

DISCOVER OUR

MILLING



Milling

NOMENCLATURE

CROMSON «ENDMILL»

- FLUTES

DIAMETER

CREM-Ti-5RC-0500-R010 Cr95

APPLICATIONS

AL- Aluminum
ALR- Aluminum Roughing
DM- Die & Mold
HD- Hard Material
HF- High Feed
SA (SAX)- Super Alloy
ST- Steel
SST- Stainless Steel
Ti- Titanium
TiX- Titanium HP
TP- Taper (NPT)

TOOL TYPE

S- Stub Length
M- Medium Length
R- Reg. Length
L- Long Length
E- Extended Length
N- Necking

C- Cylindrical Shank
W- Weldon Shank



















RADIUS/CHAMFER

BN- Ball Nose
C- Chamfer
R- Radius
SQ- Square

COATING

Cr20- Uncoated
Cr35- AlCrN
Cr55- TiAlN
Cr75- TiAlN+
Cr95- TiAlCN

Summary application chart-Milling




























































Work Material	Type of Cut	Axial DOC	Radial DOC	Speed (SFM)	RECORD ST	STAR SST	ALLIANCE TI
Low carbon steel <= 38HRc 1018, 12L14, 8620	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	350 425			
Medium carbon steels <= 38HRc 4140, 4340	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	325 375			
Tool & die steels <= 38HRc A2, D2, O1, S7, P20, H13	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	325 375			
Tool steel 39HRc to 48HRc	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D 0.5 x D	225 275			
Easy to machine stainless steel 416, 410, 302, 303	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	300 375			
Moderately difficult stainless steel 304, 316, invar, kovar	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D 0.5 x D	275 350			
Difficult to machine stainless steel 316L, 17-4PH, 15-5PH, 13-8Mo	Slotting Peripheral - Rough	0.5 x D 1 x D	1 x D 0.5 x D	250 300			
Cast iron Grey	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	400 500			
Cast iron Ductile	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	300 400			
Cast iron Malleable	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D .75 x D	250 325			
Aluminum alloys 2024, 6061, 7075	Slotting	1 x D	1 x D 0.5 x D	800 1000			
Titanium alloys 6Al4V	Slotting Peripheral - Rough	0.5 x D 1 x D	1 x D 0.5 x D	250 300			
High temperature alloys Inconel, haynes, stellite, hastelloy	Slotting	.25 x D 1 x D	1 x D .25 x D	70 95			



Highly recommended

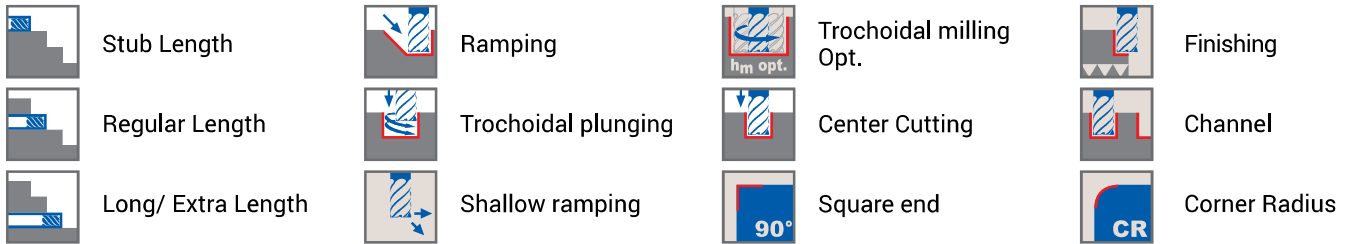


Suitable for some applications

PISTON HD	TURBINE SRGH	OXYGEN HF	TAPER-MILL TP	DRIVER DM	MOTION AL	BOSS ALR	MAGNAT STX	PERFORMANCE TIX	BOOSTER SA
									
									
									
									
									
									
									
									
									
									
									
									
									

** The machining values shown are guidelines.
The optimum data for a particular machining process should be determined in trials or during machining.

Explanation of Milling symbols



Grades chart & Milling application

CROMSON offers a variety of coating upon special request to meet the demands of every customer's needs and unique application demands. Through extensive testing, research and real world applications, CROMSON has worked to develop a full range of high performance coatings. These coating options allow us to address a multitude of situations with optimal results.

Please refer to the chart below for the various coatings available.

CROMSON GRADE	Cr20	Cr35	Cr55	Cr75	Cr95
Proprietary	Uncoated	AlCrN	TiAlN	TiAlN+	TiAlCN
Coating process		PVD	PVD	PVD	PVD
Layer structure		Nano structure	Nano structure	Nano structure	Nano structure
Hardness (HV)		3000	3300	3300	3060
Coefficient of friction (fetting)		0.25	0.30-0.35	0.25	0.35
Thermal stability (C)		1100	900	900	1000
General Information		New generation PVD coating providing a high level of wear and abrasion resistance in combination with a micro grain carbide substrate for use in all ferrous materials at elevated cutting speed.	A thick PVD coating on a balanced wear resistance/tough fine grain carbide substrate provides users with predictable consistent results in general purpose applications in all materials.	In combination with a tough submicron grain carbide substrate and advanced PVD coating technology a high level of security and wear resistance is seen in demanding applications in titanium and steel up to 52 HRC.	New generation PVD coating providing a high level of wear. lower coefficient of friction combination with a micro grain carbide substrate for use in stainless steel and nickel-based high temperature alloys.

CARBIDE END MILL

RECORD ST SERIES

- ⦿ High Performance end mills feature differential flute spacing to achieve virtually chatter free machining in a wide range of materials
- ⦿ Excellent results can be achieved on all steels from carbon to alloy as well as stainless and even exotic materials
- ⦿ With this superior Cr55 TiAlN (PVD) coating you can expect excellent levels of performance in your general steel machining applications
- ⦿ Available in cylindrical or weldon style shank
- ⦿ Square end and wide range of radius choice (including ball nose) available with stub, standard, long and extra long lengths
- ⦿ h6 tolerance for conventional and shrink fit applications

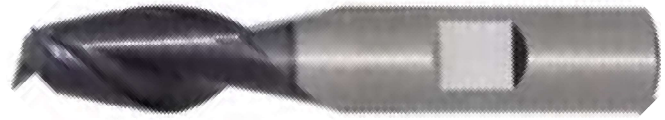
Work Material	Type of cut	Axial DOC	Radial DOC	Speed (SFM)
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Medium carbon steels <= 38HRc 4140, 4340	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	325 375
Tool & die steels <= 38HRc A2, D2, O1, S7, P20, H13	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	325 375
Easy to machine stainless steel 416, 410, 302, 303	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	300 375
Moderately difficult stainless steel 304, 316, invar, kovar	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D 0.5 x D	275 350
Titanium alloys 6Al4V	Slotting Peripheral - Rough	0.5 x D 1 x D	1 x D 0.5 x D	250 300
High temperature alloys Inconel, haynes, stellite, hastelloy	Slotting	.25 x D 1 x D	1 x D .25 x D	70 95



CARBIDE END MILL - SQUARE OR RADIUS
2 FLUTES

TECHNICAL DETAILS

Tool Diameter Range 0.250-1.000 in
 Shank tolerance h6
 Cutter tolerance (+0.00-0.002 in) +0.00-0.05 mm
 Number of flutes 2
 Coating TiAlN (PVD)
 Center cutting Yes
 Variable pitch Variable
 Variable helix Standard
 Helix angle 38°



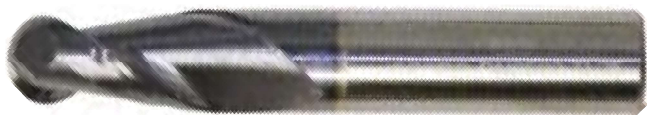
EDP Cromson	Cromson Description	Diam.	Length of cut	Overall length	Chamfer / radius	Cromson Grade	# Flutes
72000040	CREM-ST-2RC-0250-SQ Cr55	1/4	3/4	2.1/2	---	Cr55	2
72000045	CREM-ST-2RC-0250-R020- Cr55	1/4	3/4	2.1/2	.020	Cr55	2
72000050	CREM-ST-2RC-0250-R040- Cr55	1/4	3/4	2.1/2	.040	Cr55	2
72000055	CREM-ST-2RC-0312- SQ Cr55	5/16	13/16	2.1/2	---	Cr55	2
72000060	CREM-ST-2RC-0312-R020- Cr55	5/16	13/16	2.1/2	.020	Cr55	2
72000065	CREM-ST-2RC-0375- SQ Cr55	3/8	7/8	2.1/2	---	Cr55	2
72000070	CREM-ST-2RC-0375-R020- Cr55	3/8	7/8	2.1/2	.020	Cr55	2
72000075	CREM-ST-2RC-0375-R040- Cr55	3/8	7/8	2.1/2	.040	Cr55	2
72000080	CREM-ST-2RC-0437- SQ Cr55	7/16	1	2.3/4	---	Cr55	2
72000085	CREM-ST-2RC-0500- SQ Cr55	1/2	1	3	---	Cr55	2
72000090	CREM-ST-2RC-0500-R030- Cr55	1/2	1	3	.030	Cr55	2
72000095	CREM-ST-2RC-0500-R060- Cr55	1/2	1	3	.060	Cr55	2
72000100	CREM-ST-2RC-0562- SQ Cr55	9/16	1.1/4	3.1/2	---	Cr55	2
72000105	CREM-ST-2RC-0625- SQ Cr55	5/8	1.1/4	3.1/2	---	Cr55	2
72000110	CREM-ST-2RC-0625-R030- Cr55	5/8	1.1/4	3.1/2	.030	Cr55	2
72000115	CREM-ST-2RC-0625-R060- Cr55	5/8	1.1/4	3.1/2	.060	Cr55	2
72000120	CREM-ST-2RC-0750- SQ Cr55	3/4	1.1/2	4	---	Cr55	2
72000125	CREM-ST-2RC-0750-R030- Cr55	3/4	1.1/2	4	.030	Cr55	2
72000130	CREM-ST-2RC-0750-R060- Cr55	3/4	1.1/2	4	.060	Cr55	2
72000135	CREM-ST-2RC-0875- SQ Cr55	7/8	1.1/2	4	---	Cr55	2
72000140	CREM-ST-2RC-1000- SQ Cr55	1	1.1/2	4	---	Cr55	2
72000145	CREM-ST-2RW-0500-SQ Cr55	1/2	1	3	---	Cr55	2
72000150	CREM-ST-2RW-0562-SQ Cr55	9/16	1.1/4	3.1/2	---	Cr55	2
72000155	CREM-ST-2RW-0625-SQ Cr55	5/8	1.1/4	3.1/2	---	Cr55	2
72000160	CREM-ST-2RW-0750-SQ Cr55	3/4	1.1/2	4	---	Cr55	2
72000165	CREM-ST-2RW-0875-SQ Cr55	7/8	1.1/2	4	---	Cr55	2
72000170	CREM-ST-2RW-1000-SQ Cr55	1	1.1/2	4	---	Cr55	2

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10 HARDNESS (HRC)

CARBIDE END MILL - BALL NOSE
2 FLUTES

TECHNICAL DETAILS

Tool Diameter Range 0.250-1.000 in
 Shank tolerance h6
 Cutter tolerance (+0.00-0.002 in) +0.00-0.05 mm
 Number of flutes 2
 Coating TiAlN (PVD)
 Center cutting Yes
 Variable pitch Variable
 Variable helix Standard
 Helix angle 38°



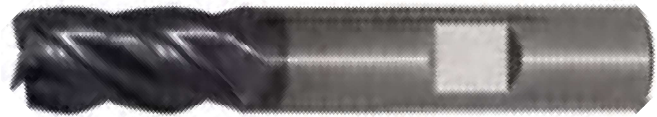
EDP Cromson	Cromson Description	Diam.	Length of cut	Overall length	Chamfer / radius	Cromson Grade	# Flutes
72000005	CREM-ST-2RC-0250-BN Cr55	1/4	3/4	2.1/2	.125	Cr55	2
72000010	CREM-ST-2RC-0312-BN Cr55	5/16	13/16	2.1/2	.156	Cr55	2
72000015	CREM-ST-2RC-0375-BN Cr55	3/8	7/8	2.1/2	.1875	Cr55	2
72000020	CREM-ST-2RC-0500-BN Cr55	1/2	1	3	.250	Cr55	2
72000025	CREM-ST-2RC-0625-BN Cr55	5/8	1.1/4	3.1/2	.3125	Cr55	2
72000030	CREM-ST-2RC-0750-BN Cr55	3/4	1.1/2	4	.375	Cr55	2
72000035	CREM-ST-2RC-1000-BN Cr55	1	1.1/2	4	.500	Cr55	2

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0 HARDNESS (HRC)

CARBIDE END MILL - SQUARE OR RADIUS
4 FLUTES

TECHNICAL DETAILS

Tool Diameter Range 0.125-1.000 in
 Shank tolerance h6
 Cutter tolerance (+0.00-0.002 in) +0.00-0.05 mm
 Number of flutes 4
 Coating TiAlN (PVD)
 Center cutting Yes
 Variable pitch Variable
 Variable helix Standard
 Helix angle 38°



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10 HARDNESS (HRC)

EDP Cromson	Cromson Description	Diam.	Length of cut	Overall length	Chamfer / radius	Cromson Grade	# Flutes
72000250	CREM-ST-4SC-0125- SQ Cr55	1/8	1/4	1.1/2	---	Cr55	4
72000255	CREM-ST-4SC-0125-R010- Cr55	1/8	1/4	1.1/2	.010	Cr55	4
72000260	CREM-ST-4SC-0125-R015- Cr55	1/8	1/4	1.1/2	.015	Cr55	4
72000265	CREM-ST-4RC-0125- SQ Cr55	1/8	1/2	2	---	Cr55	4
72000270	CREM-ST-4RC-0125-R010- Cr55	1/8	1/2	2	.010	Cr55	4
72000275	CREM-ST-4SC-0187- SQ Cr55	3/16	5/16	1.1/2	---	Cr55	4
72000280	CREM-ST-4SC-0187-R015- Cr55	3/16	5/16	1.1/2	.015	Cr55	4
72000285	CREM-ST-4RC-0187- SQ Cr55	3/16	5/8	2	---	Cr55	4
72000290	CREM-ST-4RC-0187-R015- Cr55	3/16	5/8	2	.015	Cr55	4
72000295	CREM-ST-4EC-0187- SQ Cr55	3/16	7/8	2.1/2	---	Cr55	4
72000300	CREM-ST-4SC-0250- SQ Cr55	1/4	3/8	2	---	Cr55	4
72000305	CREM-ST-4SC-0250-R015- Cr55	1/4	3/8	2	.015	Cr55	4
72000310	CREM-ST-4SC-0250-R030- Cr55	1/4	3/8	2	.030	Cr55	4
72000315	CREM-ST-4RC-0250- SQ Cr55	1/4	3/4	2.1/2	---	Cr55	4
72000320	CREM-ST-4RC-0250-R020- Cr55	1/4	3/4	2.1/2	.020	Cr55	4
72000325	CREM-ST-4RC-0250-R030- Cr55	1/4	3/4	2.1/2	.030	Cr55	4
72000330	CREM-ST-4RC-0250-R060- Cr55	1/4	3/4	2.1/2	.060	Cr55	4
72000335	CREM-ST-4LC-0250- SQ Cr55	1/4	1.1/4	3	---	Cr55	4
72000340	CREM-ST-4LC-0250-R020- Cr55	1/4	1.1/4	3	.020	Cr55	4
72000345	CREM-ST-4SC-312- SQ Cr55	5/16	1/2	2	---	Cr55	4
72000350	CREM-ST-4SC-0312-R020- Cr55	5/16	1/2	2	.020	Cr55	4
72000355	CREM-ST-4RC-0312- SQ Cr55	5/16	13/16	2.1/2	---	Cr55	4
72000360	CREM-ST-4RC-0312-R020- Cr55	5/16	13/16	2.1/2	.020	Cr55	4
72000365	CREM-ST-4SC-0375- SQ Cr55	3/8	1/2	2	---	Cr55	4
72000370	CREM-ST-4SC-0375-R020- Cr55	3/8	1/2	2	.020	Cr55	4
72000375	CREM-ST-4SC-0375-R030- Cr55	3/8	1/2	2	.030	Cr55	4
72000380	CREM-ST-4RC-0375- SQ Cr55	3/8	7/8	2.1/2	---	Cr55	4
72000385	CREM-ST-4RC-0375-R020- Cr55	3/8	7/8	2.1/2	.020	Cr55	4
72000390	CREM-ST-4RC-0375-R030- Cr55	3/8	7/8	2.1/2	.030	Cr55	4
72000395	CREM-ST-4RC-0375-R060- Cr55	3/8	7/8	2.1/2	.060	Cr55	4
72000400	CREM-ST-4RC-0375-R120- Cr55	3/8	7/8	2.1/2	.120	Cr55	4
72000405	CREM-ST-4EC-0375- SQ Cr55	3/8	1.1/8	3	---	Cr55	4
72000410	CREM-ST-4EC-0375-R020- Cr55	3/8	1.1/8	3	.020	Cr55	4
72000415	CREM-ST-4LC-0375- SQ Cr55	3/8	1.1/2	3.1/2	---	Cr55	4

EDP Cromson	Cromson Description	Diam.	Length of cut	Overall length	Chamfer / radius	Cromson Grade	# Flutes
72000420	CREM-ST-4LC-0375-R030- Cr55	3/8	1.1/2	3.1/2	.030	Cr55	4
72000425	CREM-ST-4RC-0437- SQ Cr55	7/16	1	2.3/4	---	Cr55	4
72000430	CREM-ST-4SC-0500- SQ Cr55	1/2	5/8	2.1/2	---	Cr55	4
72000435	CREM-ST-4SC-0500-R020- Cr55	1/2	5/8	2.1/2	.020	Cr55	4
72000440	CREM-ST-4SC-0500-R030- Cr55	1/2	5/8	2.1/2	.030	Cr55	4
72000445	CREM-ST-4RC-0500- SQ Cr55	1/2	1	3	---	Cr55	4
72000450	CREM-ST-4RC-0500-R030- Cr55	1/2	1	3	.030	Cr55	4
72000455	CREM-ST-4RC-0500-R060- Cr55	1/2	1	3	.060	Cr55	4
72000460	CREM-ST-4EC-0500- SQ Cr55	1/2	1.1/4	3	---	Cr55	4
72000465	CREM-ST-4EC-0500-R020- Cr55	1/2	1.1/4	3	.020	Cr55	4
72000470	CREM-ST-4EC-0500-R030- Cr55	1/2	1.1/4	3	.030	Cr55	4
72000475	CREM-ST-4EC-0500-R060- Cr55	1/2	1.1/4	3	.060	Cr55	4
72000480	CREM-ST-4EC-0500-R090- Cr55	1/2	1.1/4	3	.090	Cr55	4
72000485	CREM-ST-4EC-0500-R120- Cr55	1/2	1.1/4	3	.120	Cr55	4
72000490	CREM-ST-4MC-0500- SQ Cr55	1/2	1.5/8	3.1/2	---	Cr55	4
72000495	CREM-ST-4LC-0500- SQ Cr55	1/2	2	4	---	Cr55	4
72000500	CREM-ST-4LC-0500-R030- Cr55	1/2	2	4	.030	Cr55	4
72000505	CREM-ST-4RC-0562- SQ Cr55	9/16	1.1/4	3.1/2	---	Cr55	4
72000510	CREM-ST-4RC-0625- SQ Cr55	5/8	1.1/4	3.1/2	---	Cr55	4
72000515	CREM-ST-4RC-0625-R030- Cr55	5/8	1.1/4	3.1/2	.030	Cr55	4
72000520	CREM-ST-4RC-0625-R060- Cr55	5/8	1.1/4	3.1/2	.060	Cr55	4
72000525	CREM-ST-4EC-0625- SQ Cr55	5/8	1.5/8	3.1/2	---	Cr55	4
72000530	CREM-ST-4EC-0625-R030- Cr55	5/8	1.5/8	3.1/2	.030	Cr55	4
72000535	CREM-ST-4SC-0750- SQ Cr55	3/4	7/8	3	---	Cr55	4
72000540	CREM-ST-4SC-0750-R030- Cr55	3/4	7/8	3	.030	Cr55	4
72000545	CREM-ST-4SC-0750-R060- Cr55	3/4	7/8	3	.060	Cr55	4
72000550	CREM-ST-4RC-0750- SQ Cr55	3/4	1.1/2	4	---	Cr55	4
72000555	CREM-ST-4RC-0750-R030- Cr55	3/4	1.1/2	4	.030	Cr55	4
72000560	CREM-ST-4RC-0750-R060- Cr55	3/4	1.1/2	4	.060	Cr55	4
72000565	CREM-ST-4RC-0750-R090- Cr55	3/4	1.1/2	4	.090	Cr55	4
72000570	CREM-ST-4RC-0750-R120- Cr55	3/4	1.1/2	4	.120	Cr55	4
72000575	CREM-ST-4EC-0750- SQ Cr55	3/4	1.3/4	4	---	Cr55	4
72000580	CREM-ST-4EC-0750-R030- Cr55	3/4	1.3/4	4	.030	Cr55	4
72000585	CREM-ST-4EC-0750-R060- Cr55	3/4	1.3/4	4	.060	Cr55	4
72000590	CREM-ST-4EC-0750-R120- Cr55	3/4	1.3/4	4	.120	Cr55	4
72000595	CREM-ST-4MC-0750- SQ Cr55	3/4	2.3/8	5	---	Cr55	4
72000600	CREM-ST-4RC-1000- SQ Cr55	1	1.1/2	4	---	Cr55	4
72000605	CREM-ST-4RC-1000-R030- Cr55	1	1.1/2	4	.030	Cr55	4
72000610	CREM-ST-4RC-1000-R060- Cr55	1	1.1/2	4	.060	Cr55	4
72000615	CREM-ST-4RC-1000-R120- Cr55	1	1.1/2	4	.120	Cr55	4
72000620	CREM-ST-4RW-0500- SQ Cr55	1/2	1	3	---	Cr55	4
72000625	CREM-ST-4RW-0500-R015- Cr55	1/2	1	3	.015	Cr55	4
72000630	CREM-ST-4RW-0500-R030- Cr55	1/2	1	3	.030	Cr55	4
72000635	CREM-ST-4RW-0500-R060- Cr55	1/2	1	3	.060	Cr55	4
72000640	CREM-ST-4EW-0500- SQ Cr55	1/2	1.1/4	3	---	Cr55	4
72000645	CREM-ST-4EW-0500-R030- Cr55	1/2	1.1/4	3	.030	Cr55	4
72000650	CREM-ST-4EW-0500-R060- Cr55	1/2	1.1/4	3	.060	Cr55	4
72000655	CREM-ST-4MW-0500- SQ Cr55	1/2	1.5/8	3.1/2	---	Cr55	4

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0 HARDNESS (HRC)

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0 HARDNESS (HRC)

EDP Cromson	Cromson Description	Diam.	Length of cut	Overall length	Chamfer / radius	Cromson Grade	# Flutes
72000660	CREM-ST-4RW-0562- SQ Cr55	9/16	1.1/4	3.1/2	---	Cr55	4
72000665	CREM-ST-4RW-0625- SQ Cr55	5/8	1.1/4	3.1/2	---	Cr55	4
72000670	CREM-ST-4RW-0625-R030- Cr55	5/8	1.1/4	3.1/2	.030	Cr55	4
72000675	CREM-ST-4RW-0625-R060- Cr55	5/8	1.1/4	3.1/2	.060	Cr55	4
72000680	CREM-ST-4EW-0625- SQ Cr55	5/8	1.5/8	3.1/2	---	Cr55	4
72000685	CREM-ST-4EW-0625-R030- Cr55	5/8	1.5/8	3.1/2	.030	Cr55	4
72000690	CREM-ST-4SW-0750- SQ Cr55	3/4	7/8	3	---	Cr55	4
72000695	CREM-ST-4SW-0750-R030- Cr55	3/4	7/8	3	.030	Cr55	4
72000700	CREM-ST-4SW-0750-R060- Cr55	3/4	7/8	3	.060	Cr55	4
72000705	CREM-ST-4RW-0750- SQ Cr55	3/4	1.1/2	4	---	Cr55	4
72000710	CREM-ST-4RW-0750-R030- Cr55	3/4	1.1/2	4	.030	Cr55	4
72000715	CREM-ST-4RW-0750-R060- Cr55	3/4	1.1/2	4	.060	Cr55	4
72000720	CREM-ST-4RW-0750-R090- Cr55	3/4	1.1/2	4	.090	Cr55	4
72000725	CREM-ST-4RW-0750-R120- Cr55	3/4	1.1/2	4	.120	Cr55	4
72000730	CREM-ST-4EW-0750- SQ Cr55	3/4	1.3/4	4	---	Cr55	4
72000735	CREM-ST-4EW-0750-R030- Cr55	3/4	1.3/4	4	.030	Cr55	4
72000740	CREM-ST-4RW-1000- SQ Cr55	1	1.1/2	4	---	Cr55	4
72000745	CREM-ST-4RW-1000-R030- Cr55	1	1.1/2	4	.030	Cr55	4
72000750	CREM-ST-4RW-1000-R060- Cr55	1	1.1/2	4	.060	Cr55	4
72000755	CREM-ST-4RW-1000-R120- Cr55	1	1.1/2	4	.120	Cr55	4
72000760	CREM-ST-4MW-1000- SQ Cr55	1	2	5	---	Cr55	4
72000765	CREM-ST-4LW-1000- SQ Cr55	1	4	7	---	Cr55	4

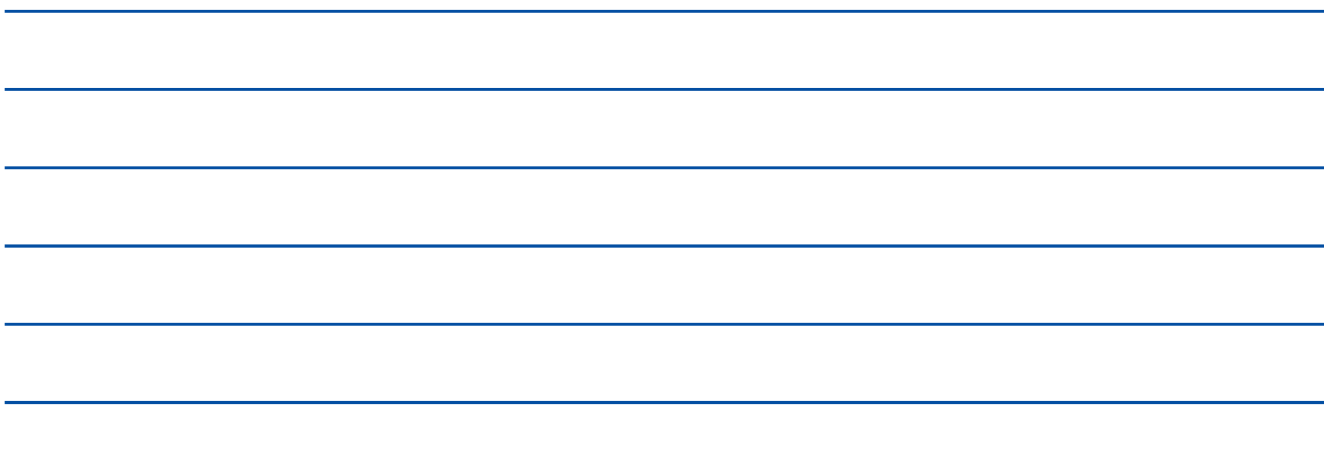
CARBIDE END MILL - BALL NOSE
4 FLUTES

TECHNICAL DETAILS

Tool Diameter Range 0.125-1.000 in
 Shank tolerance h6
 Cutter tolerance (+0.00-0.002 in) +0.00-0.05 mm
 Number of flutes 4
 Coating TiAlN (PVD)
 Center cutting Yes
 Variable pitch Variable
 Variable helix Standard
 Helix angle 38°



EDP Cromson	Cromson Description	Diam.	Length of cut	Overall length	Chamfer / radius	Cromson Grade	# Flutes
72000175	CREM-ST-4RC-0125-BN Cr55	1/8	1/2	2	.0625	Cr55	4
72000180	CREM-ST-4RC-0187-BN Cr55	3/16	5/8	2	.0935	Cr55	4
72000185	CREM-ST-4EC-0187-BN Cr55	3/16	7/8	2.1/2	.0935	Cr55	4
72000190	CREM-ST-4RC-0250-BN Cr55	1/4	3/4	2.1/2	.125	Cr55	4
72000195	CREM-ST-4RC-0312-BN Cr55	5/16	13/16	2.1/2	.156	Cr55	4
72000200	CREM-ST-4RC-0375-BN Cr55	3/8	7/8	2.1/2	.1875	Cr55	4
72000205	CREM-ST-4RC-0500-BN Cr55	1/2	1	3	.250	Cr55	4
72000210	CREM-ST-4RC-0625-BN Cr55	5/8	1.1/4	3.1/2	.3125	Cr55	4
72000215	CREM-ST-4RC-0750-BN Cr55	3/4	1.1/2	4	.375	Cr55	4
72000220	CREM-ST-4RC-1000-BN Cr55	1	1.1/2	4	.500	Cr55	4
72000225	CREM-ST-4RW-0375-BN Cr55	3/8	7/8	2.1/2	.1875	Cr55	4
72000230	CREM-ST-4RW-0500-BN Cr55	1/2	1	3	.250	Cr55	4
72000235	CREM-ST-4RW-0625-BN Cr55	5/8	1.1/4	3.1/2	.3125	Cr55	4
72000240	CREM-ST-4RW-0750-BN Cr55	3/4	1.1/2	4	.375	Cr55	4
72000245	CREM-ST-4RW-1000-BN Cr55	1	1.1/2	4	.500	Cr55	4



70
35
0 HARDNESS (HRC)

RECORD-ST		Feed (inches Per Tooth)									
Work Material	Type of Cut	Axial DOC	Radial DOC	Speed (SFM)	1/8	1/4	3/8	1/2	5/8	3/4	1
Low carbon steel <= 38HRc 1018, 12L14, 8620	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	350 425	.0008 .0010	.0016 .0020	.0024 .0030	.0032 .0040	.0040 .0050	.0048 .0060	.0064 .0080
Medium carbon steel <= 38HRc 4140, 4340	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	325 375	.0006 .0008	.0013 .0017	.0020 .0026	.0027 .0035	.0034 .0044	.0040 .0053	.0054 .0070
Tool & die steel <= 38HRc A2, D2, O1, S7, P20, H13	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	325 375	.0006 .0008	.0013 .0017	.0020 .0026	.0027 .0035	.0034 .0044	.0040 .0053	.0054 .0070
Tool steel 39HRc to 48HRc	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D 0.5 x D								
Easy to machine stainless steel 416, 410, 302, 303	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D	300 375	.0006 .0008	.0012 .0016	.0018 .0024	.0025 .0032	.0031 .0040	.0037 .0048	.0050 .0064
Moderately difficult stainless steel 304, 316, invar, kovar	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D 0.5 x D	275 350	.0005 .0007	.0011 .0015	.0016 .0023	.0022 .0032	.0027 .0037	.0033 .0045	.0044 .0064
Difficult to machine stainless steel 316L, 17-4PH, 15-5PH, 13-8Mo	Slotting Peripheral - Rough	0.5 x D 1 x D	1 x D 0.5 x D								
Cast iron Grey	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D								
Cast iron Ductile	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D 0.5 x D								
Cast iron Malleable	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D .75 x D								
Aluminum alloy 2024, 6061, 7075	Slotting	1 x D	1 x D 0.5 x D								
Titanium alloy 6Al4V	Slotting Peripheral - Rough	0.5 x D 1 x D	1 x D 0.5 x D	250 300	.0005 .0006	.0010 .0012	.0015 .0017	.0020 .0023	.0025 .0029	.0030 .0035	.0040 .0046
High temperature alloy Inconel, haynes, stellite, hastelloy	Slotting	.25 x D 1 x D	1 x D .25 x D	70 95	.0004 .0005	.0008 .0009	.0012 .0014	.0015 .0018	.0019 .0022	.0024 .0028	.0030 .0036

** The machining values shown are guidelines. The optimum data for a particular machining process should be determined in trials or during machining.