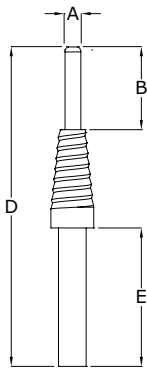


Standard Tapered Type Mandrels for Cartridge Rolls



CLESCO

"The Abrasive Hardware Specialist"



- Quick change mandrels for coated abrasive cartridge rolls
- Feature sharp, coarse threads which hold cartridge rolls securely in place in operation
- Rust proof black oxide finish



HOW TO ORDER:

- Shank Dia. – order the size that fits your collet or chuck.
- Pilot Dia. – to be the same size as hole in cartridge roll.
- Pilot Length – for rolls:
 - 3/4" long – use 1/2" pilot length
 - 1" long – use 3/4" pilot length
 - 1 1/2" long – use 1" pilot length
 - 2" long – use 1 1/2" pilot length

Catalog #	(A) Pilot Dia.	(B) Pilot Length	(C) Shank Dia.	(D) O.A.L.	(E) Shank Length
CR-1	5/64	1	1/8	3	1
CR-2A	3/32	1/2	1/8	2 1/2	1
CR-2B	3/32	3/4	1/8	2 3/4	1
CR-2	3/32	1	1/8	3	1
CR-2D	3/32	1/2	1/4	2 1/2	1 1/4
CR-2E	3/32	3/4	1/4	2 3/4	1 1/4
CR-2E-4	3/32	3/4	1/4	4	2 1/2
CR-2F	3/32	1	1/4	3	1 1/4
CR-2F-4	3/32	1	1/4	4	2 1/4
CR-2F-6	3/32	1	1/4	6	4 1/4
CR-3	1/8	1/2	1/8	2 1/2	1
CR-4	1/8	3/4	1/8	2 3/4	1
CR-4A	1/8	3/4	3/32	2 3/4	1
CR-5	1/8	1	1/8	3	1
CR-5A	1/8	1	3/32	3	1
CR-6	1/8	1 1/2	1/8	3 1/2	1
CR-7	1/8	1/2	1/4	2 1/4	1
CR-7-4	1/8	1/2	1/4	4	2 3/4
CR-7-6	1/8	1/2	1/4	6	4 3/4
CR-7-8	1/8	1/2	1/4	8	6 3/4
CR-7-10	1/8	1/2	1/4	10	8 3/4
CR-7-12	1/8	1/2	1/4	12	10 3/4
CR-8	1/8	3/4	1/4	2 1/2	1
CR-8-6MM	1/8	3/4	6mm	2 1/2	7/8
CR-8-4	1/8	3/4	1/4	4	2 1/2
CR-8-6	1/8	3/4	1/4	6	4 1/2
CR-8-8	1/8	3/4	1/4	8	6 1/2
CR-8-10	1/8	3/4	1/4	10	8 1/2
CR-8-12	1/8	3/4	1/4	12	10 1/2
CR-9	1/8	1	1/4	2 3/4	1
CR-9-6MM	1/8	1	6mm	3	1
CR-9-2SH	1/8	1	1/4	3 3/4	2
CR-9-4	1/8	1	1/4	4	2 1/4
CR-9-6	1/8	1	1/4	6	4 1/4
CR-9-6SH	1/8	1	1/4	7 3/4	6
CR-9-8	1/8	1	1/4	8	6 1/4
CR-9-10	1/8	1	1/4	10	8 1/4
CR-9-12	1/8	1	1/4	12	10 1/4
CR-10	1/8	1 1/2	1/4	3 1/4	1
CR-10-4	1/8	1 1/2	1/4	4	1 3/4

Catalog #	(A) Pilot Dia.	(B) Pilot Length	(C) Shank Dia.	(D) O.A.L.	(E) Shank Length
CR-10-5	1/8	1 1/2	1/4	5	2 3/4
CR-10-6	1/8	1 1/2	1/4	6	3 3/4
CR-10-8	1/8	1 1/2	1/4	8	5 3/4
CR-10-10	1/8	1 1/2	1/4	10	7 3/4
CR-10-12	1/8	1 1/2	1/4	12	9 3/4
CR-11	1/8	2	1/4	4	1 1/4
CR-11-6	1/8	2	1/4	6	3 1/4
CR-12	3/16	1/2	1/8	2 1/2	1
CR-13	3/16	3/4	1/8	2 3/4	1
CR-14	3/16	1/2	1/4	2 1/2	1 1/4
CR-14-4	3/16	1/2	1/4	4	1 1/4
CR-15	3/16	3/4	1/4	2 3/4	1 1/4
CR-15-6MM	3/16	3/4	6mm	2 3/4	1 1/4
CR-15-6	3/16	3/4	1/4	6	1 1/4
CR-15-8	3/16	3/4	1/4	8	1 1/4
CR-16	3/16	1	1/4	3	1 1/4
CR-16-6MM	3/16	1	6mm	3	1 1/4
CR-16-4	3/16	1	1/4	4	1 1/4
CR-16-6	3/16	1	1/4	6	1 1/4
CR-16-8	3/16	1	1/4	8	1 1/4
CR-17	3/16	1 1/2	1/4	3 1/2	1 1/4
CR-17-6	3/16	1 1/2	1/4	6	1 1/4
CR-17-8	3/16	1 1/2	1/4	8	1 1/4
CR-18	3/16	2	1/4	4	1 1/4
CR-18-6	3/16	2	1/4	6	1 1/4
CR-18-8	3/16	2	1/4	8	1 1/4
CR-19	1/4	1/2	1/4	2 1/2	1 1/4
CR-20	1/4	3/4	1/4	2 3/4	1 1/4
CR-20-4	1/4	3/4	1/4	4	1 1/4
CR-20-6	1/4	3/4	1/4	6	1 1/4
CR-21	1/4	1	1/4	3	1 1/4
CR-21-4	1/4	1	1/4	4	1 1/4
CR-21-6	1/4	1	1/4	6	1 1/4
CR-21-12	1/4	1	1/4	12	1 1/4
CR-22	1/4	1 1/2	1/4	3 1/2	1 1/4
CR-22-6	1/4	1 1/2	1/4	6	1 1/4
CR-23	1/4	2	1/4	4	1 1/4
CR-25	5/16	3/4	1/4	2 3/4	1 1/4
CR-27	5/16	1 1/2	1/4	3 1/2	1 1/4
CR-28	5/16	2	1/4	4	1 1/4



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"The Abrasive Hardware Specialist"

Deluxe Tapered Type Mandrels for Cartridge Rolls

- Quick change mandrels for coated abrasive cartridge rolls
- Deluxe mandrels have an extra coarse "Acme" thread
- Rust proof black oxide finish



Catalog #	(A) Pilot Dia.	(B) Pilot Length	(C) Shank Dia.	(D) O.A.L.	(E) Shank Length
CR-7-ACME	1/8	1/2	1/4	3	1 3/4
CR-8-ACME	1/8	3/4	1/4	3 1/4	1 3/4
CR-9-ACME	1/8	1	1/4	3 1/2	1 3/4
CR-9-4-ACME	1/8	1	1/4	4	2 1/4
CR-9-6-ACME	1/8	1	1/4	6	4 1/4
CR-9-8-ACME	1/8	1	1/4	8	6 1/4
CR-9-10-ACME	1/8	1	1/4	10	8 1/4
CR-9-12-ACME	1/8	1	1/4	12	10 1/4
CR-16-ACME	3/16	1	1/4	3 1/2	1 1/4
CR-21-ACME	1/4	1	1/4	3 1/2	1 1/4

Drill Stop Kit

- Drill stop collars make it easy to drill holes to a uniform depth.
- Kits consist of 7 set screw collars that firmly grip the outer diameter of the drill.
 - Bit sizes include: 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", and 1/2"
 - Hex keys enclosed for easy installation



Drill Kit #100
DK-Refill #101
(collars only)



Screw Lock Type Wheel Adapters with Shank

- For mounting various types of abrasive & finishing wheels such as: cut-off, wire brushes, buffs, non-woven, etc.
- Wheel is secured in place with a slotted screw
 - Quick & easy change of wheels
- Design permits better access to work areas which may be difficult to reach
 - Rust proof black oxide finish



Catalog #	Fits Hole	Wheel		Shank Dia.	Head Style	Head Dia.	O.A.L.
		Widths up to (in):					
M-080	1/16	1/4	1/8	Straight	3/16	1 3/4	
M-11X	1/8	1/4	1/8	Straight	1/4	1 1/2	
M-11*	1/8	3/16	1/8	Straight	1/4	1 1/2	
M-21	1/8	1/4	1/4	Straight	3/8	2	
M-21-3	1/8	1/4	1/4	Straight	3/8	3	
M-21-4	1/8	1/4	1/4	Straight	3/8	4	
M-21-6	1/8	1/4	1/4	Straight	3/8	6	
M-14-2	1/4	1/4	1/4	Straight	7/16	2	
M-14-25	1/4	1/4	1/4	Straight	7/16	2 1/2	
M-14-3	1/4	1/4	1/4	Straight	7/16	3	
M-14-35	1/4	1/4	1/4	Straight	7/16	3 1/2	
M-14-4	1/4	1/4	1/4	Straight	7/16	4	
M-14-6	1/4	1/4	1/4	Straight	7/16	6	
M-22	1/4	1/4	1/4	Bell	3/4	2	
M-32	1/4	1/4	3/8	Bell	3/4	2	
M-22-L	1/4	3/8 - 1/2	1/4	Bell	3/4	2	
M-32-L	1/4	3/8 - 1/2	3/8	Bell	3/4	2	
M-23	3/8	1/4	1/4	Bell	3/4	2	
M-23-6MM	3/8	3/16	6mm	Bell	3/4	2	
M-33	3/8	1/4	3/8	Bell	3/4	2	
M-23-L	3/8	3/8 - 1/2	1/4	Bell	3/4	2	
M-33-L	3/8	3/8 - 1/2	3/8	Bell	3/4	2	
M-3*	1/4 or 3/8	1/4	1/4	Bell	3/4	2	

*M-11 comes with two 5/8" diameter washers.

*M-3 is bagged and contains 1/4" screw and 3/8" screw with one mandrel body.

www.climaxmetal.com

Phone: 1-800-542-6552 Fax: 1-800-860-5553



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"The Abrasive Hardware Specialist"

Flat Head Arbors

- Left hand threaded arbor
- "Flat Head" style which allows the wheel to be mounted between a single washer and the flat-head
- Designed primarily for mounting wire wheel brushes & other abrasive finishing products
 - Rust proof finish



Catalog #	Fits Hole	Wheel Widths up to (in):	Shank Dia.	Washer Dia.	O.A.L.
FHL-8x	1/4	3/4	3/16	5/8	1 3/4
FHL-10x	3/8	3/8	1/4	3/4	1 5/8
FHL-25x	1/2	3/8	1/4	7/8	1 7/8
FHL-30x	1/2	7/8	1/4	7/8	2 5/16
FHL-50x	5/8	3/8	1/4	7/8	1 7/8
FHL-30*	1/2	1/2	1/4	1 5/8	2 5/16

* Comes with two flanged washers

Chuck Type Wheel Mandrels

- These adapters fit wheels 1/4" to 3/8" wide
- Use with wire wheel brushes, small grinding wheels, buffs, etc.
 - Rust proof finish



Catalog #	Fits Hole	Wheel Widths	Shank Dia.	Flange Dia.	O.A.L.
WS-22	1/4	1/4 to 3/8	1/4	9/16	2 1/8
WS-23	3/8	1/4 to 3/8	1/4	11/16	2 1/8
WS-24	1/2	1/4 to 3/8	1/4	3/4	2 1/8

Nut Lock Wheel Adapters

- Right hand threaded arbor
- For mounting various types of abrasive & finishing wheels
- Features an open end threaded mounting shaft with two washers and a locking hex nut
 - Wheel can be changed without any disassembly
 - Rust proof finish



Catalog #	Fits Hole	Wheel Widths Up To:	Shank Dia.	Washer Dia.	Washer Type	O.A.L.
W-22T	1/4	5/8	1/4	1	Machine Flanged	2 1/2
W-22SP	1/4	3/4	1/4	1/2	Stamped Flat	2 1/2
W-23M	3/8	3/8	1/4	1 1/4	Stamped Flanged	2 1/2
W-23MSP	3/8	3/4	1/4	3/4	Stamped Flat	2 1/2
W-23MT	3/8	5/8	1/4	1	Machine Flanged	2 1/2
W-23SP	3/8	1	1/4	3/4	Stamped Flat	2 1/2
W-24	1/2	3/8	1/4	1 5/8	Stamped Flanged	2 1/2
W-24SP	1/2	5/8	1/4	7/8	Stamped Flat	2 1/2
W-24T	1/2	5/8	1/4	1 1/2	Machine Flanged	2 1/2
W-24M	1/2	1/4	1/4	5/8	Stamped Flat	1 5/8
W-34	1/2	1	3/8	1 5/8	Stamped Flanged	3
W-24EXL	1/2	1	1/4	1 5/8	Stamped Flanged	3 1/8
W-34EXL	1/2	2 3/8	3/8	1 5/8	Stamped Flanged	4 1/2

Quick Change Mandrel with Shank

For Bonded Abrasive Cones & Plugs



Catalog #	Fits Hole	Shank Dia.	O.A.L.
W-25X	5/8-11	1/4	1 5/8

Mandrels for Non-Woven Abrasives



Catalog #	Fits Hole	Wheel Widths up to (in):	Wheel Dia. up to (in):	Shank Dia.	Washer Dia.	O.A.L.
H-808-1	1/8 - 3/16	3/4	2	1/8	7/16	1 3/4
H-808-2	1/4 - 5/16	1	2	1/4	5/8	2 1/4
H-938-2*	1/4 - 5/16	1	3	1/4	2	2 1/4
H-1608-2	1/4 - 5/16	1	3	1/4	1	2 1/4

*H-938-2 comes with one flat two inch diameter washer and one dish-tooth washer.

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Phone: 1-800-542-6552 Fax: 1-800-860-5553

Buffing Spindles

- Unique attachment designed to mount soft-centered wheels on motors
 - Quick change design does not need washers or nuts
- Spindle is held securely to motor shaft with 2 set screws
 - Rust proof plated finish



Catalog #	Fits Shaft	Taper Length	O.A.L.	Thread Type
BTR-2	1/4	2 1/2	3 5/8	Right-Hand
BTR-3	3/8	2 5/8	4 5/16	Right-Hand
BTR-4	1/2	2 5/8	4 5/16	Right-Hand
BTR-5	5/8	2 5/8	4 5/16	Right-Hand
BTL-2	1/4	2 1/2	3 5/8	Left Hand
BTL-3	3/8	2 5/8	4 5/16	Left Hand
BTL-4	1/2	2 5/8	4 5/16	Left Hand
BTL-5	5/8	2 5/8	4 5/16	Left Hand

Cone Point Mandrels

- Tapered threaded mandrels for use with abrasive cone points
- Sharp spiral threads are formed to provide a "self-locking" feature for the cones



Catalog #	Shank Dia.	Taper Degree	Taper Length	Major Dia.	O.A.L.
CPM-1	1/4	12	1 3/8	3/8	2 3/4
CPM-2	1/4	6	1 1/2	1/4	3 1/16
CPM-3	1/4	6	2 1/2	3/8	3 15/16
CPM-4	1/4	5	3	3/8	4 7/16
CPM-5	1/4	15	1 7/8	9/16	3 1/8
CPM-6	1/4	18	1 7/8	11/16	3 5/16
CPM-7	1/4	22	1 9/16	3/4	3 5/16
CPM-8	1/4	30	1 7/8	1	3 3/8
CPM-9	1/4	12	2 9/16	5/8	4 1/4
CPM-11	1/8	6	1	3/16	2 3/4

Quick Change Mandrels

For Unitized Abrasive Plug Wheel

- Quick & easy replacement
- Rust proof black oxide finish



Catalog #	Male Thread Dia.	Thread Length	Shank Dia.	Shoulder Dia.	O.A.L.
CPM-12	5/16	3/4	1/4	1/2	1 3/4

For Buffing Wheels & Bobs

- This tapered threaded mandrel is especially designed to hold cloth polishing wheels, felt bobs & other soft center wheels
 - No washers or nuts needed



Catalog #	Thread Length	Shank Dia.	Major Dia.	O.A.L.
CPM-14	1 1/2	1/4	7/16	2 1/2
CPM-14-4	1 1/2	1/4	7/16	4
CPM-14-6	1 1/2	1/4	7/16	6

For Rubberized Abrasive Cones & Points - with Hex Nut



Catalog #	Male Thread Dia.	Thread Length	Shank Dia.	Shoulder Dia.	O.A.L.
CPM-18	3/32	1/2	3/32	3/32	1 3/4
CPM-17	3/32	1/2	1/8	1/8	1 3/4
CPM-15	1/8	1/2	1/8	1/8	1 3/4

For Rubberized Abrasive Cones & Points - with Tapered Point



Catalog #	Thread Length	Shank Dia.	Shoulder Dia.	O.A.L.
CPM-16	1/2	1/8	1/4	1 3/4
CPM-19	1/2	1/4	1/4	1 3/4

Hex Head Spin-On Mandrels For Threaded Eyelet

- For use with coated abrasive flap wheels, non-woven wheels and other finishing wheels which have an external righthand threaded shank



Catalog #	Fits Thread	Shank Dia.	Head Dia.	O.A.L.
QC-1420	1/4"-20	1/4	3/8	1 3/4
QC-1420-4	1/4"-20	1/4	3/8	4
QC-1420-6	1/4"-20	1/4	3/8	6
QC-1420-8	1/4"-20	1/4	3/8	8

Slotted Head Quick Change Mandrels

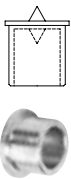
- Holds abrasive sheets which are secured in slot and rolled around the head
- Excellent for sanding or finishing internal holes
- Rust proof finish



Catalog #	Slot Dia.	Slot Width	Depth	O.A.L.
SM-3-250	1/4	1/16	3/4	3
SM-4-250	1/4	1/16	3/4	4
SM-6-250	1/4	1/16	3/4	6
SM-8-250	1/4	1/16	3/4	8
SM-10-250	1/4	1/16	3/4	10
SM-12-250	1/4	1/16	3/4	12

Drill Centers & Kit for Dowel & Tenon

- Centers have both external & internal points for marking exact drilling location
 - Provides for precise alignment of dowels & tenon joints
- Steel construction with zinc-plated finish
 - Sold in packs of 10



Catalog #	O.D.	I.D.
TC-014-10	1/4	3/16
TC-516-10	5/16	1/4
TC-038-10	3/8	5/16
TC-012-10	1/2	3/8

Straight Head Spin-On Mandrels For Threaded Eyelet

- These mandrels hold various abrasives and do not require washers or nuts
 - Quick & easy replacement
 - Rust proof black oxide finish



Catalog #	Fits Thread	Shank Dia.	O.A.L.
PM-348-1	#3-48	1/8	2 1/2
PM-348-2	#3-48	1/4	2 1/2
PM-348-2-4	#3-48	1/4	4
PM-348-2-6	#3-48	1/4	6
PM-348-2-8	#3-48	1/4	8
PM-832	#8-32	1/4	2.92
PM-832-4	#8-32	1/4	4
PM-832-6	#8-32	1/4	6
PM-832-8	#8-32	1/4	8
PM-1420	1/4"-20	1/4	2.95
PM-1420-QC	1/4"-20	1/4	2
PM-1420-4	1/4"-20	1/4	4
PM-1420-6	1/4"-20	1/4	6
PM-1420-8	1/4"-20	1/4	8

Winding Arbors

- For use in the manufacturing of cartridge rolls



Catalog #	O.D.	Slot Width	Slot Length	O.A.L.
WA-564-1	3/32	0.025	3	4 1/2
WA-564-2	3/32	0.032	3	4 1/2
WA-332-1	7/64	0.025	3	4 1/2
WA-332-2	7/64	0.032	3	4 1/2
WA-332-3	1/8	0.045	3	4 1/2
WA-18-2	9/64	0.032	3	4 1/2
WA-18-3	5/32	0.045	3	4 1/2
WA-18-4	5/32	0.057	3	4 1/2
WA-316-2	13/64	0.032	3	4 1/2
WA-316-3	7/32	0.045	3	4 1/2
WA-316-4	15/64	0.057	3	4 1/2
WA-14-2	17/64	0.032	3	4 1/2
WA-14-3	9/32	0.045	3	4 1/2
WA-14-4	19/64	0.057	3	4 1/2
WA-516-3	11/32	0.045	3	4 1/2
WA-516-4	23/64	0.057	3	4 1/2

Catalog #	Packaging	Description
TC-8	POLY-BAG 8 PC, SET WITH TWO EACH 1/4", 5/16", 3/8", & 1/2"	