

DISCOVER OUR

# TAPPING



# Summary application chart-TAPPING

## CROMSON High Performance Taps

Select the proper tap for your application:

### CRP3 (HSSE)

General softer materials (ductile) below 25 HRc  
Low carbon steel  
Medium carbon steel  
Brass  
Copper  
Aluminum  
Cast iron

### CRPS (HSSE)

Tough materials up to 35 HRc  
High carbon steel  
High alloy  
Titanium  
Aluminum

### CRM (HSSE)


Stainless steel  
Low carbon steel  
Medium carbon steel  
Alloyed high carbon

### CRS (POWDER METAL) up to 48 HRc

High tensile materials  
Tool steels  
Titanium  
Nickel alloys  
Stainless steel

### CRN (HSSE /HSS)





Aluminum including roll forming

Work material	Hardness Rockwell (HRc) Hardness Brinell (BHN) Tensile Strength (N/mm2)			material	LOW /MED CARBON STEEL	
	HRc	BHN	N/mm2	model	CRP3	
				ft. / min.	Cutting Speed SFM	
				Condition	Normalized	As Cast
Non-alloy steel, cast steel 1018, 1108, 1161, 12L14, 1522, 1572	up to 8 up to 15 over 15	up to 178 up to 205 over 205	up to 600 up to 700 over 700		20-50 20-40 20-40 	
Alloyed steel 5132, 4130, 8620, 4340, 5140, 6150 Tool Steel, 01, A2, D2, H-13, P-20.	up to 27 up to 31 over 31	up to 266 up to 297 over 297	up to 900 up to 1000 over 1000			
Stainless steel moderate 17-4PH, 15-5PH, 316L						
Stainless and acid resistant steel (Cr-Ni-Alloys) 304, 316, 17CrNi16-2						
Cast iron, grey cast iron alloys GG10-GG40, A48	up to 14 up to 24 over 24	up to 200 up to 250 over 2050	up to 680 up to 850 over 850		20-40	
Spheroidal graphite cast iron, cast iron with vermicular graphite, malleable iron GGG40, GGG80	up to 8 over 8	up to 178 over 178	up to 600 over 650			
Aluminum (Si content >10%) 6061, 2025, 208, 360						
Aluminum (Si content <10%) 413, 385, A390						
Copper, brass, bronze Beryllium copper, naval brass, AMPCO						
Titanium alloys TiAl4V						
High Temperature alloys Inconel, haynes, waspaloy, hastelloy						
Chilled cast iron	38-48				20-40	
Hardened steel 50-60 HRc	50-55 56-60 61-65					

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



Highly recommended

MED /HIGH CARBON STEEL		STAINLESS STEEL		TITANIUM. NICKEL ALLOY		ALUMINUM	
CRPS		CRM		CRS		CRN	
Cutting Speed SFM		Cutting Speed SFM		Cutting Speed SFM		Cutting Speed SFM	
Normalized	Annealed	Annealed	Hardened	Annealed/hard.	Hardened	Cutting	Roll Form
20-30		25-50					20-50
20-30 	15-25	20-30		10-20	15-20		
20-30		20-35 	15-20				
		20-35 	15-20		12-20		
						25-60	30-60
						30-80 	30-80 
		20-30				30-80	30-80
15-30				8-15 			
					5-20		

## TECHNICAL DETAILS

General application	Titanium, Inconel
Machine or manual	Machine
Hole type	Through bore
Surface treatment	Steam
Materials to be machined	<b>Steel, 4340</b>
Other	<b>Titanium, inconel, waspaloy</b>
Hardness	Up to 48 HRc
Tap length	Standard Powder metal



EDP Cromson	Cromson Description	Diam. Thread	Nb Thread	Nb Flutes	Thread Limit	OAL	Tap length
76003500	POWDER METAL - 4-40 - SP	4	40	2	H2	1.7/8	0.433
76003505	POWDER METAL - 5-40 - SP	5	40	3	H2	1.15/16	0.433
76003510	POWDER METAL - 6-32 - SP	6	32	3	H3	2	0.512
76003515	POWDER METAL - 8-32 - SP	8	32	3	H3	2.1/8	0.512
76003520	POWDER METAL - 10-24 - SP	10	24	3	H3	2.3/8	0.512
76003525	POWDER METAL - 10-32 - SP	10	32	3	H3	2.3/8	0.512
76003530	POWDER METAL - 1/4-20 - SP	1/4	20	3	H3	2.1/2	0.630
76003535	POWDER METAL - 1/4-28 - SP	1/4	28	3	H3	2.1/2	0.630
76003540	POWDER METAL - 5/16-18 - SP	5/16	18	3	H3	2.23/32	0.748
76003545	POWDER METAL - 5/16-24 - SP	5/16	24	3	H3	2.23/32	0.748
76003550	POWDER METAL - 3/8-16 - SP	3/8	16	3	H3	2.15/16	0.748
76003555	POWDER METAL - 3/8-24 - SP	3/8	24	3	H3	2.15/16	0.748
76003560	POWDER METAL - 7/16-14 - SP	7/16	14	3	H3	3.5/32	0.866
76003565	POWDER METAL - 7/16-20 - SP	7/16	20	3	H3	3.5/32	0.866
76003570	POWDER METAL - 1/2-13 - SP	1/2	13	3	H3	3.3/8	0.945
76003575	POWDER METAL - 1/2-20 - SP	1/2	20	3	H3	3.3/8	0.945
76003580	POWDER METAL - 5/8-11 - SP	5/8	11	3	H3	3.13/16	1.102
76003585	POWDER METAL - 5/8-18 - SP	5/8	18	3	H3	3.13/16	1.102
76003590	POWDER METAL - 3/4-10 - SP	3/4	10	4	H3	4.1/4	1.220
76003595	POWDER METAL - 3/4-16 - SP	3/4	16	4	H3	4.1/4	1.220
76003600	POWDER METAL - M3-0.5 - SP	M3	0.5	3	D3	1.15/16	0.433
76003605	POWDER METAL - M4-0.7 - SP	M4	0.7	3	D4	2.1/8	0.512
76003610	POWDER METAL - M5-0.8 - SP	M5	0.8	3	D4	2.3/8	0.512
76003615	POWDER METAL - M6-1 - SP	M6	1	3	D5	2.1/2	0.630
76003620	POWDER METAL - M8-1.25 - SP	M8	1.25	3	D5	2.23/32	0.748
76003625	POWDER METAL - M10-1.25 - SP	M10	1.25	3	D5	2.15/16	0.748
76003630	POWDER METAL - M10-1.5 - SP	M10	1.5	3	D6	2.15/16	0.748
76003635	POWDER METAL - M12-1.75 - SP	M12	1.75	3	D6	3.3/8	0.945

# SPIRAL FLUTE TAPS "POWDER METAL" CRS

## TECHNICAL DETAILS

General application	Titanium, Inconel
Machine or manual	Machine
Hole type	Blind hole
Surface treatment	Steam
Materials to be machined	<b>Steel, 4340</b>
Other	<b>Titanium, inconel, waspalo</b>
Hardness	Up to 48 HRc
Tap length	Standard



EDP Cromson	Cromson Description	Diam. Thread	Nb Thread	Nb Flutes	Thread Limit	OAL	Tap length
76003700	POWDER METAL - 4-40 - SF	4	40	2	H2	1.7/8	0.250
76003705	POWDER METAL - 6-32 - SF	6	32	3	H3	2	0.313
76003710	POWDER METAL - 8-32 - SF	8	32	3	H3	2.1/8	0.313
76003715	POWDER METAL - 10-24 - SF	10	24	3	H3	2.3/8	0.417
76003720	POWDER METAL - 10-32 - SF	10	32	3	H3	2.3/8	0.417
76003725	POWDER METAL - 1/4-20 - SF	1/4	20	3	H3	2.1/2	0.500
76003730	POWDER METAL - 1/4-28 - SF	1/4	28	3	H3	2.1/2	0.500
76003735	POWDER METAL - 5/16-18 - SF	5/16	18	3	H3	2.23/32	0.556
76003740	POWDER METAL - 5/16-24 - SF	5/16	24	3	H3	2.23/32	0.556
76003745	POWDER METAL - 3/8-16 - SF	3/8	16	3	H3	2.15/16	0.625
76003750	POWDER METAL - 3/8-24 - SF	3/8	24	3	H3	2.15/16	0.625
76003755	POWDER METAL - 7/16-14 - SF	7/16	14	3	H3	3.5/32	0.714
76003760	POWDER METAL - 7/16-20 - SF	7/16	20	3	H3	3.5/32	0.714
76003765	POWDER METAL - 1/2-13 - SF	1/2	13	3	H3	3.3/8	0.769
76003770	POWDER METAL - 1/2-20 - SF	1/2	20	3	H3	3.3/8	0.769
76003775	POWDER METAL - 5/8-11 - SF	5/8	11	4	H3	3.13/16	0.909
76003780	POWDER METAL - 5/8-18 - SF	5/8	18	4	H3	3.13/16	0.909
76003785	POWDER METAL - 3/4-10 - SF	3/4	10	4	H3	4.1/4	1.000
76003790	POWDER METAL - 3/4-16 - SF	3/4	16	4	H3	4.1/4	1.000
76003795	POWDER METAL - M3-0.5 - SF	M3	0.5	3	D3	1.15/16	0.197
76003800	POWDER METAL - M4-0.7 - SF	M4	0.7	3	D4	2.1/8	0.276
76003805	POWDER METAL - M5-0.8 - SF	M5	0.8	3	D4	2.3/8	0.315
76003810	POWDER METAL - M6-1 - SF	M6	1	3	D5	2.1/2	0.394
76003815	POWDER METAL - M8-1.25 - SF	M8	1.25	3	D5	2.23/32	0.492
76003820	POWDER METAL - M10-1.25 - SF	M10	1.25	3	D5	2.15/16	0.591
76003825	POWDER METAL - M10-1.5 - SF	M10	1.5	3	D6	2.15/16	0.591
76003830	POWDER METAL - M12-1.75 - SF	M12	1.75	3	D6	3.3/8	0.689