

# SHAFT COLLARS

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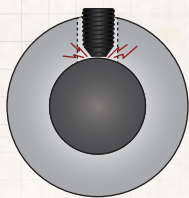
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## SHAFT COLLAR FEATURES

Shaft collars are machine components found in many power transmission applications, most notably motors and gear boxes. They are used as mechanical stops, locating components, or bearing faces. They install easily and are available in a variety of styles and materials.

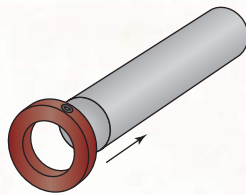
### DESIGN CONSIDERATIONS

#### POSITIONING & MATERIALS



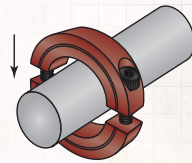
SET COLLARS ARE SECURED TO UNHARDENED SHAFTS WITH A SET SCREW THAT WILL PENETRATE AND MAR THE SHAFT SURFACE

#### AXIAL INSTALLATION



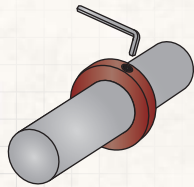
SET COLLARS AND SINGLE-SPLIT COLLARS ARE INSTALLED AXIALLY BY SLIDING OVER THE SHAFT

#### RADIAL INSTALLATION



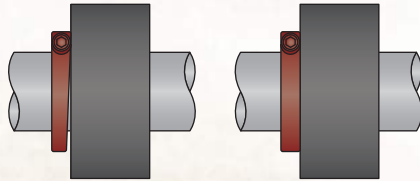
DOUBLE-SPLIT COLLARS ARE INSTALLED RADIALLY WITHOUT DISASSEMBLING THE COMPONENT

#### INSTALLATION REQUIREMENTS



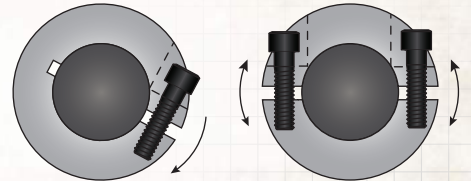
SHAFT COLLARS ARE EASILY INSTALLED WITH A HEX KEY TOOL

#### PRECISION FACING



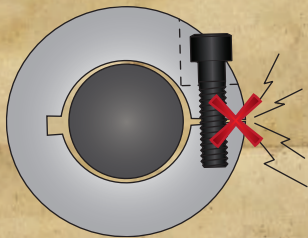
HAVING A PERPENDICULAR FACE IS CRITICAL FOR THE COLLAR TO HOLD OTHER COMPONENTS IN PLACE

#### BALANCE



DOUBLE-SPLIT COLLARS ARE IDEAL FOR HIGH RPM APPLICATIONS BECAUSE THE OPPOSING SCREWS BALANCE EACH OTHER

### DON'T CLOSE THE GAP



When tightening a split collar, the edges of the split should not touch when fully tightened. If the split is completely closed the collar is too large and will not clamp on the shaft.



### CLEAN INSTALLS

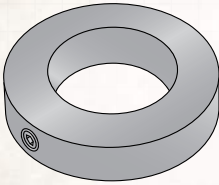
For best results, wipe the shaft clean and apply light oil prior to installation.



## SHAFT COLLAR TYPES

### SET

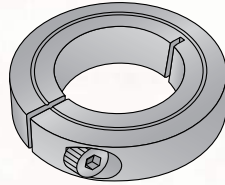
Set collars are the oldest type of shaft collars and use a hardened set screw to penetrate the surface of an unhardened shaft to achieve grip. They are ideal for holding spacers, bearings, and sprocket hubs in place.



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### SINGLE-SPLIT

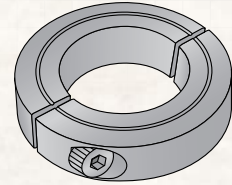
Single-split collars are used on round shafts, bars, and tubes. They use friction to grip and are more secure than set collar designs.



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### DOUBLE-SPLIT

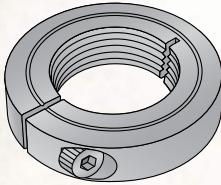
Double-split collars allow installation without disassembling machinery. They provide superior grip and are ideal for applications where access is limited. Opposing screws balance each other in rotating applications.



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### THREADED

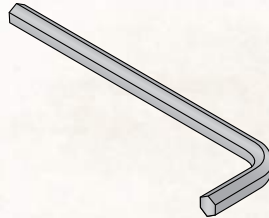
Threaded bore collars are used in threaded shaft applications where precise positioning is required or where high axial loads will be encountered. The threads provide a positive mechanical stop.



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### HEX KEYS

Hex keys are a simple six-sided, L-shaped tool used to tighten or loosen socket head screws. They are more commonly known as "Allen Wrenches," a proprietary name of Apex Tool Group, LLC.



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### ALSO AVAILABLE:



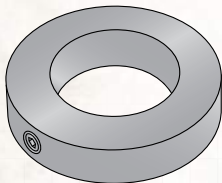
Set Screws



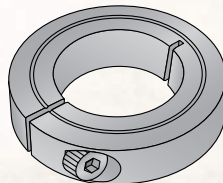
Cap Screws

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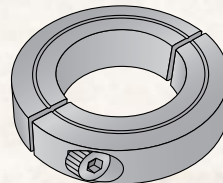
### WHICH SHAFT COLLAR DO I NEED?



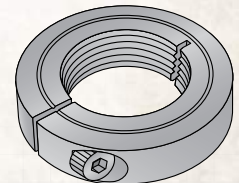
Set collars are economical, install axially, and are used on unhardened shafts. They are secured with a set screw.



Single-split collars provide better holding power than set collars, and must be installed axially.



Double-split collars install easily without disassembling machinery and provide excellent clamping power.



Single- or double-split threaded shaft collars provide precision placement and tolerate extreme axial forces.

*ALL SINGLE-SPLIT AND DOUBLE-SPLIT SHAFT COLLARS FEATURE A GROOVED FACE  
THE GROOVE INDICATES THE FACE THAT IS PRECISION MACHINED PERPENDICULAR TO THE BORE*



# SHAFT COLLARS

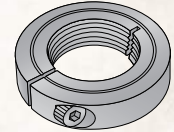
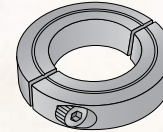
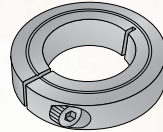
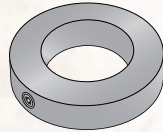
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## QUICK REFERENCE GUIDE

Shaft collars are used in machine applications to secure or position components on shafts. They can be used as mechanical stops, stroke limiters, or bearing holders. A variety of styles provides solutions for almost any power transmission application.



|                             | SET   | SINGLE-SPLIT  | DOUBLE-SPLIT  | THREADED  |
|-----------------------------|---|---|---|---|
| <b>COMMON NAMES</b>         | Set Screw Collar; Solid Clamping Collar; Set Shaft Collar   | Split Hub Collar; Clamp Collar  | Two-piece Clamp-on Collar   | Threaded Clamp Collar   |
| <b>APPLICABLE STANDARDS</b> | There are no applicable standards; however, most manufacturers follow similar designs.  | There are no applicable standards; however, most manufacturers follow similar designs.  | There are no applicable standards; however, most manufacturers follow similar designs.  | There are no applicable standards; however, most manufacturers follow similar designs.  |
| <b>FABRICATION</b>          | Material is bored and single-point faced.   | Material is bored and single-point faced.   | Material is bored and single-point faced.   | Material is bored and single-point faced.   |
| <b>HOW TO IDENTIFY</b>      | Bore (inside diameter); solid one-piece design with set screw.  | Bore (inside diameter); one-piece design with a cut through one side and a relief cut opposite; clamped with a cap screw.                             | Bore (inside diameter); two-piece design with a cap screw on each side.   | Fine or coarse threaded bore (inside diameter); single- or double-split design.   |
| <b>COMMON USES</b>          | Used as mechanical stops, locating components, and bearing faces. Found in applications such as sprocket hubs, bearing holders, and shaft protectors. | Used as mechanical stops, locating components, and bearing faces. Found in applications such as sprocket hubs, bearing holders, and shaft protectors. | Used as mechanical stops, locating components, and bearing faces. Found in applications such as sprocket hubs, bearing holders, and shaft protectors. | Used as mechanical stops, locating components, and bearing faces. Found in applications such as sprocket hubs, bearing holders, and shaft protectors. |
| <b>COMMENTS</b>             | Shaft must be unhardened and softer than the set screw. Marring on the shaft can occur. Lowest cost.  | Must be installed over the end of the shaft while it is disassembled from other components. Relief cut enables easy tightening.                       | Can be installed in-line without disassembling component parts.   | Available in fine or coarse threads. Relief cut enables easy tightening.  |

## MEASURING



A shaft collar's size is determined by its bore and is sized to match the shaft diameter. For example, if your shaft size is 1" then you would want a 1" shaft collar.

To use this size chart, align the inside diameter of your shaft collar against the "zero" line on the right edge. Visually note where the left edge of the inside diameter falls and follow the line to the imperial measurement below or the metric measure above. Sixteenth measurements and single millimeters have been left off for clarity.



**ALIGN THE RIGHT SIDE OF THE BORE OF THE COLLAR TO THE RIGHT EDGE OF THE CIRCLE TO DETERMINE THE SIZE OF THE COLLAR**

