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INTERCHANGEABLE COUNTERBORES

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT SHANK

SHORT SERIES



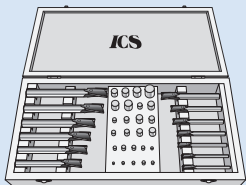
TAPER SHANK

High Speed Steel Interchangeable counterbores are designed to create a recess for a cap screw, spring or bolt. They are used with interchangeable pilots ground to fit various hole sizes to be counterbored.

PILOT HOLE SIZE	NO. OF FLUTES	OVERALL LENGTH	STRAIGHT SHANK			TAPER SHANK			
			SHANK SIZE/LENGTH	ITEM NO.	PRICE	MORSE TAPER	ITEM NO.	PRICE	
3/16	3/32	3	3-1/2	15/64 x 2-3/8	ICSS012	35.84			
7/32	3/32	3	3-5/8	15/64 x 2-3/4	ICSS014	35.84			
1/4	3/32	3	3-13/16	15/64 x 3-1/16	ICSS016	32.26	1	ICTS016	34.96
9/32	3/32	3	3-13/16	17/64 x 3-1/16	ICSS018	32.26	1	ICTS018	35.84
5/16	3/32	3	3-13/16	19/64 x 3-1/16	ICSS020	33.16	1	ICTS020	35.84
11/32	3/32	3	3-13/16	5/16 x 3-1/16	ICSS022	33.84	1	ICTS022	35.84
3/8	5/32	3	4-1/16	5/16 x 3-1/16	ICSS024	33.84	1	ICTS024	35.84
13/32	5/32	3	4-1/16	3/8 x 3-1/16	ICSS026	36.08	1	ICTS026	38.08
7/16	5/32	3	4-1/16	3/8 x 3-1/16	ICSS028	36.08	1	ICTS028	38.08
15/32	3/16	3	4-5/16	7/16 x 3-1/16	ICSS030	37.86	1	ICTS030	39.88
1/2	3/16	3	4-5/16	7/16 x 3-1/16	ICSS032	37.86	1	ICTS032	39.88
17/32	3/16	3	4-5/16	1/2 x 3-1/16	ICSS034	42.12	1	ICTS034	44.58
9/16	3/16	3	4-5/16	1/2 x 3-1/16	ICSS036	42.12	1	ICTS036	44.58
19/32	3/16	3	5-1/8	1/2 x 3-7/8	ICSS038	45.02	2	ICTS038	47.50
5/8	3/16	3	5-1/8	1/2 x 3-7/8	ICSS040	45.40	2	ICTS040	47.50
21/32	3/16	3	5-1/8	1/2 x 3-7/8	ICSS042	49.74	2	ICTS042	51.98
11/16	3/16	3	5-1/8	1/2 x 3-7/8	ICSS044	49.74	2	ICTS044	51.98
23/32	1/4	3	5-3/8	1/2 x 3-7/8	ICSS046	51.76	2	ICTS046	53.76
3/4	1/4	3	5-3/8	1/2 x 3-7/8	ICSS048	51.76	2	ICTS048	53.76
25/32	1/4	3	5-3/8	5/8 x 3-7/8	ICSS050	54.66	2	ICTS050	57.12
13/16	1/4	3	5-3/8	5/8 x 3-7/8	ICSS052	52.88	2	ICTS052	57.12
27/32	1/4	3	5-3/8	3/4 x 3-7/8	ICSS054	58.02	2	ICTS054	59.36
7/8	1/4	3	5-3/8	3/4 x 3-7/8	ICSS056	55.56	2	ICTS056	59.36
29/32	1/4	3	6-1/8	3/4 x 4-5/8	ICSS058	58.24	3	ICTS058	62.72
15/16	1/4	3	6-1/8	3/4 x 4-5/8	ICSS060	58.24	3	ICTS060	62.72
31/32	5/16	3	6-3/8	3/4 x 4-5/8	ICSS062	69.44	3	ICTS062	71.68
1	5/16	3	6-3/8	3/4 x 4-5/8	ICSS100	69.44	3	ICTS100	71.68
1-1/16	5/16	3	6-3/8	3/4 x 4-5/8	ICSS104	78.40	3	ICTS104	80.64
1-1/8	5/16	3	6-3/8	1 x 4-5/8	ICSS108	78.40	3	ICTS108	85.12
1-3/16	5/16	3	6-3/8	1 x 4-5/8	ICSS112	85.12	3	ICTS112	87.36
1-1/4	3/8	5	6-5/8	1 x 4-5/8	ICSS116	98.56	3	ICTS116	103.04
1-3/8	3/8	5	6-5/8	1 x 4-5/8	ICSS124	114.24	3	ICTS124	114.24
1-1/2	3/8	5	7-7/8	1-1/4 x 5-7/8	ICSS132	127.68	3	ICTS132	127.68
1-5/8	7/16	5	8-1/8	1-1/4 x 5-7/8	ICSS140	172.48	4	ICTS140	174.72
1-3/4	7/16	5	8-1/8	1-1/4 x 5-7/8	ICSS148	185.92	4	ICTS148	188.16
1-7/8	7/16	5	8-1/8	1-1/2 x 5-7/8	ICSS156	203.84	4	ICTS156	206.08
2	1/2	5	8-3/8	1-1/2 x 5-7/8	ICSS200	230.72	4	ICTS200	232.96
2-1/8	1/2	5	9-7/8	1-1/2 x 7-3/8	ICSS208	302.40	5	ICTS208	302.40
2-1/4	1/2	5	9-7/8	1-1/2 x 7-3/8	ICSS216	316.00	5	ICTS216	316.00
2-3/8	1/2	5	9-7/8	1-1/2 x 7-3/8	ICSS224	338.00	5	ICTS224	349.00
2-1/2	1/2	5	9-7/8	1-1/2 x 7-3/8	ICSS232	350.00	5	ICTS232	370.00
2-5/8	1/2	5	9-7/8	1-3/4 x 7-3/8	ICSS240	441.00	5	ICTS240	459.00
2-3/4	1/2	5	9-7/8	1-3/4 x 7-3/8	ICSS248	469.00	5	ICTS248	485.00
2-7/8	1/2	5	9-7/8	1-3/4 x 7-3/8	ICSS256	488.00	5	ICTS256	508.00
3	1/2	5	9-7/8	1-3/4 x 7-3/8	ICSS300	505.00	5	ICTS300	525.00

INTERCHANGEABLE PILOT COUNTERBORE SET

WOOD BOX

DESCRIPTION	TYPE OF COUNTERBORE	ITEM NO.	PRICE
<p>39 PIECE INTERCHANGEABLE PILOT & COUNTERBORE SET</p> 	<p>Straight Shank - 1/4 to 1" by 16ths Interchangeable Pilots 1/8, 5/32, 3/16, 1/4 with 3/32 Shank 3/16, 7/32, 1/4, 9/32, 5/16 with 5/32 Shank 1/4, 5/16, 3/8, 7/16, 1/2 with 3/16 Shank 5/16, 3/8, 7/16, 1/2, 9/16, 5/8 with 1/4 Shank 3/8, 7/16, 1/2, 9/16, 5/8, 3/4 with 5/16 Shank</p>	CS-ICP-39	512.50

CAP SCREW COUNTERBORE SET - METRIC

WOOD STAND

DESCRIPTION	TYPE OF COUNTERBORE	ITEM NO.	PRICE
7 PC METRIC CAP SCREW COUNTERBORE SET Sizes M3, M4, M5, M6 M8, M10, M12 (Not Illustrated)	Metric Cap Screw Counterbore 3 Flute - Straight Shank	CS-CSC3FM-7	269.50

HIGH SPEED STEEL

FILLISTER HEAD SCREW COUNTERBORES

ICS USA

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



TWO FLUTE SOLID PILOT

High Speed Steel Fillister Head Screw Counterbores are designed to create a recess for small fillister and flat head machine screws. Solid pilot will not score or damage pilot hole. Cutting action is chatterless.

SCREW SIZE	PLOT SIZE	CUTTING DIAMETER	SHANK DIAMETER	OVERALL LENGTH	ITEM NO.	PRICE
#3	.098	.176	.1875	2-1/2	FHSC#03	CALL FOR PRICE
#4	.111	.198	.198	2-1/2	FHSC#04	
#5	.124	.220	.220	2-1/2	FHSC#05	
#6	.137	.241	.241	2-1/2	FHSC#06	
#8	.163	.285	.285	2-3/4	FHSC#08	
#10	.189	.328	.328	2-3/4	FHSC#10	
#12	.215	.372	.372	3	FHSC#12	
1/4	1/4	13/32	5/16	3-5/8	FHSC016	
5/16	5/16	15/32	3/8	4	FHSC020	
3/8	3/8	19/32	7/16	4-3/8	FHSC024	
7/16	7/16	21/32	1/2	4-3/4	FHSC028	
1/2	1/2	9/16	9/16	5-1/4	FHSC032	

FILLISTER HEAD SCREW COUNTERBORE SETS

WOOD STAND

DESCRIPTION	TYPE OF COUNTERBORE	ITEM NO.	PRICE
5 PC FILLISTER HEAD COUNTERBORE SET Sizes #2, #4, #6, #8, #10 (Not Illustrated)	Fillister Head Screw Counterbore 2 Flute - Straight Shank	CS-FHSC-5	71.68
4 PC FILLISTER HEAD COUNTERBORE SET Sizes 1/4, 5/16, 3/8, 1/2 (Not Illustrated)	Fillister Head Screw Counterbore 2 Flute - Straight Shank	CS-FHSC-4	123.20

CARBON STEEL COUNTERBORE PILOTS - INTERCHANGEABLE

ICS USA

SPECIAL PURPOSE

SOLID PILOT



Interchangeable counterbore pilots are used with interchangeable pilot style counterbores and spot facers, including carbide tipped and aircraft counterbores to produce various combinations of sizes. All counterbore pilots have a flat on one side of the shank for the set screw to hold the pilot in place. To order, select a pilot with a shank diameter to fit the pilot hole diameter of the counterbore being used.

NOTE: Flatted shank may need an additional flat to work with all the different brands of counterbores, as there is no industry standard for where the set screws are placed. [See example and explanation here.](#)

PILOT SIZE	ITEM NO.	PRICE
3/32" SHANK		
3/32	ICP006X006	5.48
1/8	ICP006X080	5.48
5/32	ICP006X010	5.48
3/16	ICP006X012	5.48
7/32	ICP006X014	5.48
1/4	ICP006X016	6.20
9/32	ICP006X018	6.20
5/16	ICP006X020	6.20
11/32	ICP006X022	6.20
3/8	ICP006X024	6.20
7/16	ICP006X028	6.20
1/2	ICP006X032	6.20
3/4	ICP006X048	6.20
1/8" SHANK		
1/8	ICP008X008	5.48
5/32	ICP008X010	5.48
3/16	ICP008X012	5.48
7/32	ICP008X014	5.48
1/4	ICP008X016	6.20
9/32	ICP008X018	6.20
5/16	ICP008X020	6.20
11/32	ICP008X022	6.20
3/8	ICP008X024	6.20
13/32	ICP008X026	6.20
7/16	ICP008X028	6.20
15/32	ICP008X030	8.10
1/2	ICP008X032	8.10
17/32	ICP008X034	8.10
9/16	ICP008X036	8.10
5/32" SHANK		
5/32	ICP010X010	5.48
3/16	ICP010X012	5.48
7/32	ICP010X014	5.48
1/4	ICP010X016	6.20
9/32	ICP010X018	6.20
5/16	ICP010X020	6.20
11/32	ICP010X022	6.20
3/8	ICP010X024	6.20
13/32	ICP010X026	6.20
7/16	ICP010X028	6.20
1/2	ICP010X032	8.10
3/16" SHANK		
3/16	ICP012X012	5.48
7/32	ICP012X014	5.48
1/4	ICP012X016	6.20
9/32	ICP012X018	6.20
5/16	ICP012X020	6.20
11/32	ICP012X022	6.20
SHANK DIA. SHANK LENGTH		
3/32	1-1/4	
1/8	1-1/2	
5/32	1-1/2	

PILOT SIZE	ITEM NO.	PRICE
3/16" SHANK		
3/8	ICP012X024	6.20
13/32	ICP012X026	6.20
7/16	ICP012X028	6.20
15/32	ICP012X030	8.10
1/2	ICP012X032	8.10
17/32	ICP012X034	8.10
9/16	ICP012X036	8.10
5/8	ICP012X040	8.10
11/16	ICP012X044	8.10
3/4	ICP012X048	8.10
1/4" SHANK		
1/4	ICP016X016	6.20
9/32	ICP016X018	6.20
5/16	ICP016X020	6.20
11/32	ICP016X022	6.20
3/8	ICP016X024	6.20
13/32	ICP016X026	6.20
7/16	ICP016X028	6.20
15/32	ICP016X030	8.10
1/2	ICP016X032	8.10
17/32	ICP016X034	8.10
9/16	ICP016X036	8.10
19/32	ICP016X038	8.10
5/8	ICP016X040	8.10
21/32	ICP016X042	8.10
11/16	ICP016X044	8.10
3/4	ICP016X048	8.10
13/16	ICP016X052	8.10
7/8	ICP016X056	12.86
15/16	ICP016X060	12.86
1	ICP016X100	12.86
5/16" SHANK		
5/16	ICP020X020	8.10
11/32	ICP020X022	8.10
3/8	ICP020X024	8.10
13/32	ICP020X026	8.10
7/16	ICP020X028	8.10
15/32	ICP020X030	11.68
1/2	ICP020X032	11.68
17/32	ICP020X034	11.68
9/16	ICP020X036	11.68
19/32	ICP020X038	11.68
5/8	ICP020X040	11.68
21/32	ICP020X042	11.68
11/16	ICP020X044	11.68
3/4	ICP020X048	11.68
13/16	ICP020X052	11.68
7/8	ICP020X056	14.06
SHANK DIA. SHANK LENGTH		
3/16	1-3/4	
1/4	1-7/8	
5/16	2-1/8	

PILOT SIZE	ITEM NO.	PRICE
5/16" SHANK		
15/16	ICP020X060	14.06
1	ICP020X100	14.06
1-1/16	ICP020X104	16.68
1-1/8	ICP020X108	16.68
3/8" SHANK		
3/8	ICP024X024	9.48
13/32	ICP024X026	9.48
7/16	ICP024X028	9.48
15/32	ICP024X030	9.48
1/2	ICP024X032	9.48
17/32	ICP024X034	10.96
9/16	ICP024X036	10.96
5/8	ICP024X040	12.62
11/16	ICP024X044	12.62
3/4	ICP024X048	12.62
13/16	ICP024X052	13.44
7/8	ICP024X056	13.44
15/16	ICP024X060	13.44
1	ICP024X100	16.42
1-1/16	ICP024X104	16.42
1-1/8	ICP024X108	16.42
1-5/32	ICP024X110	19.26
1-3/16	ICP024X112	19.26
1-1/4	ICP024X116	19.26
1-5/16	ICP024X120	19.26
1-3/8	ICP024X124	19.26
1-7/16	ICP024X128	20.68
1-1/2	ICP024X132	22.72
7/16" SHANK		
7/16	ICP028X028	12.20
1/2	ICP028X032	12.20
9/16	ICP028X036	12.20
5/8	ICP028X040	12.20
11/16	ICP028X044	14.06
3/4	ICP028X048	14.06
13/16	ICP028X052	14.06
7/8	ICP028X056	14.06
15/16	ICP028X060	14.06
1	ICP028X100	18.34
1-1/16	ICP028X104	18.34
1-1/8	ICP028X108	18.34
1-3/16	ICP028X112	18.34
1-1/4	ICP028X116	20.02
1-5/16	ICP028X120	20.02
1-3/8	ICP028X124	20.02
1-7/16	ICP028X128	20.02
1-1/2	ICP028X132	20.02
1-9/16	ICP028X136	21.42
SHANK DIA. SHANK LENGTH		
3/8	2-3/8	
7/16	2-5/8	
1/2	2-3/4	

PILOT SIZE	ITEM NO.	PRICE
7/16" SHANK		
1-5/8	ICP028X140	21.42
1-11/16	ICP028X144	21.42
1-3/4	ICP028X148	21.42
1-13/16	ICP028X152	21.42
1-7/8	ICP028X156	21.42
1/2" SHANK		
1/2	ICP032X032	11.44
17/32	ICP032X034	11.44
9/16	ICP032X036	11.44
5/8	ICP032X040	11.44
11/16	ICP032X044	11.44
3/4	ICP032X048	11.44
13/16	ICP032X052	14.26
7/8	ICP032X056	14.26
15/16	ICP032X060	14.26
1	ICP032X100	18.34
1-1/16	ICP032X104	18.34
1-1/8	ICP032X108	18.34
1-3/16	ICP032X112	20.72
1-1/4	ICP032X116	20.72
1-5/16	ICP032X120	20.72
1-3/8	ICP032X124	24.80
1-7/16	ICP032X128	24.80
1-1/2	ICP032X132	24.80
1-9/16	ICP032X136	24.80
1-5/8	ICP032X140	28.86
1-11/16	ICP032X144	28.86
1-3/4	ICP032X148	28.86
1-13/16	ICP032X152	31.82
1-7/8	ICP032X156	31.82
1-15/16	ICP032X160	31.82
2	ICP032X200	38.52
2-1/16	ICP032X204	38.52
2-1/8	ICP032X208	38.52
2-3/16	ICP032X212	44.10
2-1/4	ICP032X216	44.10
2-5/16	ICP032X220	44.10
2-3/8	ICP032X224	55.18
2-7/16	ICP032X228	55.18
2-1/2	ICP032X232	55.18
2-9/16	ICP032X236	58.10
2-5/8	ICP032X240	58.10
2-11/16	ICP032X244	58.10
2-3/4	ICP032X248	75.94
2-13/16	ICP032X252	75.94
2-7/8	ICP032X256	82.94
2-15/16	ICP032X260	82.94
3	ICP032X300	82.94
SHANK DIA. SHANK LENGTH		
Length of pilot head is equal to its diameter.		

HIGH SPEED STEEL CAP SCREW COUNTERBORES

ICS USA

SPECIAL PURPOSE

RIGHT HAND CUT



STRAIGHT SHANK

3 FLUTE
SOLID PILOT

TAPER SHANK

High Speed Steel Cap Screw Counterbores are designed to create a recess for socket head cap screws and shoulder screws. They are also used for spot facing smaller spots, enlarging or cleaning holes. Solid pilot will not score or damage pilot hole. Cutting action is chatterless. They are available with a Straight Shank or a Morse Taper Shank.

CAP SCREW SIZE	PILOT DIA.	CUTTING DIA.	SHANK DIA.	STRAIGHT SHANK			TAPER SHANK			
				LENGTH	ITEM NO.	PRICE	MORSE TAPER	LENGTH	ITEM NO.	PRICE
#5	.141	.221	3/16	3	CSC3F#05	26.98				
#6	.150	.242	7/32	3	CSC3F#06	26.98				
#8	11/64	19/64	1/4	3	CSC3F#08	26.98				
#10	13/64	21/64	5/16	3-1/2	CSC3F#10	26.98				
1/4	9/32	13/32	3/8	5	CSC3F016	30.98	1	5-3/4	CSC3FTS016	25.50
5/16	11/32	1/2	7/16	5	CSC3F020	37.24	2	6	CSC3FTS020	28.44
3/8	13/32	19/32	1/2	6	CSC3F024	40.86	2	6-1/2	CSC3FTS024	32.84
7/16	15/32	11/16	1/2	7	CSC3F028	45.82	2	7	CSC3FTS028	35.98
1/2	17/32	25/32	1/2	7-1/2	CSC3F032	48.52	2	7-1/4	CSC3FTS032	38.94
5/8	21/32	31/32	3/4	7-1/2	CSC3F040	61.72	3	7-1/2	CSC3FTS040	58.80
3/4	13/16	1-3/16	1	8	CSC3F048	86.22	3	9	CSC3FTS048	82.90
7/8	15/16	1-3/8	1	8	CSC3F056	102.46	3	9	CSC3FTS056	101.40
1	1-1/16	1-9/16	1	10	CSC3F100	122.02	3	10	CSC3FTS100	119.02

CAP SCREW COUNTERBORE SET

WOOD STAND

DESCRIPTION	TYPE OF COUNTERBORE	ITEM NO.	PRICE
4 PC CAP SCREW COUNTERBORE SET Sizes #8, #10, 1/4, 3/8 (Not Illustrated)	Cap Screw Counterbore - 3 Flute - Straight Shank	CS-CSC3F-4	100.80

HIGH SPEED STEEL CAP SCREW COUNTERBORES - METRIC

ICS USA

SPECIAL PURPOSE

RIGHT HAND CUT



STRAIGHT SHANK

3 FLUTE
SOLID PILOT

TAPER SHANK

High Speed Steel Metric Cap Screw Counterbores are designed to create a recess for socket head cap screws and shoulder screws. They are also used for spot facing smaller spots, enlarging or cleaning holes. Solid pilot will not score or damage pilot hole. Cutting action is chatterless. They are available with a Straight Shank or a Morse Taper Shank.

CAP SCREW SIZE (mm)	PILOT DIA. (mm)	CUTTING DIA. (mm)	SHANK DIA. (mm)	STRAIGHT SHANK			TAPER SHANK			
				LENGTH	ITEM NO.	PRICE	MORSE TAPER	LENGTH	ITEM NO.	PRICE
3.00	3.40	6.00	7/32	3	CSC3FM03.00	20.72				
4.00	4.50	8.00	5/16	3-1/2	CSC3FM04.00	22.38				
5.00	5.50	10.00	5/16	4-1/2	CSC3FM05.00	26.04				
6.00	6.60	11.00	3/8	5	CSC3FM06.00	26.98	1	6	CSC3FTSM06.00	22.40
8.00	9.00	15.00	1/2	6	CSC3FM08.00	36.38	2	7	CSC3FTSM08.00	26.26
10.00	11.00	18.00	1/2	7	CSC3FM10.00	41.80	2	7-9/32	CSC3FTSM10.00	31.86
12.00	14.00	20.00	5/8	7-1/2	CSC3FM12.00	42.78	2	7-1/2	CSC3FTSM12.00	40.62
14.00	15.00	24.00	3/4	8	CSC3FM14.00	55.32	2	8	CSC3FTSM14.00	58.80
16.00	17.00	26.00	1	9	CSC3FM16.00	59.86	3	9	CSC3FTSM16.00	63.02
20.00	21.00	26.00	1	10	CSC3FM20.00	102.22	3	10	CSC3FTSM20.00	108.52
24.00	26.00	40.00					3	10-3/4	CSC3FTSM24.00	180.54

HIGH SPEED STEEL COMBINED DRILL & COUNTERSINKS

ICS USA
GENERAL PURPOSE
118° POINT
**PLAIN
TYPE**

**INCLUDED ANGLES
60° - 82° - 120°**

High Speed Steel Plain Type Combined Drill & Countersinks are designed to produce accurate center holes in components which require machining between centers. Sizes #0 to #000 are often referred to as Missile & Aircraft Series.

SIZE	BODY DIA.	DRILL DIA.	DRILL LENGTH	OVERALL LENGTH	ITEM NO.			PRICE	PKG. QTY.
					60°	82°	120°		
000	1/8	.025	.025	1-1/4	CDC#000			5.00	10
00	1/8	.025	.025	1-1/4	CDC#00			5.00	10
0	1/8	1/32	1/32	1-1/4	CDC#0			5.00	10
1	1/8	3/64	3/64	1-1/4	CDC#01	CDC082-#01	CDC120-#01	1.68	10
2	3/16	5/64	5/64	1-7/8	CDC#02	CDC082-#02	CDC120-#02	1.68	10
3	1/4	7/64	7/64	2	CDC#03	CDC082-#03	CDC120-#03	1.68	10
4	5/16	1/8	1/8	2-1/8	CDC#04	CDC082-#04	CDC120-#04	2.02	10
4-1/2	3/8	9/64	9/64	2-1/2	CDC#045			3.50	10
5	7/16	3/16	3/16	2-3/4	CDC#05	CDC082-#05	CDC120-#05	3.82	10
6	1/2	7/32	7/32	3	CDC#06	CDC082-#06	CDC120-#06	5.94	5
7	5/8	1/4	1/4	3-1/4	CDC#07	CDC082-#07	CDC120-#07	10.64	1
8	3/4	5/16	5/16	3-1/2	CDC#08	CDC082-#08	CDC120-#08	14.24	1
9	7/8	11/32	11/32	3-5/8	CDC#09			42.00	1
10	1	3/8	3/8	3-3/4	CDC#10			49.02	1

HIGH SPEED STEEL COMBINED DRILL & COUNTERSINKS

ICS USA
GENERAL PURPOSE
118° POINT
**BELL
TYPE**

**INCLUDED ANGLE
60° & 120°**

High Speed Steel Bell Type Combined Drill & Countersinks are designed with an additional small 120° chamfer to protect the edges of the 60° hole.

SIZE	BODY DIA.	DRILL DIA.	OVERALL LENGTH	ITEM NO.		PRICE	PKG. QTY.
				60°	82°		
11	1/8	3/64	1-1/4	CDC#11	CDC120#11	3.44	10
12	3/16	1/16	1-7/8	CDC#12	CDC120#12	3.44	10
13	1/4	3/32	2	CDC#13	CDC120#13	3.44	10
14	5/16	7/64	2-1/8	CDC#14	CDC120#14	3.44	10

SIZE	BODY DIA.	DRILL DIA.	OVERALL LENGTH	ITEM NO.		PRICE	PKG. QTY.
				60°	82°		
15	7/16	5/32	2-3/4	CDC#15	CDC120#15	6.72	10
16	1/2	3/16	3	CDC#16	CDC120#16	10.04	5
17	5/8	7/32	3-1/4	CDC#17	CDC120#17	13.38	5
18	3/4	1/4	3-1/2	CDC#18	CDC120#18	17.96	5

COMBINED DRILL & COUNTERSINKS - COBALT (M42)

ICS USA
GENERAL PURPOSE
118° POINT
**PLAIN
TYPE**


**INCLUDED ANGLES
60° - 82° - 120°**

Cobalt Plain Type Combined Drill & Countersinks are designed to produce accurate center holes in components which require machining between centers. Sizes #0 to #000 are often referred to as Missile & Aircraft Series.

SIZE	BODY DIA.	DRILL DIA.	DRILL LENGTH	OVERALL LENGTH	ITEM NO.	PRICE	PKG. QTY.
1	1/8	3/64	3/64	1-1/4	CDCC#01	8.14	5
2	3/16	5/64	5/64	1-7/8	CDCC#02	8.14	5
3	1/4	7/64	7/64	2	CDCC#03	8.14	5
4	5/16	1/8	1/8	2-1/8	CDCC#04	9.82	5
5	7/16	3/16	3/16	2-3/4	CDCC#05	19.60	5
6	1/2	7/32	7/32	3	CDCC#06	33.34	1
7	5/8	1/4	1/4	3-1/4	CDCC#07	63.02	1
8	3/4	5/16	5/16	3-1/2	CDCC#08	76.78	1

COMBINED DRILL & COUNTERSINK SETS

VINYL POUCH

DESCRIPTION	TYPE OF COUNTERBORE	ITEM NO.	PRICE
5 PC SET Sizes #1 to #5 	HSS - Plain - 60°	DS-CDC-5	20.16
	Titanium Nitride Coated - Plain - 60°	DS-CDCT-5	46.48
	Cobalt - Plain - 60°	DS-CDCC-5	57.18
5 PC SET Sizes #11 to #15	HSS - Bell - 60°	DS-CDC-5B	23.80

COMBINED DRILL & COUNTERSINKS - LONG LENGTH

ICS USA

GENERAL PURPOSE

118° POINT

PLAIN TYPE



60° INCLUDED ANGLE

High Speed Steel Long Length Combined Drills & Countersinks are designed to provide access to areas where standard lengths will not reach.

SIZE	BODY DIA.	DRILL DIA.	OVERALL LENGTH	ITEM NO.	PRICE
1	1/8	3/64	3	CDCL#103	12.60
1	1/8	3/64	4	CDCL#104	13.36
1	1/8	3/64	5	CDCL#105	18.46
1	1/8	3/64	6	CDCL#106	24.12
2	3/16	5/64	4	CDCL#204	14.62
2	3/16	5/64	5	CDCL#205	18.46
2	3/16	5/64	6	CDCL#206	24.30
3	1/4	7/64	4	CDCL#304	15.34
3	1/4	7/64	5	CDCL#305	20.12
3	1/4	7/64	6	CDCL#306	24.30
4	5/16	1/8	4	CDCL#404	16.76
4	5/16	1/8	5	CDCL#405	21.64

SIZE	BODY DIA.	DRILL DIA.	OVERALL LENGTH	ITEM NO.	PRICE
4	5/16	1/8	6	CDCL#406	24.74
4-1/2	3/8	9/64	4	CDCL#454	18.46
4-1/2	3/8	9/64	5	CDCL#455	22.00
4-1/2	3/8	9/64	6	CDCL#456	26.36
5	7/16	3/16	4	CDCL#504	20.70
5	7/16	3/16	5	CDCL#505	24.74
5	7/16	3/16	6	CDCL#506	27.96
6	1/2	7/32	5	CDCL#605	26.08
6	1/2	7/32	6	CDCL#606	31.42
7	5/8	1/4	5	CDCL#705	51.58
7	5/8	1/4	6	CDCL#706	58.52
8	3/4	5/16	6	CDCL#806	63.04

COMBINED DRILL & COUNTERSINKS - METRIC

ICS WIS

GENERAL PURPOSE

118° POINT

PLAIN TYPE



60° INCLUDED ANGLE

High Speed Steel Plain Type Metric Combined Drill and Countersinks are designed to produce accurate center holes in components which require machining between centers.

SIZE	BODY DIA.	DRILL DIA.	DRILL LENGTH	OVERALL LENGTH	ITEM NO.	PRICE	PKG. QTY.
1.00	3.15	1.00	1.00	33.50	CDCM01.00	CALL	10
1.25	3.15	1.25	1.25	33.50	CDCM01.25	FOR	10
1.60	4.00	1.60	1.60	37.50	CDCM01.60	PRICE	10
2.00	5.00	2.00	2.00	42.00	CDCM02.00	3.04	10
2.50	6.30	2.50	2.50	47.00	CDCM02.50	3.76	10
3.15	8.00	3.15	3.15	52.00	CDCM03.15	4.40	10
4.00	10.00	4.00	4.00	59.00	CDCM04.00	6.72	10
5.00	12.50	5.00	5.00	66.00	CDCM05.00	9.54	5
6.30	16.00	6.30	6.30	74.00	CDCM06.30	15.86	5
8.00	20.00	8.00	8.00	83.00	CDCM08.00	30.66	1
10.00	25.00	10.00	10.00	103.00	CDCM10.00	44.40	1

PREMIUM (10% COBALT) MICROGRAIN CARBIDE
SOLID CARBIDE COMBINED DRILL & COUNTERSINKS

ICS USA

GENERAL PURPOSE

118° POINT

PLAIN
TYPE



INCLUDED ANGLES
60° - 82° - 90°

Solid Carbide Plain Type Combined Drill & Countersinks are designed to produce accurate center holes in components which require machining between centers. Sizes #0 to #000 are often referred to as Missile & Aircraft Series.

BODY SIZE	DRILL DIA.	DRILL DIA.	DRILL LENGTH	OVERALL LENGTH	UNCOATED			PRICE	TiN COATED		PKG. QTY.
					60°	82°	120°		60°	PRICE	
00	1/8	.025	.025	1-1/2	SCCDC060#00	SCCDC082#00	SCCDC090#00	23.22	SCCDC060T#00	28.50	1
0	1/8	1/32	1/32	1-1/2	SCCDC060#0	SCCDC082#0	SCCDC090#0	21.94	SCCDC060T#0	27.20	1
1	1/8	3/64	3/64	1-1/2	SCCDC060#01	SCCDC082#01	SCCDC090#01	18.60	SCCDC060T#01	26.60	1
2	3/16	5/64	5/64	1-7/8	SCCDC060#02	SCCDC082#02	SCCDC090#02	28.96	SCCDC060T#02	35.64	1
3	1/4	7/64	7/64	2	SCCDC060#03	SCCDC082#03	SCCDC090#03	34.54	SCCDC060T#03	47.06	1
4	5/16	1/8	1/8	2-1/8	SCCDC060#04	SCCDC082#04	SCCDC090#04	47.36	SCCDC060T#04	65.42	1
5	7/16	3/16	3/16	2-3/4	SCCDC060#05	SCCDC082#05	SCCDC090#05	71.80	SCCDC060T#05	97.68	1
6	1/2	7/32	7/32	3	SCCDC060#06	SCCDC082#06	SCCDC090#06	98.00	SCCDC060T#06	121.30	1
7	5/8	1/4	1/4	3-1/4	SCCDC060#07	SCCDC082#07	SCCDC090#07	265.60	SCCDC060T#07	320.42	1
8	3/4	5/16	5/16	3-1/2	SCCDC060#08	SCCDC082#08	SCCDC090#08	322.60	SCCDC060T#08	402.91	1

PREMIUM (10% COBALT) MICROGRAIN CARBIDE

SOLID CARBIDE COMBINED DRILL & COUNTERSINKS

ICS USA

GENERAL PURPOSE

118° POINT

PLAIN
TYPE



INCLUDED ANGLES
60° - 82° - 90°

LONG LENGTH

Solid Carbide Long Length Combined Drill & Countersinks are designed to provide access to areas where standard lengths will not reach.

BODY SIZE	DRILL DIA.	DRILL DIA.	DRILL LENGTH	OVERALL LENGTH	UNCOATED			PRICE	TiN COATED		PKG. QTY.
					60°	82°	120°		60°	PRICE	
1	1/8	3/64	3/64	4	SCCDCL060#01	SCCDCL082#01	SCCDCL090#01	CALL FOR PRICE	SCCDCL060T#01	CALL FOR PRICE	1
2	3/16	5/64	5/64	4	SCCDCL060#02	SCCDCL082#02	SCCDCL090#02		SCCDCL060T#02		1
3	1/4	7/64	7/64	4	SCCDCL060#03	SCCDCL082#03	SCCDCL090#03		SCCDCL060T#03		1
4	5/16	1/8	1/8	4	SCCDCL060#04	SCCDCL082#04	SCCDCL090#04		SCCDCL060T#04		1
5	7/16	3/16	3/16	6	SCCDCL060#05	SCCDCL082#05	SCCDCL090#05		SCCDCL060T#05		1
6	1/2	7/32	7/32	6	SCCDCL060#06	SCCDCL082#06	SCCDCL090#06		SCCDCL060T#06		1
7	5/8	1/4	1/4	6	SCCDCL060#07	SCCDCL082#07	SCCDCL090#07		SCCDCL060T#07		1
8	3/4	5/16	5/16	6	SCCDCL060#08	SCCDCL082#08	SCCDCL090#08		SCCDCL060T#08		1

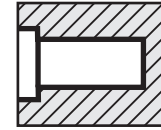
STEP DRILLS - 90° ANGLE

ICS USA

SPECIAL PURPOSE

118° POINT

High Speed Steel 90° Angle Step Drills are designed for drilling and counterboring 90° cap screw clearance holes in one operation, saving machine time and reducing set up time. They can be resharpened or modified for a special length of step and are available in jobber length or taper length drill styles.



For Drilling 90° Holes and Counterboring Cap Screw Clearance Holes

SCREW SIZE	MINOR DIA.	MAJOR DIA.	STEP LENGTH	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
#4	.136	7/32	3/8	7/32	2-1/2	3-3/4	SDJL90-#04	11.64
#5	.141	#1	3/8	#1	2-5/8	3-7/8	SDJL90-#05	12.44
#6	.150	1/4	1/2	1/4	2-3/4	4	SDJL90-#06	13.22
#8	.178	"L"	1/2	"L"	2-15/16	4-1/4	SDJL90-#08	15.18
#10	.204	"Q"	5/8	"Q"	3-7/16	4-3/4	SDJL90-#10	16.48
1/4	9/32	13/32	11/16	13/32	3-7/8	5-1/4	SDJL90-016	19.10
5/16	11/32	1/2	3/4	1/2	4-1/2	6	SDJL90-020	46.48
3/8	13/32	19/32	7/8	19/32	5-3/16	7-1/8	SDJL90-024	36.36
7/16	15/32	21/32	1	21/32	5-3/16	7-1/8	SDJL90-028	43.98
*1/2	17/32	25/32	1	25/32	3-1/4	5-1/8	SDJL90-032	50.66
*5/8	21/32	31/32	1	31/32	3-7/8	5-7/8	SDJL90-040	63.50

*Shorter than jobber length. • Reduced 1/2" shank available on screw sizes 3/8 to 5/8. (Add \$3.00)

STEP DRILLS - 45° ANGLE

ICS USA

SPECIAL PURPOSE

118° POINT

High Speed Steel 45° Angle Step Drills are designed for drilling 45° chamfered holes to be tapped in one operation. The chamfered hole ensures alignment of tap threads and should always be used with thread forming taps as they displace metal above the mouth of the hole. They can be resharpened or modified for a special length of step and are available in jobber length or taper length drill styles.



For Drilling 45° Chamfered Holes to be Tapped (to produce approx. 70° thread)

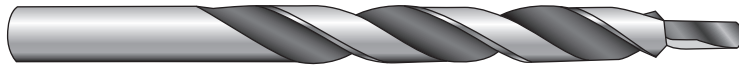
SCREW SIZE	MINOR DIA.	MAJOR DIA.	STEP LENGTH	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
#4-40	.089	.1285	3/8	.1285	1-5/8	2-3/4	SDJL45-#04-40	11.50
#5-40	.101	9/64	1/2	9/64	1-3/4	2-7/8	SDJL45-#05-40	12.30
#6-32	.109	5/32	1/2	5/32	2	3-1/8	SDJL45-#06-32	12.32
#8-32	.136	3/16	1/2	3/16	2-5/16	3-1/2	SDJL45-#08-32	12.62
#8-36	.136	3/16	1/2	3/16	2-5/16	3-1/2	SDJL45-#08-36	12.80
#10-24	.152	1/4	5/8	1/4	2-3/4	4	SDJL45-#10-24	13.60
#10-32	.161	1/4	5/8	1/4	2-3/4	4	SDJL45-#10-32	13.60
#12-24	.179	9/32	11/16	9/32	2-15/16	4-1/4	SDJL45-#10-24	15.58
1/4-20	.204	21/64	13/16	21/64	3-5/16	4-5/8	SDJL45-016-20	16.72
1/4-28	.218	21/64	13/16	21/64	3-5/16	4-5/8	SDJL45-016-28	16.72
5/16-18	.261	13/32	15/16	13/32	3-7/8	5-1/4	SDJL45-020-18	19.10
5/16-24	.272	13/32	15/16	13/32	3-7/8	5-1/4	SDJL45-020-24	19.10
3/8-16	.316	31/64	1	31/64	4-3/8	5-7/8	SDJL45-024-16	25.26
3/8-24	.339	31/64	1	31/64	4-3/8	5-7/8	SDJL45-024-24	25.26
7/16-14	.375	17/32	1-1/16	17/32	4-13/16	6-5/8	SDJL45-028-14	34.78
7/16-20	.390	17/32	1-1/16	17/32	4-13/16	6-5/8	SDJL45-028-20	34.78
1/2-13	.437	5/8	1-1/16	5/8	5-3/16	7-1/8	SDJL45-032-13	41.18
1/2-20	.452	5/8	1-1/16	5/8	5-3/16	7-1/8	SDJL45-032-20	41.18
5/8-11	.531	3/4	1-1/16	3/4	5-5/8	7-5/8	SDJL45-040-11	44.36

*Shorter than jobber length. • Reduced 1/2" shank available on screw sizes 3/8 to 5/8. (Add \$3.00)

STEP DRILLS - 82° ANGLE

ICS USA
SPECIAL PURPOSE
118° POINT

High Speed Steel 82° Angle Step Drills are designed for drilling and countersinking 82° flat head machine screw clearance holes in one operation, saving machine time and reducing set up time. They can be resharpened or modified for a special length of step and are available in jobber length or taper length drill styles.



For Drilling and Countersinking 82° Flat Head Machine Screw Clearance Holes

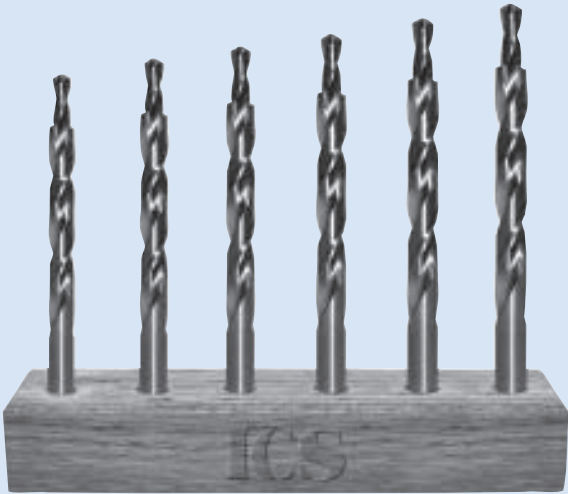
SCREW SIZE	MINOR DIA.	MAJOR DIA.	STEP LENGTH	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
#4	.116	15/64	3/8	15/64	2-5/8	3-7/8	SDJL82-#04	13.10
#5	.128	"F"	3/8	"F"	2-7/8	4-1/8	SDJL82-#05	13.14
#6	.142	9/32	1/2	9/32	2-15/16	4-1/4	SDJL82-#06	13.36
#8	.169	"Q"	1/2	"Q"	3-7/16	4-3/4	SDJL82-#08	16.64
#10	.196	"W"	5/8	"W"	3-3/4	5-1/8	SDJL82-#10	18.50
1/4	.257	1/2	11/16	1/2	4-1/2	6	SDJL82-016	22.52
5/16	.320	5/8	3/4	5/8	5-3/16	7-1/8	SDJL82-020	33.64
*3/8	.383	3/4	7/8	3/4	3-1/8	5	SDJL82-024	45.72
*7/16	.446	13/16	1	13/16	3-3/8	5-1/4	SDJL82-028	51.98
*1/2	.510	7/8	1	7/8	3-1/2	5-1/2	SDJL82-032	61.48

*Shorter than jobber length. • Reduced 1/2" shank available on screw sizes 5/16 to 1/2. (Add \$3.00)

HIGH SPEED STEEL STEP DRILL SETS

WOOD STAND

High Speed Steel 6 Piece Step Drill Sets contain #6 to 3/8 screw sizes and are available in 45°, 82°, and 90° step angles in jobber length and taper length drill styles.

DESCRIPTION	TYPE OF STEP DRILL	ITEM NO.	PRICE
6 PC STEP DRILL SET #6 To 3/8 	Jobber Length 45°	SDJLS45-6	87.22
	Jobber Length 82°	SDJLS82-6	145.04
	Jobber Length 90°	SDJLS90-6	121.58

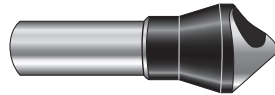
HIGH SPEED STEEL COUNTERSINKS - ZERO FLUTE (DEBURRING)

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



#0 DOUBLE END -DE

AXIAL RELIEF

High Speed Steel Zero Flute Countersinks are designed for countersinking and deburring operations. The single cutting edge removes stock quickly and prevents chatter. They can be resharpened by using an Axial Relieving Fixture or by using a small mounted grinding wheel and inserting it into the hole. Also known as Anti-Vibration Through-Hole Countersinks.

SIZE NO.	SHANK DIA.	OVERALL LENGTH	HOLE SIZE RANGE		ITEM NO.				PRICE EACH
			LARGE DIA.	SMALL DIA.	60°	82°	90°	100°	
0	1/4	1-3/4	1/16	15/64	CSK060-#0	CSK082#0	CSK090-#0	CSK0100-#0	13.40
0	1/4	1-3/4	1/16	15/64	CSK060-#0-DE	CSK082-#0-DE	CSK090-#0-DE	CSK0100-#0-DE	12.94
1	1/4	1-3/4	5/32	13/32	CSK060-#01	CSK082-#01	CSK090-#01	CSK0100-#01	15.02
2	1/4	2	3/16	17/32	CSK060-#02	CSK082-#02	CSK090-#02	CSK0100-#02	16.20
3	1/2	2-3/4	5/16	25/32	CSK060-#03	CSK082-#03	CSK090-#03	CSK0100-#03	26.38
4	1/2	3	9/16	1-1/16	CSK060-#04	CSK082-#04	CSK090-#04	CSK0100-#04	40.18
5	1/2	3-3/4	5/8	1-15/32	-	CSK082-#05	-	-	64.68
6	5/8	4	3/4	1-3/4	-	CSK082-#06	-	-	96.78
7	5/8	4-3/8	1	2	-	CSK082-#07	-	-	116.78
8	3/4	4-3/4	1-1/4	2-1/2	-	CSK082-#08	-	-	137.54

DE = Double End

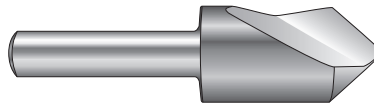
HIGH SPEED STEEL COUNTERSINKS - SINGLE FLUTE

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



RADIAL RELIEF

High Speed Steel Single Flute Countersinks should be used when multi-flute countersinks chatter or the hole is too small for a multi-flute countersink to enter. Use for machine and portable work when operating at higher speeds. Drilled hole should be at least 10% of the diameter of countersink. Single flute countersinks are available with 60 degree, 82 degree, 90 degree, 100 degree, 110 degree and 120 degree point angles. They are also available in 5 piece sets and 6" length.

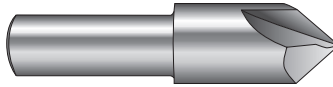
SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.						PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE						
			30° / 60°	41° / 82°	45° / 90°	50° / 100°	55° / 110°	60° / 120°	
1/8	1/8	1-1/2	CSK160-008	CSK182-008	CSK190-008	CSK100-008	CSK110-008	CSK120-008	6.72
3/16	3/16	1-1/2	CSK160-012	CSK182-012	CSK190-012	CSK100-012	CSK110-012	CSK120-012	6.72
1/4	3/16	1-1/2	CSK160-016	CSK182-016	CSK190-016	CSK100-016	CSK110-016	CSK120-016	6.72
5/16	1/4	1-7/8	CSK160-020	CSK182-020	CSK190-020	CSK100-020	CSK110-020	CSK120-020	7.26
3/8	1/4	1-7/8	CSK160-024	CSK182-024	CSK190-024	CSK100-024	CSK110-024	CSK120-024	8.58
1/2	1/4	2	CSK160-032	CSK182-032	CSK190-032	CSK100-032	CSK110-032	CSK120-032	12.32
1/2	3/8	2	CSK160-032A	CSK182-032A	CSK190-032A	CSK100-032A	CSK110-032A	CSK120-032A	12.32
5/8	3/8	2-1/4	CSK160-040	CSK182-040	CSK190-040	CSK100-040	-	-	17.14
3/4	3/8	2-1/2	CSK160-048	CSK182-048	CSK190-048	CSK100-048	CSK110-048	CSK120-048	24.08
3/4	1/2	2-1/2	CSK160-048A	CSK182-048A	CSK190-048A	CSK100-048A	CSK110-048A	CSK120-048A	22.96
7/8	1/2	2-1/2	CSK160-056	CSK182-056	CSK190-056	CSK100-056	CSK110-056	CSK120-056	33.28
1	1/2	2-3/4	CSK160-100	CSK182-100	CSK190-100	CSK100-100	CSK110-100	-	36.44
1-1/4	1/2	3-3/8	CSK160-116	CSK182-116	CSK190-116	CSK100-116	CSK110-116	-	62.40
1-1/4	3/4	3-3/8	CSK160-116A	CSK182-116A	CSK190-116A	CSK100-116A	CSK110-116A	-	62.40
1-1/2	1/2	3-1/2	CSK160-132	CSK182-132	CSK190-132	CSK100-132	-	-	87.36
1-1/2	3/4	3-1/2	CSK160-132A	CSK182-132A	CSK190-132A	CSK100-132A	CSK110-132A	-	78.40
2	1/2	4	CSK160-200	CSK182-200	CSK190-200	CSK100-200	-	-	151.46
2	3/4	4	CSK160-200A	CSK182-200A	CSK190-200A	CSK100-200A	CSK110-200A	-	142.50
2-1/2	3/4	5	-	-	CSK190-232	-	-	-	313.60
3	3/4	5-1/4	CSK160-300	-	CSK190-300	-	-	-	392.00

HIGH SPEED STEEL COUNTERSINKS - THREE FLUTE (CENTER REAMER)

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT
SHANKRADIAL
RELIEF

High Speed Steel Three Flute Countersinks should be used at a slower (1/2 to 2/3 the speed used for drilling) speed. Recommended for machine and portable work. Because of their centering ability, they are widely used in portable applications. They are also available in 5 piece sets.

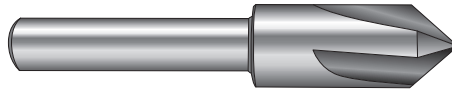
SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.						PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE						
			30° / 60°	41° / 82°	45° / 90°	50° / 100°	55° / 110°	60° / 120°	
1/4	3/16	1-1/2	CSK360-016	CSK382-016	CSK390-016	CSK300-016	CSK310-016	CSK320-016	6.72
5/16	1/4	1-7/8	CSK360-020	CSK382-020	CSK390-020	CSK300-020	CSK310-020	CSK320-020	7.26
3/8	1/4	1-7/8	CSK360-024	CSK382-024	CSK390-024	CSK300-024	CSK310-024	CSK320-024	8.58
1/2	1/4	2	CSK360-032	CSK382-032	CSK390-032	CSK300-032	-	-	12.32
1/2	3/8	2	CSK360-032A	CSK382-032A	CSK390-032A	CSK300-032A	CSK310-032A	CSK320-032A	12.32
5/8	3/8	2-1/4	CSK360-040	CSK382-040	CSK390-040	CSK300-040	CSK310-040	CSK320-040	17.14
3/4	3/8	2-1/2	CSK360-048A	CSK382-048A	CSK390-048A	CSK300-048A	-	-	24.08
3/4	1/2	2-1/2	CSK360-048	CSK382-048	CSK390-048	CSK300-048	CSK310-048	CSK320-048	22.96
7/8	1/2	2-1/2	CSK360-056	CSK382-056	CSK390-056	CSK300-056	CSK310-056	CSK320-056	33.28
1	1/2	2-3/4	CSK360-100	CSK382-100	CSK390-100	CSK300-100	-	-	36.44
1-1/4	1/2	3-3/8	CSK360-116	CSK382-116	CSK390-116	-	-	-	62.40
1-1/2	1/2	3-1/2	CSK360-132	CSK382-132	CSK390-132	-	-	-	87.36
1-1/2	3/4	3-1/2	CSK360-132A	CSK382-132A	CSK390-132A	CSK300-132A	-	-	78.40
2	3/4	4	CSK360-200A	CSK382-200A	CSK390-200A	CSK300-200A	-	-	142.50

HIGH SPEED STEEL COUNTERSINKS - FOUR FLUTE (MACHINE)

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT
SHANKRADIAL
RELIEF

High Speed Steel Four Flute Machine Countersinks have a longer shank for use in Turret lathes and for screw machine work. They are also available in 5 piece sets.

SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.			PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE			
			30° / 60°	41° / 82°	45° / 90°	
1/2	1/2	3-7/8	CSK460-032	CSK482-032	CSK490-032	22.72
5/8	1/2	4	CSK460-040	CSK482-040	CSK490-040	26.38
3/4	1/2	4-1/8	CSK460-048	CSK482-048	CSK490-048	38.68
7/8	1/2	4-1/4	CSK460-056	CSK482-056	CSK490-056	42.38
1	1/2	4-3/8	CSK460-100	CSK482-100	CSK490-100	48.36
1-1/4	1/2	5	CSK460-116	CSK482-116	CSK490-116	63.84
1-1/2	1/2	5-3/8	CSK460-132	CSK482-132	CSK490-132	86.24

Countersink sets in wood stands can be found on page 186.

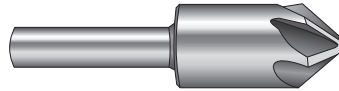
HIGH SPEED STEEL COUNTERSINKS - SIX FLUTE (CENTER REAMER)

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



RADIAL RELIEF

High Speed Steel Six Flute Countersinks are designed for fast shearing and chatterless cuts. They produce an exceptionally fine finish and can be run at maximum speed. The six cutting edges quickly center in hole and produce a smaller chip load for chatterless machining. They are also available in 5 piece sets and 6" length.

SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.					PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE					
			30° / 60°	41° / 82°	45° / 90°	50° / 100°	60° / 120°	
1/8	1/8	1-1/2	CSK660-008	CSK682-008	CSK690-008	CSK600-008	CSK620-008	8.02
3/16	3/16	1-1/2	CSK660-012	CSK682-012	CSK690-012	CSK600-012	CSK620-012	8.02
1/4	1/4	2	CSK660-016	CSK682-016	CSK690-016	CSK600-016	CSK620-016	8.48
5/16	1/4	2	CSK660-020	CSK682-020	CSK690-020	CSK600-020	CSK620-020	9.26
3/8	1/4	2	CSK660-024	CSK682-024	CSK690-024	CSK600-024	CSK620-024	10.96
1/2	1/4	2	CSK660-032	CSK682-032	CSK690-032	CSK600-032	CSK620-032	13.62
1/2	3/8	2	CSK660-032A	CSK682-032A	CSK690-032A	CSK600-032A	CSK620-032A	13.62
5/8	3/8	2-3/4	CSK660-040	CSK682-040	CSK690-040	CSK600-040	CSK620-040	19.44
3/4	1/2	2-3/4	CSK660-048	CSK682-048	CSK690-048	CSK600-048	CSK620-048	28.68
7/8	1/2	2-3/4	CSK660-056	CSK682-056	CSK690-056	CSK600-056	CSK620-056	34.86
1	1/2	2-3/4	CSK660-100	CSK682-100	CSK690-100	CSK600-100	CSK620-100	41.84
1-1/4	1/2	3-3/8	CSK660-116	CSK682-116	CSK690-116	CSK600-116	CSK620-116	62.20
1-1/2	3/4	3-1/2	CSK660-132	CSK682-132	CSK690-132	CSK600-132	CSK620-132	88.54
1-3/4	3/4	4-1/4	CSK660-148	CSK682-148	CSK690-148	CSK600-148	CSK620-148	117.28
2	3/4	4-3/8	CSK660-200	CSK682-200	CSK690-200	CSK600-200	CSK620-200	136.94

HIGH SPEED STEEL COUNTERSINK SETS

WOOD STANDS

DESCRIPTION	ITEM NO.	INCLUDED ANGLE	PRICE	
5 PC COUNTERSINK SETS				
<p>SIZES IN SETS</p> <p>1/4", 3/8", 1/2", 5/8", 3/4"</p> <p>1/2", 5/8", 3/4", 7/8", 1</p> <p>#0, 1, 2, 3, 4</p> <p>Custom sets are available Inquire for pricing.</p>	SINGLE FLUTE			
	→ CSKS 160-5	60°	78.36	
	CSKS 182-5	82°	78.36	
	CSKS 190-5	90°	78.36	
	CSKS 100-5	100°	78.36	
	CSKS 110-5	110°	78.36	
	CSKS 120-5	120°	78.36	
	THREE FLUTE (CENTER REAMER)			
	CSKS 360-5	60°	78.36	
	CSKS 382-5	82°	78.36	
	CSKS 390-5	90°	78.36	
	CSKS 300-5	100°	78.36	
	CSKS 310-5	110°	78.36	
	CSKS 320-5	120°	78.36	
	SIX FLUTE (CHATTERLESS)			
CSKS 660-5	60°	91.78		
CSKS 682-5	82°	91.78		
CSKS 690-5	90°	91.78		
CSKS 600-5	100°	91.78		
→ CSKS 620-5	120°	91.78		
FOUR FLUTE (MACHINE)				
→ CSKS 460-5	60°	188.28		
CSKS 482-5	82°	188.28		
→ CSKS 490-5	90°	188.28		
ZERO FLUTE (DEBURRING)				
→ CSKS 060-5	60°	76.56		
CSKS 082-5	82°	76.56		
→ CSKS 090-5	90°	76.56		

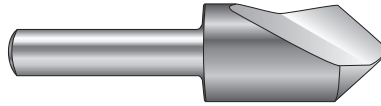
14 COUNTERSINKS - SINGLE FLUTE - SOLID CARBIDE

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



ECCENTRIC RELIEF

Solid Carbide Single Flute Countersinks are used for softer materials.

SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.					PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE					
			30° / 60°	41° / 82°	45° / 90°	50° / 100°	60° / 120°	
1/8	1/8	1-1/2	SCCSK160-008	SCCSK182-008	SCCSK190-008	SCCSK100-008	SCCSK120-008	11.50
3/16	3/16	2	SCCSK160-012	SCCSK182-012	SCCSK190-012	SCCSK100-012	SCCSK120-012	18.20
1/4	1/4	2	SCCSK160-016	SCCSK182-016	SCCSK190-016	SCCSK100-016	SCCSK120-016	20.10
3/8	1/4	2-3/8	SCCSK160-024	SCCSK182-024	SCCSK190-024	SCCSK100-024	SCCSK120-024	35.24
1/2	1/4	2-1/2	SCCSK160-032	SCCSK182-032	SCCSK190-032	SCCSK100-032	SCCSK120-032	46.92
5/8	3/8	3	SCCSK160-040	SCCSK182-040	SCCSK190-040	SCCSK100-040	SCCSK120-040	63.20
3/4	1/2	3	SCCSK160-048	SCCSK182-048	SCCSK190-048	SCCSK100-048	SCCSK120-048	93.62
1	1/2	3	SCCSK160-100	SCCSK182-100	SCCSK190-100	SCCSK100-100	SCCSK120-100	148.38
1-1/4	3/4	3-1/4	SCCSK160-116	SCCSK182-116	SCCSK190-116	SCCSK100-116	SCCSK120-116	266.12
1-1/2	3/4	3-1/2	SCCSK160-132	SCCSK182-132	SCCSK190-132	SCCSK100-132	SCCSK120-132	381.96

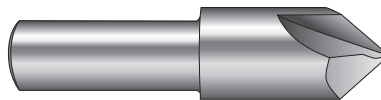
COUNTERSINKS - THREE FLUTE - SOLID CARBIDE

ICS USA

GENERAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



ECCENTRIC RELIEF

Solid Carbide Three Flute Countersinks are used for general purpose work.

SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.					PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE					
			30° / 60°	41° / 82°	45° / 90°	50° / 100°	60° / 120°	
1/8	1/8	1-1/2	SCCSK160-008	SCCSK182-008	SCCSK190-008	SCCSK100-008	SCCSK120-008	11.50
3/16	3/16	2	SCCSK160-012	SCCSK182-012	SCCSK190-012	SCCSK100-012	SCCSK120-012	18.20
1/4	1/4	2	SCCSK160-016	SCCSK182-016	SCCSK190-016	SCCSK100-016	SCCSK120-016	20.10
3/8	1/4	2-3/8	SCCSK160-024	SCCSK182-024	SCCSK190-024	SCCSK100-024	SCCSK120-024	35.24
1/2	1/4	2-1/2	SCCSK160-032	SCCSK182-032	SCCSK190-032	SCCSK100-032	SCCSK120-032	46.92
5/8	3/8	3	SCCSK160-040	SCCSK182-040	SCCSK190-040	SCCSK100-040	SCCSK120-040	63.20
3/4	1/2	3	SCCSK160-048	SCCSK182-048	SCCSK190-048	SCCSK100-048	SCCSK120-048	93.62
1	1/2	3	SCCSK160-100	SCCSK182-100	SCCSK190-100	SCCSK100-100	SCCSK120-100	148.38
1-1/4	3/4	3-1/4	SCCSK160-116	SCCSK182-116	SCCSK190-116	SCCSK100-116	SCCSK120-116	266.12
1-1/2	3/4	3-1/2	SCCSK160-132	SCCSK182-132	SCCSK190-132	SCCSK100-132	SCCSK120-132	381.96

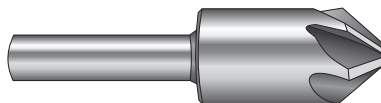
COUNTERSINKS - SIX FLUTE - SOLID CARBIDE

ICS USA

HEAVY DUTY

RIGHT HAND CUT

STRAIGHT SHANK



RADIAL RELIEF

Solid Carbide Six Flute Countersinks are used for hardened steels and metals.

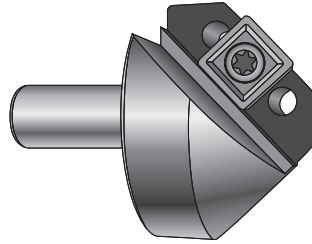
SIZE NO.	SHANK DIA.	OVERALL LENGTH	ITEM NO.					PRICE EACH
			CENTERLINE ANGLE / INCLUDED ANGLE					
			30° / 60°	41° / 82°	45° / 90°	50° / 100°	60° / 120°	
1/8	1/8	1-1/2	SCCSK160-008	SCCSK182-008	SCCSK190-008	SCCSK100-008	SCCSK120-008	11.50
3/16	3/16	2	SCCSK160-012	SCCSK182-012	SCCSK190-012	SCCSK100-012	SCCSK120-012	18.20
1/4	1/4	2	SCCSK160-016	SCCSK182-016	SCCSK190-016	SCCSK100-016	SCCSK120-016	20.10
3/8	1/4	2-3/8	SCCSK160-024	SCCSK182-024	SCCSK190-024	SCCSK100-024	SCCSK120-024	35.24
1/2	1/4	2-1/2	SCCSK160-032	SCCSK182-032	SCCSK190-032	SCCSK100-032	SCCSK120-032	46.92
5/8	3/8	3	SCCSK160-040	SCCSK182-040	SCCSK190-040	SCCSK100-040	SCCSK120-040	63.20
3/4	1/2	3	SCCSK160-048	SCCSK182-048	SCCSK190-048	SCCSK100-048	SCCSK120-048	93.62
1	1/2	3	SCCSK160-100	SCCSK182-100	SCCSK190-100	SCCSK100-100	SCCSK120-100	148.38
1-1/4	3/4	3-1/4	SCCSK160-116	SCCSK182-116	SCCSK190-116	SCCSK100-116	SCCSK120-116	266.12
1-1/2	3/4	3-1/2	SCCSK160-132	SCCSK182-132	SCCSK190-132	SCCSK100-132	SCCSK120-132	381.96

CARBIDE INSERT INDEXABLE COUNTERSINKS

ICS **WIS**

HEAVY DUTY

POSITIVE RAKE



60°, 82°, 90°
POINT ANGLE

Indexable Countersinks are designed with a positive rake for smooth cutting without chatter. No tool resharpener needed. Uses standard square or triangle inserts that come with countersink.

CUTTER BODY DIA.		SHANK	INSERTS	60° CSK	82° CSK	90° CSK	PRICE
MIN	MAX	DIA.	USED	ITEM NO.	ITEM NO.	ITEM NO.	
1/8	1/2	3/8	TCMT321	ICSK060-032	ICSK082-032	ICSK090-032	25.24
1/4	3/4	1/2	TCMT321	ICSK060-048	ICSK082-048	ICSK090-048	29.38
1/2	1-3/4	1/2	SCMT433	ICSK060-148	ICSK082-148	ICSK090-148	37.62
1-1/4	2-1/2	3/4	SCMT433	ICSK060-232	ICSK082-232	ICSK090-232	46.12

CARBIDE (INDEXABLE) INSERTS

ICS **WIS**

SPECIAL PURPOSE


PRECISION GROUND

For use with ICS Indexable Countersinks. Choose a C6 or Titanium Nitride coated.

INSERT STYLE	GRADE	RADIUS	IC	ITEM NO.	PRICE
TRIANGLE	C-6	1/64	3/8	I-TCMT321C6	7.66
	TiN Coat			I-TCMT321T6	9.34
SQUARE	C-6	3/64	3/8	I-SCMT433C6	13.38
	TiN Coat			I-SCMT433T6	16.06

CARBIDE INSERT INDEXABLE COUNTERSINK SETS

WOOD CASE

DESCRIPTION	POINT ANGLE	ITEM NO.	PRICE
3 PC INDEXABLE COUNTERSINK SET (NOT ILLUSTRATED)	60°	ICSKS060-3	124.30
	82°	ICSKS082-3	124.30
	90°	ICSKS090-3	124.30
4 PC INDEXABLE COUNTERSINK SET  SIZES 1/2, 3/4, 1-3/4, 2-1/2	60°	ICSKS060-4	152.08
	82°	ICSKS082-4	152.08
	90°	ICSKS090-4	152.08

TOOL STEEL

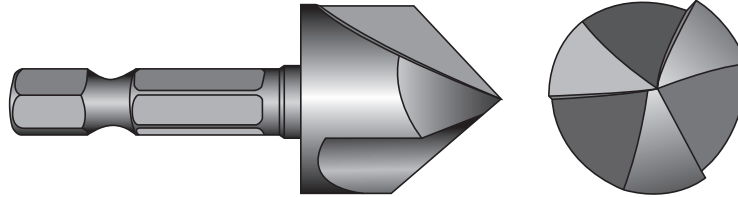
COUNTERSINKS - THREE FLUTE (QUICK CHANGE)

ICS WIS

GENERAL PURPOSE

RIGHT HAND CUT

QUICK CHANGE
1/4" HEX SHANK



82°
POINT ANGLE

Three Flute Quick Change Countersinks fit into a 1/4" hex power driver or any 3-jaw style power drill chuck. Used to countersink soft materials, plastic, wood, etc... Available with 82 degree point angle.

SIZE	OVERALL LENGTH	ITEM NO.	PRICE
1/4	2"	CSKQC382-016	2.00
3/8	2"	CSKQC382-024	2.20
1/2	2"	CSKQC382-032	2.40
5/8	2"	CSKQC382-040	2.90
3/4	2"	CSKQC382-048	3.40

TOOL STEEL

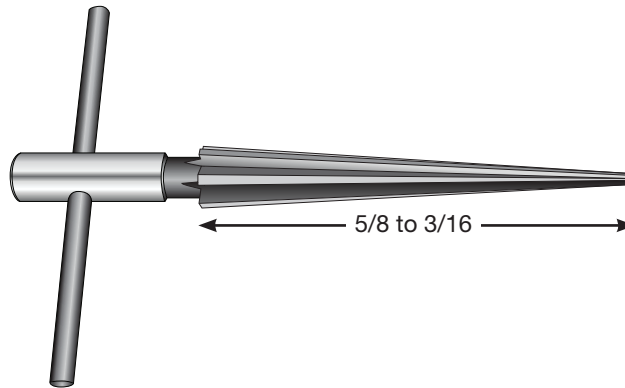
REPAIRMAN'S TAPER REAMER

ICS WIS

GENERAL PURPOSE

60° POINT

T-HANDLE
SHANK



STRAIGHT
FLUTE

Repairman's Taper Reamers are designed for removing burrs from small holes, tubing, etc... They are also used to enlarge and countersink holes in soft metals, plastics, and similar materials. Used by plumbers, mechanics, electricians, and machinists. Not for use in machine power tools.

POINT DIA.	LARGE DIA.	LENGTH OF CUT	OVERALL LENGTH	SHANK DIA.	FLUTE END STYLE	ITEM NO.	PRICE
3/16	5/8	4-1/4	6	12MM (.4724)	60° POINT	RTR040	10.00

HIGH SPEED STEEL COUNTERSINKS - SINGLE FLUTE - LONG REACH

ICS USA

SPECIAL PURPOSE

RIGHT HAND CUT

EXTRA LENGTH
STRAIGHT SHANK

FAST CUT
60°, 82°, 90° & 100° POINT ANGLES

ECCENTRIC
RELIEF



High Speed Steel Long-Reach (Extended Length) Single Flute Countersinks are used for difficult to reach tool and die work. The single flute is designed for chamfering and deburring holes too small for multi-flute countersinks.

SIZE	SHANK DIAMETER	OVERALL LENGTH	ITEM NO.				PRICE
			60°	82°	90°	100°	
1/4	1/4	6	CSKXL160-016	CSKXL182-016	CSKXL190-016	CSKXL100-016	18.72
5/16	1/4	6	CSKXL160-020	CSKXL182-020	CSKXL190-020	CSKXL100-020	19.26
3/8	1/4	6	CSKXL160-024	CSKXL182-024	CSKXL190-024	CSKXL100-024	22.00
1/2	3/8	6	CSKXL160-032	CSKXL182-032	CSKXL190-032	CSKXL100-032	30.00
5/8	3/8	6	CSKXL160-040	CSKXL182-040	CSKXL190-040	CSKXL100-040	35.50
3/4	1/2	6	CSKXL160-048	CSKXL182-048	CSKXL190-048	CSKXL100-048	39.90
1	1/2	6	CSKXL160-100	CSKXL182-100	CSKXL190-100	CSKXL100-100	59.00

Note: Special length countersinks are available. Inquire for pricing.

HIGH SPEED STEEL COUNTERSINKS - SIX FLUTE - LONG REACH

ICS USA

SPECIAL PURPOSE

RIGHT HAND CUT

EXTRA LENGTH
STRAIGHT SHANK

FAST CUT
60°, 82°, 90° & 100° POINT ANGLES

ECCENTRIC
RELIEF



High Speed Steel Long-Reach (Extended Length) Six Flute Countersinks are used for difficult to reach tool and die work requiring fine finish cuts. The six cutting edges quickly center in hole and produce a smaller chip load.

SIZE	SHANK DIAMETER	OVERALL LENGTH	ITEM NO.				PRICE
			60°	82°	90°	100°	
1/4	1/4	6	CSKXL660-016	CSKXL682-016	CSKXL690-016	CSKXL600-016	20.02
5/16	1/4	6	CSKXL660-020	CSKXL682-020	CSKXL690-020	CSKXL600-020	21.28
3/8	1/4	6	CSKXL660-024	CSKXL682-024	CSKXL690-024	CSKXL600-024	24.06
1/2	3/8	6	CSKXL660-032	CSKXL682-032	CSKXL690-032	CSKXL600-032	32.00
5/8	3/8	6	CSKXL660-040	CSKXL682-040	CSKXL690-040	CSKXL600-040	38.44
3/4	1/2	6	CSKXL660-048	CSKXL682-048	CSKXL690-048	CSKXL600-048	45.00
1	1/2	6	CSKXL660-100	CSKXL682-100	CSKXL690-100	CSKXL600-100	62.00

Note: Special length countersinks are available. Inquire for pricing.

HIGH SPEED STEEL CHUCKING REAMERS - STRAIGHT SHANK

ICS WIS

GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE

High Speed Steel Straight Shank Straight Flute Fractional Size Chucking Reamers are designed for general purpose reaming of most ferrous and non-ferrous metals. The cutting edge is ground with a 45° chamfer angle for easy hole entry. They are also known as Machine Reamers. Available in 29 piece sets.



HELICAL FLUTE

High Speed Steel Helical Flute Fractional Size Chucking Reamers are designed for reaming materials where additional shear is necessary and to improve chip removal in blind holes. The cutting edge is ground with a 45° chamfer angle for easy hole entry. They are also known as Machine Reamers. Available in 29 piece sets.

Fractional Sizes (Straight Shank) 3/64" To 2" Dia.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	HSS	
					STRAIGHT FLUTE	HELICAL FLUTE
					CRSF	CRHF
3/64	.0469	.0455	1/2	2-1/2	13.34	-
1/16	.0625	.0585	1/2	2-1/2	13.34	-
5/64	.0781	.0720	3/4	3	11.76	-
3/32	.0938	.0880	3/4	3	10.08	-
7/64	.1094	.1030	7/8	3-1/2	11.76	-
1/8	.1250	.1190	7/8	3-1/2	8.86	11.48
9/64	.1406	.1350	1	4	14.12	16.16
5/32	.1562	.1510	1	4	13.10	16.16
11/64	.1719	.1645	1-1/8	4-1/2	14.12	16.16
3/16	.1875	.1805	1-1/8	4-1/2	13.10	16.16
13/64	.2031	.1945	1-1/4	5	17.30	18.26
7/32	.2188	.2075	1-1/4	5	16.54	17.86
15/64	.2344	.2265	1-1/2	6	17.30	18.26
1/4	.2500	.2405	1-1/2	6	14.24	16.70
17/64	.2656	.2485	1-1/2	6	19.02	20.32
9/32	.2812	.2485	1-1/2	6	19.02	20.32
19/64	.2969	.2807	1-1/2	6	20.44	20.32
5/16	.3125	.2807	1-1/2	6	16.80	18.94
21/64	.3281	.2807	1-1/2	6	21.84	22.80
11/32	.3438	.2807	1-1/2	6	21.84	22.80
23/64	.3594	.3120	1-3/4	7	21.84	22.80
3/8	.3750	.3120	1-3/4	7	18.48	22.08
25/64	.3906	.3120	1-3/4	7	22.30	25.38
13/32	.4062	.3120	1-3/4	7	22.30	25.38
27/64	.4219	.3745	1-3/4	7	25.06	26.56
7/16	.4375	.3745	1-3/4	7	22.30	25.38
29/64	.4531	.3745	1-3/4	7	27.90	27.40
15/32	.4688	.3745	1-3/4	7	26.62	27.30
31/64	.4844	.4375	2	8	27.90	28.52
1/2	.5000	.4375	2	8	23.46	25.54
33/64	.5156	.4375	2	8	41.18	43.12
17/32	.5313	.4375	2	8	29.80	33.04
35/64	.5469	.4375	2	8	40.28	43.12
9/16	.5625	.4375	2	8	28.56	31.92
37/64	.5781	.4375	2	8	46.60	48.40
19/32	.5938	.4375	2	8	34.06	37.06
39/64	.6094	.5620	2-1/4	9	46.60	48.06
5/8	.6250	.5620	2-1/4	9	32.48	34.96
41/64	.6406	.5620	2-1/4	9	53.44	55.12

TOLERANCES

- 3/64 - 1/2 dia.: +.0002 -.0000"
- 33/64 - 5/8 dia.: +.0003 -.0000"
- 41/64 - 1-1/2 dia.: +.0001 -.0005"
- 1-9/16 - 2 dia.: +.0002 -.0006"

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	HSS	
					STRAIGHT FLUTE	HELICAL FLUTE
					CRSF	CRHF
21/32	.6562	.5620	2-1/4	9	39.04	41.62
43/64	.6719	.5620	2-1/4	9	61.16	41.62
11/16	.6875	.5620	2-1/4	9	37.86	40.88
45/64	.7031	.5620	2-1/4	9	61.16	40.88
23/32	.7188	.5620	2-1/4	9	44.14	47.22
47/64	.7344	.6245	2-1/2	9-1/2	47.82	47.22
3/4	.7500	.6245	2-1/2	9-1/2	40.32	46.26
49/64	.7656	.6245	2-1/2	9-1/2	66.08	46.26
25/32	.7812	.6245	2-1/2	9-1/2	50.18	53.10
51/64	.7969	.6245	2-1/2	9-1/2	66.08	53.10
13/16	.8125	.6245	2-1/2	9-1/2	49.24	53.10
53/64	.8281	.6245	2-1/2	9-1/2	76.16	53.10
27/32	.8438	.6245	2-1/2	9-1/2	56.96	59.64
55/64	.8594	.7495	2-5/8	10	76.16	59.94
7/8	.8750	.7495	2-5/8	10	54.56	59.66
57/64	.8906	.7495	2-5/8	10	84.00	59.66
29/32	.9062	.7495	2-5/8	10	62.84	66.08
59/64	.9219	.7495	2-5/8	10	84.00	66.08
15/16	.9375	.7495	2-5/8	10	61.58	66.08
61/64	.9531	.7495	2-5/8	10	93.92	66.08
31/32	.9688	.7495	2-5/8	10	70.54	74.48
63/64	.9844	.8745	2-3/4	10-1/2	93.92	74.48
1	1.0000	.8745	2-3/4	10-1/2	67.10	74.48
1-1/32	1.0312	.8745	2-3/4	10-1/2	83.28	74.48
1-1/16	1.0625	.8745	2-3/4	10-1/2	77.84	83.78
1-3/32	1.0938	.8745	2-7/8	11	94.96	83.78
1-1/8	1.1250	.8745	2-7/8	11	83.28	92.26
1-5/32	1.1562	.8745	2-7/8	11	103.18	92.26
1-3/16	1.1875	.9995	2-7/8	11	94.96	101.54
1-1/4	1.2500	.9995	3	11-1/2	103.18	112.68
1-5/16	1.3125	.9995	3	11-1/2	123.76	123.54
1-3/8	1.3750	.9995	3-1/4	12	123.76	135.50
1-7/16	1.4375	1.2495	3-1/2	12-1/2	149.52	146.70
1-1/2	1.5000	1.2495	3-1/2	12-1/2	144.48	156.80
1-9/16	1.5625	1.2495	3-1/2	12-1/2	201.60	-
1-5/8	1.6250	1.2495	3-1/2	13	224.46	-
1-11/16	1.6875	1.2495	3-1/2	13	245.70	-
1-3/4	1.7500	1.2495	4	13-1/2	258.32	-
1-7/8	1.8750	1.5000	4	14	297.04	-
2	2.0000	1.5000	4	14	315.84	-

NUMBER OF FLUTES

- 3/64 - 5/32 dia.: 4 Flutes
- 11/64 - 39/64 dia.: 6 Flutes
- 5/8 - 1-1/32 dia.: 8 Flutes
- 1-1/16 - 1-5/16 dia.: 10 Flute
- 1-3/8 - 1-1/2 dia.: 12 Flutes
- 1-9/16 - 1-7/8 dia.: 14 Flutes
- 2" dia.: 16 Flutes

HIGH SPEED STEEL CHUCKING REAMERS - STRAIGHT SHANK

ICS WIS

GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE

High Speed Steel Straight Shank Straight Flute Wire Gauge and Letter Size Chucking Reamers are designed for general purpose reaming of most ferrous and non-ferrous metals. The cutting edge is ground with a 45° chamfer angle for easy hole entry. They are also known as Machine Reamers. Available in 29 piece sets.

Wire Gauge Sizes (Straight Shank) #1 To #60 Dia.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
1	.2280	.2173	1-1/2	6	CRSF#01	14.70
2	.2210	.2173	1-1/2	6	CRSF#02	14.70
3	.2130	.2075	1-1/4	5	CRSF#03	14.70
4	.2090	.2016	1-1/4	5	CRSF#04	14.70
5	.2055	.2016	1-1/4	5	CRSF#05	14.70
6	.2040	.1945	1-1/4	5	CRSF#06	14.70
7	.2010	.1945	1-1/4	5	CRSF#07	14.70
8	.1990	.1895	1-1/4	5	CRSF#08	14.70
9	.1960	.1895	1-1/4	5	CRSF#09	14.70
10	.1935	.1860	1-1/4	5	CRSF#10	14.70
11	.1910	.1860	1-1/4	5	CRSF#11	14.70
12	.1890	.1805	1-1/8	4-1/2	CRSF#12	12.50
13	.1850	.1805	1-1/8	4-1/2	CRSF#13	13.76
14	.1820	.1755	1-1/8	4-1/2	CRSF#14	13.76
15	.1800	.1755	1-1/8	4-1/2	CRSF#15	13.76
16	.1770	.1704	1-1/8	4-1/2	CRSF#16	12.50
17	.1730	.1645	1-1/8	4-1/2	CRSF#17	12.50
18	.1695	.1595	1-1/8	4-1/2	CRSF#18	11.68
19	.1660	.1595	1-1/8	4-1/2	CRSF#19	11.68
20	.1610	.1530	1-1/8	4-1/2	CRSF#20	11.68
21	.1590	.1530	1-1/8	4-1/2	CRSF#21	11.56
22	.1570	.1510	1	4	CRSF#22	11.56
23	.1549	.1460	1	4	CRSF#23	11.56
24	.1520	.1460	1	4	CRSF#24	11.56
25	.1490	.1430	1	4	CRSF#25	11.56
26	.1470	.1430	1	4	CRSF#26	11.56
27	.1440	.1350	1	4	CRSF#27	11.72
28	.1405	.1350	1	4	CRSF#28	11.72
29	.1360	.1275	1	4	CRSF#29	11.56
30	.1285	.1190	7/8	3-1/2	CRSF#30	8.76

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
31	.1200	.1120	7/8	3-1/2	CRSF#31	9.78
32	.1160	.1120	7/8	3-1/2	CRSF#32	9.78
33	.1130	.1055	7/8	3-1/2	CRSF#33	9.78
34	.1110	.1055	7/8	3-1/2	CRSF#34	9.78
35	.1100	.1030	7/8	3-1/2	CRSF#35	9.78
36	.1055	.1030	7/8	3-1/2	CRSF#36	9.78
37	.1040	.0950	7/8	3-1/2	CRSF#37	9.78
38	.1010	.0950	7/8	3-1/2	CRSF#38	9.78
39	.0995	.0928	7/8	3-1/2	CRSF#39	9.78
40	.0980	.0928	7/8	3-1/2	CRSF#40	9.78
41	.0960	.0928	7/8	3-1/2	CRSF#41	9.78
42	.0935	.0880	3/4	3	CRSF#42	9.78
43	.0890	.0810	3/4	3	CRSF#43	9.78
44	.0860	.0810	3/4	3	CRSF#44	9.78
45	.0820	.0771	3/4	3	CRSF#45	9.78
46	.0810	.0771	3/4	3	CRSF#46	9.78
47	.0785	.0720	3/4	3	CRSF#47	9.78
48	.0760	.0720	3/4	3	CRSF#48	9.78
49	.0730	.0660	3/4	3	CRSF#49	9.78
50	.0700	.0660	3/4	3	CRSF#50	9.78
51	.0670	.0660	3/4	3	CRSF#51	11.08
52	.0635	.0585	1/2	2-1/2	CRSF#52	11.08
53	.0595	.0585	1/2	2-1/2	CRSF#53	11.56
54	.0550	.0510	1/2	2-1/2	CRSF#54	11.56
55	.0520	.0510	1/2	2-1/2	CRSF#55	11.56
56	.0465	.0455	1/2	2-1/2	CRSF#56	11.56
57	.0430	.0390	1/2	2-1/2	CRSF#57	11.56
58	.0420	.0390	1/2	2-1/2	CRSF#58	11.56
59	.0410	.0390	1/2	2-1/2	CRSF#59	11.56
60	.0400	.0390	1/2	2-1/2	CRSF#60	11.56

Letter Sizes (Straight Shank) "A" To "Z" Dia.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
A	.234	.2265	1-1/2	6	CRSF"A"	18.48
B	.238	.2329	1-1/2	6	CRSF"B"	18.48
C	.242	.2329	1-1/2	6	CRSF"C"	18.48
D	.246	.2329	1-1/2	6	CRSF"D"	18.48
E	.250	.2405	1-1/2	6	CRSF"E"	14.24
F	.257	.2485	1-1/2	6	CRSF"F"	12.88
G	.261	.2485	1-1/2	6	CRSF"G"	12.88
H	.266	.2485	1-1/2	6	CRSF"H"	20.72
I	.272	.2485	1-1/2	6	CRSF"I"	20.72
J	.277	.2485	1-1/2	6	CRSF"J"	20.72
K	.281	.2485	1-1/2	6	CRSF"K"	20.72
L	.290	.2792	1-1/2	6	CRSF"L"	20.72
M	.295	.2792	1-1/2	6	CRSF"M"	20.72

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
N	.302	.2792	1-1/2	6	CRSF"N"	20.72
O	.316	.2792	1-1/2	6	CRSF"O"	21.56
P	.323	.2792	1-1/2	6	CRSF"P"	21.96
Q	.332	.2792	1-1/2	6	CRSF"Q"	21.96
R	.339	.2792	1-1/2	6	CRSF"R"	21.96
S	.348	.3105	1-3/4	7	CRSF"S"	21.96
T	.358	.3105	1-3/4	7	CRSF"T"	21.96
U	.368	.3105	1-3/4	7	CRSF"U"	21.96
V	.377	.3105	1-3/4	7	CRSF"V"	24.58
W	.386	.3105	1-3/4	7	CRSF"W"	24.58
X	.397	.3105	1-3/4	7	CRSF"X"	24.58
Y	.404	.3105	1-3/4	7	CRSF"Y"	25.32
Z	.413	.3735	1-3/4	7	CRSF"Z"	25.32

TOLERANCES

1 - #60 dia.: +.0002 - .0000" • A - Z dia.: +.0002 - .0000"

HIGH SPEED STEEL CHUCKING REAMERS - COBALT (M42)

ICS

WIS

HEAVY DUTY

RIGHT HAND CUT

STRAIGHT SHANK

STRAIGHT FLUTE

Cobalt Chucking Reamers are designed for reaming tough steels, stainless steel, titanium, and inconel. They can be run about 25% faster than high speed steel and produce a smoother finished hole. Tool life is increased up to 500%.

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	ITEM NO.	PRICE
3/64	.0469	.0455	1/2	2-1/2	4	CRSFC003	14.70
1/16	.0625	.0585	1/2	2-1/2	4	CRSFC004	14.70
5/64	.0781	.0720	3/4	3	4	CRSFC005	14.70
3/32	.0938	.0880	3/4	3	4	CRSFC006	14.70
7/64	.1094	.1030	7/8	3-1/2	4	CRSFC007	14.70
1/8	.1250	.1190	7/8	3-1/2	4	CRSFC008	14.70
9/64	.1406	.1350	1	4	4	CRSFC009	14.70
5/32	.1562	.1510	1	4	4	CRSFC010	14.70
11/64	.1719	.1645	1-1/8	4-1/2	6	CRSFC011	14.70
3/16	.1875	.1805	1-1/8	4-1/2	6	CRSFC012	14.70
13/64	.2031	.1945	1-1/4	5	6	CRSFC013	14.70
7/32	.2188	.2075	1-1/4	5	6	CRSFC014	12.50
15/64	.2344	.2265	1-1/2	6	6	CRSFC015	13.76
1/4	.2500	.2405	1-1/2	6	6	CRSFC016	13.76
17/64	.2656	.2485	1-1/2	6	6	CRSFC017	13.76
9/32	.2812	.2485	1-1/2	6	6	CRSFC018	12.50
19/64	.2969	.2792	1-1/2	6	6	CRSFC019	12.50
5/16	.3125	.2792	1-1/2	6	6	CRSFC020	11.68
21/64	.3281	.2792	1-1/2	6	6	CRSFC021	11.68
11/32	.3438	.2792	1-1/2	6	6	CRSFC022	11.68
23/64	.3594	.3105	1-3/4	7	6	CRSFC023	11.56
3/8	.3750	.3105	1-3/4	7	6	CRSFC024	11.56
25/64	.3906	.3105	1-3/4	7	6	CRSFC025	11.56

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	ITEM NO.	PRICE
13/32	.4062	.3105	1-3/4	7	6	CRSFC026	46.36
27/64	.4219	.3730	1-3/4	7	6	CRSFC027	49.44
7/16	.4375	.3730	1-3/4	7	6	CRSFC028	43.54
29/64	.4531	.3730	1-3/4	7	6	CRSFC029	54.96
15/32	.4688	.3730	1-3/4	7	6	CRSFC030	54.96
31/64	.4844	.4355	2	8	6	CRSFC031	54.96
1/2	.5000	.4355	2	8	6	CRSFC032	47.66
17/32	.5312	.4355	2	8	6	CRSFC034	52.10
9/16	.5625	.4355	2	8	6	CRSFC036	52.10
19/32	.5938	.4355	2	8	6	CRSFC038	52.10
5/8	.6250	.5620	2-1/4	9	8	CRSFC040	60.80
21/32	.6562	.5620	2-1/4	9	8	CRSFC042	68.74
11/16	.6875	.5620	2-1/4	9	8	CRSFC044	68.74
23/32	.7188	.5620	2-1/4	9	8	CRSFC046	76.76
3/4	.7500	.6245	2-1/2	9-1/2	8	CRSFC048	76.76
25/32	.7812	.6245	2-1/2	9-1/2	8	CRSFC050	77.16
13/16	.8125	.6245	2-1/2	9-1/2	8	CRSFC052	83.20
27/32	.8438	.6245	2-1/2	9-1/2	8	CRSFC054	98.46
7/8	.8750	.7495	2-5/8	10	8	CRSFC056	100.76
29/32	.9062	.7495	2-5/8	10	8	CRSFC058	108.52
15/16	.9375	.7495	2-5/8	10	8	CRSFC060	108.52
31/32	.9688	.7495	2-5/8	10	8	CRSFC062	121.60
1	1.000	.8745	2-3/4	10-1/2	8	CRSFC100	122.76

HIGH SPEED STEEL CHUCKING REAMERS - CARBIDE TIPPED

ICS

WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK

STRAIGHT FLUTE

Carbide Tipped Chucking Reamers are designed for reaming highly abrasive materials and sizing holes that have work-hardened. They are also used when sand or scale is encountered in reaming holes in castings and other hard metals. Tolerance is +.0003" -.0000".

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
3/16	11/64	1-1/8	4-1/2	4	CTCRSF012	55.60
7/32	13/64	1-1/4	5	4	CTCRSF014	55.60
1/4	15/64	1-1/2	6	4	CTCRSF016	55.60
9/32	15/64	1-1/2	6	4	CTCRSF018	56.90
5/16	9/32	1-1/2	6	4	CTCRSF020	56.90
11/32	9/32	1-1/2	6	4	CTCRSF022	58.90
3/8	5/16	1-3/4	7	4	CTCRSF024	58.90
13/32	5/16	1-3/4	7	4	CTCRSF026	61.70
7/16	3/8	1-3/4	7	4	CTCRSF028	65.80
15/32	3/8	1-3/4	7	4	CTCRSF030	67.00
1/2	7/16	2	8	6	CTCRSF032	72.50
9/16	7/16	2	8	6	CTCRSF036	74.50

SIZE	DEC. EQUIV.	SHANK DIA.	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
5/8	9/16	2-1/4	9	6	CTCRSF012	77.20
11/16	9/16	2-1/4	9	6	CTCRSF014	78.60
3/4	5/8	2-1/2	9-1/2	6	CTCRSF016	82.20
13/16	5/8	2-1/2	9-1/2	6	CTCRSF018	85.00
7/8	3/4	2-5/8	10	6	CTCRSF020	88.30
15/16	3/4	2-5/8	10	6	CTCRSF022	103.00
1	7/8	2-3/4	10-1/2	6	CTCRSF024	108.00
1-1/8	7/8	2-7/8	11	6	CTCRSF026	126.00
1-1/4	1	3	11-1/2	6	CTCRSF028	140.00
1-3/8	1	3-1/4	12	6	CTCRSF030	156.00
1-1/2	1-1/4	3-1/2	12-1/2	6	CTCRSF032	182.00

* Inquire for other sizes not listed

HIGH SPEED STEEL CHUCKING REAMERS - DOWEL PIN SIZES

ICS

WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

High Speed Steel Dowel Pin Size Chucking Reamers are used to size holes in preparation for installing dowel pins. Listed below are two reamer sizes that can be used for each size dowel pin, depending on how tight a pin fit is required. Diameter tolerance is +.0000" -.0002". They are also available in 14 piece sets.

USE FOR		FLUTE	OVERALL	ITEM		USE FOR		FLUTE	OVERALL	ITEM	
SIZE	DOWEL PIN	LENGTH	LENGTH	NO.	PRICE	SIZE	DOWEL PIN	LENGTH	LENGTH	NO.	PRICE
.1230	1/8	7/8	3-1/2	CRSFDP.1230	17.44	.3120	5/16	1-1/2	6	CRSFDP.3120	23.10
.1247	1/8	7/8	3-1/2	CRSFDP.1247	17.44	.3730	3/8	1-3/4	7	CRSFDP.3730	28.74
.1855	3/16	1-1/8	4-1/2	CRSFDP.1855	17.92	.3745	3/8	1-3/4	7	CRSFDP.3745	28.74
.1870	3/16	1-1/8	4-1/2	CRSFDP.1870	17.92	.4355	7/16	1-3/4	7	CRSFDP.4355	28.74
.2480	1/4	1-1/2	6	CRSFDP.2480	20.06	.4370	7/16	1-3/4	7	CRSFDP.4370	28.74
.2495	1/4	1-1/2	6	CRSFDP.2495	20.06	.4980	1/2	2	8	CRSFDP.4980	35.72
.3105	5/16	1-1/2	6	CRSFDP.3105	23.10	.4995	1/2	2	8	CRSFDP.4995	35.72

HIGH SPEED STEEL CHUCKING REAMERS - OVER & UNDER SIZES

ICS

WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

High Speed Steel Oversize Chucking Reamers are +.001" and Undersize Chucking Reamers are -.001" from common fractional sizes of 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, and 1/2. They are also available in 14 piece sets.

OVERSIZE REAMERS

UNDERSIZE REAMERS

USE FOR		FLUTE	OVERALL	ITEM		USE FOR		FLUTE	OVERALL	ITEM	
SIZE	FRAC. SIZE	LENGTH	LENGTH	NO.	PRICE	SIZE	FRAC. SIZE	LENGTH	LENGTH	NO.	PRICE
.1260	1/8	7/8	3-1/2	CRSFOS.1260	17.44	.1240	1/8	7/8	3-1/2	CRSFUS.1260	17.44
.1885	3/16	1-1/8	4-1/2	CRSFOS.1885	17.92	.1865	3/16	1-1/8	4-1/2	CRSFUS.1885	17.92
.2510	1/4	1-1/2	6	CRSFOS.2510	20.06	.2490	1/4	1-1/2	6	CRSFUS.2510	20.06
.3135	5/16	1-1/2	6	CRSFOS.3135	23.10	.3115	5/16	1-1/2	6	CRSFUS.3135	23.10
.3760	3/8	1-3/4	7	CRSFOS.3760	28.74	.3740	3/8	1-3/4	7	CRSFUS.3760	28.74
.4385	7/16	1-3/4	7	CRSFOS.4385	28.74	.4365	7/16	1-3/4	7	CRSFUS.4385	28.74
.5010	1/2	2	8	CRSFOS.5010	35.72	.4990	1/2	2	8	CRSFUS.5010	35.72

HIGH SPEED STEEL

CHUCKING REAMERS - STANDARD DECIMAL SIZES

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

High Speed Steel Decimal Size Chucking Reamers are designed to remove a very small (.0005 to .001 inch) amount of metal when sizing a hole.

Standard Intermediate Decimal Sizes .1230 to .2830 Diameter

FLUTE SIZE	OVERALL LENGTH	NO. OF FLUTES	PRICE	
SIZE	LENGTH	FLUTES	CRSFDS	
.1230	7/8	3-1/2	6	17.44
.1240	7/8	3-1/2	6	17.44
.1245	7/8	3-1/2	6	17.44
.1247	7/8	3-1/2	6	17.44
.1255	7/8	3-1/2	6	17.44
.1260	7/8	3-1/2	6	17.44
.1265	7/8	3-1/2	6	17.44
.1270	7/8	3-1/2	6	17.44
.1280	7/8	3-1/2	6	17.44
.1290	7/8	3-1/2	6	17.44
.1295	7/8	3-1/2	6	17.44
.1300	7/8	3-1/2	6	17.44
.1370	1	4	6	17.92
.1375	1	4	6	17.92
.1380	1	4	6	17.92
.1400	1	4	6	17.92
.1410	1	4	6	17.92
.1415	1	4	6	17.92
.1420	1	4	6	17.92
.1520	1	4	6	17.92
.1560	1	4	6	17.92
.1580	1	4	6	17.92
.1670	1-1/8	4-1/2	6	17.92
.1720	1-1/8	4-1/2	6	17.92
.1740	1-1/8	4-1/2	6	17.92
.1750	1-1/8	4-1/2	6	17.92
.1760	1-1/8	4-1/2	6	17.92
.1770	1-1/8	4-1/2	6	17.92
.1810	1-1/8	4-1/2	6	17.92
.1820	1-1/8	4-1/2	6	17.92
.1840	1-1/8	4-1/2	6	17.92
.1845	1-1/8	4-1/2	6	17.92
.1850	1-1/8	4-1/2	6	17.92
.1855	1-1/8	4-1/2	6	17.92
.1860	1-1/8	4-1/2	6	17.92
.1865	1-1/8	4-1/2	6	17.92
.1870	1-1/8	4-1/2	6	17.92
.1875	1-1/8	4-1/2	6	17.92
.1880	1-1/8	4-1/2	6	17.92

FLUTE SIZE	OVERALL LENGTH	NO. OF FLUTES	PRICE	
SIZE	LENGTH	FLUTES	CRSFDS	
.1885	1-1/8	4-1/2	6	17.92
.1895	1-1/8	4-1/2	6	17.92
.1900	1-1/8	4-1/2	6	17.92
.1905	1-1/4	5	6	20.06
.1910	1-1/4	5	6	20.06
.1915	1-1/4	5	6	20.06
.1920	1-1/4	5	6	20.06
.1930	1-1/4	5	6	20.06
.1940	1-1/4	5	6	20.06
.1950	1-1/4	5	6	20.06
.1960	1-1/4	5	6	20.06
.1970	1-1/4	5	6	20.06
.1980	1-1/4	5	6	20.06
.1990	1-1/4	5	6	20.06
.2000	1-1/4	5	6	20.06
.2020	1-1/4	5	6	20.06
.2024	1-1/4	5	6	20.06
.2030	1-1/4	5	6	20.06
.2050	1-1/4	5	6	20.06
.2060	1-1/4	5	6	20.06
.2070	1-1/4	5	6	20.06
.2080	1-1/4	5	6	20.06
.2090	1-1/4	5	6	20.06
.2100	1-1/4	5	6	20.06
.2110	1-1/4	5	6	20.06
.2120	1-1/4	5	6	20.06
.2140	1-1/4	5	6	20.06
.2150	1-1/4	5	6	20.06
.2155	1-1/4	5	6	20.06
.2160	1-1/4	5	6	20.06
.2170	1-1/4	5	6	20.06
.2180	1-1/4	5	6	20.06
.2190	1-1/4	5	6	20.06
.2200	1-1/4	5	6	20.06
.2211	1-1/2	6	6	20.06
.2270	1-1/2	6	6	20.06
.2300	1-1/2	6	6	20.06
.2310	1-1/2	6	6	20.06
.2320	1-1/2	6	6	20.06

FLUTE SIZE	OVERALL LENGTH	NO. OF FLUTES	PRICE	
SIZE	LENGTH	FLUTES	CRSFDS	
.2340	1-1/2	6	6	20.06
.2350	1-1/2	6	6	20.06
.2360	1-1/2	6	6	20.06
.2370	1-1/2	6	6	20.06
.2380	1-1/2	6	6	20.06
.2390	1-1/2	6	6	20.06
.2400	1-1/2	6	6	20.06
.2410	1-1/2	6	6	20.06
.2420	1-1/2	6	6	20.06
.2430	1-1/2	6	6	20.06
.2440	1-1/2	6	6	20.06
.2450	1-1/2	6	6	20.06
.2460	1-1/2	6	6	20.06
.2470	1-1/2	6	6	20.06
.2475	1-1/2	6	6	20.06
.2480	1-1/2	6	6	20.06
.2485	1-1/2	6	6	20.06
.2490	1-1/2	6	6	20.06
.2495	1-1/2	6	6	20.06
.2505	1-1/2	6	6	20.06
.2510	1-1/2	6	6	20.06
.2515	1-1/2	6	6	20.06
.2520	1-1/2	6	6	20.06
.2530	1-1/2	6	6	20.06
.2540	1-1/2	6	6	20.06
.2550	1-1/2	6	6	20.06
.2560	1-1/2	6	6	20.06
.2570	1-1/2	6	6	20.06
.2580	1-1/2	6	6	20.06
.2590	1-1/2	6	6	20.06
.2600	1-1/2	6	6	20.06
.2650	1-1/2	6	6	23.10
.2690	1-1/2	6	6	23.10
.2710	1-1/2	6	6	23.10
.2760	1-1/2	6	6	23.10
.2770	1-1/2	6	6	23.10
.2800	1-1/2	6	6	23.10
.2820	1-1/2	6	6	23.10
.2830	1-1/2	6	6	23.10

For other special decimal sizes, refer to page 192 for pricing not listed.

HIGH SPEED STEEL

CHUCKING REAMERS - STANDARD DECIMAL SIZES

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

High Speed Steel Decimal Size Chucking Reamers are designed to remove a very small (.0005 to .001 inch) amount of metal when sizing a hole.

Standard Intermediate Decimal Sizes .2840 to .7580 Diameter

FLUTE OVERALL NO. OF PRICE					FLUTE OVERALL NO. OF PRICE					FLUTE OVERALL NO. OF PRICE				
SIZE	LENGTH	LENGTH	FLUTES	CRSFDS	SIZE	LENGTH	LENGTH	FLUTES	CRSFDS	SIZE	LENGTH	LENGTH	FLUTES	CRSFDS
.2840	1-1/2	6	6	23.10	.3360	1-1/2	6	6	23.10	.4980	2	8	6	35.72
.2860	1-1/2	6	6	23.10	.3370	1-1/2	6	6	23.10	.4990	2	8	6	35.72
.2870	1-1/2	6	6	23.10	.3440	1-1/2	6	6	23.10	.4995	2	8	6	35.72
.2890	1-1/2	6	6	23.10	.3490	1-3/4	7	6	28.74	.5010	2	8	6	35.72
.2900	1-1/2	6	6	23.10	.3490	1-3/4	7	6	28.74	.5015	2	8	6	35.72
.2920	1-1/2	6	6	23.10	.3550	1-3/4	7	6	28.74	.5020	2	8	6	35.72
.2930	1-1/2	6	6	23.10	.3590	1-3/4	7	6	28.74	.5030	2	8	6	35.72
.2940	1-1/2	6	6	23.10	.3690	1-3/4	7	6	28.74	.5040	2	8	6	35.72
.2960	1-1/2	6	6	23.10	.3730	1-3/4	7	6	28.74	.5050	2	8	6	35.72
.2980	1-1/2	6	6	23.10	.3740	1-3/4	7	6	28.74	.5240	2	8	6	35.72
.2990	1-1/2	6	6	23.10	.3745	1-3/4	7	6	28.74	.5250	2	8	6	35.72
.3030	1-1/2	6	6	23.10	.3755	1-3/4	7	6	28.74	.5260	2	8	6	35.72
.3050	1-1/2	6	6	23.10	.3760	1-3/4	7	6	28.74	.5300	2	8	6	35.72
.3060	1-1/2	6	6	23.10	.3765	1-3/4	7	6	28.74	.5500	2	8	6	35.72
.3070	1-1/2	6	6	23.10	.3770	1-3/4	7	6	28.74	.5580	2	8	6	35.72
.3090	1-1/2	6	6	23.10	.3790	1-3/4	7	6	28.74	.5590	2	8	6	35.72
.3100	1-1/2	6	6	23.10	.3800	1-3/4	7	6	28.74	.5615	2	8	6	35.72
.3105	1-1/2	6	6	23.10	.3860	1-3/4	7	6	28.74	.5690	2	8	6	35.72
.3110	1-1/2	6	6	23.10	.3880	1-3/4	7	6	28.74	.5740	2	8	6	35.72
.3115	1-1/2	6	6	23.10	.4000	1-3/4	7	6	28.74	.5840	2	8	6	41.38
.3120	1-1/2	6	6	23.10	.4070	1-3/4	7	6	28.74	.5850	2	8	6	41.38
.3130	1-1/2	6	6	23.10	.4300	1-3/4	7	6	28.74	.5860	2	8	6	41.38
.3135	1-1/2	6	6	23.10	.4320	1-3/4	7	6	28.74	.5880	2	8	6	41.38
.3140	1-1/2	6	6	23.10	.4355	1-3/4	7	6	28.74	.6050	2-1/4	9	6	41.38
.3145	1-1/2	6	6	23.10	.4365	1-3/4	7	6	28.74	.6220	2-1/4	9	6	41.38
.3150	1-1/2	6	6	23.10	.4370	1-3/4	7	6	28.74	.6240	2-1/4	9	6	41.38
.3160	1-1/2	6	6	23.10	.4385	1-3/4	7	6	28.74	.6250	2-1/4	9	6	41.38
.3165	1-1/2	6	6	23.10	.4390	1-3/4	7	6	28.74	.6255	2-1/4	9	6	41.38
.3170	1-1/2	6	6	23.10	.4410	1-3/4	7	6	28.74	.6260	2-1/4	9	6	41.38
.3180	1-1/2	6	6	23.10	.4420	1-3/4	7	6	28.74	.6300	2-1/4	9	6	41.38
.3190	1-1/2	6	6	23.10	.4430	1-3/4	7	6	28.74	.7480	2-1/2	9-1/2	8	45.66
.3200	1-1/2	6	6	23.10	.4440	1-3/4	7	6	28.74	.7490	2-1/2	9-1/2	8	45.66
.3220	1-1/2	6	6	23.10	.4480	1-3/4	7	6	28.74	.7510	2-1/2	9-1/2	8	45.66
.3240	1-1/2	6	6	23.10	.4490	1-3/4	7	6	28.74	.7580	2-1/2	9-1/2	8	45.66
.3250	1-1/2	6	6	23.10	.4550	1-3/4	7	6	28.74					
.3270	1-1/2	6	6	23.10	.4560	1-3/4	7	6	28.74					
.3280	1-1/2	6	6	23.10	.4820	2	8	6	35.72					
.3290	1-1/2	6	6	23.10	.4900	2	8	6	35.72					
.3300	1-1/2	6	6	23.10	.4970	2	8	6	35.72					

For other special decimal sizes, refer to page 192 for pricing not listed.

HIGH SPEED STEEL

CHUCKING REAMERS - NON-STANDARD DECIMAL SIZES

ICS **WIS**

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

High Speed Steel Decimal Size Chucking Reamers are designed to remove a very small (.0005 to .001 inch) amount of metal when sizing a hole.

Non-Standard Decimal Sizes .0100 to 2.0000 Diameter

ITEM NO. - **CRSFDS** + DECIMAL SIZE

EX: **CRSFDS.0100**

(PLEASE INQUIRE FOR PRICING)

HIGH SPEED STEEL

CHUCKING REAMERS - METRIC

ICS **WIS**

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

High Speed Steel Straight Shank Straight Flute Metric Size Chucking Reamers are designed for general purpose reaming of most ferrous and non-ferrous metals. The cutting edge is ground with a 45° chamfer angle for easy hole entry. They are also known as Machine Reamers. Available in 29 piece sets.

Metric Sizes 2.00mm to 25.00mm Diameter

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	ITEM NO.	PRICE
2.0	.0787	3/4	3	4	CRSFM02.00	10.44
2.5	.0984	7/8	3-1/2	4	CRSFM02.50	10.44
3.0	.1181	7/8	3-1/2	4	CRSFM03.00	10.44
3.5	.1378	1	4	6	CRSFM03.50	13.12
4.0	.1575	1	4	6	CRSFM04.00	13.12
4.5	.1772	1-1/8	4-1/2	6	CRSFM04.50	13.12
5.0	.1968	1-1/4	5	6	CRSFM05.00	15.34
5.5	.2165	1-1/4	5	6	CRSFM05.50	15.34
6.0	.2362	1-1/2	6	6	CRSFM06.00	15.34
6.5	.2559	1-1/2	6	6	CRSFM06.50	16.54
7.0	.2756	1-1/2	6	6	CRSFM07.00	17.12
7.5	.2953	1-1/2	6	6	CRSFM07.50	17.12
8.0	.3150	1-1/2	6	6	CRSFM08.00	18.88
8.5	.3346	1-1/2	6	6	CRSFM08.50	18.88
9.0	.3543	1-3/4	7	6	CRSFM09.00	18.88
9.5	.3740	1-3/4	7	6	CRSFM09.50	18.88
10.0	.3937	1-3/4	7	6	CRSFM10.00	21.16
10.5	.4134	1-3/4	7	6	CRSFM10.50	21.16
11.0	.4331	1-3/4	7	6	CRSFM11.00	21.16
11.5	.4528	1-3/4	7	6	CRSFM11.50	23.52
12.0	.4724	2	8	6	CRSFM12.00	27.16
12.5	.4921	2	8	6	CRSFM12.50	22.82
13.0	.5118	2	8	6	CRSFM13.00	26.32
13.5	.5315	2	8	6	CRSFM13.50	26.32

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	ITEM NO.	PRICE
14.0	.5512	2	8	6	CRSFM14.00	26.32
14.5	.5709	2	8	6	CRSFM14.50	26.32
15.0	.5906	2	8	6	CRSFM14.00	28.64
15.5	.6102	2-1/4	9	6	CRSFM15.50	28.64
16.0	.6299	2-1/4	9	6	CRSFM16.00	30.70
16.5	.6496	2-1/4	9	6	CRSFM16.50	32.96
17.0	.6693	2-1/4	9	6	CRSFM17.00	34.72
17.5	.6890	2-1/4	9	6	CRSFM17.50	34.72
18.0	.7087	2-1/4	9	6	CRSFM18.00	37.74
18.5	.7283	2-1/2	9-1/2	8	CRSFM18.50	37.74
19.0	.7480	2-1/2	9-1/2	8	CRSFM19.00	42.90
19.5	.7677	2-1/2	9-1/2	8	CRSFM19.50	42.90
20.0	.7874	2-1/2	9-1/2	8	CRSFM20.00	44.24
20.5	.8071	2-1/2	9-1/2	8	CRSFM20.50	44.24
21.0	.8268	2-1/2	9-1/2	8	CRSFM21.00	48.04
21.5	.8465	2-5/8	10	8	CRSFM21.50	48.04
22.0	.8661	2-5/8	10	8	CRSFM22.00	51.52
22.5	.8858	2-5/8	10	8	CRSFM22.50	51.52
23.0	.9055	2-5/8	10	8	CRSFM23.00	52.76
23.5	.9252	2-5/8	10	8	CRSFM23.50	52.76
24.0	.9449	2-5/8	10	8	CRSFM24.00	56.46
24.5	.9646	2-5/8	10	8	CRSFM24.50	59.34
25.0	.9843	2-3/4	10-1/2	8	CRSFM25.00	63.84

TOLERANCES

M2.0 - M25.0: +.0001 - +.0005"

HIGH SPEED STEEL

SILVER & DEMING REAMERS - 1/2" SHANK - 6" LENGTH

ICS WIS

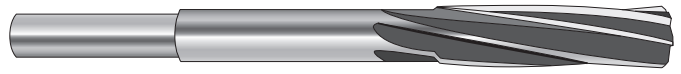
GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE

High Speed Steel 1/2" Shank Silver & Deming Straight Flute Reamers are designed for general purpose reaming where shorter length and extra rigidity are needed. They are ideal for Bridgeport and hand held applications. Ground with a 45° chamfer.



HELICAL FLUTE

High Speed Steel 1/2" Shank Silver & Deming Helical Flute Reamers are designed for reaming materials where additional shear is necessary and to improve chip removal in blind holes. The shorter length provides extra rigidity and strength in tough materials. Ground with a 45° chamfer.

SIZE	DEC EQUIV	FLUTE LENGTH	STRAIGHT FLUTE		HELICAL FLUTE		RECOMMENDED S&D DRILL	ITEM	
			ITEM NO.	PRICE	ITEM NO.	PRICE		NO.	PRICE
5/8	.6250	2-1/4	CRSFRS6L040	42.48	CRHFRS6L040	46.96	39/64	SND039	18.66
21/32	.6562	2-1/4	CRSFRS6L042	49.04	CRHFRS6L042	53.62	41/64	SND041	19.79
11/16	.6875	2-1/4	CRSFRS6L044	47.86	CRHFRS6L044	52.88	43/64	SND043	20.70
3/4	.7500	2-1/2	CRSFRS6L048	50.32	CRHFRS6L048	58.26	47/64	SND047	22.74
13/16	.8125	2-1/2	CRSFRS6L052	59.24	CRHFRS6L052	65.10	51/64	SND051	24.86
7/8	.8750	2-5/8	CRSFRS6L056	64.56	CRHFRS6L056	74.66	55/64	SND055	26.84
1	1.0000	2-3/4	CRSFRS6L100	77.10	CRHFRS6L100	86.48	63/64	SND063	35.00
1-1/8	1.1250	2-7/8	CRSFRS6L108	93.28	CRHFRS6L108	107.26	1-7/64	SND107	47.44
1-1/4	1.2500	3	CRSFRS6L116	113.18	CRHFRS6L116	127.68	1-15/64	SND115	55.70
1-3/8	1.3750	3-1/4	CRSFRS6L124	135.70	CRHFRS6L124	150.50	1-23/64	SND123	66.38
1-1/2	1.5000	3-1/2	CRSFRS6L132	156.48	CRHFRS6L132	171.80	1-31/64	SND131	82.88

NOTE: Additional sizes are available. Inquire for pricing.

HIGH SPEED STEEL

SILVER & DEMING REAMER SETS - 1/2" SHANK

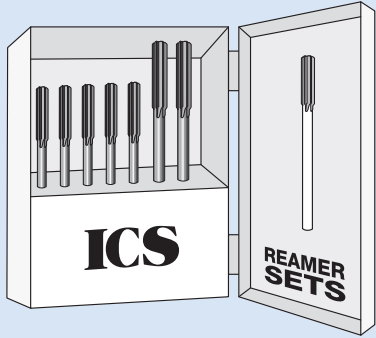
ICS WIS

PLASTIC CASE

DESCRIPTION	SIZES IN SET	ITEM NO.	PRICE
	6 PC S&D REAMER SET SIZES 5/8, 11/16, 3/4, 13/16, 7/8, 1 1/2 SHANK - STRAIGHT FLUTE REAMERS	RS-CRSFRS6L-6	351.56
	4 PC S&D REAMER SET SIZES 1-1/8, 1-1/4, 1-3/8, 1-1/2 1/2 SHANK - STRAIGHT FLUTE REAMERS	RS-CRSFRS6L-4	508.64
	6 PC S&D REAMER SET SIZES 5/8, 11/16, 3/4, 13/16, 7/8, 1 1/2 SHANK - HELICAL FLUTE REAMERS	RS-CRHFRS6L-6	394.34
	4 PC S&D REAMER SET SIZES 1-1/8, 1-1/4, 1-3/8, 1-1/2 1/2 SHANK - HELICAL FLUTE REAMERS	RS-CRHFRS6L-4	567.24

HIGH SPEED STEEL CHUCKING REAMER SETS

METAL INDEX

ILLUSTRATION	DESCRIPTION	TYPE OF DRILL	ITEM NO.	PRICE
	14 PC REAMER SETS Dowel Pin Sizes .1230 to .4995	Chucking Reamers-SF-SS	RS-CRSFDP-14	306.22
	14 PC REAMER SETS Over & Under Sizes .1240 to .5010	Chucking Reamers-SF-SS	RS-CRSFOU-14	305.86
	26 PC REAMER SETS Letter Sizes A to Z	Chucking Reamers-SF-SS	RS-CRSF-26	498.84
	29 PC REAMER SETS Sizes 1/16 to 1/2 by 64ths	Chucking Reamers-SF-SS	RS-CRSF-29	466.52
	60 PC REAMER SETS Wire Gauge Sizes 1 to 60	Chucking Reamers-SF-SS	RS-CRSF-60	699.00

HIGH SPEED STEEL CHUCKING REAMERS - EXTRA LENGTH

ICS

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SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

Extra Length Chucking Reamers are designed for reaming and sizing holes in inaccessible places which cannot be reached with standard length chucking reamers. Various combinations of diameter and overall lengths are available.

SIZE	DEC EQUIV.	SHANK DIA.	FLUTE LENGTH	12" LENGTH		16" LENGTH	
				OAL	ITEM NO.	OAL	ITEM NO.
1/8	.1250	.1190	7/8	12	CRSF12L008	16	CRSF16L008
5/32	.1562	.1510	1	12	CRSF12L010	16	CRSF16L010
3/16	.1875	.1805	1-1/8	12	CRSF12L012	16	CRSF16L012
7/32	.2188	.2075	1-1/4	12	CRSF12L014	16	CRSF16L014
1/4	.2500	.2405	1-1/2	12	CRSF12L016	16	CRSF16L016
9/32	.2812	.2485	1-1/2	12	CRSF12L018	16	CRSF16L018
5/16	.3125	.2807	1-1/2	12	CRSF12L020	16	CRSF16L020
11/32	.3438	.2807	1-1/2	12	CRSF12L022	16	CRSF16L022
3/8	.3750	.3120	1-3/4	12	CRSF12L024	16	CRSF16L024
13/32	.4062	.3120	1-3/4	12	CRSF12L026	16	CRSF16L026
7/16	.4375	.3745	1-3/4	12	CRSF12L028	16	CRSF16L028
15/32	.4688	.3745	1-3/4	12	CRSF12L030	16	CRSF16L030
1/2	.5000	.4375	2	12	CRSF12L032	16	CRSF16L032
17/32	.5313	.4375	2	12	CRSF12L034	16	CRSF16L034
9/16	.5625	.4375	2	12	CRSF12L036	16	CRSF16L036
19/32	.5938	.4375	2	12	CRSF12L038	16	CRSF16L038
5/8	.6250	.5620	2-1/4	12	CRSF12L040	16	CRSF16L040
21/32	.6562	.5620	2-1/4	12	CRSF12L042	16	CRSF16L042
11/16	.6875	.5620	2-1/4	12	CRSF12L044	16	CRSF16L044
23/32	.7188	.5620	2-1/4	12	CRSF12L046	16	CRSF16L046
3/4	.7500	.6245	2-1/2	12	CRSF12L048	16	CRSF16L048
13/16	.8125	.6245	2-1/2	12	CRSF12L052	16	CRSF16L052

NOTE: Various additional sizes and lengths are available upon request.

REGARDING USAGE

Extended reamers are designed for use in drill presses, turret lathes, screw machines, etc. **They are not designed for CNC machines.** The best results are obtained with a floating type holder which permits the reamer to align itself with the hole being reamed.

PREMIUM (10% COBALT) MICROGRAIN CARBIDE
CHUCKING REAMERS - SOLID CARBIDE

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

Solid Carbide Straight Flute Fractional Size Chucking Reamers are used for reaming abrasive materials, hard steels up to RC50, aluminum, brass, bronze and plastics. They are available in fractional, wire gauge, letter and metric sizes.

Fractional Sizes 1/32" To 1/2" Diameter

SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE	SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
1/32	.0312	1/4	1-1/2	SCCRSF002	15.58	9/32	.2812	1-1/8	3-1/4	SCCRSF018	46.18
3/64	.0469	3/8	1-1/2	SCCRSF003	17.70	19/64	.2969	1-1/8	3-1/4	SCCRSF019	50.80
1/16	.0629	3/8	1-1/2	SCCRSF004	18.72	5/16	.3125	1-1/8	3-1/4	SCCRSF020	52.36
5/64	.0781	1/2	1-3/4	SCCRSF005	20.50	21/64	.3281	1-1/4	3-1/2	SCCRSF021	60.10
3/32	.0938	1/2	2	SCCRSF006	21.80	11/32	.3438	1-1/4	3-1/2	SCCRSF022	58.34
7/64	.1094	5/8	2-1/4	SCCRSF007	22.48	23/64	.3594	1-1/4	3-1/2	SCCRSF023	67.38
1/8	.1250	5/8	2-1/4	SCCRSF008	24.10	3/8	.3750	1-1/4	3-1/2	SCCRSF024	65.40
9/64	.1406	3/4	2-1/2	SCCRSF009	26.64	25/64	.3906	1-1/4	3-1/2	SCCRSF025	81.84
5/32	.1562	3/4	2-1/2	SCCRSF010	27.74	13/32	.4062	1-1/4	3-1/2	SCCRSF026	77.42
11/64	.1719	7/8	2-3/4	SCCRSF011	31.44	27/64	.4219	1-3/8	4	SCCRSF027	95.44
3/16	.1875	7/8	2-3/4	SCCRSF012	32.04	7/16	.4375	1-3/8	4	SCCRSF028	87.16
13/64	.2031	1	3	SCCRSF013	35.76	29/64	.4531	1-3/8	4	SCCRSF029	102.98
7/32	.2188	1	3	SCCRSF014	36.82	15/32	.4688	1-3/8	4	SCCRSF030	99.64
15/64	.2344	1	3	SCCRSF015	36.88	31/64	.4844	1-1/2	4	SCCRSF031	115.56
1/4	.2500	1	3	SCCRSF016	38.02	1/2	.5000	1-1/2	4	SCCRSF032	113.60
17/64	.2656	1-1/8	3-1/4	SCCRSF017	47.56						

Letter Sizes "A" To "Z" Diameter

SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE	SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
A	.2340	1	3	SCCRSF"A"	40.42	N	.3020	1-1/8	3-1/4	SCCRSF"N"	54.02
B	.2380	1	3	SCCRSF"B"	40.42	O	.3160	1-1/8	3-1/4	SCCRSF"O"	64.66
C	.2420	1	3	SCCRSF"C"	39.22	P	.3230	1-1/4	3-1/2	SCCRSF"P"	64.66
D	.2460	1	3	SCCRSF"D"	39.22	Q	.3320	1-1/4	3-1/2	SCCRSF"Q"	62.74
E	.2500	1-1/8	3-1/4	SCCRSF"E"	38.02	R	.3390	1-1/4	3-1/2	SCCRSF"R"	64.66
F	.2570	1-1/8	3-1/4	SCCRSF"F"	49.04	S	.3480	1-1/4	3-1/2	SCCRSF"S"	69.50
G	.2610	1-1/8	3-1/4	SCCRSF"G"	49.04	T	.3580	1-1/4	3-1/2	SCCRSF"T"	69.50
H	.2660	1-1/8	3-1/4	SCCRSF"H"	50.56	U	.3680	1-1/4	3-1/2	SCCRSF"U"	71.62
I	.2720	1-1/8	3-1/4	SCCRSF"I"	50.56	V	.3770	1-1/4	3-1/2	SCCRSF"V"	79.86
J	.2770	1-1/8	3-1/4	SCCRSF"J"	49.04	W	.3860	1-1/4	3-1/2	SCCRSF"W"	79.86
K	.2810	1-1/8	3-1/4	SCCRSF"K"	49.04	X	.3970	1-1/4	3-1/2	SCCRSF"X"	82.86
L	.2900	1-1/8	3-1/4	SCCRSF"L"	54.02	Y	.4040	1-1/4	3-1/2	SCCRSF"Y"	79.86
M	.2950	1-1/8	3-1/4	SCCRSF"M"	55.64	Z	.4130	1-1/4	3-1/2	SCCRSF"Z"	95.44

NUMBER OF FLUTES
 .0280 - .2500 dia.: 4 Flutes
 .2501 - .5000 dia.: 6 Flutes

DIAMETER	DIAMETER TOLERANCES
.0280 to .2500	+0000 / +.0002
.2501 to .5000	+0000 / +.0003

CHUCKING REAMERS - SOLID CARBIDE

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

Solid Carbide Chucking Reamers are used for reaming abrasive materials, hard steels up to RC50, aluminum, brass, bronze and plastics. Available fractional, wire gauge, letter and metric sizes.

Wire Gauge Sizes #1 to #70 Diameter

SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE	SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
1	.2280	1	3	SCCRSF#01	40.42	36	.1055	5/8	2-1/4	SCCRSF#36	24.70
2	.2210	1	3	SCCRSF#02	38.02	37	.1040	5/8	2-1/4	SCCRSF#37	23.98
3	.2130	1	3	SCCRSF#03	39.18	38	.1010	5/8	2-1/4	SCCRSF#38	24.70
4	.2090	1	3	SCCRSF#04	39.18	39	.0995	5/8	2-1/4	SCCRSF#39	23.98
5	.2055	1	3	SCCRSF#05	38.02	40	.0980	5/8	2-1/4	SCCRSF#40	24.70
6	.2040	1	3	SCCRSF#06	39.18	41	.0960	1/2	2	SCCRSF#41	23.98
7	.2010	1	3	SCCRSF#07	38.02	42	.0935	1/2	2	SCCRSF#42	23.14
8	.1990	1	3	SCCRSF#08	38.02	43	.0890	1/2	2	SCCRSF#43	22.44
9	.1960	1	3	SCCRSF#09	39.18	44	.0860	1/2	2	SCCRSF#44	22.44
10	.1935	1	3	SCCRSF#10	38.02	45	.0820	1/2	2	SCCRSF#45	23.14
11	.1910	7/8	2-3/4	SCCRSF#11	38.02	46	.0810	1/2	1-3/4	SCCRSF#46	22.44
12	.1890	7/8	2-3/4	SCCRSF#12	35.12	47	.0785	1/2	1-3/4	SCCRSF#47	21.80
13	.1850	7/8	2-3/4	SCCRSF#13	34.06	48	.0760	1/2	1-3/4	SCCRSF#48	21.16
14	.1820	7/8	2-3/4	SCCRSF#14	34.06	49	.0730	1/2	1-3/4	SCCRSF#49	21.80
15	.1800	7/8	2-3/4	SCCRSF#15	35.12	50	.0700	1/2	1-3/4	SCCRSF#50	21.80
16	.1770	7/8	2-3/4	SCCRSF#16	35.12	51	.0670	1/2	1-3/4	SCCRSF#51	21.16
17	.1730	7/8	2-3/4	SCCRSF#17	38.02	52	.0635	3/8	1-1/2	SCCRSF#52	19.32
18	.1695	7/8	2-3/4	SCCRSF#18	32.40	53	.0595	3/8	1-1/2	SCCRSF#53	19.90
19	.1660	7/8	2-3/4	SCCRSF#19	33.38	54	.0550	3/8	1-1/2	SCCRSF#54	19.32
20	.1610	7/8	2-3/4	SCCRSF#20	33.38	55	.0520	3/8	1-1/2	SCCRSF#55	19.12
21	.1590	3/4	2-1/2	SCCRSF#21	28.56	56	.0465	3/8	1-1/2	SCCRSF#56	18.82
22	.1570	3/4	2-1/2	SCCRSF#22	29.46	57	.0430	3/8	1-1/2	SCCRSF#57	18.82
23	.1549	3/4	2-1/2	SCCRSF#23	28.56	58	.0420	3/8	1-1/2	SCCRSF#58	18.24
24	.1520	3/4	2-1/2	SCCRSF#24	29.46	59	.0410	1/4	1-1/2	SCCRSF#59	18.24
25	.1490	3/4	2-1/2	SCCRSF#25	29.46	60	.0400	1/4	1-1/2	SCCRSF#60	18.82
26	.1470	3/4	2-1/2	SCCRSF#26	29.46	61	.0390	1/4	1-1/2	SCCRSF#61	18.52
27	.1440	3/4	2-1/2	SCCRSF#27	28.56	62	.0380	1/4	1-1/2	SCCRSF#62	17.80
28	.1405	3/4	2-1/2	SCCRSF#28	28.56	63	.0370	1/4	1-1/2	SCCRSF#63	17.28
29	.1360	3/4	2-1/2	SCCRSF#29	29.46	64	.0360	1/4	1-1/2	SCCRSF#64	17.80
30	.1285	5/8	2-1/4	SCCRSF#30	26.40	65	.0350	1/4	1-1/2	SCCRSF#65	16.18
31	.1200	5/8	2-1/4	SCCRSF#31	25.64	66	.0330	1/4	1-1/2	SCCRSF#66	16.18
32	.1160	5/8	2-1/4	SCCRSF#32	25.64	67	.0320	1/4	1-1/2	SCCRSF#67	16.06
33	.1130	5/8	2-1/4	SCCRSF#33	23.98	68	.0310	1/4	1-1/2	SCCRSF#68	19.28
34	.1110	5/8	2-1/4	SCCRSF#34	24.70	69	.0292	1/4	1-1/2	SCCRSF#69	19.28
35	.1100	5/8	2-1/4	SCCRSF#35	23.98	70	.0280	1/4	1-1/2	SCCRSF#70	19.28

Metric Sizes 1.0mm to 12.5mm Diameter

SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	ITEM NO.	PRICE	SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	ITEM NO.	PRICE
1.0	.0395	1/4	1-1/2	4	SCCRSFM01.00	18.52	7.0	.0395	1/4	1-1/2	4	SCCRSFM01.00	18.52
1.5	.0610	3/8	1-1/2	4	SCCRSFM01.50	19.98	7.5	.0610	3/8	1-1/2	4	SCCRSFM01.50	19.98
2.0	.0787	1/2	1-3/4	4	SCCRSFM02.00	22.18	8.0	.0787	1/2	1-3/4	4	SCCRSFM02.00	22.18
2.5	.0984	5/8	2-1/4	4	SCCRSFM02.50	25.24	8.5	.0984	5/8	2-1/4	4	SCCRSFM02.50	25.24
3.0	.1181	5/8	2-1/4	4	SCCRSFM03.00	25.74	9.0	.1181	5/8	2-1/4	4	SCCRSFM03.00	25.74
3.5	.1378	3/4	2-1/2	6	SCCRSFM03.50	29.24	9.5	.1378	3/4	2-1/2	6	SCCRSFM03.50	29.24
4.0	.1575	3/4	2-1/2	6	SCCRSFM04.00	29.46	10.0	.1575	3/4	2-1/2	6	SCCRSFM04.00	29.46
4.5	.1772	7/8	2-3/4	6	SCCRSFM04.50	35.68	10.5	.1772	7/8	2-3/4	6	SCCRSFM04.50	35.68
5.0	.1968	1	3	6	SCCRSFM05.00	38.90	11.0	.1968	1	3	6	SCCRSFM05.00	38.90
5.5	.2165	1	3	6	SCCRSFM05.50	47.24	11.5	.2165	1	3	6	SCCRSFM05.50	47.24
6.0	.2362	1	3	6	SCCRSFM06.00	40.30	12.0	.2362	1	3	6	SCCRSFM06.00	40.30
6.5	.2559	1-1/8	3-1/4	6	SCCRSFM06.50	49.76	12.5	.2559	1-1/8	3-1/4	6	SCCRSFM06.50	49.76

NUMBER OF FLUTES

.0280 - .2500 dia.: 4 Flutes
 .2501 - .5000 dia.: 6 Flutes

DIAMETER

.0280 to .2500
 .2501 to .5000

DIAMETER TOLERANCES

+0000 / +.0002
 +0000 / +.0003

CHUCKING REAMERS - SOLID CARBIDE

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

Solid Carbide Chucking Reamers are used for reaming abrasive materials, hard steels up to RC50, aluminum, brass, bronze and plastics. Available fractional, wire gauge, letter and metric sizes.

Decimal Sizes .0300 to .1560 Diameter

FLUTE OVERALL PRICE				FLUTE OVERALL PRICE				FLUTE OVERALL PRICE				FLUTE OVERALL PRICE			
SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF
.0300	1/4	1-1/2	27.34	.0655	1/2	1-3/4	29.22	.0965	1/2	2	32.04	.1275	5/8	2-1/4	34.48
.0315	1/4	1-1/2	24.12	.0660	1/2	1-3/4	29.22	.0970	5/8	2-1/4	32.76	.1280	5/8	2-1/4	34.48
.0325	1/4	1-1/2	24.12	.0665	1/2	1-3/4	29.22	.0975	5/8	2-1/4	32.76	.1290	5/8	2-1/4	37.52
.0335	1/4	1-1/2	24.24	.0675	1/2	1-3/4	29.22	.0985	5/8	2-1/4	32.04	.1295	5/8	2-1/4	37.52
.0340	1/4	1-1/2	24.24	.0680	1/2	1-3/4	29.22	.0990	5/8	2-1/4	32.04	.1300	5/8	2-1/4	37.52
.0345	1/4	1-1/2	24.24	.0685	1/2	1-3/4	29.22	.1000	5/8	2-1/4	32.76	.1305	3/4	2-1/2	37.52
.0355	1/4	1-1/2	25.86	.0690	1/2	1-3/4	29.22	.1005	5/8	2-1/4	32.76	.1310	3/4	2-1/2	37.52
.0365	1/4	1-1/2	25.34	.0695	1/2	1-3/4	29.22	.1010	5/8	2-1/4	32.76	.1315	3/4	2-1/2	37.52
.0375	1/4	1-1/2	25.86	.0705	1/2	1-3/4	29.22	.1020	5/8	2-1/4	32.04	.1320	3/4	2-1/2	37.52
.0385	1/4	1-1/2	26.58	.0710	1/2	1-3/4	29.22	.1025	5/8	2-1/4	32.04	.1325	3/4	2-1/2	37.52
.0395	1/4	1-1/2	26.88	.0715	1/2	1-3/4	29.22	.1030	5/8	2-1/4	32.04	.1330	3/4	2-1/2	37.52
.0405	1/4	1-1/2	26.32	.0720	1/2	1-3/4	29.22	.1035	5/8	2-1/4	32.04	.1335	3/4	2-1/2	37.52
.0415	1/4	1-1/2	26.32	.0725	1/2	1-3/4	29.22	.1045	5/8	2-1/4	32.76	.1340	3/4	2-1/2	37.52
.0425	3/8	1-1/2	26.88	.0730	1/2	1-3/4	29.22	.1050	5/8	2-1/4	30.32	.1345	3/4	2-1/2	37.52
.0435	3/8	1-1/2	26.88	.0735	1/2	1-3/4	29.22	.1055	5/8	2-1/4	32.76	.1350	3/4	2-1/2	37.52
.0440	3/8	1-1/2	26.88	.0740	1/2	1-3/4	29.22	.1060	5/8	2-1/4	32.76	.1355	3/4	2-1/2	37.52
.0445	3/8	1-1/2	26.88	.0745	1/2	1-3/4	29.22	.1070	5/8	2-1/4	32.76	.1365	3/4	2-1/2	36.64
.0450	3/8	1-1/2	26.88	.0750	1/2	1-3/4	29.22	.1075	5/8	2-1/4	32.76	.1370	3/4	2-1/2	36.64
.0455	3/8	1-1/2	26.88	.0755	1/2	1-3/4	29.22	.1080	5/8	2-1/4	32.76	.1375	3/4	2-1/2	36.64
.0460	3/8	1-1/2	26.88	.0765	1/2	1-3/4	29.22	.1085	5/8	2-1/4	32.76	.1380	3/4	2-1/2	36.64
.0470	3/8	1-1/2	27.18	.0770	1/2	1-3/4	29.22	.1090	5/8	2-1/4	32.76	.1385	3/4	2-1/2	36.64
.0475	3/8	1-1/2	27.18	.0775	1/2	1-3/4	29.22	.1095	5/8	2-1/4	33.70	.1390	3/4	2-1/2	36.64
.0480	3/8	1-1/2	27.18	.0780	1/2	1-3/4	29.22	.1105	5/8	2-1/4	33.70	.1395	3/4	2-1/2	36.64
.0485	3/8	1-1/2	27.18	.0790	1/2	1-3/4	30.50	.1115	5/8	2-1/4	33.70	.1400	3/4	2-1/2	36.64
.0490	3/8	1-1/2	27.18	.0795	1/2	1-3/4	30.50	.1120	5/8	2-1/4	33.70	.1410	3/4	2-1/2	36.64
.0495	3/8	1-1/2	27.18	.0800	1/2	1-3/4	30.50	.1125	5/8	2-1/4	33.70	.1415	3/4	2-1/2	36.64
.0500	3/8	1-1/2	27.18	.0805	1/2	1-3/4	30.50	.1135	5/8	2-1/4	33.70	.1420	3/4	2-1/2	36.64
.0505	3/8	1-1/2	27.18	.0815	1/2	2	30.50	.1140	5/8	2-1/4	33.70	.1425	3/4	2-1/2	36.64
.0510	3/8	1-1/2	27.18	.0825	1/2	2	30.50	.1145	5/8	2-1/4	33.70	.1430	3/4	2-1/2	36.64
.0515	3/8	1-1/2	27.18	.0830	1/2	2	30.50	.1150	5/8	2-1/4	33.70	.1435	3/4	2-1/2	36.64
.0525	3/8	1-1/2	27.38	.0835	1/2	2	30.50	.1155	5/8	2-1/4	33.70	.1445	3/4	2-1/2	37.52
.0530	3/8	1-1/2	27.38	.0840	1/2	2	30.50	.1165	5/8	2-1/4	33.70	.1450	3/4	2-1/2	37.52
.0535	3/8	1-1/2	27.38	.0845	1/2	2	30.50	.1170	5/8	2-1/4	33.70	.1455	3/4	2-1/2	37.52
.0540	3/8	1-1/2	27.38	.0850	1/2	2	30.50	.1175	5/8	2-1/4	33.70	.1460	3/4	2-1/2	37.52
.0545	3/8	1-1/2	27.38	.0855	1/2	2	30.50	.1180	5/8	2-1/4	33.70	.1465	3/4	2-1/2	37.52
.0555	3/8	1-1/2	27.98	.0865	1/2	2	30.50	.1185	5/8	2-1/4	33.70	.1475	3/4	2-1/2	37.52
.0560	3/8	1-1/2	27.98	.0870	1/2	2	30.50	.1190	5/8	2-1/4	33.70	.1480	3/4	2-1/2	37.52
.0565	3/8	1-1/2	27.98	.0875	1/2	2	30.50	.1195	5/8	2-1/4	33.70	.1485	3/4	2-1/2	37.52
.0570	3/8	1-1/2	27.98	.0880	1/2	2	30.50	.1205	5/8	2-1/4	33.70	.1490	3/4	2-1/2	37.52
.0575	3/8	1-1/2	27.98	.0885	1/2	2	30.50	.1210	5/8	2-1/4	33.70	.1500	3/4	2-1/2	37.52
.0580	3/8	1-1/2	27.98	.0895	1/2	2	31.20	.1215	5/8	2-1/4	33.70	.1505	3/4	2-1/2	37.52
.0585	3/8	1-1/2	27.98	.0900	1/2	2	31.20	.1220	5/8	2-1/4	33.70	.1507	3/4	2-1/2	37.52
.0590	3/8	1-1/2	27.98	.0905	1/2	2	31.20	.1225	5/8	2-1/4	33.70	.1510	3/4	2-1/2	37.52
.0600	3/8	1-1/2	26.78	.0910	1/2	2	31.20	.1230D	5/8	2-1/4	33.70	.1515	3/4	2-1/2	37.52
.0605	3/8	1-1/2	26.78	.0915	1/2	2	31.20	.1235	5/8	2-1/4	33.70	.1525	3/4	2-1/2	36.64
.0610	3/8	1-1/2	26.78	.0920	1/2	2	31.20	.1240U	5/8	2-1/4	33.70	.1530	3/4	2-1/2	37.52
.0615	3/8	1-1/2	26.78	.0925	1/2	2	31.20	.1245	5/8	2-1/4	33.70	.1535	3/4	2-1/2	37.52
.0620	3/8	1-1/2	26.78	.0930	1/2	2	31.20	.1247D	5/8	2-1/4	33.70	.1541	3/4	2-1/2	37.52
.0630	3/8	1-1/2	27.38	.0940	1/2	2	32.04	.1255O	5/8	2-1/4	34.48	.1545	3/4	2-1/2	37.52
.0640	3/8	1-1/2	29.22	.0945	1/2	2	32.04	.1260	5/8	2-1/4	34.48	.1550	3/4	2-1/2	37.52
.0645	3/8	1-1/2	29.22	.0950	1/2	2	32.04	.1265	5/8	2-1/4	34.48	.1555	3/4	2-1/2	37.52
.0650	3/8	1-1/2	29.22	.0955	1/2	2	32.04	.1270	5/8	2-1/4	34.48	.1560	3/4	2-1/2	37.52

NUMBER OF FLUTES
 .0280 - .2500 dia.: 4 Flutes
 .2501 - .5000 dia.: 6 Flutes

DIAMETER	DIAMETER TOLERANCES
.0280 to .2500	+0000 / +.0002
.2501 to .5000	+0000 / +.0003

D - DOWEL PIN SIZES
U - UNDER SIZES
O - OVER SIZES

CHUCKING REAMERS - SOLID CARBIDE

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

Solid Carbide Chucking Reamers are used for reaming abrasive materials, hard steels up to RC50, aluminum, brass, bronze and plastics. Available in fractional, wire gauge, letter and metric sizes.

Decimal Sizes .1565 to .3130 Diameter

FLUTE OVERALL PRICE				FLUTE OVERALL PRICE				FLUTE OVERALL PRICE				FLUTE OVERALL PRICE			
SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF
.1565	3/4	2-1/2	37.52	.1872	7/8	2-3/4	43.18	.2285	1	3	48.48	.2580	1-1/8	3-1/4	58.62
.1580	3/4	2-1/2	37.52	.1880	7/8	2-3/4	43.18	.2290	1	3	48.48	.2590	1-1/8	3-1/4	58.62
.1585	3/4	2-1/2	37.52	.1885	7/8	2-3/4	43.18	.2295	1	3	48.48	.2600	1-1/8	3-1/4	58.62
.1595	3/4	2-1/2	41.44	.1895	7/8	2-3/4	46.08	.2300	1	3	48.48	.2620	1-1/8	3-1/4	58.62
.1600	3/4	2-1/2	41.44	.1900	7/8	2-3/4	46.08	.2305	1	3	48.48	.2630	1-1/8	3-1/4	58.62
.1605	3/4	2-1/2	41.44	.1905	7/8	2-3/4	46.08	.2310	1	3	48.48	.2635	1-1/8	3-1/4	58.62
.1615	7/8	2-3/4	41.44	.1915	7/8	2-3/4	46.08	.2315	1	3	48.48	.2640	1-1/8	3-1/4	58.62
.1620	7/8	2-3/4	41.44	.1920	1	3	46.08	.2320	1	3	48.48	.2650	1-1/8	3-1/4	58.62
.1625	7/8	2-3/4	41.44	.1925	1	3	46.08	.2325	1	3	48.48	.2670	1-1/8	3-1/4	60.42
.1630	7/8	2-3/4	41.44	.1930	1	3	46.08	.2330	1	3	48.48	.2680	1-1/8	3-1/4	60.42
.1635	7/8	2-3/4	41.44	.1940	1	3	46.08	.2335	1	3	48.48	.2690	1-1/8	3-1/4	60.42
.1640	7/8	2-3/4	41.44	.1945	1	3	46.08	.2345	1	3	48.48	.2700	1-1/8	3-1/4	60.42
.1645	7/8	2-3/4	41.44	.1950	1	3	46.08	.2350	1	3	48.48	.2710	1-1/8	3-1/4	60.42
.1650	7/8	2-3/4	41.44	.1955	1	3	46.08	.2355	1	3	48.48	.2730	1-1/8	3-1/4	60.42
.1655	7/8	2-3/4	41.44	.1965	1	3	46.08	.2360	1	3	48.48	.2740	1-1/8	3-1/4	60.42
.1665	7/8	2-3/4	40.48	.1970	1	3	46.08	.2365	1	3	48.48	.2750	1-1/8	3-1/4	60.42
.1670	7/8	2-3/4	40.48	.1975	1	3	46.08	.2370	1	3	48.48	.2760	1-1/8	3-1/4	60.42
.1675	7/8	2-3/4	40.48	.1980	1	3	46.08	.2375	1	3	48.48	.2780	1-1/8	3-1/4	60.42
.1680	7/8	2-3/4	40.48	.1985	1	3	46.08	.2385	1	3	48.48	.2790	1-1/8	3-1/4	60.42
.1685	7/8	2-3/4	40.48	.1995	1	3	46.08	.2390	1	3	48.48	.2800	1-1/8	3-1/4	60.42
.1690	7/8	2-3/4	40.48	.2000	1	3	46.08	.2395	1	3	48.48	.2818	1-1/8	3-1/4	66.52
.1700	7/8	2-3/4	46.08	.2005	1	3	46.08	.2400	1	3	48.48	.2820	1-1/8	3-1/4	66.52
.1705	7/8	2-3/4	46.08	.2015	1	3	47.24	.2405	1	3	48.48	.2830	1-1/8	3-1/4	66.52
.1710	7/8	2-3/4	46.08	.2020	1	3	47.24	.2410	1	3	48.48	.2840	1-1/8	3-1/4	66.52
.1715	7/8	2-3/4	46.08	.2025	1	3	47.24	.2415	1	3	48.48	.2850	1-1/8	3-1/4	66.52
.1720	7/8	2-3/4	46.08	.2030	1	3	47.24	.2425	1	3	48.48	.2860	1-1/8	3-1/4	66.52
.1725	7/8	2-3/4	40.08	.2035	1	3	47.24	.2430	1	3	48.48	.2870	1-1/8	3-1/4	66.52
.1735	7/8	2-3/4	43.18	.2045	1	3	47.24	.2435	1	3	48.48	.2880	1-1/8	3-1/4	66.52
.1740	7/8	2-3/4	43.18	.2050	1	3	47.24	.2440	1	3	48.48	.2890	1-1/8	3-1/4	66.52
.1745	7/8	2-3/4	43.18	.2060	1	3	47.24	.2445	1	3	48.48	.2910	1-1/8	3-1/4	72.74
.1750	7/8	2-3/4	43.18	.2065	1	3	47.24	.2450	1	3	48.48	.2920	1-1/8	3-1/4	72.74
.1755	7/8	2-3/4	43.18	.2070	1	3	47.24	.2455	1	3	48.48	.2930	1-1/8	3-1/4	72.74
.1760	7/8	2-3/4	43.18	.2075	1	3	47.24	.2465	1	3	48.48	.2940	1-1/8	3-1/4	72.74
.1765	7/8	2-3/4	43.18	.2080	1	3	47.24	.2470	1	3	48.48	.2960	1-1/8	3-1/4	72.74
.1775	7/8	2-3/4	43.18	.2085	1	3	47.24	.2475	1	3	48.48	.2970	1-1/8	3-1/4	72.74
.1780	7/8	2-3/4	43.18	.2095	1	3	47.24	.2480	1	3	48.48	.2980	1-1/8	3-1/4	72.74
.1785	7/8	2-3/4	43.18	.2100	1	3	47.24	.2485	1	3	48.48	.2990	1-1/8	3-1/4	72.74
.1790	7/8	2-3/4	43.18	.2105	1	3	47.24	.2490	1	3	48.48	.3000	1-1/8	3-1/4	72.74
.1795	7/8	2-3/4	43.18	.2110	1	3	47.24	.2495	1	3	48.48	.3010	1-1/8	3-1/4	72.74
.1805	7/8	2-3/4	43.18	.2115	1	3	47.24	.2505	1	3	48.48	.3030	1-1/8	3-1/4	72.74
.1810	7/8	2-3/4	43.18	.2220	1	3	48.48	.2510	1	3	48.48	.3040	1-1/8	3-1/4	72.74
.1814	7/8	2-3/4	43.18	.2225	1	3	48.48	.2515	1	3	48.48	.3050	1-1/8	3-1/4	72.74
.1815	7/8	2-3/4	43.18	.2230	1	3	48.48	.2520	1	3	48.48	.3060	1-1/8	3-1/4	72.74
.1825	7/8	2-3/4	43.18	.2235	1	3	48.48	.2525	1	3	52.34	.3070	1-1/8	3-1/4	72.74
.1830	7/8	2-3/4	43.18	.2240	1	3	48.48	.2530	1	3	57.10	.3080	1-1/8	3-1/4	72.74
.1835	7/8	2-3/4	43.18	.2245	1	3	48.48	.2535	1	3	57.10	.3090	1-1/8	3-1/4	72.74
.1840	7/8	2-3/4	43.18	.2250	1	3	48.48	.2540	1	3	57.10	.3100	1-1/8	3-1/4	72.74
.1845	7/8	2-3/4	43.18	.2255	1	3	48.48	.2545	1	3	57.10	.3105	1-1/8	3-1/4	72.74
.1855	7/8	2-3/4	43.18	.2260	1	3	48.48	.2550	1-1/8	3-1/4	57.10	.3110	1-1/8	3-1/4	72.74
.1860	7/8	2-3/4	43.18	.2265	1	3	48.48	.2560	1-1/8	3-1/4	57.10	.3115	1-1/8	3-1/4	72.74
.1865	7/8	2-3/4	43.18	.2270	1	3	48.48	.2565	1-1/8	3-1/4	57.10	.3120	1-1/8	3-1/4	72.74
.1870	7/8	2-3/4	43.18	.2275	1	3	48.48	.2575	1-1/8	3-1/4	58.62	.3130	1-1/8	3-1/4	72.74

NUMBER OF FLUTES
 .0280 - .2500 dia.: 4 Flutes
 .2501 - .5000 dia.: 6 Flutes

DIAMETER	DIAMETER TOLERANCES
.0280 to .2500	+0000 / +.0002
.2501 to .5000	+0000 / +.0003

D - DOWEL PIN SIZES
U - UNDER SIZES
O - OVER SIZES

CHUCKING REAMERS - SOLID CARBIDE

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT SHANK



STRAIGHT FLUTE

Solid Carbide Chucking Reamers are used for reaming abrasive materials, hard steels up to RC50, aluminum, brass, bronze and plastics. Available in fractional, wire gauge, letter and metric sizes.

Decimal Sizes .3135 to .5050 Diameter

FLUTE OVERALL PRICE				FLUTE OVERALL PRICE				FLUTE OVERALL PRICE				FLUTE OVERALL PRICE			
SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF	SIZE	LENGTH	LENGTH	SCCRSF
.3135	1-1/8	3-1/4	72.74	.3670	1-1/4	3-1/2	93.08	.4180	1-3/8	4	123.04	.4620	1-3/8	4	131.32
.3140	1-1/8	3-1/4	72.74	.3690	1-1/4	3-1/2	93.08	.4190	1-3/8	4	123.04	.4630	1-3/8	4	131.32
.3170	1-1/4	3-1/2	77.84	.3700	1-1/4	3-1/2	93.08	.4200	1-3/8	4	123.04	.4640	1-3/8	4	131.32
.3180	1-1/4	3-1/2	77.84	.3710	1-1/4	3-1/2	93.08	.4210	1-3/8	4	123.04	.4650	1-3/8	4	131.32
.3190	1-1/4	3-1/2	77.84	.3720	1-1/4	3-1/2	93.08	.4230	1-3/8	4	123.04	.4660	1-3/8	4	131.32
.3200	1-1/4	3-1/2	77.84	.3730	1-1/4	3-1/2	93.08	.4240	1-3/8	4	123.04	.4670	1-3/8	4	131.32
.3210	1-1/4	3-1/2	77.84	.3745	1-1/4	3-1/2	88.48	.4250	1-3/8	4	123.04	.4680	1-3/8	4	131.32
.3220	1-1/4	3-1/2	77.84	.3755	1-1/4	3-1/2	88.48	.4260	1-3/8	4	123.04	.4690	1-3/8	4	131.32
.3240	1-1/4	3-1/2	77.84	.3760	1-1/4	3-1/2	88.48	.4270	1-3/8	4	123.04	.4700	1-3/8	4	131.32
.3250	1-1/4	3-1/2	77.84	.3765	1-1/4	3-1/2	88.48	.4280	1-3/8	4	123.04	.4710	1-3/8	4	131.32
.3260	1-1/4	3-1/2	77.84	.3780	1-1/4	3-1/2	103.04	.4290	1-3/8	4	120.46	.4720	1-3/8	4	131.32
.3270	1-1/4	3-1/2	77.84	.3790	1-1/4	3-1/2	103.04	.4300	1-3/8	4	120.46	.4730	1-3/8	4	131.32
.3280	1-1/4	3-1/2	77.84	.3800	1-1/4	3-1/2	103.04	.4310	1-3/8	4	120.46	.4740	1-3/8	4	131.32
.3290	1-1/4	3-1/2	77.84	.3810	1-1/4	3-1/2	103.04	.4320	1-3/8	4	120.46	.4750	1-3/8	4	131.32
.3300	1-1/4	3-1/2	77.84	.3820	1-1/4	3-1/2	103.04	.4330	1-3/8	4	120.46	.4760	1-3/8	4	131.32
.3310	1-1/4	3-1/2	77.84	.3830	1-1/4	3-1/2	103.04	.4340	1-3/8	4	120.46	.4770	1-3/8	4	131.32
.3330	1-1/4	3-1/2	77.84	.3840	1-1/4	3-1/2	103.04	.4350	1-3/8	4	120.46	.4780	1-3/8	4	131.32
.3340	1-1/4	3-1/2	77.84	.3850	1-1/4	3-1/2	103.04	.4355	1-3/8	4	120.46	.4790	1-1/2	4	138.64
.3350	1-1/4	3-1/2	77.84	.3870	1-1/4	3-1/2	104.08	.4360	1-3/8	4	120.46	.4800	1-1/2	4	138.64
.3360	1-1/4	3-1/2	77.84	.3880	1-1/4	3-1/2	104.08	.4365	1-3/8	4	120.46	.4805	1-1/2	4	138.64
.3370	1-1/4	3-1/2	77.84	.3890	1-1/4	3-1/2	104.08	.4370	1-3/8	4	120.46	.4810	1-1/2	4	138.64
.3380	1-1/4	3-1/2	77.84	.3900	1-1/4	3-1/2	104.08	.4380	1-3/8	4	120.46	.4820	1-1/2	4	138.64
.3400	1-1/4	3-1/2	77.84	.3910	1-1/4	3-1/2	109.42	.4385	1-3/8	4	120.46	.4830	1-1/2	4	138.64
.3410	1-1/4	3-1/2	77.84	.3920	1-1/4	3-1/2	109.42	.4390	1-3/8	4	120.46	.4840	1-1/2	4	138.64
.3420	1-1/4	3-1/2	77.84	.3930	1-1/4	3-1/2	109.42	.4400	1-3/8	4	120.46	.4850	1-1/2	4	138.64
.3430	1-1/4	3-1/2	77.84	.3940	1-1/4	3-1/2	109.42	.4410	1-3/8	4	120.46	.4860	1-1/2	4	138.64
.3440	1-1/4	3-1/2	88.48	.3950	1-1/4	3-1/2	109.42	.4420	1-3/8	4	120.46	.4870	1-1/2	4	138.64
.3450	1-1/4	3-1/2	88.48	.3960	1-1/4	3-1/2	109.42	.4430	1-3/8	4	120.46	.4880	1-1/2	4	138.64
.3460	1-1/4	3-1/2	88.48	.3980	1-1/4	3-1/2	111.70	.4440	1-3/8	4	120.46	.4890	1-1/2	4	138.64
.3470	1-1/4	3-1/2	88.48	.3990	1-1/4	3-1/2	111.70	.4450	1-3/8	4	120.46	.4900	1-1/2	4	138.64
.3490	1-1/4	3-1/2	88.48	.4000	1-1/4	3-1/2	111.70	.4460	1-3/8	4	120.46	.4910	1-1/2	4	138.64
.3500	1-1/4	3-1/2	88.48	.4010	1-1/4	3-1/2	111.70	.4470	1-3/8	4	120.46	.4930	1-1/2	4	138.64
.3510	1-1/4	3-1/2	88.48	.4020	1-1/4	3-1/2	111.70	.4480	1-3/8	4	120.46	.4940	1-1/2	4	138.64
.3520	1-1/4	3-1/2	88.48	.4030	1-1/4	3-1/2	111.70	.4490	1-3/8	4	120.46	.4950	1-1/2	4	138.64
.3530	1-1/4	3-1/2	88.48	.4050	1-1/4	3-1/2	111.70	.4500	1-3/8	4	120.46	.4960	1-1/2	4	138.64
.3540	1-1/4	3-1/2	88.48	.4060	1-1/4	3-1/2	111.70	.4510	1-3/8	4	120.46	.4970	1-1/2	4	138.64
.3550	1-1/4	3-1/2	88.48	.4070	1-1/4	3-1/2	111.70	.4520	1-3/8	4	120.46	.4980	1-1/2	4	138.64
.3560	1-1/4	3-1/2	88.48	.4080	1-1/4	3-1/2	111.70	.4530	1-3/8	4	131.32	.4990	1-1/2	4	138.64
.3570	1-1/4	3-1/2	88.48	.4090	1-1/4	3-1/2	111.70	.4540	1-3/8	4	131.32	.4995	1-1/2	4	138.64
.3590	1-1/4	3-1/2	88.48	.4100	1-1/4	3-1/2	111.70	.4550	1-3/8	4	131.32	.5005	1-1/2	4	136.54
.3600	1-1/4	3-1/2	93.08	.4110	1-1/4	3-1/2	111.70	.4560	1-3/8	4	131.32	.5010	1-1/2	4	136.54
.3610	1-1/4	3-1/2	93.08	.4120	1-1/4	3-1/2	111.70	.4570	1-3/8	4	131.32	.5015	1-1/2	4	136.54
.3620	1-1/4	3-1/2	93.08	.4140	1-1/4	3-1/2	111.70	.4580	1-3/8	4	131.32	.5020	1-1/2	4	136.54
.3630	1-1/4	3-1/2	93.08	.4150	1-1/4	3-1/2	111.70	.4590	1-3/8	4	131.32	.5030	1-1/2	4	136.54
.3640	1-1/4	3-1/2	93.08	.4160	1-1/4	3-1/2	111.70	.4600	1-3/8	4	131.32	.5040	1-1/2	4	136.54
.3650	1-1/4	3-1/2	93.08	.4170	1-3/8	4	123.04	.4610	1-3/8	4	131.32	.5050	1-1/2	4	136.54
.3660	1-1/4	3-1/2	93.08												

NUMBER OF FLUTES
 .0280 - .2500 dia.: 4 Flutes
 .2501 - .5000 dia.: 6 Flutes

DIAMETER	DIAMETER TOLERANCES
.0280 to .2500	+0000 / +.0002
.2501 to .5000	+0000 / +.0003

D - DOWEL PIN SIZES
U - UNDER SIZES
O - OVER SIZES

HIGH SPEED STEEL CHUCKING REAMERS - TAPER SHANK

ICS USA
GENERAL PURPOSE
RIGHT HAND CUT

STRAIGHT FLUTE

High Speed Steel Straight Shank Straight Flute Taper Shank Chucking Reamers are designed for general purpose reaming of most ferrous and non-ferrous metals. The cutting edge is ground with a 45° chamfer angle for easy hole entry. They are also known as Machine Reamers.


HELICAL FLUTE

High Speed Steel Helical Flute Taper Shank Chucking Reamers are designed for reaming materials where additional shear is necessary and to improve chip removal in blind holes. The cutting edge is ground with a 45° chamfer angle for easy hole entry. They are also known as Machine Reamers.

SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	MORSE TAPER	STRAIGHT FLUTE		HELICAL FLUTE	
					ITEM NO.	PRICE	ITEM NO.	PRICE
1/4	.2500	1-1/2	6	1	TSCRSF016	31.30	TSCRHF016	38.26
9/32	.2812	1-1/2	6	1	TSCRSF018	38.26	TSCRHF018	41.20
5/16	.3125	1-1/2	6	1	TSCRSF020	38.26	TSCRHF020	41.20
11/32	.3438	1-1/2	6	1	TSCRSF022	38.76	TSCRHF022	41.20
3/8	.3750	1-3/4	6	1	TSCRSF024	39.50	TSCRHF024	42.20
13/32	.4062	1-3/4	6	1	TSCRSF026	40.36	TSCRHF026	43.40
7/16	.4375	1-3/4	7	1	TSCRSF028	40.36	TSCRHF028	43.40
15/32	.4688	1-3/4	7	1	TSCRSF030	45.00	TSCRHF030	45.00
1/2	.5000	2	8	1	TSCRSF032	42.00	TSCRHF032	43.40
17/32	.5312	2	8	1	TSCRSF034	49.50	TSCRHF034	51.36
9/16	.5629	2	8	1	TSCRSF036	49.50	TSCRHF036	51.36
19/32	.5938	2	8	1	TSCRSF038	53.50	TSCRHF038	54.50
5/8	.6250	2-1/4	9	2	TSCRSF040	51.76	TSCRHF040	54.50
21/32	.6562	2-1/4	9	2	TSCRSF042	57.00	TSCRHF042	60.00
11/16	.6875	2-1/4	9	2	TSCRSF044	57.00	TSCRHF044	60.00
23/32	.7188	2-1/4	9	2	TSCRSF046	64.96	TSCRHF046	67.00
3/4	.7500	2-1/2	9-1/2	2	TSCRSF048	60.50	TSCRHF048	67.00
25/32	.7812	2-1/2	9-1/2	2	TSCRSF050	70.86	TSCRHF050	77.16
13/16	.8125	2-1/2	9-1/2	2	TSCRSF052	70.86	TSCRHF052	77.16
27/32	.8438	2-1/2	9-1/2	2	TSCRSF054	84.00	TSCRHF054	88.44
7/8	.8750	2-5/8	10	2	TSCRSF056	79.50	TSCRHF056	88.44
29/32	.9062	2-5/8	10	2	TSCRSF058	91.50	TSCRHF058	96.70
15/16	.9375	2-5/8	10	3	TSCRSF060	87.96	TSCRHF060	96.70
31/32	.9688	2-5/8	10	3	TSCRSF062	99.00	TSCRHF062	107.50
1	1.0000	2-3/4	10-1/2	3	TSCRSF100	97.00	TSCRHF100	107.50
1-1/32	1.0312	2-3/4	10-1/2	3	TSCRSF102	118.00	TSCRHF102	131.50
1-1/16	1.0625	2-3/4	10-1/2	3	TSCRSF104	109.00	TSCRHF104	119.00
1-1/8	1.1250	2-7/8	11	3	TSCRSF108	118.00	TSCRHF108	131.70
1-5/32	1.1562	2-7/8	11	3	TSCRSF110	144.00	TSCRHF110	159.00
1-3/16	1.1875	2-7/8	11	3	TSCRSF112	132.26	TSCRHF112	143.30
1-1/4	1.2500	3	11-1/2	4	TSCRSF116	143.20	TSCRHF116	157.50
1-5/16	1.3125	3	11-1/2	4	TSCRSF120	160.26	TSCRHF120	172.50
1-3/8	1.3750	3-1/4	12	4	TSCRSF124	173.00	TSCRHF124	186.50
1-7/16	1.4375	3-1/4	12	4	TSCRSF128	186.00	TSCRHF128	203.50
1-1/2	1.5000	3-1/2	12-1/2	4	TSCRSF132	200.00	TSCRHF132	215.50
1-3/4	1.7500	4	13-1/2	4	TSCRSF148	295.50	TSCRHF148	310.00
2	2.0000	4	14-1/2	4	TSCRSF200	367.50	TSCRHF200	385.00

Other sizes are available. Please inquire for price and delivery.

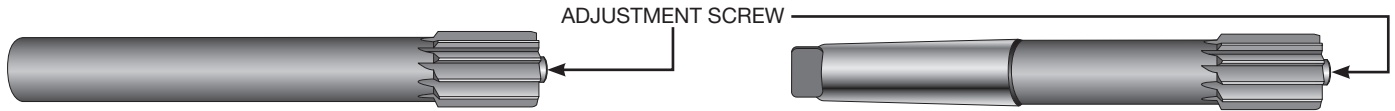
TOLERANCES

3/64 - 1/2 dia.: +.0002 -.0000"
 33/64 - 5/8 dia.: +.0003 -.0000"
 41/64 - 1-1/2 dia.: +.0001 -.0005"
 1-9/16 - 2 dia.: +.0002 -.0006"

NUMBER OF FLUTES

3/64 - 5/32 dia.: 4 Flutes 1-3/8 - 1-1/2 dia.: 12 Flutes
 11/64 - 39/64 dia.: 6 Flutes 1-9/16 - 1-7/8 dia.: 14 Flutes
 5/8 - 1-1/32 dia.: 8 Flutes 2" dia.: 16 Flutes
 1-1/16 - 1-5/16 dia.: 10 Flutes

HIGH SPEED STEEL CHUCKING REAMERS - EXPANSION

ICS USA
GENERAL PURPOSE
RIGHT HAND CUT

STRAIGHT SHANK - STRAIGHT FLUTE
TAPER SHANK - STRAIGHT FLUTE

High Speed Steel Expansion Chucking Reamers are designed to maintain the initial size by compensating for wear on the cutting end. When the reamer has been worn undersize, it may be expanded oversize by tightening the adjusting screw then reground to size and resharpened on the bevel cutting lead. They should not be considered an adjustable reamer to provide holes of different sizes.

SIZE	DEC EQUIV	FLUTE LENGTH	OVERALL LENGTH	STRAIGHT SHANK		TAPER SHANK		
				ITEM NO.	PRICE	MORSE TAPER	ITEM NO.	PRICE
3/8	.3750	3/4	7	XCRSFSS024	48.68	1	XCRSFTS024	55.80
13/32	.4062	3/4	7	XCRSFSS026	51.86	1	XCRSFTS026	59.08
7/16	.4375	7/8	7	XCRSFSS028	51.86	1	XCRSFTS028	59.08
15/32	.4688	7/8	7	XCRSFSS030	53.86	1	XCRSFTS030	60.50
1/2	.5000	1	8	XCRSFSS032	54.80	1	XCRSFTS032	61.68
17/32	.5312	1	8	XCRSFSS034	57.12	1	XCRSFTS034	64.14
9/16	.5625	1-1/8	8	XCRSFSS036	57.54	1	XCRSFTS036	62.98
19/32	.5938	1-1/8	8	XCRSFSS038	58.42	1	XCRSFTS038	65.28
5/8	.6250	1-1/4	9	XCRSFSS040	60.20	2	XCRSFTS040	67.62
21/32	.6562	1-1/4	9	XCRSFSS042	62.60	2	XCRSFTS042	69.48
11/16	.6875	1-1/4	9	XCRSFSS044	63.04	2	XCRSFTS044	69.90
23/32	.7188	1-1/4	9	XCRSFSS046	67.12	2	XCRSFTS046	74.56
3/4	.7500	1-3/8	9-1/2	XCRSFSS048	69.44	2	XCRSFTS048	76.90
25/32	.7812	1-3/8	9-1/2	XCRSFSS050	73.52	2	XCRSFTS050	80.40
13/16	.8125	1-3/8	9-1/2	XCRSFSS052	76.34	2	XCRSFTS052	81.60
27/32	.8438	1-3/8	9-1/2	XCRSFSS054	80.42	2	XCRSFTS054	86.36
7/8	.8750	1-1/2	10	XCRSFSS056	82.72	2	XCRSFTS056	89.76
29/32	.9062	1-1/2	10	XCRSFSS058	86.24	2	XCRSFTS058	94.44
15/16	.9375	1-1/2	10	XCRSFSS060	90.26	3	XCRSFTS060	96.80
31/32	.9688	1-1/2	10	XCRSFSS062	94.34	3	XCRSFTS062	100.86
1	1.0000	1-5/8	10-1/2	XCRSFSS100	99.52	3	XCRSFTS100	106.68
1-1/16	1.0312	1-5/8	10-1/2	XCRSFSS104	110.00	3	XCRSFTS104	116.08
1-1/8	1.1250	1-3/4	11	XCRSFSS108	120.38	3	XCRSFTS108	125.42
1-3/16	1.1875	1-3/4	11	XCRSFSS112	126.78	3	XCRSFTS112	135.82
1-1/4	1.2500	1-7/8	11-1/2	XCRSFSS116	136.64	4	XCRSFTS116	147.58
1-5/16	1.3125	1-7/8	11-1/2	XCRSFSS120	141.20	4	XCRSFTS120	153.34
1-3/8	1.3750	2	12	XCRSFSS124	146.40	4	XCRSFTS124	159.70
1-7/16	1.4375	2	12	XCRSFSS128	152.20	4	XCRSFTS128	169.06
1-1/2	1.5000	2-1/8	12-1/2	XCRSFSS132	158.62	4	XCRSFTS132	174.86
1-9/16	1.5625	2-1/8	12-1/2	XCRSFSS136	214.50	4	XCRSFTS136	234.30
1-5/8	1.6250	2-1/4	13	XCRSFSS140	217.80	4	XCRSFTS140	237.60
1-11/16	1.6875	2-1/4	13	XCRSFSS144	231.00	4	XCRSFTS144	250.80
1-3/4	1.7500	2-3/8	13-1/2	XCRSFSS148	262.68	5	XCRSFTS148	289.08
1-13/16	1.8125	2-3/8	13-1/2	XCRSFSS152	280.50	5	XCRSFTS152	310.20
1-7/8	1.8750	2-1/2	14	XCRSFSS156	316.80	5	XCRSFTS156	346.50
1-15/16	1.9375	2-1/2	14	XCRSFSS160	325.00	5	XCRSFTS160	350.00
2	2.0000	2-1/2	14	XCRSFSS200	333.30	5	XCRSFTS200	366.30
2-1/8	2.1250	2-3/4	14			5	XCRSFTS208	438.90
2-1/4	2.2500	2-3/4	14-1/2			5	XCRSFTS216	460.00
2-3/8	2.3750	2-3/4	15			5	XCRSFTS224	495.00
2-1/2	2.5000	3	15			5	XCRSFTS232	524.70
3	3.0000	3	15			5	XCRSFTS300	986.70

Maximum expansion to 1/2" - approximately .006, to 1" - approximately .010
 Maximum expansion to 1-1/2" - approximately .012, to 3" - approximately .015

HIGH SPEED STEEL JOBBER REAMERS - TAPER SHANK

ICS **WIS**

SPECIAL PURPOSE

RIGHT HAND CUT

LONG FLUTE



45° CHAMFER

High Speed Steel Taper Shank Jobber Reamers with Straight Flutes are designed for machine use in applications where long flutes are required. They have approximately the same flute length as hand reamers and are furnished with a 45° chamfer. For longer flutes and overall lengths, see our Machine Reamers on the following pages.

SIZE	DEC EQUIV	MORSE TAPER SHANK	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
1/4	.2500	1	2	5-3/16	TSJRSF016	54.56
9/32	.2812	1	2	5-3/16	TSJRSF018	57.56
5/16	.3125	1	2-1/4	5-1/2	TSJRSF020	56.80
11/32	.3438	1	2-1/4	5-1/2	TSJRSF022	60.44
3/8	.3750	1	2-1/2	5-3/16	TSJRSF024	65.72
13/32	.4062	1	2-1/2	5-13/16	TSJRSF026	68.58
7/16	.4375	1	2-3/4	6-1/8	TSJRSF028	74.20
15/32	.4688	1	2-3/4	6-1/8	TSJRSF030	69.52
1/2	.5000	1	3	6-7/16	TSJRSF032	74.20
17/32	.5312	1	3	6-7/16	TSJRSF034	76.62
9/16	.5625	1	3-1/4	6-3/4	TSJRSF036	84.00
19/32	.5938	1	3-1/4	6-3/4	TSJRSF038	85.90
5/8	.6250	2	3-1/2	7-9/16	TSJRSF040	87.52
21/32	.6562	2	3-1/2	7-9/16	TSJRSF042	92.98
11/16	.6875	2	3-7/8	8	TSJRSF044	102.00
23/32	.7188	2	3-7/8	8	TSJRSF046	84.40
3/4	.7500	2	4-3/16	8-3/8	TSJRSF048	102.00
25/32	.7812	2	4-3/16	8-3/8	TSJRSF050	96.64
13/16	.8125	2	4-9/16	8-13/16	TSJRSF052	114.56
27/32	.8438	2	4-7/8	9-13/16	TSJRSF054	103.98
7/8	.8750	2	4-7/8	9-13/16	TSJRSF056	128.20
15/16	.9375	3	5-1/8	10	TSJRSF060	135.00
1	1.0000	3	5-7/16	10-3/8	TSJRSF100	146.60
1-1/16	1.0625	3	5-5/8	10-3/8	TSJRSF104	155.96
1-1/8	1.1250	3	5-13/16	10-7/8	TSJRSF108	175.10
1-3/16	1.1875	3	6	11-1/8	TSJRSF112	195.00
1-1/4	1.2500	4	6-1/8	12-9/16	TSJRSF116	200.00
1-5/16	1.3125	4	6-1/4	12-11/16	TSJRSF120	210.00
1-3/8	1.3750	4	6-5/16	12-13/16	TSJRSF124	225.00
1-7/16	1.4375	4	6-7/16	13	TSJRSF128	280.46
1-1/2	1.5000	4	6-3/4	13-5/8	TSJRSF132	248.00

HIGH SPEED STEEL JOBBER REAMER SET - TAPER SHANK

ICS **WIS**

PLASTIC CASE

RIGHT HAND CUT

DESCRIPTION	SIZES IN SET	ITEM NO.	PRICE
10 PC TAPER SHANK JOBBER REAMER SET (not pictured)	Each set contains: 15/16, 1, 1-1/16, 1-1/8, 1-3/16 1-1/4, 1-5/16, 1-3/8, 1-7/16, 1-1/2	RS-TSJRSF-10	2523.76

HIGH SPEED STEEL
MACHINE REAMERS
Taper Shank - Extra Long Flute

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

LONG
BODYLEFT HAND
FLUTE 7°-10°

High Speed Steel Extra Long Fluted Machine Reamers are designed to fill the needs of users requiring a machine reamer with extra long flutes to ream materials where additional shear is needed. They are manufactured with a 7° - 10° left hand spiral flute and 45° bevel lead for machine use for holes to H7 tolerance.

SIZE	DEC EQUIV	MORSE TAPER SHANK	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
3/16	.1875	1	4-13/16	8	MRHFTSXL012X08	118.80
7/32	.2188	1	4-13/16	8	MRHFTSXL014X08	118.80
1/4	.2500	1	4-13/16	8	MRHFTSXL016X08	73.00
1/4	.2500	1	6-13/16	10	MRHFTSXL016X10	138.00
9/32	.2812	1	4-13/16	8	MRHFTSXL018X08	96.00
5/16	.3125	1	4-13/16	8	MRHFTSXL020X08	73.20
5/16	.3125	1	6-13/16	10	MRHFTSXL020X10	124.80
5/16	.3125	1	8-13/16	12	MRHFTSXL020X12	228.00
11/32	.3438	1	4-13/16	8	MRHFTSXL022X08	151.20
3/8	.3750	1	4-13/16	8	MRHFTSXL024X08	90.00
3/8	.3750	1	6-13/16	10	MRHFTSXL024X10	116.40
3/8	.3750	1	8-13/16	12	MRHFTSXL024X12	174.00
7/16	.4219	1	4-13/16	8	MRHFTSXL028X08	100.80
7/16	.4219	1	6-13/16	10	MRHFTSXL028X10	134.40
7/16	.4219	1	8-13/16	12	MRHFTSXL028X12	171.60
1/2	.5000	1	4-13/16	8	MRHFTSXL032X08	87.60
1/2	.5000	1	6-13/16	10	MRHFTSXL032X10	124.80
1/2	.5000	1	8-13/16	12	MRHFTSXL032X12	177.60
9/16	.5625	2	8-1/16	12	MRHFTSXL036X12	189.60
5/8	.6250	2	8-1/16	12	MRHFTSXL040X12	144.00
5/8	.6250	2	11-1/16	15	MRHFTSXL040X15	296.40
11/16	.6875	2	8-1/16	12	MRHFTSXL044X12	229.20
3/4	.7500	2	8-1/16	12	MRHFTSXL048X12	159.60
3/4	.7500	2	11-1/16	15	MRHFTSXL048X15	283.20
25/32	.7812	2	8-1/16	12	MRHFTSXL050X12	237.60
13/16	.8125	2	8-1/16	12	MRHFTSXL052X12	252.00
7/8	.8750	2	11-1/16	15	MRHFTSXL056X15	255.60
7/8	.8750	2	14-1/16	18	MRHFTSXL056X18	379.20
1	1.0000	3	10-1/4	15	MRHFTSXL100X15	255.60
1	1.0000	3	13-1/4	18	MRHFTSXL100X18	426.00
1-1/8	1.1250	3	10-1/4	15	MRHFTSXL108X15	356.40
1-1/4	1.2500	3	10-1/4	15	MRHFTSXL116X15	385.20
1-1/4	1.2500	3	13-1/4	18	MRHFTSXL116X18	579.60
1-3/8	1.3750	4	12-1/8	18	MRHFTSXL124X18	780.00
1-1/2	1.5000	4	12-1/8	18	MRHFTSXL132X18	900.00

NOTE: Other sizes and lengths can be made to order. Quantity will determine price. Inquire for quote and lead time.

HIGH SPEED STEEL
MACHINE REAMERS
Taper Shank - Extra Long Flute - Metric

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

LONG
BODYLEFT HAND
FLUTE 7°-10°

High Speed Steel Extra Long Fluted Metric Machine Reamers are designed to fill the needs of users requiring a machine reamer with extra long flutes to ream materials where additional shear is needed. They are manufactured with a 7° - 10° left hand spiral flute and 45° bevel lead for machine use for holes to H7 tolerance.

SIZE mm	DEC EQUIV	MORSE TAPER SHANK	FLUTE LENGTH (mm)	OVERALL LENGTH (mm)	ITEM NO.	PRICE
5.50mm	.2165	1	120mm	200mm	MRHFTSM055X200	168.00
6.00mm	.2362	1	120mm	200mm	MRHFTSM060X200	73.20
6.50mm	.2559	1	120mm	200mm	MRHFTSM065X200	151.20
7.00mm	.2756	1	120mm	200mm	MRHFTSM070X200	102.00
8.00mm	.3150	1	120mm	200mm	MRHFTSM080X200	73.20
8.00mm	.3150	1	170mm	250mm	MRHFTSM080X250	134.40
8.00mm	.3150	1	220mm	300mm	MRHFTSM080X300	228.00
8.50mm	.3346	1	120mm	200mm	MRHFTSM085X200	144.00
9.00mm	.3543	1	120mm	200mm	MRHFTSM090X200	151.20
10.00mm	.3937	1	120mm	200mm	MRHFTSM100X200	110.40
10.00mm	.3937	1	170mm	250mm	MRHFTSM100X250	139.20
10.00mm	.3937	1	220mm	300mm	MRHFTSM100X300	200.40
11.00mm	.4331	1	120mm	200mm	MRHFTSM110X200	146.40
12.00mm	.4724	1	120mm	200mm	MRHFTSM120X200	114.00
12.00mm	.4724	1	170mm	250mm	MRHFTSM120X250	142.80
12.00mm	.4724	1	220mm	300mm	MRHFTSM120X300	175.20
13.00mm	.5118	1	170mm	250mm	MRHFTSM130X250	198.00
14.00mm	.5512	1	170mm	250mm	MRHFTSM140X250	176.40
14.00mm	.5512	1	270mm	350mm	MRHFTSM140X350	261.60
15.00mm	.5512	2	122mm	220mm	MRHFTSM150X220	141.60
16.00mm	.6299	2	150mm	250mm	MRHFTSM160X250	132.00
16.00mm	.6299	2	200mm	300mm	MRHFTSM160X300	144.00
16.00mm	.6299	2	300mm	400mm	MRHFTSM160X400	426.00
17.00mm	.6693	2	200mm	300mm	MRHFTSM170X300	229.20
18.00mm	.7087	2	200mm	300mm	MRHFTSM180X300	204.00
19.00mm	.7480	2	200mm	300mm	MRHFTSM190X300	210.00
19.00mm	.7480	2	300mm	400mm	MRHFTSM190X400	429.60
19.50mm	.7677	2	150mm	250mm	MRHFTSM195X250	216.00
19.50mm	.7677	2	200mm	300mm	MRHFTSM195X300	252.00
20.00mm	.7844	2	200mm	300mm	MRHFTSM200X300	165.60
20.00mm	.7844	2	250mm	350mm	MRHFTSM200X350	266.40
20.00mm	.7844	2	300mm	400mm	MRHFTSM200X400	464.40
22.00mm	.8661	2	200mm	300mm	MRHFTSM220X300	228.00
24.00mm	.9449	3	223mm	350mm	MRHFTSM240X350	300.00
25.00mm	.9843	3	223mm	350mm	MRHFTSM250X350	270.00
25.00mm	.9843	3	273mm	400mm	MRHFTSM250X400	394.80
26.00mm	1.0433	3	273mm	400mm	MRHFTSM260X400	474.00
28.00mm	1.1024	3	273mm	400mm	MRHFTSM280X400	474.00
30.00mm	1.1811	3	223mm	350mm	MRHFTSM300X350	376.80
30.00mm	1.1811	3	273mm	400mm	MRHFTSM300X400	510.00
32.00mm	1.2598	4	245mm	400mm	MRHFTSM320X400	589.20
35.00mm	1.3780	4	195mm	350mm	MRHFTSM350X350	440.40
35.00mm	1.3780	4	245mm	400mm	MRHFTSM350X400	654.00
38.00mm	1.4961	4	245mm	400mm	MRHFTSM380X400	774.00
40.00mm	1.5748	4	245mm	400mm	MRHFTSM400X400	864.00
50.00mm	1.9865	4	245mm	400mm	MRHFTSM500X400	1128.00

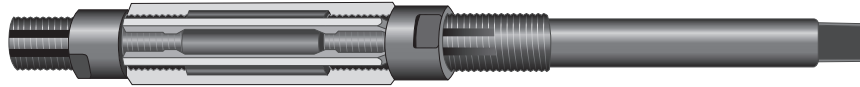
NOTE: Other sizes and lengths can be made to order. Quantity will determine price. Inquire for quote and lead time.

HIGH SPEED STEEL ADJUSTABLE HAND REAMERS

ICS WIS

GENERAL PURPOSE

RIGHT HAND CUT



High Speed Steel Adjustable Hand Reamers are designed with enough of an adjustment range to ream almost any odd size hole encountered in reaming. The blades are made of high speed steel for long life and can be adjusted by loosening one nut while tightening the other. They are used mostly for repair work in the field. They are also known as Adjustable King Pin Reamers. Ends are center drilled so blades can be sharpened in place.

INDUSTRY SIZE	RANGE OF ADJUSTMENT		BLADE LENGTH	OVERALL LENGTH	NO. OF BLADES	ITEM NO.	PRICE
	FRACTIONAL	METRIC					
8A	1/4 to 9/32	6.30mm to 7.14mm	1-11/32	3-1/4	4	AHR016	35.68
7A	9/32 to 5/16	7.14mm to 7.93mm	1-11/32	3-1/2	4	AHR018	35.68
6A	5/16 to 11/32	7.93mm to 8.73mm	1-1/2	4-1/8	4	AHR020	34.58
5A	11/32 to 3/8	8.73mm to 9.52mm	1-1/2	4-3/8	4	AHR022	34.58
4A	3/8 to 13/32	9.52mm to 10.31mm	1-1/2	4-3/4	4	AHR024	34.58
3A	13/32 to 7/16	10.31mm to 11.11mm	1-1/2	5	6	AHR026	34.58
2A	7/16 to 15/32	11.11mm to 11.90mm	1-5/8	5-1/4	6	AHR028	34.58
A	15/32 to 17/32	11.90mm to 13.49mm	1-5/8	5-1/2	6	AHR030	35.28
B	17/32 to 19/32	13.49mm to 15.08mm	1-13/16	5-3/4	6	AHR034	37.48
C	19/32 to 21/32	15.08mm to 16.66mm	2-1/16	6-1/2	7	AHR038	38.92
D	21/32 to 23/32	16.66mm to 18.25mm	2-3/16	6-3/4	7	AHR042	40.38
E	23/32 to 25/32	18.25mm to 19.84mm	2-1/2	7	7	AHR046	42.52
F	25/32 to 27/32	19.84mm to 21.43mm	2-5/8	7-3/8	7	AHR050	44.48
G	27/32 to 15/16	21.43mm to 23.81mm	3	8	7	AHR054	48.28
H	15/16 to 1-1/16	23.81mm to 26.98mm	3-1/4	9	7	AHR060	54.04
I	1-1/16 to 1-3/16	26.98mm to 30.16mm	3-3/8	10	7	AHR104	75.66
J	1-3/16 to 1-11/32	30.16mm to 34.13mm	3-7/8	11	7	AHR112	82.84
K	1-11/32 to 1-1/2	34.13mm to 38.10mm	4-1/4	12	7	AHR122	104.46
L	1-1/2 to 1-13/16	38.10mm to 46.03mm	4-7/16	14	7	AHR132	154.96
M	1-13/16 to 2-7/32	46.03mm to 56.35mm	5	16	7	AHR152	223.38
N	2-7/32 to 2-3/4	56.35mm to 69.85mm	4-13/16	18	7	AHR214	403.20
O	2-3/4 to 3-11/32	69.85mm to 84.93mm	5-3/16	20	7	AHR248	504.00

ADJUSTABLE HAND REAMER SETS

ICS WIS

PLASTIC CASE

RIGHT HAND CUT

ILLUSTRATION	DESCRIPTION	ITEM NO.	PRICE
	4 PC SET Sizes 8A to 5A	RS-AHR-4	221.34
	8 PC SET Sizes A to H	RS-AHR-8	532.46
	11 PC SET Sizes A to K	RS-AHR-11	799.12

* Custom sets can be made per customer requirements. Inquire for pricing.

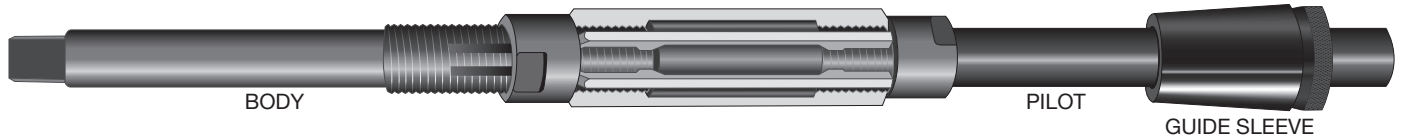
HIGH SPEED STEEL HAND REAMERS - ADJUSTABLE - LONG PILOT

ICS

WIS

SPECIAL PURPOSE

RIGHT HAND CUT



High Speed Steel Long Pilot Adjustable Hand Reamers are designed for in line reaming when two holes are spaced far apart. The solid ground pilot uses a “floating” tapered guide sleeve which is seated in one hole to guide the reamer as it reams the other hole. The tapered guide sleeve can be used at either end of the other hole. They are also known Long Pilot Adjustable Blade Reamers, Adjustable In Line Reamers or Adjustable King Pin Reamers. Ends are center drilled so blades can be sharpened in place.

INDUSTRY SIZE	RANGE OF ADJUSTMENT		BLADE LENGTH	OVERALL LENGTH	NO. OF BLADES	ITEM NO.	PRICE
	FRACTIONAL	METRIC					
8A	1/4 to 9/32	6.30mm to 7.14mm	1-5/16	5-1/8	4	LPAHR016	101.20
7A	9/32 to 5/16	7.14mm to 7.93mm	1-3/8	5-1/2	4	LPAHR018	101.20
6A	5/16 to 11/32	7.93mm to 8.73mm	1-3/8	6-1/16	4	LPAHR020	101.20
5A	11/32 to 3/8	8.73mm to 9.52mm	1-3/8	6-1/4	4	LPAHR022	101.20
4A	3/8 to 13/32	9.52mm to 10.31mm	1-3/8	6-1/2	4	LPAHR024	101.20
3A	13/32 to 7/16	10.31mm to 11.11mm	1-7/16	6-9/16	6	LPAHR026	101.20
2A	7/16 to 15/32	11.11mm to 11.90mm	1-1/2	6-15/16	6	LPAHR028	101.20
A	15/32 to 17/32	11.90mm to 13.49mm	1-1/2	7-1/4	6	LPAHR030	101.48
B	17/32 to 19/32	13.49mm to 15.08mm	1-3/4	7-7/16	6	LPAHR034	103.68
C	19/32 to 21/32	15.08mm to 16.66mm	2	8-1/2	6	LPAHR038	105.12
D	21/32 to 23/32	16.66mm to 18.25mm	2-3/16	9-5/8	6	LPAHR042	106.58
E	23/32 to 25/32	18.25mm to 19.84mm	2-3/16	10	6	LPAHR046	108.72
F	25/32 to 27/32	19.84mm to 21.43mm	2-3/16	10	6	LPAHR050	110.68
G	27/32 to 15/16	21.43mm to 23.81mm	2-9/16	11-1/2	6	LPAHR054	114.48
H	15/16 to 1-1/16	23.81mm to 26.98mm	2-3/4	12-3/8	6	LPAHR060	123.00
I	1-1/16 to 1-3/16	26.98mm to 30.16mm	2-3/4	13-1/8	6	LPAHR104	150.14
J	1-3/16 to 1-11/32	30.16mm to 34.13mm	3-1/4	14-3/8	6	LPAHR112	169.76
K	1-11/32 to 1-1/2	34.13mm to 38.10mm	3-1/4	16	6	LPAHR122	209.30
L	1-1/2 to 1-13/16	38.10mm to 46.03mm	3-1/4	16-1/4	6	LPAHR132	317.04
M	1-13/16 to 2-7/32	46.03mm to 56.35mm	4	18	6	LPAHR152	427.54

HAND REAMER SETS - ADJUSTABLE - LONG PILOT

ICS

WIS

PLASTIC CASE

RIGHT HAND CUT

ILLUSTRATION	DESCRIPTION	ITEM NO.	PRICE
	4 PC SET Sizes 8A to 5A	RS-LPAHR-4	457.46
	8 PC SET Sizes A to H	RS-LPAHR-8	936.46
	11 PC SET Sizes A to K	RS-LPAHR-11	1528.94

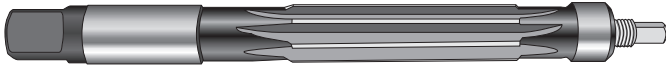
* Custom sets can be made per customer requirements. Inquire for pricing.

HIGH SPEED STEEL HAND EXPANSION REAMERS

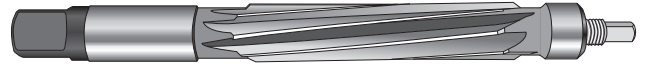
ICS USA

GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE
(General Purpose Reaming)



HELICAL FLUTE, LEFT HAND HELIX
(Reaming keyways & interrupted cut holes)

High Speed Steel Hand Expansion Reamers are designed to enlarge reamed holes by a few thousandths. The pilot and guide on these reamers are ground slightly undersize for clearance and to guide reamer. The flutes also have a ground starting taper to help guide reamer into hole. Reamer can be expanded slightly by turning adjusting screw on end of reamer.

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL	
				STRAIGHT FLUTE	HELICAL FLUTE
				HERSF	HERHF
3/16	.1875	1-1/8	3-3/8	64.00	64.00
1/4	.2500	1-7/16	4-1/4	64.00	82.12
5/16	.3125	1-3/4	4-1/2	80.00	84.64
3/8	.3750	1-3/4	5	89.56	95.64
13/32	.4062	1-3/4	5	94.12	98.80
7/16	.4375	1-3/4	5	95.64	100.40
15/32	.4688	1-13/16	5-1/2	97.00	101.88
1/2	.5000	1-13/16	5-1/2	96.04	100.84
17/32	.5312	2-1/8	6	101.84	106.96
9/16	.5629	2-1/8	6	104.88	100.12
19/32	.5938	2-1/2	6	133.80	147.36
5/8	.6250	2-1/2	6-1/2	113.64	118.80
21/32	.6562	2-1/2	7	149.52	169.92
11/16	.6875	2-1/2	6-3/4	129.72	136.20
23/32	.7188	2-11/16	7	164.52	187.92
3/4	.7500	2-11/16	7-1/16	143.52	150.68
25/32	.7812	3-1/16	8	183.60	199.20
13/16	.8125	3-1/16	7-9/16	161.48	169.52
27/32	.8438	3-5/16	8	201.96	213.96

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL	
				STRAIGHT FLUTE	HELICAL FLUTE
				HERSF	HERHF
7/8	.8750	3-5/16	8	173.88	182.56
29/32	.9062	3-9/16	9	226.80	256.68
15/16	.9375	3-9/16	8-3/8	198.72	208.64
31/32	.9688	3-3/4	9	253.32	267.60
1	1.0000	3-3/4	8-7/8	211.60	222.20
1-1/16	1.0625	4	9-3/16	220.80	231.84
1-1/8	1.1250	4-1/8	9-1/2	239.20	251.16
1-3/16	1.1875	4-1/4	9-7/8	243.80	256.00
1-1/4	1.2500	4-3/8	10-1/4	249.00	262.76
1-5/16	1.3125	4-1/2	10-5/8	262.20	275.32
1-3/8	1.3750	4-9/16	11	285.20	299.48
1-7/16	1.4375	4-3/4	11-3/8	312.80	328.44
1-1/2	1.5000	4-13/16	11-5/8	360.00	376.76
1-9/16	1.5625	4-13/16	11-7/8	378.12	397.04
1-5/8	1.6250	4-7/8	12	388.24	407.64
1-3/4	1.7500	5	12-3/8	447.12	469.48
1-7/8	1.8750	5	12-3/4	487.60	512.00
2	2.0000	5	13-1/16	570.40	598.92

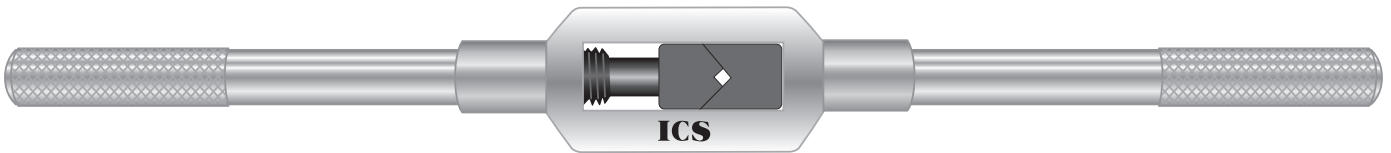
The maximum expansion on these reamers is as follows: .006 inch up to 7/16" sizes, .010 inch up to 15/16" sizes and .012 inch up to 1-1/2" sizes.

TAP AND REAMER WRENCHES - ADJUSTABLE

ICS USA

GENERAL PURPOSE

STRAIGHT TYPE



Solid Die Cast Adjustable Tap and Reamer Wrenches are solidly built for a lifetime of industrial service under normal conditions. Size 0 to 7 wrenches have solid handles, one of which is forged integral with the body. The other handles turn for size adjustment. Size 7-1/2 to 8 wrenches have solid handles which are removable. One handle turns for size adjustment.

OVERALL LENGTH	CAPACITY						ITEM NO.	PRICE
	SCREW EXTRACTOR	HAND TAPS	MACHINE TAPS	PIPE TAPS	HAND REAMERS	ADJUSTABLE HAND REAMERS		
6-1/2	#1-3	1/16 - 1/4	0 - 14	-	1/8 - 21/64	8A - A	TW-0	8.74
9	#4	1/16 - 3/8	0 - 14	-	1/8 - 25/64	8A - C	TW-4	12.22
10	#5	5/32 - 1/2	7 - 14	1/8 - 1/4	11/64 - 7/16	8A - F	TW-5	14.78
13-1/2	#6	5/32 - 3/4	7 - 14	1/8 - 1/4	11/64 - 41/64	8A - G	TW-6	19.04
19	#7	1/4 - 1-1/8	-	1/8 - 3/4	9/32 - 29/32	3A - K	TW-7	33.50
31	#8	1/2 - 1-3/8	-	1/8 - 1	3/4 - 1-5/32	B - L	TW-7.5	91.84
40	#10	3/4 - 1-5/8	-	3/8 - 1-1/4	37/64 - 1-11/32	C - M	TW-8	140.00
54	#11-12	1 - 2-1/2	-	3/4 - 2	7/8 - 2-1/8	J - O	TW-9.5	169.46

HIGH SPEED STEEL HAND REAMERS - METRIC

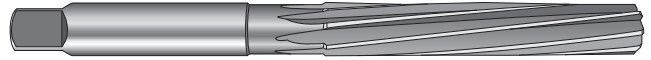
ICS **WIS**

GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE
(General Purpose Reaming)



HELICAL FLUTE, LEFT HAND HELIX
(Reaming keyways & interrupted cut holes)

High Speed Steel Metric Hand Reamers are designed for extreme accuracy and are used by hand for final sizing of drilled holes. Both styles of hand reamers have a 45° bevel lead and a ground starting taper ranging from 1/2" to 1" on the cutting end for easy entry. They are not suitable for reaming blind holes if bottoming is required. Square end can be held in a vise or a tap wrench depending on whether the work or the reamer is rotating. Special Metric Hand Reamers with straight flutes and without the taper lead (suitable for full bottoming) may be made to order. Hand Reamers are also commonly known as Parallel Hand Reamers in Europe and Asia.

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL	
				STRAIGHT FLUTE	HELICAL FLUTE
				HRSFM	HRHFM
1.50	.0591	25/32	1-5/8		
2.00	.0787	13/16	2		
2.50	.0984	1-1/8	2-1/4		
3.00	.1181	1-7/32	2-7/16	43.70	43.70
3.20	.1260	1-1/4	2-1/2	43.70	43.70
3.50	.1378	1-3/8	2-3/4	43.70	43.70
4.00	.1575	1-1/2	3	43.70	43.70
4.50	.1772	1-5/8	3-1/4	43.70	43.70
5.00	.1969	1-3/4	3-1/2	46.20	46.20
5.50	.2165	1-13/16	3-5/8	46.20	46.20
6.00	.2362	1-13/16	3-5/8	46.20	46.20
6.50	.2559	2	3-15/16		
7.00	.2756	2-1/8	4-1/4	49.50	49.50
7.50	.2953	2-1/8	4-3/16		
8.00	.3150	2-1/4	4-1/2	57.85	57.85
8.50	.3346	2-1/4	4-1/2		
9.00	.3543	2-7/16	4-7/8	57.85	57.85
9.50	.3740	2-7/16	4-7/8		
10.00	.3937	2-5/8	5-1/4	62.80	62.80
10.50	.4134	2-5/8	5-1/4		
11.00	.4331	2-13/16	5-5/8	62.80	62.80
11.50	.4528	2-13/16	5-5/8		
12.00	.4724	3	6	69.50	69.50
12.50	.4724	3	6		
13.00	.5118	3	6	76.75	76.75
13.50	.5118	3-1/16	6-7/16		
14.00	.5512	3-1/16	6-7/16	76.75	76.75
14.50	.5709	3-1/16	6-7/16		
15.00	.5906	3-1/16	6-7/16	87.95	87.95
15.50	.6102	3-7/16	6-7/8		
16.00	.6299	3-7/16	6-7/8	96.30	96.30
16.50	.6495	3-7/16	6-7/8		
17.00	.6693	3-7/16	6-7/8	96.30	96.30
17.50	.6890	3-11/16	7-7/16		
18.00	.7087	3-11/16	7-7/16	102.20	102.20
18.50	.7283	3-11/16	7-7/16		
19.00	.7480	3-11/16	7-7/16	117.65	117.65

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL	
				STRAIGHT FLUTE	HELICAL FLUTE
				HRSFM	HRHFM
19.50	.7677	3-15/16	7-15/16		
20.00	.7874	3-15/16	7-15/16	117.65	117.65
20.50	.8071	3-15/16	7-15/16		
21.00	.8268	3-15/16	7-15/16		
21.50	.8465	4-3/16	8-1/2		
22.00	.8661	4-3/16	8-1/2		
22.50	.8858	4-3/16	8-1/2		
23.00	.9055	4-3/16	8-1/2		
23.50	.9252	4-3/16	8-1/2		
24.00	.9449	4-1/2	9-1/16		
24.50	.9646	4-1/2	9-1/16		
25.00	.9842	4-1/2	9-1/16		
26.00	1.0236	4-1/2	9-1/16		
27.00	1.0630	4-7/8	9-3/4		
28.00	1.1024	4-7/8	9-3/4		
29.00	1.1417	4-7/8	9-3/4		
30.00	1.1811	4-7/8	9-3/4		
31.00	1.2205	5-1/4	10-7/16		
32.00	1.2598	5-1/4	10-7/16		
33.00	1.2992	5-1/4	10-7/16		
34.00	1.3386	5-5/8	11-3/16		
35.00	1.3780	5-5/8	11-3/16		
36.00	1.4173	5-5/8	11-3/16		
37.00	1.4567	5-5/8	11-3/16		
38.00	1.4961	6	12		
39.00	1.5354	6	12		
40.00	1.5748	6	12		
41.00	1.6142	6	12		
42.00	1.6535	6	12		
43.00	1.6929	6-7/16	12-13/16		
44.00	1.7323	6-7/16	12-13/16		
45.00	1.7716	6-7/16	12-13/16		
46.00	1.8110	6-7/16	12-13/16		
47.00	1.8504	6-7/8	13-11/16		
48.00	1.8898	6-7/8	13-11/16		
49.00	1.9291	6-7/8	13-11/16		
50.00	1.9685	6-7/8	13-11/16		

CALL
FOR
PRICE

Please inquire for price and delivery for sizes listed without pricing.

HIGH SPEED STEEL HAND REAMERS

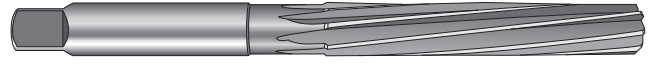
ICS **WIS**

GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE
(General Purpose Reaming)



HELICAL FLUTE, LEFT HAND HELIX
(Reaming keyways & interrupted cut holes)

High Speed Steel Hand Reamers are designed for extreme accuracy and are used by hand for final sizing of drilled holes. Both styles of hand reamers have a 45° bevel lead and a ground starting taper ranging from 1/2" to 1" on the cutting end for easy entry. They are not suitable for reaming blind holes if bottoming is required. Square end can be held in a vise or a tap wrench depending on whether the work or the reamer is rotating. Special Hand Reamers with straight flutes and without the taper lead (suitable for full bottoming) may be made to order. Hand Reamers are also commonly known as Parallel Hand Reamers in Europe and Asia.

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL	
				STRAIGHT FLUTE	HELICAL FLUTE
				HRSF	HRHF
1/16	.0625	1	2	35.00	36.96
5/64	.0781	1	2	35.00	35.46
3/32	.0938	1-1/8	2-1/4	35.00	27.66
7/64	.0194	1-7/32	2-7/16	35.00	28.92
1/8	.1250	1-5/16	2-5/8	21.52	23.44
9/64	.1406	1-3/8	2-13/16	-	25.24
5/32	.1562	1-1/2	3	21.08	22.94
11/64	.1719	1-5/8	3-3/16	21.08	25.78
3/16	.1875	1-3/4	3-7/16	21.08	22.94
13/64	.2031	1-3/4	3-7/16	-	27.42
7/32	.2188	1-7/8	3-11/16	22.94	24.72
15/64	.2344	1-7/8	3-11/16	-	29.04
1/4	.2500	2	3-15/16	22.94	24.72
17/64	.2656	2-1/8	4-3/16	-	30.46
9/32	.2812	2-1/8	4-3/16	24.72	26.30
19/64	.2969	2-1/4	4-1/2	-	32.36
5/16	.3125	2-1/4	4-1/2	24.72	26.30
21/64	.3281	2-1/4	4-1/2	-	33.72
11/32	.3438	2-7/16	4-7/8	27.98	31.60
23/64	.3594	2-7/16	4-7/8	-	36.96
3/8	.3750	2-5/8	5-1/4	27.98	31.60
25/64	.3906	2-5/8	5-1/4	27.98	37.96
13/32	.4062	2-5/8	5-1/4	29.82	34.96
27/64	.4219	2-13/16	5-5/8	-	40.52
7/16	.4375	2-13/16	5-5/8	29.82	34.96
29/64	.4531	2-13/16	5-5/8	-	43.44
15/32	.4688	3	6	34.96	38.64
31/64	.4844	3	6	34.96	46.80
1/2	.5000	3	6	34.96	38.64
33/64	.5156	3	6	-	65.16
17/32	.5312	3-3/16	6-7/16	37.98	42.18
35/64	.5469	3-3/16	6-7/16	76.76	80.56
9/16	.5625	3-3/16	6-7/16	37.98	42.18
37/64	.5781	3-3/16	6-7/16	87.96	80.56
19/32	.5938	3-7/16	6-7/8	40.32	45.54
39/64	.6094	3-7/16	6-7/8	87.96	85.66
5/8	.6250	3-7/16	6-7/8	40.32	45.54
41/64	.6406	3-7/16	6-7/8	82.90	85.66
21/32	.6562	3-7/16	6-7/8	43.68	49.24
43/64	.6719	3-11/16	7-7/16	96.30	105.38
11/16	.6875	3-11/16	7-7/16	43.68	49.24
45/64	.7031	3-11/16	7-7/16	91.00	105.38
23/32	.7188	3-11/16	7-7/16	47.38	52.60

SIZE	DEC. EQUIV.	FLUTE LENGTH	OVERALL LENGTH	HIGH SPEED STEEL	
				STRAIGHT FLUTE	HELICAL FLUTE
				HRSF	HRHF
47/64	.7344	3-11/16	7-7/16	-	119.02
3/4	.7500	3-15/16	7-15/16	47.38	52.60
49/64	.7656	3-15/16	7-15/16	-	135.38
25/32	.7812	3-15/16	7-15/16	50.92	56.12
51/64	.7969	3-15/16	7-15/16	110.00	84.00
13/16	.8125	3-15/16	7-15/16	50.92	56.12
53/64	.8281	3-15/16	7-15/16	118.00	146.08
27/32	.8438	4-3/16	8-1/2	56.12	61.16
55/64	.8594	4-3/16	8-1/2	-	146.08
7/8	.8750	4-3/16	8-1/2	56.12	61.16
57/64	.8906	4-3/16	8-1/2	118.00	146.08
29/32	.9062	4-3/16	8-1/2	61.16	69.90
59/64	.9219	4-3/16	8-1/2	133.00	146.08
15/16	.9375	4-1/2	9-1/16	61.16	69.90
61/64	.9531	4-1/2	9-1/16	135.00	150.14
31/32	.9688	4-1/2	9-1/16	68.40	76.12
63/64	.9844	4-1/2	9-1/16	-	179.60
1	1.0000	4-1/2	9-1/16	68.40	76.12
1-1/32	1.0312	4-1/2	9-1/16	-	168.88
1-1/16	1.0625	4-7/8	9-3/4	76.12	83.00
1-3/32	1.0938	4-7/8	9-3/4	-	183.64
1-1/8	1.1250	4-7/8	9-3/4	84.00	91.74
1-5/32	1.1562	4-7/8	9-3/4	-	214.48
1-3/16	1.1875	5-1/4	10-7/16	94.60	103.34
1-7/32	1.2188	5-1/4	10-7/16	-	248.00
1-1/4	1.2500	5-1/4	10-7/16	103.34	114.76
1-9/32	1.2812	5-1/4	10-7/16	-	238.58
1-5/16	1.3125	5-1/4	10-7/16	113.58	125.18
1-11/32	1.3438	5-5/8	11-3/16	-	-
1-3/8	1.3750	6-5/16	12-5/8	122.32	136.42
1-13/32	1.4062	5-5/8	11-3/16	-	-
1-7/16	1.4375	5-5/8	11-3/16	134.58	148.52
1-15/32	1.4688	5-5/8	11-3/16	-	-
1-1/2	1.5000	6	12	145.84	160.80
1-9/16	1.5625	6	12	-	276.46
1-5/8	1.6250	6	12	-	253.84
1-11/16	1.6875	6-7/16	12-13/16	303.00	349.34
1-3/4	1.7500	6-7/16	12-13/16	-	326.76
1-13/16	1.8125	6-7/16	12-13/16	415.84	502.12
1-7/8	1.8750	6-7/8	13-11/16	-	474.50
1-15/16	1.9375	6-7/8	13-11/16	450.00	559.96
2	2.0000	6-7/8	13-11/16	541.66	452.26

TOLERANCES

1/16 - 1/4 dia.: +.0001 to +.0004"
 1/4 - 1" dia.: +.0001 to +.0005"
 1" - 3" dia.: +.0002 to +.0006"

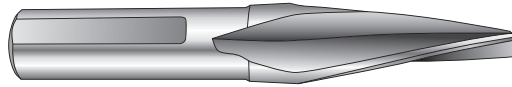
HIGH SPEED STEEL TOWER BOLT REAMERS

ICS **WIS**

SPECIAL PURPOSE

RIGHT HAND CUT

STRAIGHT
SHANK



LEFT HAND
FLUTE

High Speed Steel Tower Bolt Reamers are designed for lining up bolt holes on cell phone towers, wind mills, and transmission towers. They have three flats on the shank for use in 1/2" three jaw power tools and pneumatic equipment. The extra short length makes them more useful in close quarters.

SIZE	SHANK DIAMETER	DIAMETER AT POINT	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
9/16	1/2	13/64	1-39/64	3-1/2	TBR036	44.88
11/16	1/2	3/8	2-3/64	3-21/64	TBR044	58.46
13/16	1/2	15/32	2-59/64	4-51/64	TBR052	78.26

TOWER BOLT REAMER SET

DESCRIPTION	TOWER BOLT REAMER SIZES	ITEM NO.	PRICE
<p>3 PIECE - HIGH SPEED STEEL</p>	9/16, 11/16, 13/16	TBRS-3	181.90

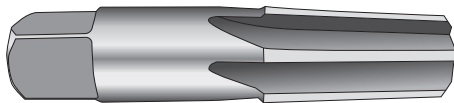
HIGH SPEED STEEL PIPE REAMERS

ICS **WIS**

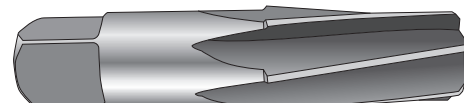
SPECIAL PURPOSE

RIGHT HAND CUT

High Speed Steel Taper Pipe Reamers are manufactured with a taper of 3/4" per foot. They are used prior to tapping dry seal and ANPT threads when high quality threads are required.



STRAIGHT FLUTE



SPIRAL FLUTE

Straight Flute Pipe Reamers are designed for use in easy to ream materials.

Spiral Flute Pipe Reamers are designed for reaming harder materials where additional shear is needed.

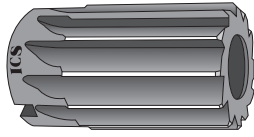
SIZE	SHANK DIA.	DIAMETER		FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	STRAIGHT FLUTE		SPIRAL FLUTE	
		SMALL END	LARGE END				ITEM NO.	PRICE	ITEM NO.	PRICE
1/16	.3125	.2320	.2910	3/4	2	6	PRSF004	18.60	PRSP004	22.44
1/8	.4375	.3160	.3620	3/4	2-1/8	6	PRSF008	18.60	PRSP008	22.44
1/4	.5625	.4060	.4620	1-1/16	2-7/16	6	PRSF016	30.68	PRSP016	27.36
3/8	.7000	.5400	.6060	1-1/16	2-9/16	8	PRSF024	38.88	PRSP024	30.00
1/2	.6875	.6650	.7510	1-3/8	3-1/8	8	PRSF032	43.24	PRSP032	47.50
3/4	.9063	.8760	.9620	1-3/8	3-1/4	10	PRSF048	57.20	PRSP048	67.60
1	1.1250	1.1030	1.2120	1-3/4	3-3/4	10	PRSF100	88.80	PRSP100	96.72
1-1/4	1.3125	1.4440	1.5530	1-3/4	4	10	PRSF116	132.16	PRSP116	157.36
1-1/2	1.5000	1.6840	1.7930	1-3/4	4-1/4	10	PRSF132	195.08	PRSP132	191.60
2	1.8750	2.1590	2.2680	1-3/4	4-1/2	12	PRSF200	270.40	PRSP200	254.16
2-1/2	2.2050	2.5610	2.7720	2-5/8	5-1/2	12	PRSF232	485.60	PRSP232	540.00
3	2.6250	3.2020	3.3800	2-3/4	6	12	PRSF300	636.80	PRSP300	708.00

HIGH SPEED STEEL SHELL REAMERS

ICS **WIS**

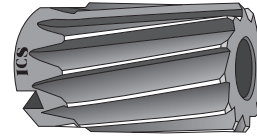
GENERAL PURPOSE

RIGHT HAND CUT



STRAIGHT FLUTE
SRSF

CALL FOR
PRICE



HELICAL FLUTE - LH 10° HELIX
SRHF

High Speed Steel Shell Reamers are designed to be used as a chucking reamer for reaming bearings and other similar work. They are fluted almost their whole length and have a tapered 1/8" per foot hole to be used with shell reamer arbors. One arbor fits several sizes of reamers so only 9 sizes of arbors are needed to fit all sizes of reamers.

SIZE	OVERALL HOLE		NO. OF FLUTES	FITS ARBOR NO.	STRAIGHT FLUTE	HELICAL FLUTE
	LENGTH	DIA.			ITEM NO.	ITEM NO.
3/4	2-1/4	3/8	10	4	SRSF048	SRHF048
13/16	2-1/2	1/2	10	5	SRSF052	SRHF052
7/8	2-1/2	1/2	10	5	SRSF056	SRHF056
15/16	2-1/2	1/2	10	5	SRSF060	SRHF060
1	2-1/2	1/2	10	5	SRSF100	SRHF100
1-1/16	2-3/4	5/8	10	6	SRSF104	SRHF104
1-1/8	2-3/4	5/8	10	6	SRSF108	SRHF108
1-3/16	2-3/4	5/8	10	6	SRSF112	SRHF112
1-1/4	2-3/4	5/8	12	6	SRSF116	SRHF116
1-5/16	3	3/4	12	7	SRSF120	SRHF120
1-3/8	3	3/4	12	7	SRSF124	SRHF124
1-7/16	3	3/4	12	7	SRSF128	SRHF128
1-1/2	3	3/4	12	7	SRSF132	SRHF132
1-9/16	3	3/4	12	7	SRSF136	SRHF136
1-5/8	3	3/4	12	7	SRSF140	SRHF140
1-11/16	3-1/2	1	12	8	SRSF144	SRHF144
1-3/4	3-1/2	1	12	8	SRSF148	SRHF148
1-13/16	3-1/2	1	12	8	SRSF152	SRHF152
1-7/8	3-1/2	1	12	8	SRSF156	SRHF156
1-15/16	3-1/2	1	12	8	SRSF160	SRHF160
2	3-1/2	1	14	8	SRSF200	SRHF200
2-1/16	3-3/4	1-1/4	14	9	SRSF204	SRHF204
2-1/8	3-3/4	1-1/4	14	9	SRSF208	SRHF208
2-3/16	3-3/4	1-1/4	14	9	SRSF212	SRHF212
2-1/4	3-3/4	1-1/4	14	9	SRSF216	SRHF216
2-5/16	3-3/4	1-1/4	14	9	SRSF220	SRHF220
2-3/8	3-3/4	1-1/4	14	9	SRSF224	SRHF224

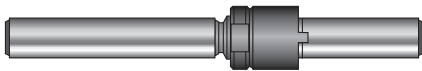
SIZE	OVERALL HOLE		NO. OF FLUTES	FITS ARBOR NO.	STRAIGHT FLUTE	HELICAL FLUTE
	LENGTH	DIA.			ITEM NO.	ITEM NO.
2-7/16	3-3/4	1-1/4	14	9	SRSF228	SRHF228
2-1/2	3-3/4	1-1/4	14	9	SRSF232	SRHF232
2-9/16	4	1-1/2	16	10	SRSF236	SRHF236
2-5/8	4	1-1/2	16	10	SRSF240	SRHF240
2-11/16	4	1-1/2	16	10	SRSF244	SRHF244
2-3/4	4	1-1/2	16	10	SRSF248	SRHF248
2-13/16	4	1-1/2	16	10	SRSF252	SRHF252
2-7/8	4	1-1/2	16	10	SRSF256	SRHF256
2-15/16	4	1-1/2	16	10	SRSF260	SRHF260
3	4	1-1/2	16	10	SRSF300	SRHF300
3-1/16	4-1/2	1-3/4	18	11	SRSF304	SRHF304
3-1/8	4-1/2	1-3/4	18	11	SRSF308	SRHF308
3-3/16	4-1/2	1-3/4	18	11	SRSF312	SRHF312
3-1/4	4-1/2	1-3/4	18	11	SRSF316	SRHF316
3-5/16	4-1/2	1-3/4	18	11	SRSF320	SRHF320
3-3/8	4-1/2	1-3/4	18	11	SRSF324	SRHF324
3-7/16	4-1/2	1-3/4	18	11	SRSF328	SRHF328
3-1/2	4-1/2	1-3/4	18	11	SRSF332	SRHF332
3-9/16	5	2	20	12	SRSF336	SRHF336
3-5/8	5	2	20	12	SRSF340	SRHF340
3-11/16	5	2	20	12	SRSF344	SRHF344
3-3/4	5	2	20	12	SRSF348	SRHF348
3-13/16	5	2	20	12	SRSF352	SRHF352
3-7/8	5	2	20	12	SRSF356	SRHF356
3-15/16	5	2	20	12	SRSF360	SRHF360
4	5	2	20	12	SRSF400	SRHF400

SHELL REAMER ARBORS

ICS **WIS**

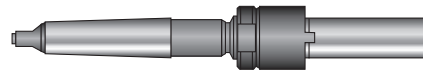
ADAPTERS

GROUND FINISH



STRAIGHT SHANK
SRASS

CALL FOR
PRICE



TAPER SHANK
SRATS

High Speed Steel Shell Reamer Arbors are tapered to fit the hole in the Shell Reamer. They fit together with slots in the reamer which engage lugs on the arbor for driving power.

SIZE	FITS REAMER SIZES	OVERALL LENGTH	LENGTH OF TAPER	ARBOR DIA.	WRENCH SIZE	STRAIGHT SHANK		TAPER SHANK	
						DIA.	ITEM NO.	NO.	ITEM NO.
4	21/32 - 25/32	9	2-1/4	3/8	19/32	1/2	SRASS#04	2	SRATS#04
5	13/16 - 1-1/32	9-1/2	2-1/2	1/2	25/32	5/8	SRASS#05	2	SRATS#05
6	1-1/16 - 1-9/32	10	2-3/4	5/8	7/8	3/4	SRASS#06	3	SRATS#06
7	1-5/16 - 1-21/32	11	3	3/4	1-1/16	7/8	SRASS#07	3	SRATS#07
8	1-11/16 - 2	12	3-1/2	1	1-7/16	1-1/8	SRASS#08	4	SRATS#08
9	2-1/16 - 2-1/2	13	3-3/4	1-1/4	1-13/16	1-3/8	SRASS#09	4	SRATS#09
10	2-9/16 - 3	14	4	1-1/2	2-3/16	1-5/8	SRASS#10	5	SRATS#10
11	3-1/16 - 3-1/2	15	4-1/2	1-3/4	2-9/16	2	SRASS#11	5	SRATS#11
12	3-9/16 - 4	16	5	2	3-1/8	2-1/8	SRASS#12	5	SRATS#12

HIGH SPEED STEEL

AUTOMOTIVE STEERING AND SUSPENSION REAMERS

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

3 FLAT
1/2" SHANK



LEFT HAND
FLUTE

20° SPIRAL FLUTE

High Speed Steel Automotive Steering and Suspension Reamers are manufactured with a taper of 1-1/2" per foot. They are designed for rebuilding and repairing automotive suspension systems. They are used to deburr and enlarge tapered holes for tie rod ends, steering arms, and ball joint applications. They are also referred to as Automotive Taper Reamers or Ball Joint Taper Reamers.

DIAMETER		FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	TAPER	ITEM NO.	PRICE
SMALL END	LARGE END						
.4375 (7/16)	.8125 (13/16)	3	5-1/2	1/2	1-1/2"/ft. (7.15°)	ASSR028	57.50
.7500 (3/4)	1.3125 (1-5/16)	4-1/2	7	1/2	1-1/2"/ft. (7.15°)	ASSR048	148.40
.9375 (15/16)	1.5000 (1-1/2)	4-1/2	6-1/2	1/2	1-1/2"/ft. (7.15°)	ASSR060	162.60
.3750 (3/8)	1.1250 (1-1/8)	4-1/2	6-1/2	1/2	2"/ft. (9.56°)	ASSRA024	118.34
.4370 (11.1mm)	0.8870 (22.8mm)	4-1/2	6-1/2	1/2	10:1 (5.71°)	ASSRM11.1	75.50


HIGH SPEED STEEL

AUTOMOTIVE STEERING AND SUSPENSION REAMER SETS

ICS WIS

PLASTIC CASE

RIGHT HAND CUT

DESCRIPTION	SIZES IN SET	ITEM NO.	PRICE
 <p>2 PC AUTOMOTIVE STEERING & SUSPENSION REAMER SET</p>	2 PIECE SET .4375, .7500 (7/16) (3/4)	RS-ASSR-2	237.34
	3 PIECE SET .4375, .7500, .9375 (7/16) (3/4) (15/16)	RS-ASSR-3	399.94
	4 PIECE SET .4375, .7500, .9375, .3750 (7/16) (3/4) (15/16) (3/8)	RS-ASSR-4	518.28
	5 PIECE SET .4375, .7500, .9375, .3750, .4370 (7/16) (3/4) (15/16) (3/8) (11.1mm)	RS-ASSR-5	593.78

HIGH SPEED STEEL CAR REAMERS - TAPER SHANK

ICS WIS

HEAVY DUTY

RIGHT HAND CUT

SHORT
BODY



LEFT HAND
FLUTE

HELICAL FLUTE

Taper Shank Car Reamers are designed with a short flute and overall length to permit use in cramped quarters or where a Bridge Reamer would be too long. They are primarily used to repair railroad cars and for construction work, especially involving the rectification of misaligned holes. They are often referred to as Construction Taper Reamers or Aligning Reamers.

SIZE	DEC. EQUIV.	DIAMETER AT POINT	MORSE TAPER	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
5/16	.3125	11/64	1	2-3/4	5-11/16	CR-HFTS020	CALL FOR PRICE
3/8	.3750	15/64	1	2-3/4	5-11/16	CR-HFTS024	
7/16	.4375	1/4	2	3-1/2	6-15/16	CR-HFTS028	
1/2	.5000	19/64	2	4	7-9/16	CR-HFTS032	
9/16	.5625	9/32	2	4	7-9/16	CR-HFTS036	
5/8	.6250	5/16	2	4-1/2	8-1/16	CR-HFTS040	
11/16	.6875	3/8	3	5	8-13/16	CR-HFTS044	
3/4	.7500	13/32	3	5	9-1/2	CR-HFTS048	
13/16	.8125	15/32	3	5	9-1/2	CR-HFTS052	
7/8	.8750	35/64	3	5	9-1/2	CR-HFTS056	
15/16	.9375	19/32	3	5	9-1/2	CR-HFTS060	
1	1.0000	3/4	3	5	9-1/2	CR-HFTS100	
1-1/16	1.0625	13/16	3	5	9-1/2	CR-HFTS104	

HIGH SPEED STEEL CAR REAMERS - 1/2" ROUND SHANK

ICS WIS

HEAVY DUTY

RIGHT HAND CUT

3 FLAT
SHANK



LEFT HAND
FLUTE

FAST SPIRAL

High Speed Steel Round Shank Car Reamers are designed for lining up holes in structural steel fabrication bridgework, ship construction, automotive maintenance, and railroad car manufacture. Short Length makes it useful in close quarters with any 1/2" 3 jaw power tool. They are also known as Construction Reamers or Aligning Reamers.

SIZE	DEC. EQUIV.	SHANK		FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
		DIAMETER	LENGTH				
5/16	.3125	1/2	1-1/2	2-3/4	4-5/8	CR-RS020	41.30
3/8	.3750	1/2	1-1/2	2-3/4	4-5/8	CR-RS024	41.30
7/16	.4375	1/2	1-1/2	3-1/2	5-3/8	CR-RS028	41.30
1/2	.5000	1/2	1-1/2	4	5-7/8	CR-RS032	46.38
9/16	.5625	1/2	1-1/2	4	5-7/8	CR-RS036	50.48
5/8	.6250	1/2	1-1/2	4-1/2	6-3/8	CR-RS040	56.00
-	.6520	1/2	1-1/2	4-1/2	6-3/8	*BBBR.6520	59.00
11/16	.6875	1/2	1-1/2	4-1/2	6-3/8	CR-RS044	62.72
3/4	.7500	1/2	1-1/2	5	6-7/8	CR-RS048	75.16
-	.7760	1/2	1-1/2	5	6-7/8	*BBBR.7760	76.72
13/16	.8125	1/2	1-1/2	5	6-7/8	CR-RS052	76.72
7/8	.8750	1/2	1-1/2	5	6-7/8	CR-RS056	81.20
15/16	.9375	1/2	1-1/2	5	6-7/8	CR-RS060	85.12
1	1.0000	1/2	1-1/2	5	6-7/8	CR-RS100	98.56
1-1/16	1.0625	1/2	1-1/2	5	6-7/8	CR-RS104	114.24
1-1/8	1.1250	1/2	1-1/2	5	6-7/8	CR-RS108	127.02
1-3/16	1.1875	1/2	1-1/2	5	6-7/8	CR-RS112	137.46
1-1/4	1.2500	1/2	1-1/2	5	6-7/8	CR-RS116	150.20
1-5/16	1.3125	1/2	1-1/2	5	6-7/8	CR-RS120	162.92
1-3/8	1.3750	1/2	1-1/2	5	6-7/8	CR-RS124	193.90
1-7/16	1.4375	1/2	1-1/2	5	6-7/8	CR-RS128	205.10
1-1/2	1.5000	1/2	1-1/2	5	6-7/8	CR-RS132	228.48

* Body Bound Bolt Reamer sizes

HIGH SPEED STEEL BODY BOUND BOLT REAMERS

ICS **WIS**

HEAVY DUTY

RIGHT HAND CUT

3 FLAT SHANK



LEFT HAND FLUTE

FAST SPIRAL

Body Bound Bolt Reamers are designed to prevent the movement of a body bound bolt within the hole. They are manufactured to a tight tolerance slightly under the bolt size and used primarily for shoulder bolts on truck frames.

DECIMAL SIZE	SHANK		FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
	DIAMETER	LENGTH				
.6520	1/2	1-1/2	4-1/2	6-3/8	BBBR.6520	59.00
.7760	1/2	1-1/2	5	6-7/8	BBBR.7760	76.72

HIGH SPEED STEEL CAR REAMERS - 1/2" ROUND SHANK - METRIC

ICS **WIS**

HEAVY DUTY

RIGHT HAND CUT

3 FLAT SHANK



LEFT HAND FLUTE

FAST SPIRAL

High Speed Steel Metric 1/2" Round Shank Car Reamers are designed for lining up holes in structural steel fabrication bridgework, ship construction, automotive maintenance, and railroad car manufacture. Short Length makes it useful in close quarters with any 1/2" 3 jaw power tool. They are also known as Construction Reamers or Aligning Reamers.

SIZE	DEC. EQUIV.	SHANK		FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
		DIAMETER	LENGTH				
12mm	.4724	1/2	1-1/2	102mm	152mm	CR-RSM12.0	41.30
14mm	.5512	1/2	1-1/2	102mm	152mm	CR-RSM14.0	50.48
16mm	.6299	1/2	1-1/2	125mm	178mm	CR-RSM16.0	56.00
18mm	.7087	1/2	1-1/2	125mm	178mm	CR-RSM18.0	62.72
19mm	.7480	1/2	1-1/2	132mm	184mm	CR-RSM19.0	75.16
20mm	.7874	1/2	1-1/2	132mm	184mm	CR-RSM20.0	76.12
22mm	.8661	1/2	1-1/2	132mm	184mm	CR-RSM22.0	76.12
24mm	.9449	1/2	1-1/2	132mm	184mm	CR-RSM24.0	85.12
25mm	.9843	1/2	1-1/2	132mm	184mm	CR-RSM25.0	98.56
26mm	1.0256	1/2	1-1/2	132mm	184mm	CR-RSM26.0	108.00
28mm	1.1024	1/2	1-1/2	132mm	184mm	CR-RSM28.0	114.24
30mm	1.1811	1/2	1-1/2	132mm	184mm	CR-RSM30.0	137.46
32mm	1.2598	1/2	1-1/2	132mm	184mm	CR-RSM32.0	150.20

HIGH SPEED STEEL CAR REAMERS - HEX SHANK - METRIC

ICS **WIS**

HEAVY DUTY

RIGHT HAND CUT

3 FLAT SHANK



LEFT HAND FLUTE

HELICAL FLUTE

Metric High Speed Steel Hex Shank Car Reamers are designed to be used in portable pneumatic equipment for structural steel erection. Their short overall length makes them useful in close quarters. Hex shank sizes are the same as the socket size for the bolt being used in the reamed hole. They are sometimes referred to as Erector Reamers. All ICS Safety Style Hex Shank Reamers are designed to protect against the danger and loss of falling objects such as a reamer. See OSHA 29CFR Part 1926.759 (falling object protection).

SIZE	DEC. EQUIV.	HEX SHANK	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
12mm	.4724	24mm	102mm	140mm	CR-HXM12.00	CALL FOR PRICE
14mm	.5512	24mm	102mm	140mm	CR-HXM14.00	
16mm	.6299	24mm	114mm	152mm	CR-HXM16.00	
18mm	.7087	24mm	114mm	165mm	CR-HXM18.00	
20mm	.7874	32mm	114mm	178mm	CR-HXM20.00	
22mm	.8661	36mm	127mm	178mm	CR-HXM22.00	
24mm	.9449	36mm	127mm	178mm	CR-HXM24.00	
26mm	1.0256	41mm	127mm	178mm	CR-HXM26.00	
28mm	1.1024	41mm	127mm	178mm	CR-HXM28.00	
30mm	1.1811	46mm	127mm	178mm	CR-HXM30.00	
32mm	1.2598	46mm	127mm	178mm	CR-HXM32.00	
33mm	1.2992	46mm	127mm	200mm	CR-HXM33.00	
36mm	1.4173	46mm	127mm	200mm	CR-HXM36.00	
39mm	1.5354	50mm	127mm	200mm	CR-HXM39.00	

HIGH SPEED STEEL

CAR REAMERS - COMBINATION HEX/ROUND SHANK

ICS WIS

HEAVY DUTY

RIGHT HAND CUT

3 FLAT SHANK



LEFT HAND FLUTE

FAST SPIRAL

High Speed Steel Combination Hex/Round Shank Car Reamers can be used with ANY 1/2" 3 jaw power tool or in portable pneumatic equipment. They are designed for lining up holes in structural steel fabrication, bridgework, ship construction, automotive maintenance, and railroad manufacturing. Short length makes it useful in close quarters. Safety Style 1-1/4" hex shank size requires only one size square drive impact wrench socket to use. All ICS Safety Style Hex Shank Reamers are designed to protect against the danger and loss of falling objects such as a reamer. See OSHA 29CFR Part 1926.759 (falling object protection).

SIZE	DEC. EQUIV.	SHANK		FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
		DIAMETER	LENGTH				
5/16	.3125	1/2	1-1/2	2-3/4	4-5/8	CR-HXC020	66.18
3/8	.3750	1/2	1-1/2	2-3/4	4-5/8	CR-HXC024	66.18
7/16	.4375	1/2	1-1/2	3-1/2	5-3/8	CR-HXC028	66.18
1/2	.5000	1/2	1-1/2	4	5-7/8	CR-HXC032	71.26
9/16	.5625	1/2	1-1/2	4	5-7/8	CR-HXC036	75.36
5/8	.6250	1/2	1-1/2	4-1/2	6-3/8	CR-HXC040	80.90
11/16	.6875	1/2	1-1/2	4-1/2	6-3/8	CR-HXC044	87.62
3/4	.7500	1/2	1-1/2	5	6-7/8	CR-HXC048	100.04
13/16	.8125	1/2	1-1/2	5	6-7/8	CR-HXC052	101.64
7/8	.8750	1/2	1-1/2	5	6-7/8	CR-HXC056	106.10
15/16	.9375	1/2	1-1/2	5	6-7/8	CR-HXC060	110.02
1	1.0000	1/2	1-1/2	5	6-7/8	CR-HXC100	123.46
1-1/16	1.0625	1/2	1-1/2	5	6-7/8	CR-HXC104	139.14
1-1/8	1.1250	1/2	1-1/2	5	6-7/8	CR-HXC108	151.90
1-3/16	1.1875	1/2	1-1/2	5	6-7/8	CR-HXC112	162.34
1-1/4	1.2500	1/2	1-1/2	5	6-7/8	CR-HXC116	175.08
1-5/16	1.3125	1/2	1-1/2	5	6-7/8	CR-HXC120	187.82
1-3/8	1.3750	1/2	1-1/2	5	6-7/8	CR-HXC124	205.10
1-7/16	1.4375	1/2	1-1/2	5	6-7/8	CR-HXC128	216.44
1-1/2	1.5000	1/2	1-1/2	5	6-7/8	CR-HXC132	239.68

HIGH SPEED STEEL

CAR REAMERS - HEX SHANK

ICS WIS

HEAVY DUTY

RIGHT HAND CUT

SAFETY STYLE HEX SHANK



LEFT HAND FLUTE

HELICAL FLUTE

High Speed Steel Hex Shank Car Reamers are designed to be used in portable pneumatic equipment for structural steel erection. Their short overall length makes them useful in close quarters. Hex shank sizes are the same as the socket size for the bolt being used in the reamed hole. They are sometimes referred to as Erector Reamers. All ICS Safety Style Hex Shank Reamers are designed to protect against the danger and loss of falling objects such as a reamer. See OSHA 29CFR Part 1926.759 (falling object protection).

SIZE	DEC. EQUIV.	APPROX. POINT SIZE	HEX SHANK	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
9/16	.5625	9/32	1-1/16	5	5-1/2	CR-HX036	66.50
11/16	.6875	3/8	1-1/16	4-1/2	6-1/2	CR-HX044	71.80
3/4	.7500	13/32	1-1/4	5	7	CR-HX048	81.80
13/16	.8125	15/32	1-1/4	5	7	CR-HX052	81.80
15/16	.9375	19/32	1-7/16	5	7	CR-HX060	89.34
1	1.0000	5/8	1-7/16	5	7	CR-HX100	100.36
1-1/16	1.0625	13/16	1-5/8	5	7	CR-HX104	108.00
1-1/8	1.1250	55/64	1-5/8	5	7	CR-HX108	120.00
1-3/16	1.1875	59/64	1-13/16	5	7	CR-HX112	162.50
1-1/4	1.2500	15/16	1-13/16	5	7	CR-HX116	170.00
1-5/16	1.3125	1-1/16	2	5	7-7/8	CR-HX120	194.56
1-3/8	1.3750	1-1/8	2	5	7-7/8	CR-HX124	210.00
1-1/2	1.5000	1-1/4	2	5	7-7/8	CR-HX132	230.00
1-9/16	1.5625	1-5/16	2	5	7-7/8	CR-HX136	294.36

HIGH SPEED STEEL

BRIDGE REAMERS - COMBINATION HEX/ROUND SHANK

ICS WIS

HEAVY DUTY

RIGHT HAND CUT

1-1/4 HEX SHANK
ADAPTER



LEFT HAND
FLUTE

SLOW SPIRAL

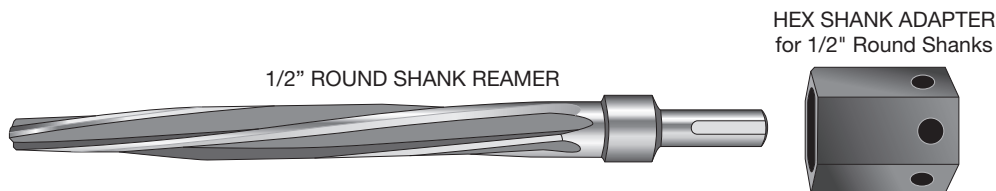
High Speed Steel Combination Hex/Round Shank Car Reamers can be used with ANY 1/2" 3 jaw power tool or in portable pneumatic equipment. They are designed for lining up holes in structural steel fabrication, bridgework, ship construction, automotive maintenance, and railroad manufacturing. Short length makes it useful in close quarters. Safety Style 1-1/4" hex shank size requires only one size square drive impact wrench socket to use. All ICS Safety Style Hex Shank Reamers are designed to protect against the danger and loss of falling objects such as a reamer. See OSHA 29CFR Part 1926.759 (falling object protection).

SIZE	DEC. EQUIV.	DIAMETER AT POINT	SHANK		FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
			DIAMETER	LENGTH				
7/16	.4375	17/64	1/2	1-1/2	4-3/8	5-7/8	BRHFHXC028	48.72
1/2	.5000	5/16	1/2	1-1/2	5-1/8	6-5/8	BRHFHXC032	50.86
9/16	.5625	3/8	1/2	1-1/2	5-1/8	6-5/8	BRHFHXC036	52.92
5/8	.6250	25/64	1/2	1-1/2	6-1/8	7-5/8	BRHFHXC040	60.98
11/16	.6875	13/32	1/2	1-1/2	7-1/8	8-5/8	BRHFHXC044	73.24
3/4	.7500	15/32	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC048	80.02
13/16	.8125	35/64	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC052	84.50
7/8	.8750	39/64	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC056	95.50
15/16	.9375	43/64	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC060	102.92
1	1.0000	47/64	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC100	111.10
1-1/16	1.0625	13/16	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC104	119.90
1-1/8	1.1250	55/64	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC108	127.84
1-3/16	1.1875	59/64	1/2	1-1/2	7-3/8	8-7/8	BRHFHXC112	137.38
1-1/4	1.2500	63/64	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC116	152.42
1-5/16	1.3125	1-1/16	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC120	160.22
1-3/8	1.3750	1-1/8	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC124	172.62
1-7/16	1.4375	1-3/16	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC128	182.08
1-1/2	1.5000	1-1/4	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC132	209.67
1-9/16	1.5625	1-1/4	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC136	334.20
1-5/8	1.6250	1-1/4	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC140	334.20
1-11/16	1.6875	1-3/8	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC144	351.32
1-3/4	1.7500	1-3/8	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC148	385.48
1-13/16	1.8125	1-7/16	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC152	402.56
1-7/8	1.8750	1-1/2	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC156	419.66
1-15/16	1.9375	1-1/2	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC160	436.78
2	2.0000	1-3/4	1/2	1-1/2	7-3/8	11-1/2	BRHFHXC200	453.88

BRIDGE/CAR REAMER ADAPTER/SOCKET

The ICS Hex Shank Adapter eliminates the need to weld a nut to the back of your car or bridge reamer. The ICS Hex Shank Adapter converts all 1/2" Round Shanks to a standard 1-1/4" Hex Shank for use in pneumatic equipment.

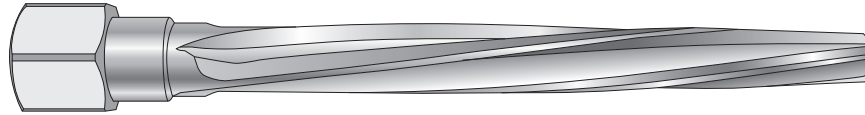
ADAPTER ASSEMBLY LAYOUT



Three set screws included for non-slip chucking of car reamer

DESCRIPTION	ITEM NO.	PRICE
1-1/4" Hex Shank to 1/2" Round Shank Safety Adapter	HSA116	28.00

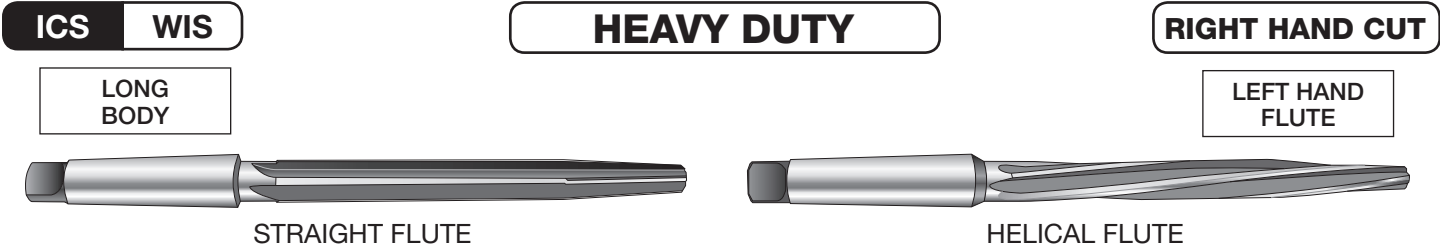
HIGH SPEED STEEL BRIDGE REAMERS - HEX SHANK

ICS **WIS**
HEAVY DUTY
RIGHT HAND CUT
**SAFETY STYLE
HEX SHANK**

**LEFT HAND
FLUTE**
HELICAL FLUTE

High Speed Steel Hex Shank Bridge Reamers are designed to be used in portable pneumatic equipment for structural steel erection. Their short overall length makes them useful in close quarters. Hex shank sizes are the same as the socket size for the bolt being used in the reamed hole. They are sometimes referred to as Erector Reamers. All ICS Safety Style Hex Shank Reamers are designed to protect against the danger and loss of falling objects such as a reamer. See OSHA 29CFR Part 1926.759 (falling object protection).

SIZE	DEC. EQUIV.	DIAMETER AT POINT	HEX SHANK	FLUTE LENGTH	OVERALL LENGTH	ITEM NO.	PRICE
7/16	.4375	17/64	1-1/16	4-3/8	5-7/8	BRHFHX028	48.72
1/2	.5000	5/16	1-1/16	5-1/8	6-5/8	BRHFHX032	50.86
9/16	.5625	3/8	1-1/16	5-1/8	6-5/8	BRHFHX036	52.92
5/8	.6250	25/64	1-1/16	6-1/8	7-5/8	BRHFHX040	60.98
11/16	.6875	13/32	1-1/16	7-1/8	8-5/8	BRHFHX044	73.24
3/4	.7500	15/32	1-1/4	7-3/8	8-7/8	BRHFHX048	80.02
13/16	.8125	35/64	1-1/4	7-3/8	8-7/8	BRHFHX052	84.50
7/8	.8750	39/64	1-7/16	7-3/8	8-7/8	BRHFHX056	95.50
15/16	.9375	43/64	1-7/16	7-3/8	8-7/8	BRHFHX060	102.92
1	1.0000	47/64	1-7/16	7-3/8	8-7/8	BRHFHX100	111.10
1-1/16	1.0625	13/16	1-5/8	7-3/8	8-7/8	BRHFHX104	125.00
1-1/8	1.1250	55/64	1-5/8	7-3/8	8-7/8	BRHFHX108	140.90
1-3/16	1.1875	59/64	1-13/16	7-3/8	8-7/8	BRHFHX112	157.50
1-1/4	1.2500	63/64	1-13/16	7-3/8	11-1/2	BRHFHX116	177.00
1-5/16	1.3125	1-1/16	2	7-3/8	11-1/2	BRHFHX120	181.70
1-3/8	1.3750	1-1/8	2	7-3/8	11-1/2	BRHFHX124	208.50
1-7/16	1.4375	1-3/16	2	7-3/8	11-1/2	BRHFHX128	216.75
1-1/2	1.5000	1-1/4	2	7-3/8	11-1/2	BRHFHX132	246.10
1-9/16	1.5625	1-1/4	2	7-3/8	11-1/2	BRHFHX136	334.20
1-5/8	1.6250	1-1/4	2	7-3/8	11-1/2	BRHFHX140	341.00
1-11/16	1.6875	1-3/8	2	7-3/8	11-1/2	BRHFHX144	351.32
1-3/4	1.7500	1-3/8	2	7-3/8	11-1/2	BRHFHX148	385.48
1-13/16	1.8125	1-7/16	2	7-3/8	11-1/2	BRHFHX152	402.56
1-7/8	1.8750	1-1/2	2	7-3/8	11-1/2	BRHFHX156	419.66
1-15/16	1.9375	1-1/2	2	7-3/8	11-1/2	BRHFHX160	436.78
2	2.0000	1-3/4	2	7-3/8	11-1/2	BRHFHX200	453.88

HIGH SPEED STEEL BRIDGE REAMERS - TAPER SHANK



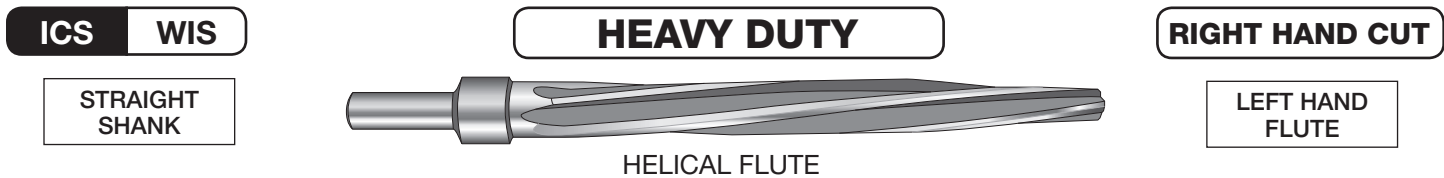
High Speed Steel Taper Shank Bridge Reamers are designed for use in structural steel fabrication bridge work and ship construction to line up bolt and rivet holes. The front portion of the reamer is tapered at approximately 1" in 10 and the balance of the flute is parallel. They can be used in portable electric or pneumatic equipment. NOTE: Because of the heavy duty work involved, some sizes have larger Morse Taper shanks than is usual for the diameter. These tools are also referred to as Boilermaker's Reamers, Rivet Hole Reamers, Aligning Reamers, or Construction Taper Reamers.

SIZE	DIA.		FLUTE LENGTH	OVERALL LENGTH	MORSE TAPER SHANK	STRAIGHT FLUTE	HELICAL FLUTE
	DEC. EQUIV	AT POINT				BRSF	BRHF
5/16	.3125	11/64	4-3/8	8-1/4	2	33.20	33.20
3/8	.3750	7/32	4-3/8	8-1/4	2	33.20	33.20
13/32	.4062	7/32	5-1/8	8-1/4	2	33.20	33.20
7/16	.4375	17/64	4-3/8	8-1/4	2	37.26	37.26
15/32	.4688	9/32	5-1/8	8-1/4	2	37.52	37.52
1/2	.5000	5/16	5-1/8	9	2	37.26	37.26
17/32	.5312	11/32	5-1/8	9	2	39.18	39.18
9/16	.5625	3/8	5-1/8	9	2	39.66	39.66
5/8	.6250	25/64	6-1/8	10	2	48.06	48.06
11/16	.6875	13/32	7-1/8	11-3/4	3	57.74	57.74
3/4	.7500	15/32	7-3/8	12	3	62.02	62.02
13/16	.8125	35/64	7-3/8	12	3	67.36	67.36
7/8	.8750	39/64	7-3/8	12	3	74.76	74.76
15/16	.9375	43/64	7-3/8	12	3	77.03	77.03
1	1.0000	47/64	7-3/8	12	3	85.42	85.42
1-1/16	1.0625	13/16	7-3/8	12	3	94.04	94.04

SIZE	DIA.		FLUTE LENGTH	OVERALL LENGTH	MORSE TAPER SHANK	STRAIGHT FLUTE	HELICAL FLUTE
	DEC. EQUIV	AT POINT				BRSF	BRHF
1-1/8	1.1250	55/64	7-3/8	12	3	104.72	104.72
1-3/16	1.1875	59/64	7-3/8	12	3	116.44	116.44
1-1/4	1.2500	63/64	7-3/8	13	4	129.48	129.48
1-5/16	1.3125	1-1/16	7-3/8	13	4	141.08	141.08
1-3/8	1.3750	1-1/8	7-3/8	13	4	146.66	146.66
1-7/16	1.4375	1-3/16	7-3/8	13	4	157.92	157.92
1-1/2	1.5000	1-1/4	7-3/8	13	4	178.42	178.42
1-9/16	1.5625	1-1/4	7-3/8	13	4	256.42	256.42
1-5/8	1.6250	1-1/4	7-3/8	13	4	256.42	256.42
1-11/16	1.6875	1-3/8	7-3/8	13	4	273.50	273.50
1-3/4	1.7500	1-3/8	7-3/8	13	4	307.70	307.70
1-13/16	1.8125	1-7/16	7-3/8	13	4	324.78	324.78
1-7/8	1.8750	1-1/2	7-3/8	13	4	341.88	341.88
1-15/16	1.9375	1-1/2	7-3/8	13	4	359.00	359.00
2	2.0000	1-3/4	7-3/8	13	4	376.10	376.10
2-1/16	2.0625	1-13/16	7-3/8	13	4	-	430.50

Larger sizes are available. Inquire for quote.

HIGH SPEED STEEL BRIDGE REAMERS - ROUND SHANK



High Speed Steel Round Shank Bridge Reamers are designed for lining up holes in structural steel fabrication bridgework, ship construction, automotive maintenance, and railroad car manufacture. The front portion of the reamer is tapered at approximately 1" in 10 and the balance of the flute is parallel. Can be used with any 1/2" 3 jaw power tool. Round Shank design helps prevent "whip" caused by tool snagging or binding.

SIZE	DIA.		FLUTE LENGTH	OVERALL LENGTH	STRAIGHT SHANK
	DEC. EQUIV	AT POINT			BRHFRS
7/16	1/2	17/64	4-3/8	1-1/2	42.98
1/2	1/2	5/16	5-1/8	1-1/2	47.36
9/16	1/2	3/8	5-1/8	1-1/2	49.46
5/8	1/2	25/64	6-1/8	1-1/2	55.92
11/16	1/2	13/32	7-1/8	1-1/2	65.78
3/4	1/2	15/32	7-3/8	1-1/2	70.14
13/16	1/2	35/64	7-3/8	1-1/2	70.14
7/8	1/2	39/64	7-3/8	1-1/2	76.70
15/16	1/2	43/64	7-3/8	1-1/2	78.84

SIZE	DIA.		FLUTE LENGTH	OVERALL LENGTH	STRAIGHT SHANK
	DEC. EQUIV	AT POINT			BRHFRS
1	1/2	47/64	7-3/8	1-1/2	86.76
1-1/16	1/2	13/16	7-3/8	1-1/2	94.88
1-1/8	*1/2	55/64	7-3/8	1-1/2	104.88
1-3/16	*1/2	59/64	7-3/8	1-1/2	115.88
1-1/4	*1/2	63/64	7-3/8	1-1/2	128.34
1-5/16	*1/2	1-1/16	7-3/8	1-1/2	145.50
1-3/8	*1/2	1-1/8	7-3/8	1-1/2	156.50
1-7/16	*1/2	1-3/16	7-3/8	1-1/2	167.52
1-1/2	*1/2	1-1/4	7-3/8	1-1/2	187.58

* Optional 3/4" Dia. Shank

Note: If work space is limited, consider using car reamers or tower bolt reamers to do the same job.

HIGH SPEED STEEL TAPER PIN DRILL/REAMERS

ICS **WIS**

SPECIAL PURPOSE

118° POINT

**DUAL
PURPOSE**



**TAPERED
FLUTES**




High Speed Steel Taper Pin Drill/Reamers are designed to drill and ream tapered holes in metal to fit taper pins in one operation. They are made with an included taper of 1 in 48 (1/4" per foot) and have chip breakers along the cutting edge.

SIZE	DIAMETER		FLUTE LENGTH	OVERALL LENGTH	FOR NO. SIZE	ITEM NO.	PRICE
	SMALL END	LARGE END					
3/32	.0664	.095	1-3/8	2-9/16	5/0	TPD/R006	51.88
7/64	.0772	.111	1-5/8	2-7/8	4/0	TPD/R007	51.88
1/8	.0879	.127	1-7/8	3-1/8	3/0	TPD/R008	41.42
9/64	.1013	.143	2	3-1/4	2/0	TPD/R009	66.70
5/32	.1137	.158	2-1/8	3-3/8	0	TPD/R010	47.40
11/64	.1245	.174	2-3/8	3-3/4	1	TPD/R011	76.50
3/16	.1325	.195	3	4-3/8	2	TPD/R012	63.70
7/32	.1575	.220	3	4-1/2	3	TPD/R014	97.96
1/4	.1775	.253	3-5/8	5-1/4	4	TPD/R016	72.68
9/32	.1983	.292	4-1/2	6-1/4	5	TPD/R018	122.90
5/16	.2223	.316	4-1/2	6-3/8	-	TPD/R020	102.36
11/32	.2455	.347	4-7/8	6-7/8	6	TPD/R024	178.54
3/8	.2664	.381	5-1/2	7-3/4	-	TPD/R024	126.06
13/32	.2818	.412	6-1/4	8-1/2	7	TPD/R026	197.48
7/16	.3128	.443	6-1/4	8-7/8	-	TPD/R028	159.56
1/2	.3600	.506	7	9-3/4	8	TPD/R032	197.48
5/8	.4638	.633	8-1/8	11-3/8	9	TPD/R040	236.98
3/4	.5647	.760	9-3/8	12-7/8	10	TPD/R048	266.92
7/8	.7060	.878	8-1/4	11-1/4	11	TPD/R056	379.08
1-1/32	.8420	1.050	10	13-5/8	12	TPD/R102	710.00
1-1/4	1.009	1.259	12	14	13	TPD/R116	800.00
1-1/2	1.250	1.342	14	18-1/4	14	TPD/R132	900.00

HIGH SPEED STEEL TAPER PIN REAMERS

ICS **WIS**
SPECIAL PURPOSE
RIGHT HAND CUT

High Speed Steel Taper Pin Reamers are manufactured with a taper of 1/4" per foot. They are used to ream holes into which standard taper pins will fit. The point of each reamer will enter hole reamed by next smaller size. Hole to be reamed should be a few thousandths smaller than the small diameter of the finished reamed hole.

ITEM NO.	FLUTE STYLE	DESIGN USE	REAMING APPLICATION
TPRSF	 OXIDE FINISH	Hand	For use in easy to ream materials.
TPRSP	 BLACK/GOLD FINISH	Hand	For use in hard to ream materials and where the reamer tends to wedge itself.
TPRHF	 GOLD COBALT FINISH	Machine	For machine reaming of holes for taper pins on a production basis. Helical design throws the chips forward to alleviate packing of the flutes.

NOMINAL SIZE	PIN SIZE NO.	DIAMETER		FLUTE LENGTH	OVERALL LENGTH	NO. OF FLUTES	SHANK DIAMETER	STRAIGHT FLUTE	SPIRAL FLUTE	HELICAL FLUTE
		SMALL END	LARGE END					TPRSF	TPRSP	TPRHF
5/64	7/0	.0497	.0666	13/16	1-13/16	4	5/64	21.82	25.48	22.84
3/32	6/0	.0611	.0806	15/16	1-15/16	4	3/32	21.82	25.48	21.26
7/64	5/0	.0719	.0966	1-3/16	2-3/16	4	7/64	22.38	24.44	24.73
1/8	4/0	.0869	.1142	1-5/16	2-5/16	4	1/8	22.38	24.00	22.02
9/64	3/0	.1029	.1302	1-5/16	2-5/16	4	9/64	22.38	24.44	19.90
5/32	2/0	.1137	.1462	1-9/16	2-9/16	4	5/32	20.00	21.34	19.14
11/64	0	.1287	.1638	1-11/16	2-15/16	6	11/64	19.18	20.56	19.90
3/16	1	.1447	.1798	1-11/16	2-15/16	6	3/16	18.72	20.78	21.02
13/64	2	.1605	.2008	1-15/16	3-3/16	6	13/64	18.72	21.08	23.94
15/64	3	.1813	.2294	2-5/16	3-11/16	6	15/64	18.72	21.08	24.62
17/64	4	.2071	.2604	2-9/16	4-1/16	6	17/64	20.78	22.56	29.98
5/16	5	.2409	.2994	2-13/16	4-5/16	6	5/16	22.38	24.30	32.08
23/64	6	.2773	.3540	3-11/16	5-7/16	6	23/64	26.94	29.84	37.66
13/32	7	.3297	.4220	4-7/16	6-5/16	6	13/32	34.64	37.52	45.28
7/16	8	.3971	.5050	5-3/16	7-3/16	6	7/16	44.24	48.48	52.30
9/16	9	.4805	.6066	6-1/16	8-5/16	6	9/16	53.82	58.60	56.22
5/8	10	.5799	.7216	6-13/16	9-5/16	6	5/8	59.16	65.00	74.74
7/8	11	.7060	.8780	8-1/4	11-1/4	6	11/16	117.00	142.00	154.48
1	12	.8420	1.0500	10	13-5/8	6	3/4	185.06	188.78	205.94
1-1/4	13	1.0090	1.2590	12	16	6	1-1/16	250.00	270.00	298.00
1-1/2	14	1.2500	1.5420	14	18-1/4	6	1-3/8	384.00	398.94	418.86



HIGH SPEED STEEL TAPER PIN REAMERS - METRIC

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

High Speed Steel Metric Taper Pin Reamers are manufactured with a taper of 1" in 50. They are used to ream holes into which standard taper pins will fit. The point of each reamer will enter a hole reamed by next smaller size. Hole to be reamed should be a few thousandths smaller than the small diameter of the finished reamed hole.

ITEM NO.	FLUTE STYLE	DESIGN USE	REAMING APPLICATION
TPRSFM	 Straight (Right Hand) Flute	Hand or Machine	For hand or machine reaming tapered holes in easy to ream materials to receive 1:50 taper pins (DIN1 and DIN7178) (metric sizes)
TPRHFM	 Helical Slow Spiral (Left Hand) Flute	Hand or Machine	For hand or machine reaming tapered holes in hard to ream materials to receive 1:50 taper pins (DIN1 and DIN7178) (metric sizes)

SIZE	PIN SIZE NO.	DIAMETER		FLUTE LENGTH	OVERALL LENGTH	SHANK DIAMETER	STRAIGHT FLUTE		HELICAL FLUTE	
		SMALL END	LARGE END				ITEM NO.	PRICE	ITEM NO.	PRICE
1.50	1.50	1.40	2.14	37.00	57.00	2.15	TPRSFM01.50	CALL	TPRHFM01.50	CALL
2.00	2.00	1.90	2.86	48.00	68.00	3.10	TPRSFM02.00	34.40	TPRHFM02.00	34.40
2.50	2.50	2.40	3.36	48.00	68.00	3.20	TPRSFM02.50	34.40	TPRHFM02.50	34.40
3.00	3.00	2.90	4.06	58.00	80.00	4.00	TPRSFM03.00	23.80	TPRHFM03.00	23.80
4.00	4.00	3.90	5.26	68.00	93.00	5.00	TPRSFM04.00	23.90	TPRHFM04.00	23.90
5.00	5.00	4.90	6.36	73.00	100.00	6.25	TPRSFM05.00	23.90	TPRHFM05.00	23.90
6.00	6.00	5.90	8.00	105.00	135.00	8.00	TPRSFM06.00	26.98	TPRHFM06.00	26.98
6.50	6.50	6.40	8.60	110.00	140.00	8.20	TPRSFM06.50	CALL	TPRHFM06.50	30.34
7.00	7.00	6.90	9.40	125.00	160.00	9.00	TPRSFM07.00	CALL	TPRHFM07.00	33.86
8.00	8.00	7.90	10.80	145.00	180.00	10.00	TPRSFM08.00	36.62	TPRHFM08.00	36.62
10.00	10.00	9.90	13.40	175.00	215.00	12.50	TPRSFM10.00	53.84	TPRHFM10.00	53.84
12.00	12.00	11.86	16.00	210.00	255.00	14.00	TPRSFM12.00	58.00	TPRHFM12.00	58.00
13.00	13.00	12.86	17.00	210.00	255.00	16.00	TPRSFM13.00	118.76	TPRHFM13.00	118.76
14.00	14.00	13.96	18.50	227.00	303.00	16.00	TPRSFM14.00	CALL	TPRHFM14.00	CALL
16.00	16.00	15.80	20.40	230.00	280.00	18.00	TPRSFM16.00	120.00	TPRHFM16.00	120.00
20.00	20.00	19.80	24.80	250.00	310.00	22.50	TPRSFM20.00	166.94	TPRHFM20.00	166.94
25.00	25.00	24.70	30.70	300.00	370.00	28.00	TPRSFM25.00	266.10	TPRHFM25.00	266.10
30.00	30.00	29.70	36.10	320.00	400.00	31.50	TPRSFM30.00	372.10	TPRHFM30.00	372.10
40.00	40.00	39.70	46.50	340.00	430.00	40.00	TPRSFM40.00	601.50	TPRHFM40.00	601.50
50.00	50.00	49.70	56.90	360.00	460.00	50.00	TPRSFM50.00	894.00	TPRHFM50.00	894.00

HIGH SPEED STEEL TAPER PIN DRILL/REAMERS - METRIC

ICS WIS

SPECIAL PURPOSE

RIGHT HAND CUT

DUAL PURPOSE



TAPERED FLUTES

High Speed Steel Metric Taper Pin Drill/Reamers are designed to drill and ream tapered holes in metal to fit taper pins in one operation. They are made with an included taper of 1" in 50 and have chip breakers along the cutting edge.

SIZE	METRIC DIAMETER		METRIC FLUTE LENGTH	METRIC OVERALL LENGTH	FOR NO. SIZE	SHANK DIAMETER	ITEM NO.	PRICE
	SMALL END	LARGE END						
2.00	1.98	2.84	43.00	65.00	2.00	2.82	TPD/RM02.00	46.58
2.50	2.33	3.46	56.00	89.00	2.50	3.50	TPD/RM02.50	42.70
3.00	2.84	4.16	66.00	98.00	3.00	4.12	TPD/RM03.00	42.66
4.00	3.78	5.40	81.00	119.00	4.00	5.32	TPD/RM04.00	66.70
5.00	4.70	6.64	97.00	138.00	5.00	6.61	TPD/RM05.00	82.63
6.00	5.71	8.28	129.00	179.00	6.00	8.21	TPD/RM06.00	74.84
8.00	7.64	10.72	154.00	211.00	8.00	10.07	TPD/RM08.00	105.44
10.00	9.65	13.16	175.00	246.00	10.00	13.10	TPD/RM10.00	135.04
12.00	11.96	15.70	198.00	275.00	12.00	15.65	TPD/RM12.00	209.54
13.00	12.61	16.74	206.00	303.00	13.00	16.71	TPD/RM13.00	253.78
14.00	13.80	18.00	210.00	310.00	14.00	18.00	TPD/RM14.00	270.00
16.00	15.80	20.40	230.00	335.00	16.00	21.00	TPD/RM16.00	570.00

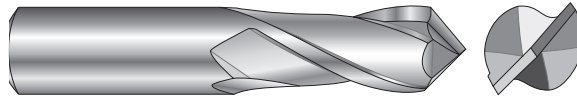
PREMIUM (10% COBALT) MICROGRAIN CARBIDE
SOLID CARBIDE 60° & 90° DRILL MILLS

ICS USA

HEAVY DUTY

RIGHT HAND CUT

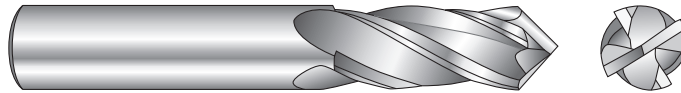
2 FLUTE - SINGLE END



Solid Carbide Drill Mills are designed to be a 5 in 1 multi-purpose tool for drilling, chamfering, spotting, side milling, and countersinking.

SIZE	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH	2 FLUTE - 60° POINT ANGLE		2 FLUTE - 90° POINT ANGLE	
				ITEM NO.	PRICE	ITEM NO.	PRICE
1/8	1/8	1/2	1-1/2	SCDM260-008	16.20	SCDM290-008	16.20
3/16	3/16	5/8	2	SCDM260-012	21.60	SCDM290-012	21.60
1/4	1/4	3/4	2-1/2	SCDM260-016	29.00	SCDM290-016	29.00
5/16	5/16	13/16	2-1/2	SCDM260-020	39.20	SCDM290-020	39.20
3/8	3/8	1	2-1/2	SCDM260-024	40.60	SCDM290-024	40.60
7/16	7/16	1	2-3/4	SCDM260-028	41.36	SCDM290-028	41.36
1/2	1/2	1	3	SCDM260-032	75.80	SCDM290-032	75.80
5/8	5/8	1-1/4	3-1/2	SCDM260-040	127.40	SCDM290-040	127.40
3/4	3/4	1-1/2	4	SCDM260-048	210.40	SCDM290-048	210.40

4 FLUTE - SINGLE END



SIZE	SHANK DIAMETER	FLUTE LENGTH	OVERALL LENGTH	4 FLUTE - 60° POINT ANGLE		4 FLUTE - 90° POINT ANGLE	
				ITEM NO.	PRICE	ITEM NO.	PRICE
1/8	1/8	1/2	1-1/2	SCDM460-008	16.20	SCDM490-008	16.20
3/16	3/16	5/8	2	SCDM460-012	21.60	SCDM490-012	21.60
1/4	1/4	3/4	2-1/2	SCDM460-016	29.00	SCDM490-016	29.00
5/16	5/16	13/16	2-1/2	SCDM460-020	39.20	SCDM490-020	39.20
3/8	3/8	1	2-1/2	SCDM460-024	40.60	SCDM490-024	40.60
7/16	7/16	1	2-3/4	SCDM460-028	41.36	SCDM490-028	41.36
1/2	1/2	1	3	SCDM460-032	75.80	SCDM490-032	75.80
5/8	5/8	1-1/4	3-1/2	SCDM460-040	127.40	SCDM490-040	127.40
3/4	3/4	1-1/2	4	SCDM460-048	210.40	SCDM490-048	210.40

5 USES IN 1 TOOL

