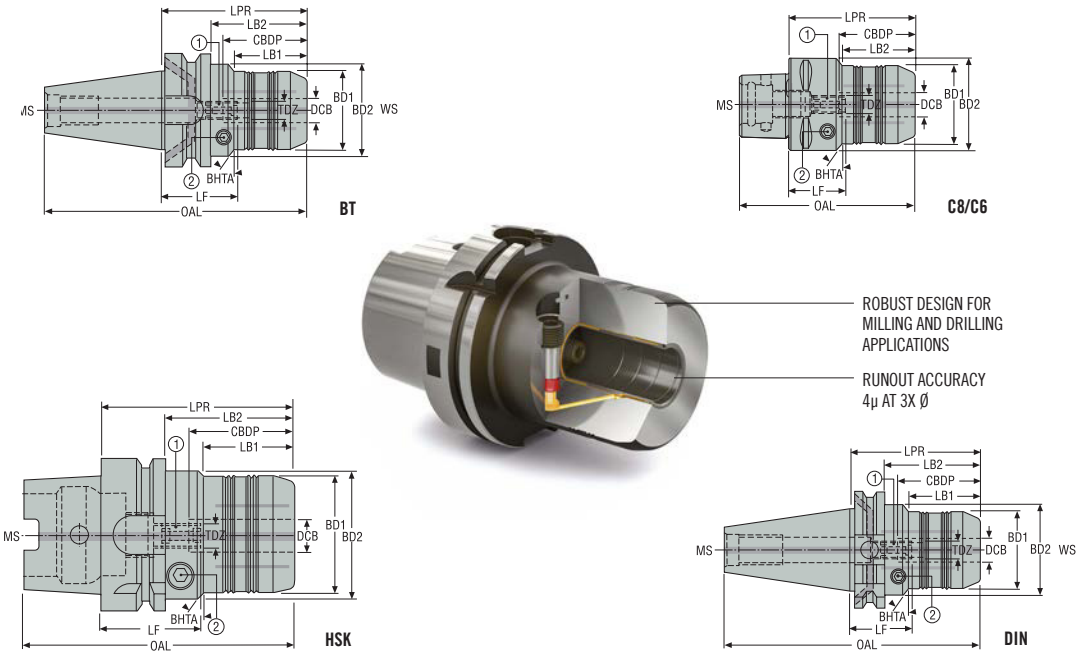
EDP	DESCRIPTION	SHANK TYPE	DIMENSIONS IN METRIC											FCEDC
			APMX	APMXE	DC	DMM	DN	L	LE	LN	LSCN	OAL	RE	
Metric														
48922	JHP780250E2R600.0Z4-M64	Cylindrical	50	12.5	25	25	24.4	50	50	65	56	130	6	5
48931	JHP780160E2R600.3Z4-M64	Cylindrical	32	8	16	16	15.4	32	32	45	48	100	6	5
48924	JHP780250E2R600.9Z4-M64	Cylindrical	40	10	20	20	19.4	40	40	55	50	115	6	5
48919	JHP780200E2R600.0Z4-M64	Weldon	32	8	16	16	15.4	32	32	45	48	100	6	5
48918	JHP780160E2R600.0Z4-M64	Weldon	40	10	20	20	19.4	40	40	55	50	115	6	5
48935	JHP780200E2R600.9Z4-M64	Weldon	50	12.5	25	25	24.4	50	50	65	56	130	6	5
48923	JHP780250E2R600.3Z4-M64	Safe-lock	50	12.5	25	25	24.4	50	50	65	56	130	6	5
48933	JHP780200E2R600.3Z4-M64	Safe-lock	32	8	16	16	15.4	32	32	45	48	100	6	5
48932	JHP780160E2R600.9Z4-M64	Safe-lock	40	10	20	20	19.4	40	40	55	50	115	6	5



NEW PRECIMASTER® PLUS SHANK ADDITIONS W/ BLIND HOLE COOLANT PLUG ONLY

EDP	DESCRIPTION	TOOLHOLDER MATERIAL	DIMENSIONS IN METRIC								
			DCN	DCX	DMM	FOR REAMER DIA	LB	LS	LUX	OAL	
Metric											
46353	PMX06B-03700-12N1	Steel	10.0	14.499	12	10.000 - 14.499	77	45	37	84	
46365	PMX08B-08200-20N1	Steel	14.5	21.499	20	14.500 - 21.499	125	50	82	135	
46373	PMX16B-12700-32N1	Steel	32.5	60.500	32	32.500 - 60.000	174	61	127	188	
46366	PMX08B-14500-20N1	Steel	14.5	21.499	20	14.500 - 21.499	188	50	145	198	
46374	PMX16B-17000-32N1	Steel	32.5	60.500	32	32.500 - 60.000	217	61	170	231	
46367	PMX08BHM-14500-20N1	Carbide	14.5	21.499	20	14.500 - 21.499	188	50	145	198	
46362	PMX06BHM-12000-12N1	Carbide	10.0	14.499	12	10.000 - 14.499	160	45	120	167	
46369	PMX12B-10400-25N1	Steel	21.5	32.499	25	21.500 - 32.499	151	56	104	163	
46371	PMX12BHM-17000-25N1	Carbide	21.5	32.499	25	21.500 - 32.499	217	56	170	229	
46370	PMX12B-17000-25N1	Steel	21.5	32.499	25	21.500 - 32.499	217	56	170	229	
46358	PMX06B-05700-12N1	Steel	10.0	14.499	12	10.000 - 14.499	97	45	57	104	
46359	PMX06B-12000-12N1	Steel	10.0	14.499	12	10.000 - 14.499	160	45	120	167	
46364	PMX08B-04600-20N1	Steel	14.5	21.499	20	14.500 - 21.499	89	50	46	99	
46368	PMX12B-06800-25N1	Steel	21.5	32.499	25	21.500 - 32.499	115	56	68	127	
46375	PMX16BHM-17000-32N1	Carbide	32.5	60.500	32	32.500 - 60.000	217	61	170	231	
46372	PMX16B-06300-32N1	Steel	32.5	60.500	32	32.500 - 60.000	110	61	63	124	

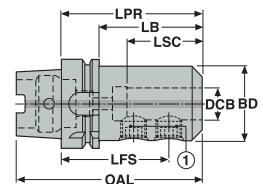
Note: These Precimaster Plus holders are pre-set from the factory for blind hole coolant outlet only. This eliminates any assembly and holders are ready to use out of the box



NEW 5835 HYDRAULIC HOLDERS

EDP	DESCRIPTION	CTMS	TDZ	DIMENSIONS IN METRIC											KG
				BD1	BD2	BHTA	CBDP	CTWS	DCBX	LB1	LB2	LF	LPR	OAL	
Metric															
48466	E930458351695	HSK-A63	M8	55	61.5	30.0°	50	16	16	35	69	55	95	127	1.9
48502	E9306583525100	HSK-A100	M10	71	-	-	58	25	25	-	71	52	100	150	3.9
48484	E321458351685	BT TF40 ADB	M10	55	61.5	30.0°	50	16	16	35	58	45	85	150.4	2
48506	E321658352585	BT TF50 ADB	M10	71	-	-	58	25	25	-	47	37	85	186.8	4.7
48474	E346958351680	DIN40 ADB	M10	55	61.5	30.0°	50	16	16	28	60.9	40	80	148.4	1.8
48504	E347158352580	DIN50 ADB	M10	71	-	-	58	25	25	-	60.9	32	80	141.8	4.1
48507	C8-391.5835-25090	C8	M10	71	-	-	58	25	25	-	57	42	90	138	3.3
48500	C6-391.5835-16080	C6	M10	55	61.5	30.0°	50	16	16	-	35	40	80	118	1.8

With the introduction of 16 mm and 25 mm EPB® 5835 hydraulic chucks, Seco rounds out this line of proven, reliable toolholders. The new diameters provide the perfect fit for every application, eliminating the need for a reduction sleeve, improving access to the workpiece and increasing precision.



NEW 584 HOLDERS - ADDITIONAL DIAMETERS FOR EPB® E9306

EDP	DESCRIPTION	CTMS	DCB (MM)	DIMENSIONS IN INCH						LB
				BD	LPR	LFS	LB	LSC	OAL	
Metric										
41503	E930658450130	HSK-A100	50	3.937	5.118	3.74	3.976	3.07	7.086	6.235

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

R217/220.28 Cutters.....	25-27
R220.88 Cutters.....	28-29
Duratomic® TP3501 Grades	30

TECHNICAL INFO

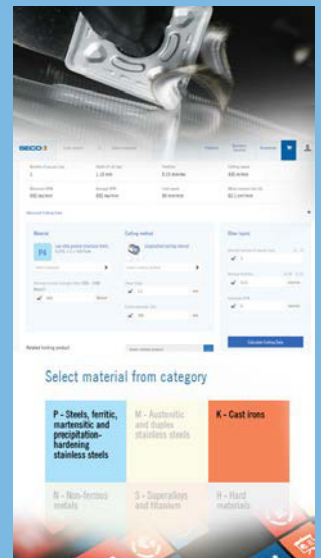
ANSI to ISO 13399 - Quick Reference Guide.....	31-39
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CUTTING DATA ONLINE

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

WWW.SECO.TOOLS



R217/220.28-06 – Insert selection

SMG		Recommended APMX**	f _z			
			100%	70%	30%	10%
P1	RNMU1204M0-ME10 T350M	0.098	0.012	0.012	0.013	0.020
P2	RNMU1204M0-ME10 T350M	0.098	0.013	0.013	0.013	0.022
P3	RNMU1204M0-ME10 T350M	0.098	0.012	0.012	0.013	0.020
P4	RNMU1204M0T-M10 MP2500	0.098	0.012	0.012	0.013	0.019
P5	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.013	0.019
P6	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.012	0.019
P7	RNMU1204M0T-M10 MP2500	0.098	0.011	0.011	0.012	0.019
P8	RNMU1204M0T-M10 MP2050	0.098	0.012	0.012	0.013	0.020
P11	RNMU1204M0T-M10 MP2050	0.098	0.011	0.011	0.012	0.019
P12	RNMU1204M0T-M10 MS2500	0.059	0.010	0.010	0.011	0.017
M1	RNMU1204M0-ME10 T350M	0.098	0.013	0.013	0.013	0.022
M2	RNMU1204M0-ME10 T350M	0.098	0.011	0.011	0.013	0.019
M3	RNMU1204M0-ME10 T350M	0.059	0.012	0.012	0.013	0.020
M4	RNMU1204M0T-M10 T350M	0.031	0.014	0.014	0.015	0.024
M5	RNMU1204M0T-M10 T350M	0.031	0.014	0.014	0.015	0.024
K1	RNMU1204M0T-M10 MK2050	0.098	0.013	0.013	0.013	0.022
K2	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.013	0.019
K3	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.013	0.019
K4	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.013	0.019
K5	RNMU1204M0T-M10 MK2050	0.098	0.010	0.010	0.011	0.017
K6	RNMU1204M0T-M10 MK2050	0.098	0.011	0.011	0.013	0.019
K7	RNMU1204M0T-M10 MK2050	0.098	0.010	0.010	0.011	0.017
S1	RNMU1204M0T-M10 MS2500	0.031	0.014	0.014	0.015	0.024
S2	RNMU1204M0T-M10 MS2500	0.031	0.014	0.014	0.015	0.024
S3	RNMU1204M0T-M10 MS2500	0.031	0.013	0.013	0.014	0.022
S11	RNMU1204M0T-M10 MS2050	0.043	0.013	0.013	0.015	0.024
S12	RNMU1204M0T-M10 MS2050	0.043	0.013	0.013	0.015	0.024
S13	RNMU1204M0T-M10 MS2050	0.031	0.014	0.014	0.015	0.024
H5	RNMU1204M0T-M10 MP2500	0.059	0.010	0.010	0.011	0.017
H8	RNMU1204M0T-M10 MP2500	0.043	0.0087	0.0087	0.0094	0.015
H11	RNMU1204M0T-M10 MP2500	0.059	0.010	0.010	0.011	0.017
H12	RNMU1204M0T-M10 MP2500	0.043	0.0087	0.0087	0.0094	0.015
H21	RNMU1204M0T-M10 MP2500	0.043	0.0087	0.0087	0.0094	0.015

** For optimum tool life

SMG = Seco Material Group

f_z = in/tooth

APMX = inch

v_c = sf/min

a_e/DC = %

All cutting data are start values

R217/220.28-06 – Cutting data $v_c =$ (sf/min)

SMG	MP2050				MP2500				T350M				F40M			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	850	960	1175	1375	960	1075	1325	1575	830	940	1150	1375	760	860	1050	1250
P2	810	910	1125	1325	910	1025	1275	1500	800	900	1100	1325	730	820	1000	1200
P3	710	800	980	1150	800	910	1100	1325	700	790	960	1150	640	720	880	1050
P4	620	710	880	1025	710	800	990	1175	610	700	870	1025	560	640	790	930
P5	610	690	840	990	690	780	950	1125	600	680	830	980	550	620	750	890
P6	680	770	940	1100	770	870	1075	1250	670	760	930	1100	610	690	850	1000
P7	640	730	890	1050	730	820	1000	1175	630	720	880	1025	580	660	800	940
P8	600	670	820	980	670	760	930	1100	590	660	810	960	540	610	740	880
P11	620	710	860	1025	710	800	980	1150	620	700	850	1000	560	640	780	920
P12	405	455	550	660	455	510	630	750	400	450	550	650	365	410	500	590
M1	580	660	800	950	660	750	910	1075	610	690	850	1025	590	660	810	970
M2	485	550	670	790	550	630	760	900	520	580	710	840	490	560	680	800
M3	390	440	540	640	445	500	610	730	415	465	570	680	395	445	540	650
M4	305	340	415	495	345	385	470	560	320	360	440	530	305	345	420	500
M5	255	285	345	415	290	320	395	470	270	300	365	440	255	285	350	420
K1	640	720	890	1050	720	820	1000	1200	-	-	-	-	580	650	800	950
K2	580	650	800	940	650	740	900	1075	-	-	-	-	520	590	720	850
K3	490	550	670	790	550	630	760	900	-	-	-	-	440	495	610	720
K4	465	530	640	760	530	600	730	860	-	-	-	-	420	475	580	680
K5	285	320	390	465	320	365	440	530	-	-	-	-	255	290	350	420
K6	410	465	570	670	465	530	640	760	-	-	-	-	370	420	510	600
K7	360	410	500	590	410	465	560	670	-	-	-	-	325	370	450	540
N1	-	-	-	-	-	-	-	-	-	-	-	-	2125	2400	2950	3475
N2	-	-	-	-	-	-	-	-	-	-	-	-	1725	1950	2400	2825
N3	-	-	-	-	-	-	-	-	-	-	-	-	1150	1300	1600	1875
N11	-	-	-	-	-	-	-	-	-	-	-	-	1300	1475	1825	2150
S1	150	165	205	240	-	-	-	-	150	170	205	245	145	160	195	235
S2	120	135	165	195	-	-	-	-	120	135	165	200	115	130	160	190
S3	105	120	145	170	-	-	-	-	110	120	145	175	105	115	140	165
S11	210	235	285	340	-	-	-	-	210	235	290	345	200	225	275	330
S12	120	135	165	195	-	-	-	-	120	135	165	200	115	130	160	190
S13	95	105	130	155	-	-	-	-	95	110	135	160	95	105	125	150
H5	120	135	165	200	140	155	190	225	130	150	180	215	120	135	165	195
H8	130	145	175	210	150	170	200	240	145	160	190	230	130	145	175	210
H11	155	175	210	250	175	200	240	285	170	190	230	275	155	175	210	250
H12	260	290	350	415	295	330	395	470	255	290	345	410	235	265	315	375
H21	130	145	175	210	150	170	200	240	145	160	190	230	130	145	175	210

R217/220.28-06 – Cutting data $v_c =$ (sf/min)

SMG	MK2050				MS2050				MS2500			
	100%	70%	30%	10%	100%	70%	30%	10%	100%	70%	30%	10%
P1	930	1050	1300	1525	-	-	-	-	1025	1175	1425	1700
P2	890	1000	1225	1475	-	-	-	-	990	1125	1375	1625
P3	780	880	1075	1275	-	-	-	-	870	980	1200	1425
P4	690	780	970	1150	-	-	-	-	760	860	1075	1275
P5	670	760	920	1100	-	-	-	-	740	840	1025	1200
P6	750	850	1050	1225	-	-	-	-	830	940	1150	1350
P7	710	800	980	1150	-	-	-	-	790	890	1075	1275
P8	660	740	910	1075	-	-	-	-	730	820	1000	1200
P11	690	780	950	1125	-	-	-	-	760	860	1050	1250
P12	445	500	610	730	-	-	-	-	495	560	680	810
M1	-	-	-	-	610	690	840	1000	710	800	980	1175
M2	-	-	-	-	510	580	700	830	590	670	820	970
M3	-	-	-	-	410	460	560	670	475	540	650	780
M4	-	-	-	-	320	355	435	520	370	415	510	610
M5	-	-	-	-	265	295	365	435	310	345	420	510
K1	960	1100	1325	1575	-	-	-	-	-	-	-	-
K2	870	980	1200	1400	-	-	-	-	-	-	-	-
K3	730	830	1000	1200	-	-	-	-	-	-	-	-
K4	700	790	960	1150	-	-	-	-	-	-	-	-
K5	425	480	590	700	-	-	-	-	-	-	-	-
K6	620	700	850	1000	-	-	-	-	-	-	-	-
K7	540	620	750	890	-	-	-	-	-	-	-	-
N1	-	-	-	-	-	-	-	-	-	-	-	-
N2	-	-	-	-	-	-	-	-	-	-	-	-
N3	-	-	-	-	-	-	-	-	-	-	-	-
N11	-	-	-	-	-	-	-	-	-	-	-	-
S1	-	-	-	-	150	165	205	245	180	205	245	295
S2	-	-	-	-	120	135	165	195	145	165	200	240
S3	-	-	-	-	105	120	145	170	130	145	175	210
S11	-	-	-	-	210	235	285	340	255	285	345	415
S12	-	-	-	-	120	135	165	195	145	165	200	240
S13	-	-	-	-	95	110	130	155	115	130	160	190
H5	-	-	-	-	-	-	-	-	-	-	-	-
H8	-	-	-	-	-	-	-	-	-	-	-	-
H11	-	-	-	-	-	-	-	-	-	-	-	-
H12	-	-	-	-	-	-	-	-	-	-	-	-
H21	-	-	-	-	-	-	-	-	-	-	-	-

R220.88-12 – Insert selection

SMG		Recommended APMX**	f _z		
			100%	30%	10%
P1	SNMU120410TN-M10 F40M	0.20	0.0055	0.0059	0.0094
P2	SNMU120410TN-M10 F40M	0.20	0.0055	0.0063	0.0094
P3	SNMU120410TN-M10 MP2500	0.20	0.0055	0.0059	0.0087
P4	SNMU120410TN-M10 MP2500	0.20	0.0051	0.0055	0.0087
P5	SNMU120410TN-M10 MP2500	0.20	0.0051	0.0055	0.0087
P6	SNMU120410TN-M10 MP2500	0.20	0.0051	0.0055	0.0087
P7	SNMU120410TN-M10 MP2500	0.20	0.0051	0.0055	0.0087
P8	SNMU120410TN-M10 MP2500	0.20	0.0055	0.0059	0.0087
P11	SNMU120410TN-M10 MP1500	0.20	0.0051	0.0055	0.0087
P12	SNMU120410TN-M10 MS2500	0.18	0.0035	0.0037	0.0059
K1	SNMU120410TN-M10 MK2050	0.20	0.0055	0.0063	0.0094
K2	SNMU120410TN-M10 MK2050	0.20	0.0051	0.0055	0.0087
K3	SNMU120410TN-M10 MK2050	0.20	0.0051	0.0055	0.0087
K4	SNMU120410TN-M10 MK2050	0.20	0.0051	0.0055	0.0087
K5	SNMU120410TN-MD13 MK2050	0.20	0.0059	0.0067	0.010
K6	SNMU120410TN-MD13 MK2050	0.20	0.0067	0.0071	0.011
K7	SNMU120410TN-MD13 MK2050	0.20	0.0059	0.0067	0.010
H5	SNMU120410TN-MD13 MP1500	-	-	-	-
H11	SNMU120410TN-MD13 MP1500	-	-	-	-
H12	SNMU120410TN-MD13 MP1500	-	-	-	-

** For optimum tool life

SMG = Seco Material Group

f_z = in/tooth

APMX = inch

v_c = sf/min

a_e/DC = %

All cutting data are start values

R220.88-12 – Cutting data v_c = (sf/min)

SMG	MP1500			MP2500			F40M			MK1500			MK2050			MS2500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	1025	1375	1625	920	1225	1425	700	930	1100	-	-	-	900	1200	1425	1000	1350	1575
P2	1000	1325	1575	890	1175	1400	680	890	1050	-	-	-	880	1150	1375	970	1275	1525
P3	870	1150	1400	770	1025	1225	580	780	930	-	-	-	760	1000	1225	840	1125	1350
P4	780	1050	1225	690	920	1075	520	700	820	-	-	-	680	910	1075	750	1000	1175
P5	750	990	1175	660	880	1025	500	670	790	-	-	-	650	870	1025	720	960	1125
P6	840	1125	1325	740	990	1175	560	750	880	-	-	-	730	970	1150	810	1075	1275
P7	790	1050	1250	700	930	1100	530	710	830	-	-	-	690	920	1075	760	1025	1200
P8	730	980	1175	650	860	1025	490	650	790	-	-	-	640	850	1025	710	940	1125
P11	770	1025	1200	680	910	1075	520	690	810	-	-	-	670	890	1050	740	990	1175
P12	500	670	780	445	590	690	335	450	530	-	-	-	435	580	680	485	650	760
K1	800	1050	1250	710	930	1100	540	700	840	1000	1325	1575	950	1250	1475	-	-	-
K2	710	940	1100	630	840	980	475	630	750	890	1175	1400	840	1125	1325	-	-	-
K3	600	800	940	530	710	830	400	540	630	750	1000	1175	710	950	1125	-	-	-
K4	570	760	900	510	680	790	385	510	600	720	960	1125	680	910	1075	-	-	-
K5	350	465	550	310	410	485	235	310	370	435	580	690	415	550	650	-	-	-
K6	500	670	790	445	590	700	340	450	530	630	840	990	600	800	940	-	-	-
K7	445	590	700	395	530	620	300	400	470	560	740	880	530	700	830	-	-	-
H5	165	220	260	135	180	210	110	150	175	-	-	-	-	-	-	-	-	-
H8	175	235	280	145	190	225	120	155	190	-	-	-	-	-	-	-	-	-
H11	210	285	330	170	230	265	140	190	225	-	-	-	-	-	-	-	-	-
H12	320	420	500	280	375	445	215	285	335	-	-	-	-	-	-	-	-	-

R220.88-16 – Insert selection

SMG		Recommended APMX**	f _z		
			100%	30%	10%
P1	SNMU160612TN-M10 F40M	0.31	0.0055	0.0059	0.0094
P2	SNMU160612TN-M10 F40M	0.31	0.0055	0.0063	0.0094
P3	SNMU160612TN-M10 MP2500	0.31	0.0055	0.0059	0.0087
P4	SNMU160612TN-M10 MP2500	0.31	0.0051	0.0055	0.0087
P5	SNMU160612TN-M10 MP2500	0.31	0.0051	0.0055	0.0087
P6	SNMU160612TN-M10 MP2500	0.31	0.0051	0.0055	0.0087
P7	SNMU160612TN-M10 MP2500	0.31	0.0051	0.0055	0.0087
P8	SNMU160612TN-M10 MP2500	0.31	0.0055	0.0059	0.0087
P11	SNMU160612TN-M10 MP1500	0.31	0.0051	0.0055	0.0087
P12	SNMU160612TN-M10 MS2500	0.24	0.0035	0.0037	0.0059
K1	SNMU160612TN-M10 MK2050	0.31	0.0055	0.0063	0.0094
K2	SNMU160612TN-M10 MK2050	0.31	0.0051	0.0055	0.0087
K3	SNMU160612TN-M10 MK2050	0.31	0.0051	0.0055	0.0087
K4	SNMU160612TN-M10 MK2050	0.31	0.0051	0.0055	0.0087
K5	SNMU160612TN-MD16 MK2050	0.31	0.0075	0.0079	0.013
K6	SNMU160612TN-MD16 MK2050	0.31	0.0079	0.0087	0.013
K7	SNMU160612TN-MD16 MK2050	0.31	0.0075	0.0079	0.013
H5	SNMU160612TN-MD16 MP1500	0.24	0.0055	0.0059	0.0094
H11	SNMU160612TN-MD16 MP1500	0.24	0.0055	0.0059	0.0094
H12	SNMU160612TN-MD16 MP1500	0.20	0.0043	0.0047	0.0071

** For optimum tool life

SMG = Seco Material Group

f_z = in/tooth

APMX = inch

v_c = sf/min

a_e/DC = %

All cutting data are start values

R220.88-16 – Cutting data v_c = (sf/min)

SMG	MP1500			MP2500			F40M			MK1500			MK2050			MS2500		
	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%	100%	30%	10%
P1	1025	1375	1625	920	1225	1425	700	930	1100	-	-	-	900	1200	1425	1000	1350	1575
P2	1000	1325	1575	890	1175	1400	680	890	1050	-	-	-	880	1150	1375	970	1275	1525
P3	870	1150	1400	770	1025	1225	580	780	930	-	-	-	760	1000	1225	840	1125	1350
P4	780	1050	1225	690	920	1075	520	700	820	-	-	-	680	910	1075	750	1000	1175
P5	750	990	1175	660	880	1025	500	670	790	-	-	-	650	870	1025	720	960	1125
P6	840	1125	1325	740	990	1175	560	750	880	-	-	-	730	970	1150	810	1075	1275
P7	790	1050	1250	700	930	1100	530	710	830	-	-	-	690	920	1075	760	1025	1200
P8	730	980	1175	650	860	1025	490	650	790	-	-	-	640	850	1025	710	940	1125
P11	770	1025	1200	680	910	1075	520	690	810	-	-	-	670	890	1050	740	990	1175
P12	500	670	780	445	590	690	335	450	530	-	-	-	435	580	680	485	650	760
K1	800	1050	1250	710	930	1100	540	700	840	1000	1325	1575	950	1250	1475	-	-	-
K2	710	940	1100	630	840	980	475	630	750	890	1175	1400	840	1125	1325	-	-	-
K3	600	800	940	530	710	830	400	540	630	750	1000	1175	710	950	1125	-	-	-
K4	570	760	900	510	680	790	385	510	600	720	960	1125	680	910	1075	-	-	-
K5	350	465	550	310	410	485	235	310	370	435	580	690	415	550	650	-	-	-
K6	500	670	790	445	590	700	340	450	530	630	840	990	600	800	940	-	-	-
K7	445	590	700	395	530	620	300	400	470	560	740	880	530	700	830	-	-	-
H5	165	220	260	135	180	210	110	150	175	-	-	-	-	-	-	-	-	-
H8	175	235	280	145	190	225	120	155	190	-	-	-	-	-	-	-	-	-
H11	210	285	330	170	230	265	140	190	225	-	-	-	-	-	-	-	-	-
H12	320	420	500	280	375	445	215	285	335	-	-	-	-	-	-	-	-	-

Universal insert: CNMG120408-M5

SMG		TM2000			TM4000			TP3501		
		f (in/rev)			f (in/rev)			f (in/rev)		
		0.008	0.012	0.016	0.008	0.012	0.016	0.008	0.012	0.016
P1	M1	1000	890	800	970	820	710	1150	1025	870
P2	M2	810	720	650	780	660	570	920	820	700
P3	M3	620	550	495	590	500	435	700	630	530
P4	M4	465	410	370	445	375	330	530	470	400
P5	M5	390	340	310	370	315	275	440	395	335

Universal insert: CCMT09T304-MF2

SMG	TP1501			TP2501			TP3501			CP500		
	f (in/rev)			f (in/rev)			f (in/rev)			f (in/rev)		
	0.006	0.008	0.010	0.006	0.008	0.010	0.006	0.008	0.010	0.006	0.008	0.010
P1	2675	2450	2275	2225	2075	1950	2300	2075	1900	960	870	810
P2	2600	2400	2225	1850	1900	1900	2250	2025	1850	930	850	790
P3	1750	1750	1700	1900	1950	1950	1475	1375	1300	800	730	680
P4	1975	1825	1675	1650	1525	1450	1700	1525	1400	710	640	600
P5	1475	1475	1425	1350	1400	1375	1225	1150	1075	670	610	570
P6	2100	1950	1800	1750	1650	1550	1825	1650	1500	760	690	640
P7	1550	1550	1500	1225	1325	1350	1300	1225	1150	710	650	600
P8	1475	1475	1425	1350	1400	1375	1225	1150	1075	670	610	570
P11	1500	1500	1475	930	1025	1050	940	960	930	900	760	640
P12	890	890	860	550	600	620	560	570	550	410	375	345

Universal insert: CNMG120408-M3

SMG	TP0501			TP1501			TP2501			TP3501			TP200		
	f (in/rev)			f (in/rev)			f (in/rev)			f (in/rev)			f (in/rev)		
	0.008	0.012	0.016	0.008	0.012	0.016	0.008	0.012	0.016	0.008	0.012	0.016	0.008	0.012	0.016
P1	2550	2250	1975	2275	1925	1650	1925	1675	1475	1900	1550	1325	1100	940	830
P2	2475	2200	1925	2200	1875	1625	1825	1675	1500	1850	1525	1300	1075	910	810
P3	2050	1925	1675	1650	1475	1300	1875	1725	1525	1275	1100	980	920	790	700
P4	1875	1675	1475	1675	1400	1225	1425	1225	1075	1400	1150	980	810	690	620
P5	1725	1600	1400	1375	1250	1100	1325	1225	1075	1075	930	820	770	660	590
P6	2025	1775	1575	1800	1525	1325	1525	1325	1150	1500	1225	1050	870	740	660
P7	1825	1700	1500	1450	1325	1150	1275	1250	1125	1125	980	870	820	700	620
P8	1725	1600	1400	1375	1250	1100	1325	1225	1075	1075	930	820	770	660	590
P11	1775	1650	1450	1425	1275	1125	990	970	880	910	790	660	630	540	475
P12	1050	980	850	840	750	660	580	570	520	530	465	385	370	315	280

Universal insert: CNMG190616-MR7

SMG	TP0501			TP1501			TP2501			TP3501			TP40		
	f (in/rev)			f (in/rev)			f (in/rev)			f (in/rev)			f (in/rev)		
	0.016	0.022	0.028	0.016	0.022	0.028	0.016	0.022	0.028	0.016	0.022	0.028	0.016	0.022	0.028
P1	1900	1550	1300	1600	1300	1100	1425	1175	1025	1275	1025	850	760	610	510
P2	1850	1500	1250	1550	1275	1075	1425	1150	910	1225	990	830	740	590	495
P3	1600	1225	930	1250	1000	820	1450	1150	920	940	790	690	640	510	425
P4	1400	1150	950	1175	970	820	1050	870	750	930	750	630	560	450	375
P5	1350	1025	780	1050	840	690	1025	800	630	790	670	580	530	430	360
P6	1500	1225	1025	1250	1025	880	1125	940	810	1000	810	680	600	480	400
P7	1425	1075	830	1100	890	730	1100	900	730	840	710	610	570	455	380
P8	1350	1025	780	1050	840	690	1025	800	630	790	670	580	530	430	360
P11	1375	1050	810	1075	860	710	840	670	540	620	445	325	330	285	250
P12	810	620	475	640	510	415	495	395	315	365	260	190	195	165	150

SMG = Seco Material Group k_r (k_r) = cutting edge angle (°) (from holder) r_n (r_n) = nose radius (inch) APMX = depth of cut (inch) f = feed rate (inch/rev)

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
ConditionSuitabilityD	ConditionSuitabilityD	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

ANSI TO ISO 13399 - QUICK REFERENCE CONVERSION

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	HRY	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

ANSI TO ISO 13399 - QUICK REFERENCE CONVERSION



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
L6	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
lcol_0	WDX0	SECO end mill	maximum working depth 0 degree
lcol_0.5	WDX05	SECO end mill	maximum working depth 0.5 degree
lcol_1	WDX1	SECO end mill	maximum working depth 1 degree
lcol_1.5	WDX15	SECO end mill	maximum working depth 1.5 degree
lcol_2	WDX2	SECO end mill	maximum working depth 2 degrees
lcol_3	WDX3	SECO end mill	maximum working depth 3 degrees
lct	CBDP	reducer	connection bore depth
lct	CBDP	SECO adaptive item type	connection bore depth
le	LE	cutting tool	cutting edge effective length
le	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
lfs	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

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 catalogue
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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