

Expanding Mandrels Hardened And Precision Ground



- A range from 1/2" thru 2" by 1/1000" can be covered by a total of 8 mandrels
- Sizes up to 1" capacity are furnished with a sleeve. Larger sizes are furnished with 2 sleeves. (1 large and 1 small)
- Arbors are tapered, sleeves are flexible, and size is obtained by moving sleeve along the arbor
- Made of high grade tool steel
- Precision ground and heat treated for maximum concentricity and holding power
- Center holes are ground and lapped

Model No.	Size Range	Arbor Length	Sleeve Length	No. of Sleeves
EXPM-1	1/2-9/16	5	2-1/2	1
EXPM-2	9/16-21/32	6	2-3/4	1
EXPM-3	21/32-3/4	6	2-3/4	1
EXPM-4	3/4-7/8	7	3-1/4	1
EXPM-5	7/8-1	7	3-1/4	1
EXPM-6	1-1-1/4	9	4	2
EXPM-7	1-1/4-1-1/2	9	4	2
EXPM-8	1-1/2-2	11	5	2

Expanding Mandrel Sets

Model No.	Size Range	No. of Mandrels
EXPMS-5	1/2-1"	5
EXPMS-3	1"-2"	3
EXPMS-8	1/2-2"	8

Lathe Mandrels



Made of hardened steel and accurately ground to size. Slightly tapered with the size marked in the large end. Standard taper .0005" per inch: Sizes under 1" are .0005" undersize on small end. 1-1/16 to 3" are .001 undersize on the small end. Designed for setting up accurately bored or reamed blanks and castings for pulleys, handwheels or hubs, on centers, so that the outside diameter can be turned concentrically with the axis of the hole in which the mandrel is fixed.

Model No.	Dia.	Oal	Model No.	Dia.	Oal
LM-1/8	1/8	2-1/2	LM-31/32	31/32	7
LM-5/32	5/32	3	LM-1	1	7
LM-3/16	3/16	3	LM-1-1/16	1-1/16	7-1/4
LM-7/32	7/32	3-3/4	LM-1-1/8	1-1/8	7-1/2
LM-1/4	1/4	3-3/4	LM-1-3/16	1-3/16	7-3/4
LM-9/32	9/32	4	LM-1-1/4	1-1/4	8
LM-5/16	5/16	4	LM-1-5/16	1-5/16	8-1/4
LM-11/32	11/32	4-1/4	LM-1-3/8	1-3/8	8-1/2
LM-3/8	3/8	4-1/4	LM-1-7/16	1-7/16	8-3/4
LM-13/32	13/32	4-1/2	LM-1-1/2	1-1/2	9
LM-7/16	7/16	4-1/2	LM-1-9/16	1-9/16	9-1/4
LM-15/32	15/32	5	LM-1-5/8	1-5/8	9-1/2
LM-1/2	1/2	5	LM-1-11/16	1-11/16	9-3/4
LM-17/32	17/32	5-1/4	LM-1-3/4	1-3/4	10
LM-9/16	9/16	5-1/4	LM-1-13/16	1-13/16	10-1/4
LM-19/32	19/32	5-1/2	LM-1-7/8	1-7/8	10-1/2
LM-5/8	5/8	5-1/2	LM-1-15/16	1-15/16	10-3/4
LM-21/32	21/32	5-3/4	LM-2	2	11
LM-11/16	11/16	5-3/4	LM-2-1/8	2-1/8	11-1/2
LM-23/32	23/32	6	LM-2-1/4	2-1/4	12
LM-3/4	3/4	6	LM-2-3/8	2-3/8	12
LM-25/32	25/32	6-1/4	LM-2-1/2	2-1/2	12-1/2
LM-13/16	13/16	6-1/4	LM-2-5/8	2-5/8	12-1/2
LM-27/32	27/32	6-1/2	LM-2-3/4	2-3/4	13
LM-7/8	7/8	6-1/2	LM-2-7/8	2-7/8	13
LM-29/32	29/32	6-3/4	LM-3	3	13
LM-15/16	15/16	6-3/4			

5C Precision Collets And Accessories

Body Diameter: 1.250" Thread: 1.245"-20

5C Round Collet

Inch and Metric

- Made of high grade steel
- Hardened and precision ground to close tolerance
- Internal and external threaded
- .0005" T.I.R



5C Round Collet Sets

Model No.	Set Of	Size
5CS-8	8 Rd. Collets	1/8 thru 1 by 8 ths
5CS-16	16 Rd. Collets	1/8 thru 1-1/16 by 16 ths
5CS-31	31 Rd. Collets	1/8 thru 1-1/16 by 32 ths
5CS-61	61 Rd. Collets	1/8 thru 1-1/16 by 64 ths

Model No.	Size	Model No.	Size	Model No.	Size	Model No.	Size	Model No.	Size	Model No.	Size
5C-1/16	1/16"	5C-11/32	11/32"	5C-5/8	5/8"	5C-29/32	29/32"	5C-3	3mm	5C-15	15mm
5C-5/64	5/64"	5C-23/64	23/64"	5C-41/64	41/64"	5C-59/64	59/64"	5C-4	4mm	5C-16	16mm
5C-3/32	3/32"	5C-3/8	3/8"	5C-21/32	21/32"	5C-15/16	15/16"	5C-5	5mm	5C-17	17mm
5C-7/64	7/64"	5C-25/64	25/64"	5C-43/64	43/64"	5C-61/64	61/64"	5C-6	6mm	5C-18	18mm
5C-1/8	1/8"	5C-13/32	13/32"	5C-11/16	11/16"	5C-31/32	31/32"	5C-7	7mm	5C-19	19mm
5C-9/64	9/64"	5C-27/64	27/64"	5C-45/64	45/64"	5C-63/64	63/64"	5C-8	8mm	5C-20	20mm
5C-5/32	5/32"	5C-7/16	7/16"	5C-23/32	23/32"	5C-1	1"	5C-9	9mm	5C-21	21mm
5C-11/64	11/64"	5C-29/64	29/64"	5C-47/64	47/64"	5C-1-1/64	1-1/64"	5C-10	10mm	5C-22	22mm
5C-3/16	3/16"	5C-15/32	15/32"	5C-3/4	3/4"	5C-1-1/32	1-1/32"	5C-11	11mm	5C-23	23mm
5C-13/64	13/64"	5C-31/64	31/64"	5C-49/64	49/64"	5C-1-3/64	1-3/64"	5C-12	12mm	5C-24	24mm
5C-7/32	7/32"	5C-1/2	1/2"	5C-25/32	25/32"	5C-1-1/16	1-1/16"	5C-13	13mm	5C-25	25mm
5C-15/64	15/64"	5C-33/64	33/64"	5C-51/64	51/64"	5C-1-5/64	1-5/64"	5C-14	14mm	5C-26	26mm
5C-1/4	1/4"	5C-17/32	17/32"	5C-13/16	13/16"	5C-1-3/32	1-3/32"				
5C-17/64	17/64"	5C-35/64	35/64"	5C-53/64	53/64"	5C-1-7/64	1-7/64"				
5C-9/32	9/32"	5C-9/16	9/16"	5C-27/32	27/32"	5C-1-1/8	1-1/8"				
5C-19/64	19/64"	5C-37/64	37/64"	5C-55/64	55/64"						
5C-5/16	5/16"	5C-19/32	19/32"	5C-7/8	7/8"						
5C-21/64	21/64"	5C-39/64	39/64"	5C-57/64	57/64"						

5C Square Collets



Model No.	Size	Model No.	Size
5CSQ-1/8	1/8	5CSQ-7/16	7/16
5CSQ-3/16	3/16	5CSQ-1/2	1/2
5CSQ-1/4	1/4	5CSQ-9/16	9/16
5CSQ-5/16	5/16	5CSQ-5/8	5/8
5CSQ-3/8	3/8	5CSQ-11/16	11/16
		5CSQ-3/4	3/4

5CSSQ-11 11 PCS SET

5C Hexagon Collets



Model No.	Size	Model No.	Size
5CH-1/8	1/8	5CH-1/2	1/2
5CH-3/16	3/16	5CH-9/16	9/16
5CH-1/4	1/4	5CH-5/8	5/8
5CH-5/16	5/16	5CH-11/16	11/16
5CH-3/8	3/8	5CH-3/4	3/4
5CH-7/16	7/16	5CH-13/16	13/16
		5CH-7/8	7/8

5CSH-13 13 PCS SET

5C Emergency Collets



Put practically any size at your fingertips within minutes by merely boring or stepping out as desired. Face and 1/16" pilot hole are soft, Especially well suited for holding soft or delicate work piece surface.

Model No.	Description
5CMCS	Steel
5CMCB	Brass
5CNY	Nylon

5C Collet Blocks

A simple and effective short run jig for parallel, square, or hex shapes as well as for cross hole drilling at 60, 90 or 120 degrees.

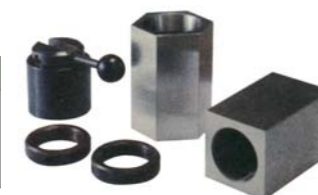
Made of hardened tool steel.

Overall dimensions 1-3/4" x 1-3/4" x 3" long. Ground to .0005"

flatness, squareness, and parallelism. Capacity 1/16" through

1-1/8", Standard nut closer and cam operated, quick acting closer can be used on both the square and hex blocks.

Model No.	Description
5CBS	Collet Block Set
5CBS-H	Hex for 5C Collets
5CBS-S	Square for 5C Collets
5CBS-L	Quick acting lever operated closer



5C Step(Clutch)Collets

Face is soft to permit machining to specific requirements

Model No.	Diameter of Head
5CT-2	2"
5CT-3	3"
5CT-4	4"
5CT-5	5"
5CT-6	6"



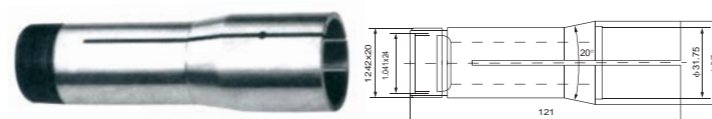
5C Collet Stop

Adjustable Stop has fine threaded stud for incremental positioning. Steel with Black Oxide plating.



Model No.:5C-Stop

5C Extending Collet



Model No.:5CEXT

5C Internal Expanding Collets

Expanding 5-C Collets hold concentricity to within .0005, fit any standard 5-C spindle. Once seated, the taper will not draw back into the spindle, thus shoulder widths can be held within

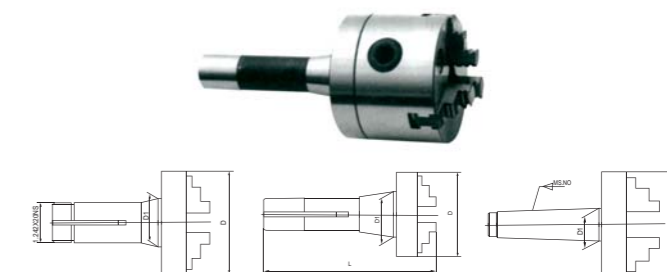
.001" Machinable head permits machining of collet size required. Ideal for holding small parts by the I.D. rapid closing and opening. Highly effective expansion up to .006". Soft head for easy machining. Heat treated tool steel 5-C collet shank, precision ground over all. One piece construction. Head width 1".

Model No.	Range
5CEX-1	.250-.468
5CEX-2	.437-.800
5CEX-3	.750-1.437
5CEX-4	.750-1.937



Model No.:5CEXS-4 .250 to 1.937"

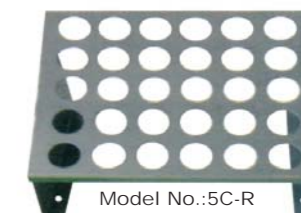
3Jaw,4Jaw Precision Chucks



Model No.		Shank	D1(mm)	D	
3 Jaw	4 Jaw			in	mm
3JR8-D	4JR8-D	R8	31.75		80
3J5C-D	4J5C-D	5C	37.5	3	100
3JMS2-D	4JMS2-D	MS2	17.78	4	110
3JMS3-D	4JMS3-D	MS3	23.825	5	125
3JMS4-D	4JMS4-D	MS4	31.267	6	130
3JMS5-D	4JMS5-D	MS5	44.399		160

30PC 5C Collet Rack

Holds up to 30 collets. Strongly made of 18 gage steel. Dimension: 9-1/2 x 12", 5-1/2" high at one end and 2-1/2" at other end. Weight: 3 lbs. Baked enamel finish for easy cleaning and protection. Can be hung on wall or set on shelf or work bench.



Model No.:5C-R