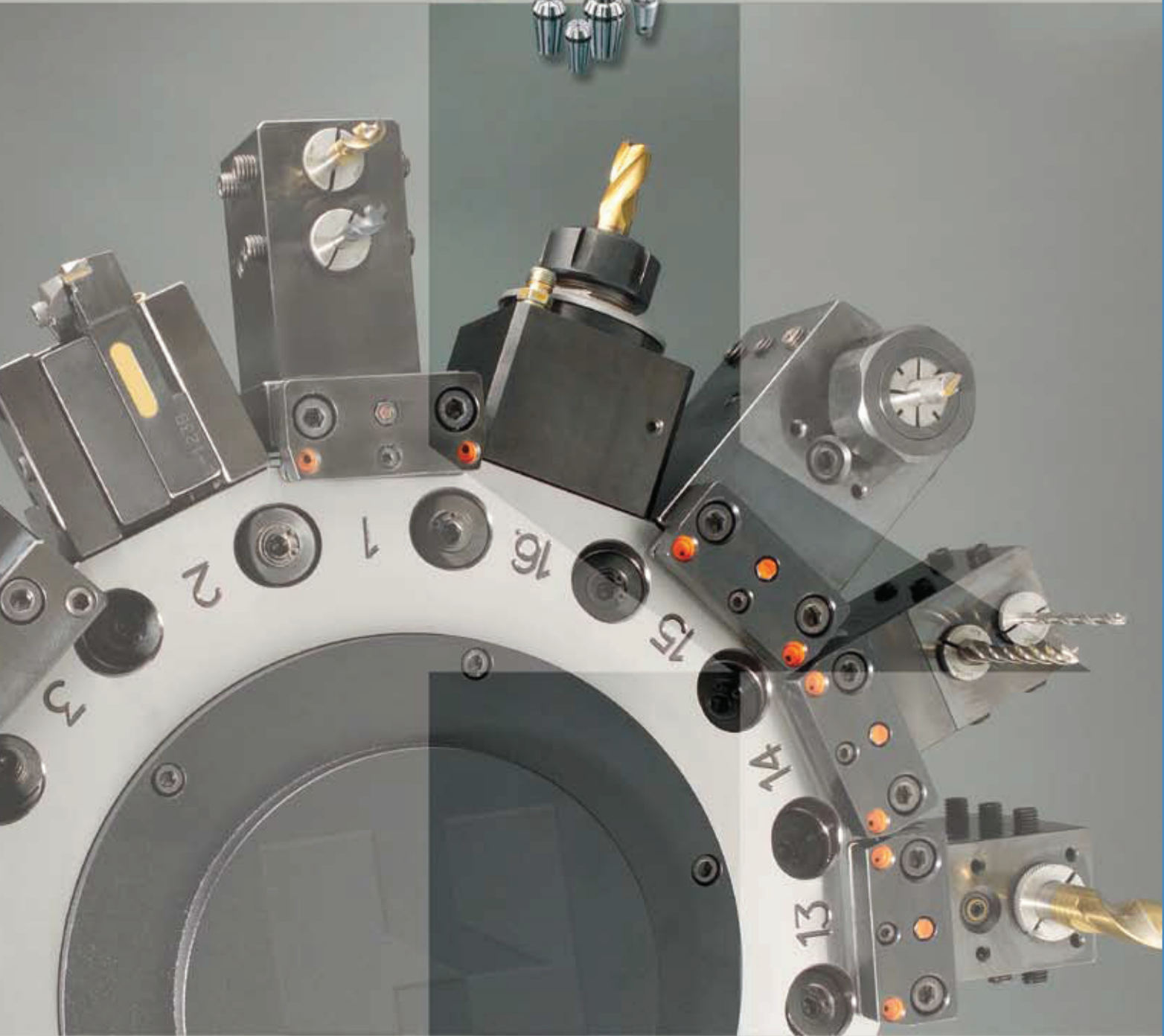


TOOLHOLDER COLLETS  
BUSHINGS & TOOL HOLDERS



TURNING MILLING GRINDING WORKHOLDING

 **HARDINGE**  
EXPECT MORE™

# Hardinge. Solid Since 1890.



Hardinge® is committed to being your SINGLE SOURCE for all of your workholding and industrial products. Well known for high accuracy and precision, Hardinge can provide any gripping solution known to the machinist, as well as some unknown! Our product line includes collets, step chucks, 3-jaw power chucks, collet chucks, indexing systems and custom manufacturing, as well as tool holding systems for lathes and mills.

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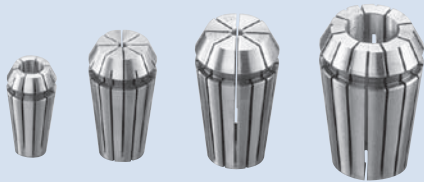
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## ER & DA Toolholder Collets



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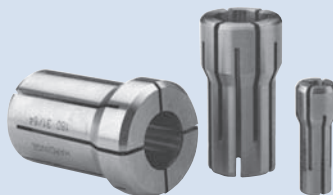
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PAGES 23-24

Single- and double-angle collets feature a multi-slot design to provide maximum gripping force for efficient "push-back" control. This control helps prolong tool life which reduces machine downtime to produce more pieces per hour. All locating surfaces are precision ground to assure extremely close tolerances. Most of these collets feature a compression range of up to  $\frac{1}{64}$ " (.3968mm). Our manufacturing process ensures that each collet will have a TIR (Total Indicator Reading) of .0005" (.0127mm) or less.

### ER-Style Single-Angle Collets

**Standard ER-Style Collets** are used on Swiss-type lathes and in tool holders for mills and CNC lathes. They are used to grip drills, taps, reamers, end mills and boring bars and special round shank end working tools.

**ERNC-Style Collets** are sealed for coolant up to 1000 psi. Exact sizes are available in metric, decimal inch and fractional inch. This series collet has fewer slots, resulting in less flexibility.

### ER-Style Single-Angle Tapping Collets

**ERTCSP Tap Collets** are designed to be used in a floating tap holder. They are multi-split with a square hole in the back of the collet to keep the tap from slipping in the collet.

**ERQC Quick-Change Solid Floating Tap Collets** have a Bilz-style quick-change feature, eliminating the need to remove the collet to change taps. There is a square in the collet assembly to keep the tap from turning in the collet. This system fits in the same tool holders that use ER-style collets. Each collet is made for a specific tap shank size. The collet has a floating spindle, eliminating the need for a special floating tap holder.

**ERTC Solid Floating Tap Collets** fit in the same tool holders which use the ER-style collets. Each collet is made for a specific tap shank size. The collet has a floating spindle, eliminating the need for a floating tap holder. The tap is held in the collet with set screws which grip on the square of the tap.

### DA-Style Double-Angle Toolholder Collets

The **Double-Angle Collet** is noted for its parallel gripping capability due to the two angles and the opposed split configuration. This places the parallel bearing on the tool shank, as well as the full diameter of the tool.

# TG, HDO & HF-Style Toolholder Collets

## TG-Style Single-Angle Toolholder Collets

**TG Collets** (tremendous grip) are used on CNC lathes and machining centers to grip round shank tools such as drills, taps, reamers, boring bars, end mills and other end working tools.



**PAGES 26-27**

## HDO-Style Single-Angle Toolholder Collets

The **HDO Collet** is a rigid, high precision system recommended for milling applications and is interchangeable with the Ortlieb-type collets. The collapse range of the collet is 0.5mm (.0196").



**PAGES 28-29**

## HF-Style Single-Angle Toolholder Collets

The **HF Collet** is interchangeable with Universal Acura-Flex-style collets. The collapse range of the collet is 1/64" (.3968mm).



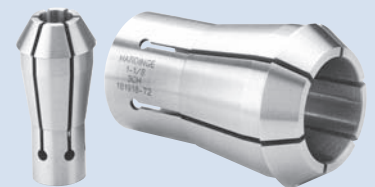
**PAGES 30-31**

# Standard Collets for Tool Holders

*All standard-style toolholder collets are manufactured from special alloy steels. They are hardened and ground to extremely close tolerances to assure superior concentricity.*

## Cincinnati Monoset Toolholder Collets

**Cincinnati Monoset Collets** are used in Cincinnati tool and cutter grinders. The collets are hardened and ground to exacting tolerances to assure concentricity between the OD of the collet and its bore.



**PAGE 32**

## Hardinge® 1C Toolholder Collets

The **1C Collet** is used in the Hardinge T17 5/8" and 3/4" 1C tool holders. This holder is mounted in round tool holders and turrets to place the tool on the spindle centerline for precision drilling. This collet is manufactured to hold drills as small as .005" in diameter.



**PAGES 32**



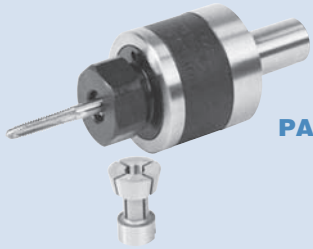
# Tap Collets and Holders



PAGE 33

## Hardinge® TT Floating Tap Holder Collets

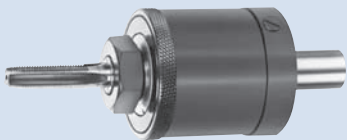
TT Tap Holder Collets are used exclusively in the Hardinge TT Tap Holders –  $\frac{5}{8}$ " and  $\frac{3}{4}$ " round shanks. Each collet is made for a specific tap size. A square broached hole securely holds the shank of the tap, eliminating tap slippage and misalignment.



PAGE 33

## TT- $\frac{5}{8}$ & - $\frac{3}{4}$ Collet-Type Releasing Tap Holder

The Collet-Type Releasing Tap Holder is used to provide thread length control on either right- or left-hand taps by switching a lever inside the body of the tap holder. The tap holder mounts directly into a round shank tool holder. TT-style tap holder collets are used for accurate holding and centering of taps. To provide a positive drive for the taps, the collets have a square slot in the back to accommodate the square on the tap shank and a notch in the back bearing of the collet that fits over a hardened pin in the bottom of the holder.



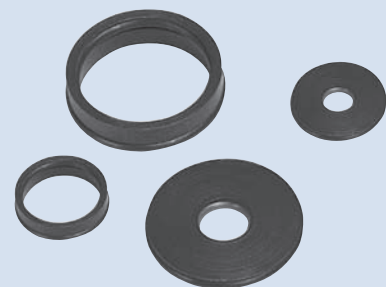
PAGE 34

## GK Self-Feeding – Length-Control Tap Holder

The Self-Feeding (Pafix) Tap Holder provides automatic thread length control. The tap holder eliminates the need to match feed rate to thread pitch, minimizing tool breakage. The holder has a  $\frac{5}{8}$ " shank diameter. Thread length is controlled internally with an adjusting ring in .01" (.25 mm) increments. A driver is used in the holder to accommodate the square of the tap shank, providing a positive drive. A collet is used to centralize and hold the tap in the holder.

# "Cool Stop" Coolant Seals

Maximize coolant flow through your drills with the "Cool Stop" system. "Cool Stop" Seals are designed to seal around the shank of the drill and ID of the ER and TG holders. The gauge length of the holder does not change. The collet stays flush with the cap because the "Cool Stop" seal locates at the back of the collet. Each "Cool Stop" has a range from rated size down to .020" (5.0 mm), resulting in a small seal inventory for each collet style. You can keep the coolant running through the drill (rather than out the collet) at pressures up to 1500 psi.



PAGE 15

# Quick-Change Tap Collets and Holders

*Quick-Change Tap Collets are used throughout the industry for mounting into Bilz-style and other popular tapping holders. Many taper-flange milling machine tap holders use these collets. The quick-change feature allows changing the tap without removing the collet from its holder. This feature ensures precise length control from one tap to another of the same length.*

## Quick-Change Style Straight-Shank Tap Collets

The **Quick-Change Tap Collet** is a quick-releasing style. The collet does not have to be removed from the holder to change the tap. The nose piece pushes in, releasing the tap while no wrenches are required. The Quick-Change collet can only be used in holders specifically designed for it.



**PAGE 35**

## Torque-Release Quick-Change Straight-Shank Tap Collets

The **Torque Release Quick-Change Tap Collet** unit allows the collet to release at a predetermined torque. This unit can only be used in tension/compression Bilz-style tap holders, specifically designed for these straight-shank tap collets.



**PAGE 36**

## Tool Holder for Quick-Change Straight-Shank Tap Collets

The **Straight-Shank Tool Holder** is used with Quick-Change style straight-shank tap collets. It can be mounted in round shank tool holders with either  $\frac{3}{4}$ " or 1" bores. The holder can be used on CNC lathes and milling machines.



**PAGE 37**

# Hardened & Ground Bushings

## HD-Style

*HD-Style bushings are hardened and precision ground inside and out. The hardness and resiliency manufactured into Hardinge® bushings make them the longest lasting and most accurate bushings in the industry. There are three bushing styles – HDB, HDC, and HDZ.*



**PAGES 38-43**

### HDB-Style Split Bushings

The **HDB-Style Bushing** has a knurled shoulder for easy installation and removal. A flat is milled on the OD of the bushing where the toolholder or turret set screws clamp on the bushing. This style bushing is available in fractional, decimal, metric, letter, and number sizes for the ½" OD (HDB2), ⅝" OD (HDB5) and ¾" OD (HDB6) sizes. The 1" OD (HDB8), 1⅛" OD (HDB9), 1¼" / 32mm OD (HDB10) and 1½" / 40mm OD (HDB12) bushings are available in fractional and metric sizes. The HDB9 is also available as a solid bushing with either a #2 or #3 female Morse taper.



**PAGES 44-45**

### HDC-Style Slotted Solid Bushings

The **HDC-Style Solid Bushing** features either one or two longitudinal slots, depending on the size of the bore. The slot allows the set screw from the tool holder to locate directly on the body of the tool. This style bushing is available in 1¼" / 32mm OD (HDC10) and 1½" / 40mm OD (HDC12) with fractional or metric size bores. The HDC10 and HDC12 are also available with female Morse tapers.



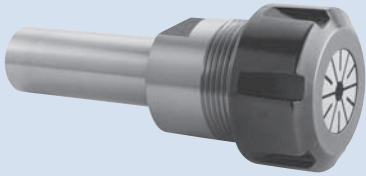
**PAGE 45**

### HDZ-Style Slotted Solid Pre-Set Bushings

The **HDZ-Style Solid Bushing** features either one or two longitudinal slots, depending on the size of the bore. The slot allows the set screws from the tool holder to locate directly on the body of the tool. The bushing has a flange with two set screws positioned 90° apart. The tool can be placed in the bushing and set to a specific dimension from the locating shoulder and locked in place. This style is available in 1¼" / 32mm OD (HDC10) and 1½" / 40mm OD (HDC12) with fractional or metric size bores.



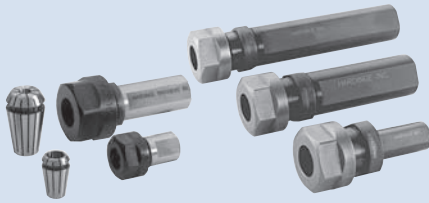
# ER-Style Tool Holders



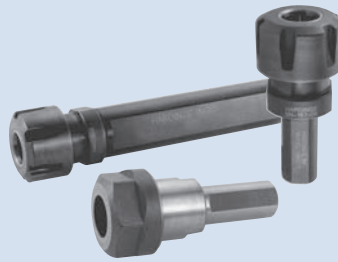
Stepped Holder for ER-Style Collets  
**PAGE 19**

ER-Style Collet Holders accept various versions of ER Collets. The holders for Swiss-type lathes and other CNC lathes are categorized by three styles:

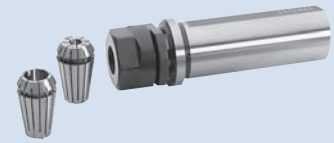
- **ER Solid Shank Holder** can use the standard ER collet, as well as the ERNC split collets and the ERQC and ERTC floating tap collets.
- **Rigid Tap Holders** only use the ERQC and the ERTC floating tap collets
- **Floating Tap Holders** use the standard ER collet and the ERTCSP collet that has a square hole for the tap shank.



Standard ER Collet Holders  
**PAGES 17-18**



Rigid Holder for Floating Tap Collets  
**PAGES 17-18**



Floating Tap Holders for Standard ER Collets  
**PAGES 17-18**

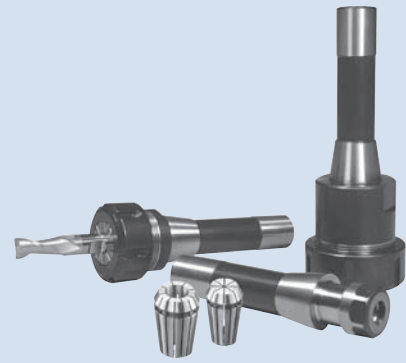
**Straight-Shank Holders** are used for other CNC lathes and in mill tool holders as extensions. These holders come with adjustable stops for the drill or round shank tools.



Straight-Shank ER Holders for CNC Lathes  
**PAGE 20**  
for Thru-Coolant Application  
**PAGE 21**



Straight-Shank ER Holder Extensions  
for Mill Tool Holders  
**PAGE 22**



R8, ER Collet Tool Holders  
for Bridgeport and other Knee Mills  
**PAGE 22**



Quick-Change Adapter converts Quick-Change Straight-Shank Tap Holder or Bilz-Style Holder to ER Collets  
**PAGE 37**

# Double-Angle Extension Tool Holders

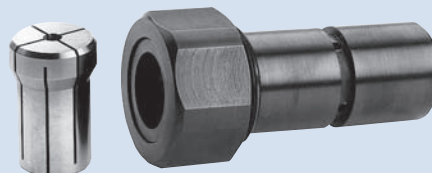
The **Double-Angle Collet Extension Tool Holder** mounts directly into a round shank tool holder to grip small diameter tools securely. Double-angle collets are used to provide a positive grip on the tool. Optional qualifying Collars and Chuck Stops are available. The Collars can be positioned and locked on the holder shank to qualify the tool position in a holder.

**Chuck Stops** position inside the holder body to provide a qualified locating surface for tooling and to help prevent tool "push back".

**SB and SG Double-Angle Holders** are available for CNC lathe work. The SB has a 1 1/8" shank and the SG has a 1 1/4" shank.



**PAGE 25**



# ER8, ER11, ER12, ER16 and ER20 Collets

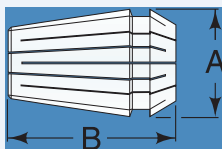
ER Series collets range from the small ER8 collet to the large ER50 collet. One collet has enough flex to hold a large range of tool shanks, eliminating the need for separate collets for each tool. Metric and inch sizes are listed. Refer to page 12 for concentricity specifications.

ER-series collets are interchangeable with DR- and ESX-type collets.



## ER8 Collets

METRIC	ER8 Collet Part Number	Size Range	
		mm	Inch
	2093-00-17-010000	1.0 - 0.5	.039" - .019"
	2093-00-17-015000	1.5 - 1.0	.059" - .039"
	2093-00-17-020000	2.0 - 1.5	.079" - .059"
	2093-00-17-025000	2.5 - 2.0	.098" - .079"
	2093-00-17-030000	3.0 - 2.5	.118" - .098"
	2093-00-17-035000	3.5 - 3.0	.138" - .118"
	2093-00-17-040000	4.0 - 3.5	.157" - .138"
	2093-00-17-045000	4.5 - 4.0	.177" - .157"
	2093-00-17-050000	5.0 - 4.5	.197" - .177"
	<b>0947-08-17-000009</b>	<b>Collet Set (9 Collets)</b>	
	<b>0947-08-17-00S009</b>	<b>Special Accuracy Set</b>	
	<b>Micro-Drilling</b>		
	2093-00-17-005000	0.5 - .25	.019" - .010"



## Dimensions

ER Style	A - Dia.		B - Length	
	mm	Inch	mm	Inch
8	8.5	.335"	13.5	.531"
11	11.5	.453"	18.0	.709"
12	12.0	.472"	19.5	.768"
16	17.0	.669"	27.0	1.063"
20	21.0	.827"	31.0	1.220"
25	26.0	1.024"	35.0	1.378"
32	33.0	1.299"	40.0	1.575"
40	41.0	1.614"	46.0	1.811"
50	52.0	2.047"	60.0	2.362"

## ER11 and ER12 Collets

METRIC	ER11 Collet Part Number	Size Range		ER12 Collet Part Number
		mm	Inch	
	1911-00-17-010000	1.0 - 0.5	.039" - .019"	2091-00-17-010000
	1911-00-17-015000	1.5 - 1.0	.059" - .039"	2091-00-17-015000
	1911-00-17-020000	2.0 - 1.5	.079" - .059"	2091-00-17-020000
	1911-00-17-025000	2.5 - 2.0	.098" - .079"	2091-00-17-025000
	1911-00-17-030000	3.0 - 2.5	.118" - .098"	2091-00-17-030000
	1911-00-17-035000	3.5 - 3.0	.138" - .118"	2091-00-17-035000
	1911-00-17-040000	4.0 - 3.5	.157" - .138"	2091-00-17-040000
	1911-00-17-045000	4.5 - 4.0	.177" - .157"	2091-00-17-045000
	1911-00-17-050000	5.0 - 4.5	.197" - .177"	2091-00-17-050000
	1911-00-17-055000	5.5 - 5.0	.217" - .197"	2091-00-17-055000
	1911-00-17-060000	6.0 - 5.5	.236" - .217"	2091-00-17-060000
	1911-00-17-065000	6.5 - 6.0	.255" - .236"	2091-00-17-065000
	1911-00-17-070000	7.0 - 6.5	.276" - .255"	2091-00-17-070000
	<b>0947-11-17-000013</b>	<b>Sets: ER11 (13) - ER12 (13)</b>		<b>0947-12-17-000013</b>
	<b>0947-11-17-00S013</b>	<b>Special Accuracy Sets</b>		<b>0947-12-17-00S013</b>
INCH	Fractional Collet	Inch	mm	Fractional Collet
	1911-00-19-000625	1/16"	1.58	—
	1911-00-19-000937	3/32"	2.38	—
	1911-00-19-001250	1/8"	3.17	—
	1911-00-19-001562	5/32"	3.96	—
	1911-00-19-001875	3/16"	4.76	—
	1911-00-19-002187	7/32"	5.55	—
	1911-00-19-002500	1/4"	6.35	—
	<b>0947-11-19-000007</b>	<b>Sets: ER11 (7)</b>		—
	<b>0947-11-19-00S007</b>	<b>Special Accuracy Set</b>		—

## ER16 and ER20 Collets

METRIC	ER16 Collet Part Number	Size Range		ER20 Collet Part Number
		mm	Inch	
	1913-00-17-010000	1.0 - 0.5	—	—
	1913-00-17-020000	2.0 - 1.0	.079"-.039"	1915-00-17-020000
	1913-00-17-030000	3.0 - 2.0	.118"-.079"	1915-00-17-030000
	1913-00-17-040000	4.0 - 3.0	.157"-.118"	1915-00-17-040000
	1913-00-17-050000	5.0 - 4.0	.197"-.157"	1915-00-17-050000
	1913-00-17-060000	6.0 - 5.0	.236"-.197"	1915-00-17-060000
	1913-00-17-070000	7.0 - 6.0	.276"-.136"	1915-00-17-070000
	1913-00-17-080000	8.0 - 7.0	.315"-.276"	1915-00-17-080000
	1913-00-17-090000	9.0 - 8.0	.354"-.315"	1915-00-17-090000
	1913-00-17-100000	10.0 - 9.0	.394"-.354"	1915-00-17-100000
	—	11.0 - 10.0	.433"-.394"	1915-00-17-110000
	—	12.0 - 11.0	.472"-.433"	1915-00-17-120000
	—	13.0 - 12.0	.512"-.472"	1915-00-17-130000
	<b>0947-16-17-000010</b>	<b>Sets: ER16 (10) - ER20 (12)</b>		<b>0947-20-17-000012</b>
	<b>0947-16-17-00S010</b>	<b>Special Accuracy Sets</b>		<b>0947-20-17-00S012</b>
INCH	Fractional Collet	Inch	mm	Fractional Collet
	1913-00-19-000625	1/16"	1.58	1915-00-19-000625
	1913-00-19-000937	3/32"	2.38	1915-00-19-000937
	1913-00-19-001250	1/8"	3.17	1915-00-19-001250
	1913-00-19-001562	5/32"	3.96	1915-00-19-001562
	1913-00-19-001875	3/16"	4.76	1915-00-19-001875
	1913-00-19-002187	7/32"	5.55	1915-00-19-002187
	1913-00-19-002500	1/4"	6.35	1915-00-19-002500
	1913-00-19-002812	9/32"	7.14	1915-00-19-002812
	1913-00-19-003125	5/16"	7.93	1915-00-19-003125
	1913-00-19-003437	11/32"	8.72	1915-00-19-003437
	1913-00-19-003750	3/8"	9.52	1915-00-19-003750
	1913-00-19-004062	13/32"	10.31	1915-00-19-004062
	—	7/16"	11.11	1915-00-19-004375
	—	15/32"	11.90	1915-00-19-004687
	—	1/2"	12.70	1915-00-19-005000
	<b>0947-16-19-000012</b>	<b>Sets: ER16 (12) - ER20 (15)</b>		<b>0947-20-19-000015</b>
	<b>0947-16-19-00S012</b>	<b>Special Accuracy Sets</b>		<b>0947-20-19-00S015</b>

## ER25 and ER32 Collets

	ER25 Collet		Size Range		ER32 Collet	
	Part Number	mm	Inch	Part Number	mm	Inch
	2095-00-17-020000	2.0 - 1.0	.079" - .039"	—		
	2095-00-17-030000	3.0 - 2.0	.118" - .079"	1917-00-17-030000		
	2095-00-17-040000	4.0 - 3.0	.157" - .118"	1917-00-17-040000		
	2095-00-17-050000	5.0 - 4.0	.197" - .157"	1917-00-17-050000		
	2095-00-17-060000	6.0 - 5.0	.236" - .197"	1917-00-17-060000		
	2095-00-17-070000	7.0 - 6.0	.276" - .236"	1917-00-17-070000		
	2095-00-17-080000	8.0 - 7.0	.315" - .276"	1917-00-17-080000		
	2095-00-17-090000	9.0 - 8.0	.354" - .315"	1917-00-17-090000		
	2095-00-17-100000	10.0 - 9.0	.394" - .354"	1917-00-17-100000		
	2095-00-17-110000	11.0 - 10.0	.433" - .394"	1917-00-17-110000		
	2095-00-17-120000	12.0 - 11.0	.472" - .433"	1917-00-17-120000		
	2095-00-17-130000	13.0 - 12.0	.511" - .472"	1917-00-17-130000		
	2095-00-17-140000	14.0 - 13.0	.551" - .511"	1917-00-17-140000		
	2095-00-17-150000	15.0 - 14.0	.590" - .551"	1917-00-17-150000		
	2095-00-17-160000	16.0 - 15.0	.629" - .590"	1917-00-17-160000		
	—	17.0 - 16.0	.669" - .629"	1917-00-17-170000		
	—	18.0 - 17.0	.708" - .669"	1917-00-17-180000		
	—	19.0 - 18.0	.748" - .708"	1917-00-17-190000		
	—	20.0 - 19.0	.787" - .748"	1917-00-17-200000		
	<b>0947-25-17-000015</b>	<b>Sets: ER25 (15) – ER32 (18)</b>		<b>0947-32-17-000018</b>		
	<b>0947-25-17-00S015</b>	<b>Special Accuracy Sets</b>		<b>0947-32-17-00S018</b>		
	Fractional Collet	Inch	mm	Fractional Collet		
	2095-00-19-000625	1/16"	1.58	—		
	2095-00-19-000937	3/32"	2.38	1917-00-19-000937		
	2095-00-19-001250	1/8"	3.17	1917-00-19-001250		
	2095-00-19-001562	5/32"	3.96	1917-00-19-001562		
	2095-00-19-001875	3/16"	4.76	1917-00-19-001875		
	2095-00-19-002187	7/32"	5.55	1917-00-19-002187		
	2095-00-19-002500	1/4"	6.35	1917-00-19-002500		
	2095-00-19-002812	9/32"	7.15	1917-00-19-002812		
	2095-00-19-003125	5/16"	7.93	1917-00-19-003125		
	2095-00-19-003437	11/32"	8.73	1917-00-19-003437		
	2095-00-19-003750	3/8"	9.52	1917-00-19-003750		
	2095-00-19-004062	13/32"	10.31	1917-00-19-004062		
	2095-00-19-004375	7/16"	11.11	1917-00-19-004375		
	2095-00-19-004687	15/32"	11.90	1917-00-19-004687		
	2095-00-19-005000	1/2"	12.70	1917-00-19-005000		
	2095-00-19-005312	17/32"	13.49	1917-00-19-005312		
	2095-00-19-005625	9/16"	14.28	1917-00-19-005625		
	2095-00-19-005937	19/32"	15.08	1917-00-19-005937		
	2095-00-19-006250	5/8"	15.87	1917-00-19-006250		
	—	21/32"	16.66	1917-00-19-006562		
	—	11/16"	17.46	1917-00-19-006875		
	—	23/32"	18.25	1917-00-19-007187		
	—	3/4"	19.05	1917-00-19-007500		
	<b>0947-25-19-000019</b>	<b>Sets: ER25 (19) – ER32 (22)</b>		<b>0947-32-19-000022</b>		
	<b>0947-25-19-00S019</b>	<b>Special Accuracy Sets</b>		<b>0947-32-19-00S022</b>		

## ER50 Collets

	ER50 Collet		Size Range	
	Part Number	mm	Inch	
	2131-00-17-120000	12.0 - 10.0	.472" - .394"	
	2131-00-17-140000	14.0 - 12.0	.551" - .472"	
	2131-00-17-160000	16.0 - 14.0	.630" - .551"	
	2131-00-17-180000	18.0 - 16.0	.709" - .630"	
	2131-00-17-200000	20.0 - 18.0	.787" - .709"	
	2131-00-17-220000	22.0 - 20.0	.866" - .787"	
	2131-00-17-240000	24.0 - 22.0	.945" - .866"	
	2131-00-17-260000	26.0 - 24.0	1.024" - 0.945"	
	2131-00-17-280000	28.0 - 26.0	1.102" - 1.024"	
	2131-00-17-300000	30.0 - 28.0	1.181" - 1.102"	
	2131-00-17-320000	32.0 - 30.0	1.260" - 1.181"	
	2131-00-17-340000	34.0 - 32.0	1.339" - 1.260"	
	<b>0947-50-17-000012</b>	<b>Collet Set (12 collets)</b>		
	<b>0947-50-17-00S012</b>	<b>Special Accuracy Set</b>		

## WORKHOLDING

## ER25, ER32, ER40 and ER50 Collets

### ER40 Collets

	ER40 Collet		Size Range	
	Part Number	mm	Inch	
	2129-00-17-040000	4.0 - 3.0	.157" - .118"	
	2129-00-17-050000	5.0 - 4.0	.197" - .157"	
	2129-00-17-060000	6.0 - 5.0	.236" - .197"	
	2129-00-17-070000	7.0 - 6.0	.276" - .236"	
	2129-00-17-080000	8.0 - 7.0	.315" - .276"	
	2129-00-17-090000	9.0 - 8.0	.354" - .315"	
	2129-00-17-100000	10.0 - 9.0	.394" - .354"	
	2129-00-17-110000	11.0 - 10.0	.433" - .394"	
	2129-00-17-120000	12.0 - 11.0	.472" - .433"	
	2129-00-17-130000	13.0 - 12.0	.511" - .472"	
	2129-00-17-140000	14.0 - 13.0	.551" - .511"	
	2129-00-17-150000	15.0 - 14.0	.590" - .551"	
	2129-00-17-160000	16.0 - 15.0	.629" - .590"	
	2129-00-17-170000	17.0 - 16.0	.669" - .629"	
	2129-00-17-180000	18.0 - 17.0	.708" - .669"	
	2129-00-17-190000	19.0 - 18.0	.748" - .708"	
	2129-00-17-200000	20.0 - 19.0	.787" - .748"	
	2129-00-17-210000	21.0 - 20.0	.827" - .787"	
	2129-00-17-220000	22.0 - 21.0	.866" - .827"	
	2129-00-17-230000	23.0 - 22.0	.906" - .866"	
	2129-00-17-240000	24.0 - 23.0	.945" - .906"	
	2129-00-17-250000	25.0 - 24.0	.984" - .945"	
	2129-00-17-260000	26.0 - 25.0	1.024" - .984"	
	<b>0947-40-17-000023</b>	<b>Collet Set (23 collets)</b>		
	<b>0947-40-17-00S023</b>	<b>Special Accuracy Set</b>		
	Fractional Collets	Inch	mm	
	2129-00-19-000937*	3/32"	2.38	
	2129-00-19-001250	1/8"	3.17	
	2129-00-19-001562	5/32"	3.96	
	2129-00-19-001875	3/16"	4.76	
	2129-00-19-002187	7/32"	5.55	
	2129-00-19-002500	1/4"	6.35	
	2129-00-19-002812	9/32"	7.15	
	2129-00-19-003125	5/16"	7.93	
	2129-00-19-003437	11/32"	8.72	
	2129-00-19-003750	3/8"	9.52	
	2129-00-19-004062	19/32"	10.31	
	2129-00-19-004375	7/16"	11.11	
	2129-00-19-004687	15/32"	11.90	
	2129-00-19-005000	1/2"	12.70	
	2129-00-19-005312	17/32"	13.49	
	2129-00-19-005625	9/16"	14.28	
	2129-00-19-005937	19/32"	15.08	
	2129-00-19-006250	5/8"	15.87	
	2129-00-19-006562	21/32"	16.66	
	2129-00-19-006875	11/16"	17.46	
	2129-00-19-007187	23/32"	18.25	
	2129-00-19-007500	3/4"	19.05	
	2129-00-19-007812	25/32"	19.84	
	2129-00-19-008125	13/16"	20.63	
	2129-00-19-008437	27/32"	21.43	
	2129-00-19-008750	7/8"	22.22	
	2129-00-19-009062	29/32"	23.01	
	2129-00-19-009375	15/16"	23.81	
	2129-00-19-009687	31/32"	24.60	
	2129-00-19-010000	1"	25.40	
	<b>0947-40-19-000030</b>	<b>Collet Set (29 collets)</b>		
	<b>0947-40-19-00S030</b>	<b>Special Accuracy Set</b>		

\* Not included in ER40 fractional collet set.

# ERNC-Style Collets

## for thru-coolant applications



The head-angle of the ERNC-Style Collet is sealed for thru-coolant applications and pressure-resistance tested to 1000 psi. Exact metric sizes shown in millimeter and decimal inch equivalent.

### ERNC16 & ERNC20 Collets

ERNC16 Collet Part Number	Range		ERNC20 Collet Part Number
	mm	Inch	
2133-00-17-030000	3.0	.118"	2135-00-17-030000
2133-00-17-040000	4.0	.157"	2135-00-17-040000
2133-00-17-050000	5.0	.197"	2135-00-17-050000
2133-00-17-060000	6.0	.236"	2135-00-17-060000
2133-00-17-070000	7.0	.276"	2135-00-17-070000
2133-00-17-080000	8.0	.315"	2135-00-17-080000
2133-00-17-090000	9.0	.354"	2135-00-17-090000
2133-00-17-100000	10.0	.394"	2135-00-17-100000
—	11.0	.433"	2135-00-17-110000
—	12.0	.472"	2135-00-17-120000
—	13.0	.512"	2135-00-17-130000

### ERNC25 & ERNC32 Collets

ERNC25 Collet Part Number	Range		ERNC32 Collet Part Number
	mm	Inch	
2137-00-17-030000	3.0	.118"	2139-00-17-030000
2137-00-17-040000	4.0	.157"	2139-00-17-040000
2137-00-17-050000	5.0	.197"	2139-00-17-050000
2137-00-17-060000	6.0	.236"	2139-00-17-060000
2137-00-17-070000	7.0	.276"	2139-00-17-070000
2137-00-17-080000	8.0	.315"	2139-00-17-080000
2137-00-17-090000	9.0	.354"	2139-00-17-090000
2137-00-17-100000	10.0	.394"	2139-00-17-100000
2137-00-17-110000	11.0	.433"	2139-00-17-110000
2137-00-17-120000	12.0	.472"	2139-00-17-120000
2137-00-17-130000	13.0	.512"	2139-00-17-130000
2137-00-17-140000	14.0	.551"	2139-00-17-140000
2137-00-17-150000	15.0	.590"	2139-00-17-150000
2137-00-17-160000	16.0	.629"	2139-00-17-160000
—	17.0	.669"	2139-00-17-170000
—	18.0	.708"	2139-00-17-180000
—	19.0	.748"	2139-00-17-190000
—	20.0	.787"	2139-00-17-200000

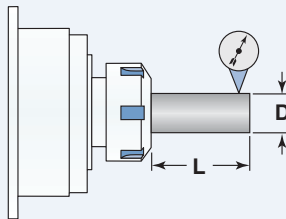
### ERNC40 Collets

ERNC40 Collet Part Number	Range	
	mm	Inch
2141-00-17-040000	4.0	.157"
2141-00-17-050000	5.0	.197"
2141-00-17-060000	6.0	.236"
2141-00-17-070000	7.0	.276"
2141-00-17-080000	8.0	.315"
2141-00-17-090000	9.0	.354"
2141-00-17-100000	10.0	.394"
2141-00-17-110000	11.0	.433"
2141-00-17-120000	12.0	.472"
2141-00-17-130000	13.0	.512"
2141-00-17-140000	14.0	.551"
2141-00-17-150000	15.0	.590"
2141-00-17-160000	16.0	.629"
2141-00-17-170000	17.0	.669"
2141-00-17-180000	18.0	.708"
2141-00-17-190000	19.0	.748"
2141-00-17-200000	20.0	.787"
2141-00-17-210000	21.0	.827"
2141-00-17-220000	22.0	.866"
2141-00-17-230000	23.0	.906"
2141-00-17-240000	24.0	.945"
2141-00-17-250000	25.0	.984"
2141-00-17-260000	26.0	1.024"

METRIC

Note: Inch sizes from 1/8" to 1" by 1/32" increments available on request. ERNC50 Collets can be manufactured to order.

# Hardinge® ER Collet Concentricity Specifications



Total Indicator Reading (TIR) from the face of the collet

Clamping Range D				L		Maximum TIR			
Minimum		Maximum				Precision DIN 6499		High Precision DIN 6499	
mm	Inch	mm	Inch	mm	Inch	mm	Inch	mm	Inch
1.0	.039"	1.6	.063"	6	.236"	.015	.0006"	.008	.0003"
1.6	.063"	3.0	.118"	10	.394"	.015	.0006"	.008	.0003"
3.0	.118"	6.0	.236"	16	.630"	.015	.0006"	.008	.0003"
6.0	.236"	10.0	.394"	25	.984"	.015	.0006"	.008	.0003"
10.0	.394"	18.0	.709"	40	1.575"	.020	.0008"	.010	.0004"
18.0	.709"	26.0	1.024"	50	1.969"	.020	.0008"	.010	.0004"
26.0	1.024"	34.0	1.339"	60	2.363"	.025	.0010"	—	—

# ERTCSP-Style Tap Collets

The ERTCSP-Style Rigid Tap Collet with square drive are multi-split with more shank bearing surface than ER/DR collets. The bore is the exact size of the shank with a square broached hole to eliminate tap slippage. Available for thru-coolant applications.



## ERTCSPI6 & ERTCSP20 Tap Collets

ERTCSP16 Tap Collet Part Number	Size Range		ERTCSP20 Tap Collet Part Number
	Tap Size	Shank	
1913-19-18-001410	#0 - 6	.141"	1915-19-18-001410
1913-19-18-001680	#8	.168"	1915-19-18-001680
1913-19-18-001940	#10	.194"	1915-19-18-001940
1913-19-18-002200	#12	.220"	1915-19-18-002200
1913-19-18-002550	1/4"	.255"	1915-19-18-002550
—	5/16"	.318"	1915-19-18-003180
—	3/8"	.381"	1915-19-18-003810
—	7/16"	.323"	1915-19-18-003230
—	1/2"	.367"	1915-19-18-003670
<b>0949-16-18-000005</b>	<b>Kit ER16 (5)</b>	<b>Kit ER20 (9)</b>	<b>0949-20-18-000009</b>

ANSI Metric Taps – Shank Sizes	
M 1 to M3.5	.141"
M4	.168"
M4.5 & M5	.194"
M6 & M6.3	.255"
M7 & M8	.318"
M10	.381"
M12	.367"
M14	.429"

Note: Metric (DIN), Japanese (JIS) and Chinese (CIC) standard sizes on request - see page 37 for shank sizes

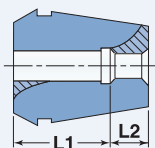
## ERTCSP25 & ERTCSP32 Tap Collets

ERTCSP25 Tap Collet Part Number	Size Range		ERTCSP32 Tap Collet Part Number
	Tap Size	Shank	
2095-19-18-001680	#8	.168"	1917-19-18-001680
2095-19-18-001940	#10	.194"	1917-19-18-001940
2095-19-18-002200	#12	.220"	1917-19-18-002200
2095-19-18-002550	1/4"	.255"	1917-19-18-002550
2095-19-18-003180	5/16"	.318"	1917-19-18-003180
2095-19-18-003810	3/8"	.381"	1917-19-18-003810
2095-19-18-003230	7/16"	.323"	1917-19-18-003230
2095-19-18-003670	1/2"	.367"	1917-19-18-003670
2095-19-18-004290	9/16"	.429"	1917-19-18-004290
2095-19-18-004800	5/8"	.480"	1917-19-18-004800
—	11/16"	.542"	1917-19-18-005420
—	3/4"	.590"	1917-19-18-005900
—	13/16"	.652"	1917-19-18-006520
<b>0949-25-18-00010</b>	<b>Kit ER25 (10)</b>	<b>Kit ER32 (13)</b>	<b>0949-32-18-000013</b>

## ERTCSP40 Tap Collets

ERTCSP40 Tap Collet Part Number	Size Range	
	Tap Size	Shank
2081-00-18-002550	1/4"	.255"
2081-00-18-003180	5/16"	.318"
2081-00-18-003810	3/8"	.381"
2081-00-18-003230	7/16"	.323"
2081-00-18-003670	1/2"	.367"
2081-00-18-004290	9/16"	.429"
2081-00-18-004800	5/8"	.480"
2081-00-18-005420	11/16"	.542"
2081-00-18-005900	3/4"	.590"
2081-00-18-006520	13/16"	.652"
2081-00-18-006970	7/8"	.697"
2081-00-18-007600	15/16"	.760"
2081-00-18-008000	1"	.800"
<b>0949-40-18-000013</b>	<b>Kit ER40 (13)</b>	

## Collet Dimensions



Tap Size	L1	L2				
		ERTCSP16	ERTCSP20	ERTCSP25	ERTCSP32	ERTCSP40
0-6 - 1/4"	0.709"	0.374"	0.531"	0.630"	0.866"	1.102"
5/16 - 1/2"	0.866"	—	0.374"	0.472"	0.709"	0.945"
9/16 - 7/8"	0.984"	—	—	0.374"	0.591"	0.827"
1"	1.102"	—	—	—	—	0.709"



# ERQC Quick-Change Floating Solid Tap Collets



**ERQC Quick-Change Tap Collets** can be used in any standard ER-, DR- or ESX-style collet holder used on lathes and milling machines. The ERQC collets allow taps to be quickly changed without removing the collet, maintaining gauge lengths from one tap to the next. The collet has a ball bearing tension compensating float and a solid square drive that eliminates tap slippage. Tap breakage is reduced when using synchronous (rigid) feed or machines requiring axial tension compensation.

## ERQC16 & ERQC20 Tap Collets

ERQC16 Tap Collet Part Number	Size Range		ERQC20 Tap Collet Part Number
	Tap Size	Shank	
2143-00-18-001410	#0 - 6	.141"	2145-00-18-001410
2143-00-18-001680	#8	.168"	2145-00-18-001680
2143-00-18-001940	#10	.194"	2145-00-18-001940
—	#12	.220"	2145-00-18-002200
—	1/4"	.255"	2145-00-18-002550
<b>0948-16-18-000003</b>	<b>Kit ERQC16 (3) ERQC20 (5)</b>		<b>0948-20-18-000005</b>

## ERQC25 & ERQC32 Tap Collets

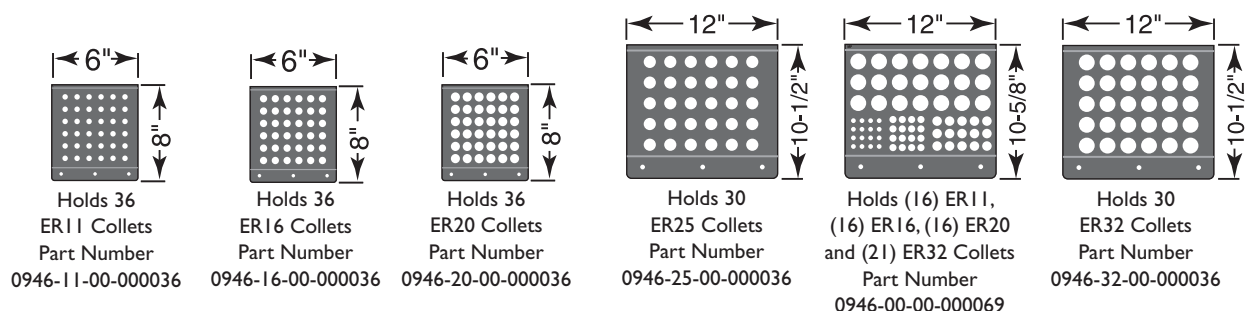
ERQC25 Tap Collet Part Number	Size Range		ERQC32 Tap Collet Part Number
	Tap Size	Shank	
2147-00-18-001410	#0 - 6	.141"	2149-00-18-001410
2147-00-18-001680	#8	.168"	2149-00-18-001680
2147-00-18-001940	#10	.194"	2149-00-18-001940
2147-00-18-002200	#12	.220"	2149-00-18-002200
2147-00-18-002550	1/4"	.255"	2149-00-18-002550
2147-00-18-003180	5/16"	.318"	2149-00-18-003180
2147-00-18-003810	3/8"	.381"	2149-00-18-003810
2147-00-18-003230	7/16"	.323"	2149-00-18-003230
2147-00-18-003670	1/2"	.367"	2149-00-18-003670
—	9/16"	.429"	2149-00-18-004290
<b>0948-25-18-000009</b>	<b>Kit ERQC25 (9) ERQC32 (10)</b>		<b>0948-32-18-000010</b>

## ERQC40 Tap Collets

ERQC40 Tap Collet Part Number	Size Range	
	Tap Size	Shank
2151-00-18-001410	#0 - 6	.141"
2151-00-18-001680	#8	.168"
2151-00-18-001940	#10	.194"
2151-00-18-002200	#12	.220"
2151-00-18-002550	1/4"	.255"
2151-00-18-003180	5/16"	.318"
2151-00-18-003810	3/8"	.381"
2151-00-18-003230	7/16"	.323"
2151-00-18-003670	1/2"	.367"
2151-00-18-004290	9/16"	.429"
2151-00-18-004800	5/8"	.480"
2151-00-18-005420	1 1/16"	.542"
<b>0948-40-18-000012</b>	<b>Kit ERQC-40 (12)</b>	

## ER-Style Collet Racks

Collet racks will help minimize damage to the precision surfaces and critical diameters of your collet. Collets which are loosely put in a drawer are subject to damage. Damaged collets may result in your cutting tools not being on the tool holder's or spindle's centerline, resulting in inaccurate machining.



## “Cool Stop” Coolant Seals for ER & TG Collets

Maximize coolant flow through your drills with the “Cool Stop” system. The “Cool Stop” seals around the shank of the drill and the ID of the ER and TG holders. The gauge length of the holder does not change. The collet stays flush with the cap because the “Cool Stop” seal locates at the back of the collet. Each “Cool Stop” has a range from rated size down to .020” (5.0 mm), resulting in a small seal inventory for each collet style. You can keep the coolant running through the drill, rather than out the collet, at pressures up to 1500 psi.

### ER16 “Cool Stop” Seals

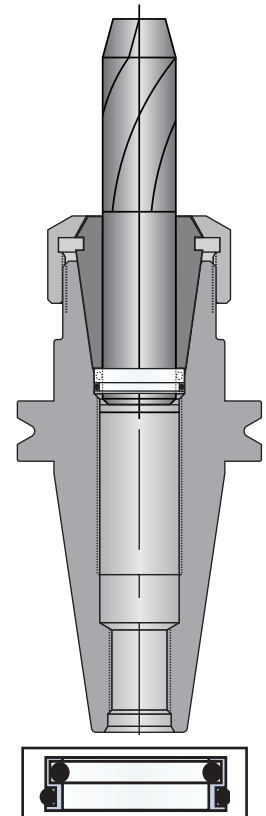
Metric Part Number	Size Range	
	mm	Inch
7988-01-16-055000	5.5 - 5.0	.217" - .197"
7988-01-16-060000	6.0 - 5.5	.236" - .217"
7988-01-16-065000	6.5 - 6.0	.256" - .236"
7988-01-16-070000	7.0 - 6.5	.276" - .256"
7988-01-16-075000	7.5 - 7.0	.295" - .276"
7988-01-16-080000	8.0 - 7.5	.315" - .295"

### ER20 “Cool Stop” Seals

Metric Part Number	Size Range	
	mm	Inch
7988-01-20-055000	5.5 - 5.0	.217" - .197"
7988-01-20-060000	6.0 - 5.5	.236" - .217"
7988-01-20-065000	6.5 - 6.0	.256" - .236"
7988-01-20-070000	7.0 - 6.5	.276" - .256"
7988-01-20-075000	7.5 - 7.0	.295" - .276"
7988-01-20-080000	8.0 - 7.5	.315" - .295"
7988-01-20-085000	8.5 - 8.0	.335" - .315"
7988-01-20-090000	9.0 - 8.5	.354" - .335"
7988-01-20-095000	9.5 - 9.0	.374" - .354"
7988-01-20-100000	10.0 - 9.5	.394" - .374"

### ER25 “Cool Stop” Seals

Metric Part Number	Size Range	
	mm	Inch
7988-01-25-055000	5.5 - 5.0	.217" - .197"
7988-01-25-060000	6.0 - 5.5	.236" - .217"
7988-01-25-065000	6.5 - 6.0	.256" - .236"
7988-01-25-070000	7.0 - 6.5	.276" - .256"
7988-01-25-075000	7.5 - 7.0	.295" - .276"
7988-01-25-080000	8.0 - 7.5	.315" - .295"
7988-01-25-085000	8.5 - 8.0	.335" - .315"
7988-01-25-090000	9.0 - 8.5	.354" - .335"
7988-01-25-095000	9.5 - 9.0	.374" - .354"
7988-01-25-100000	10.0 - 9.5	.394" - .374"
7988-01-25-105000	10.5 - 10.0	.413" - .394"
7988-01-25-110000	11.0 - 10.5	.433" - .413"
7988-01-25-115000	11.5 - 11.0	.453" - .433"
7988-01-25-120000	12.0 - 11.5	.472" - .453"
7988-01-25-125000	12.5 - 12.0	.492" - .472"
7988-01-25-130000	13.0 - 12.5	.512" - .492"
7988-01-25-135000	13.5 - 13.0	.531" - .512"
7988-01-25-140000	14.0 - 13.5	.551" - .531"
7988-01-25-145000	14.5 - 14.0	.571" - .551"



Seal Cross Section

### ER32 “Cool Stop” Seals

Metric Part Number	Size Range	
	mm	Inch
7988-01-32-055000	5.5 - 5.0	.217" - .197"
7988-01-32-060000	6.0 - 5.5	.236" - .217"
7988-01-32-065000	6.5 - 6.0	.256" - .236"
7988-01-32-070000	7.0 - 6.5	.276" - .256"
7988-01-32-075000	7.5 - 7.0	.295" - .276"
7988-01-32-080000	8.0 - 7.5	.315" - .295"
7988-01-32-085000	8.5 - 8.0	.335" - .315"
7988-01-32-090000	9.0 - 8.5	.354" - .335"
7988-01-32-095000	9.5 - 9.0	.374" - .354"
7988-01-32-100000	10.0 - 9.5	.394" - .374"
7988-01-32-105000	10.5 - 10.0	.413" - .394"
7988-01-32-110000	11.0 - 10.5	.433" - .413"
7988-01-32-115000	11.5 - 11.0	.453" - .433"
7988-01-32-120000	12.0 - 11.5	.472" - .453"
7988-01-32-125000	12.5 - 12.0	.492" - .472"
7988-01-32-130000	13.0 - 12.5	.512" - .492"
7988-01-32-135000	13.5 - 13.0	.531" - .512"
7988-01-32-140000	14.0 - 13.5	.551" - .531"
7988-01-32-145000	14.5 - 14.0	.571" - .551"
7988-01-32-150000	15.0 - 14.5	.591" - .571"
7988-01-32-155000	15.5 - 15.0	.610" - .591"
7988-01-32-160000	16.0 - 15.5	.630" - .610"
7988-01-32-165000	16.5 - 16.0	.650" - .630"
7988-01-32-170000	17.0 - 16.5	.669" - .650"
7988-01-32-175000	17.5 - 17.0	.689" - .669"
7988-01-32-180000	18.0 - 17.5	.709" - .689"
7988-01-32-185000	18.5 - 18.0	.728" - .709"
7988-01-32-190000	19.0 - 18.5	.748" - .728"
7988-01-32-195000	19.5 - 19.0	.768" - .748"
7988-01-32-200000	20.5 - 19.5	.787" - .768"

#### Quick Assembly:

Put the collet in the cap, the drill through the collet, the “Cool Stop” seal on the drill shank and insert the assembly into the holder. Adjust the drill to the proper length and lock the cap. You are now ready to increase your productivity.

### TG100 “Cool Stop” Seals

Inch Part Number	Size Range	
	Inch	mm
7988-02-10-007500	3/4" - .734"	19.1 - 18.6
7988-02-10-007656	49/64" - .750"	19.4 - 19.1
7988-02-10-007812	25/32" - .765"	19.8 - 19.4
7988-02-10-007968	51/64" - .781"	20.2 - 19.8
7988-02-10-008125	13/16" - .796"	20.6 - 20.2
7988-02-10-008281	53/64" - .812"	21.0 - 20.6
7988-02-10-008437	27/32" - .828"	21.4 - 21.0
7988-02-10-008593	55/64" - .843"	21.8 - 21.4
7988-02-10-008750	7/8" - .859"	22.2 - 21.8
7988-02-10-008906	57/64" - .875"	22.6 - 22.2
7988-02-10-009062	29/32" - .890"	23.0 - 22.6
7988-02-10-009218	59/64" - .906"	23.4 - 23.0
7988-02-10-009375	15/16" - .921"	23.8 - 23.4
7988-02-10-009531	61/64" - .937"	24.2 - 23.8
7988-02-10-009687	31/32" - .953"	24.6 - 24.2
7988-02-10-009843	63/64" - .968"	25.0 - 24.6
7988-02-10-010000	1.0" - .984"	25.4 - 25.0

# ERTC Floating Solid Tap Collets

## PCM-Style



The Floating Solid Tap Collet reduces tap breakage because of its tension compensation feature. This feature is needed when using synchronous (rigid) feed or machines requiring axial tension compensation. The collet is removed to change taps. The tap is secured with set screws which go through the sides of the square drive hole in the collet.

### ANSI Metric Taps & Shank Sizes

Tap	Shank
M 1 to M3.5	.141"
M4	.168"
M4.5 & M5	.194"
M6 & M6.3	.255"
M7 & M8	.318"
M10	.381"
M12	.367"
M14	.429"

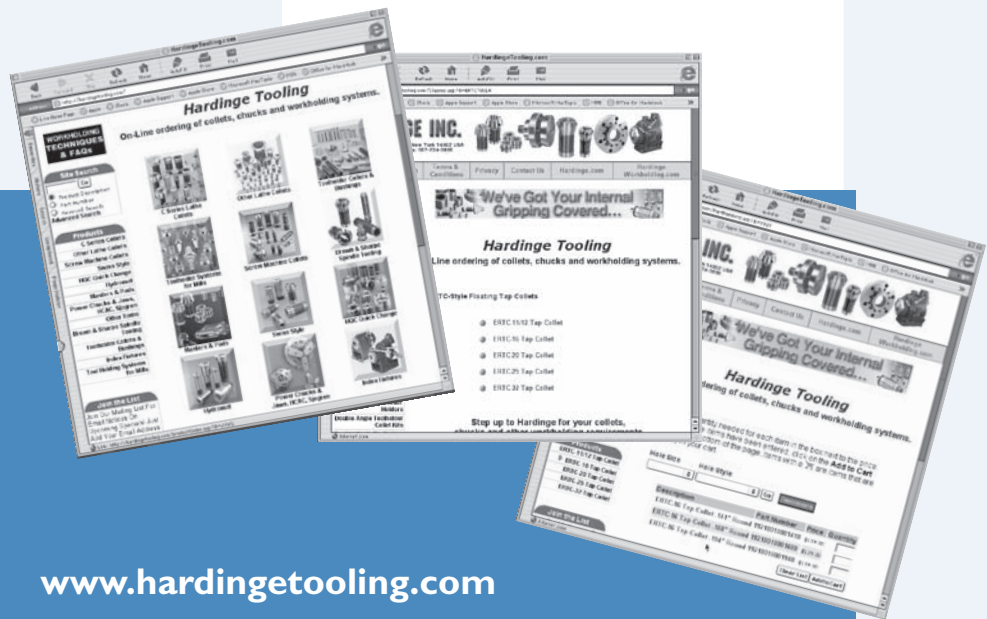
### Floating ERTC Tap Collets

Floating Tap Collets ERTC11/12	Size Range	
	Tap Size	Shank
1919-00-18-001410	#0 - #6	.141"
<b>ERTC16</b>		
1921-00-18-001410	#0 - #6	.141"
1921-00-18-001680	#8	.168"
1921-00-18-001940	#10	.194"
<b>ERTC20</b>		
1923-00-18-001410	#0 - #6	.141"
1923-00-18-001680	#8	.168"
1923-00-18-001940	#10	.194"
1923-00-18-002200	#12	.220"
1923-00-18-002550	1/4"	.255"
<b>ERTC25</b>		
2097-00-18-001410	#0 - #6	.141"
2097-00-18-001680	#8	.168"
2097-00-18-001940	#10	.194"
2097-00-18-002200	#12	.220"
2097-00-18-002550	1/4"	.255"
2097-00-18-003180	5/16"	.318"
2097-00-18-003810	3/8"	.381"
2097-00-18-003230	7/16"	.323"
2097-00-18-003670	1/2"	.367"
2097-00-18-004290	9/16"	.429"
2097-00-18-004800	5/8"	.480"
<b>ERTC32</b>		
2099-00-18-001680	#8	.168"
2099-00-18-001940	#10	.194"
2099-00-18-002200	#12	.220"
2099-00-18-002550	1/4"	.255"
2099-00-18-003180	5/16"	.318"
2099-00-18-003810	3/8"	.381"
2099-00-18-003230	7/16"	.323"
2099-00-18-003670	1/2"	.367"
2099-00-18-004290	9/16"	.429"
2099-00-18-004800	5/8"	.480"
2099-00-18-004370	1/8" NPT	.437"

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# ER-Style Collet Holders - Inch for Swiss-style & CNC Lathes

## Standard Round Shank Toolholders

with one-piece nose cap



ST-0000187-10  
ST-0000187-05



ST-0000187  
ST-0000187-03

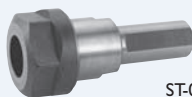


SN-0000187  
SN-0000187-03  
SN-0000187-05

Shank Dia.	Part Number	Collet Style	Shank Length	Total Length	Cap Dia.	Cap Hex	Cap Part Number	Wrench Part Number	Collets		Tap Collets		
									ER	ERNC	ERTCSP	ERQC	ERTC
1/2"	ST-0000187-10	ER11	.578"	1.000"	.750"	17 mm	ST-0000187-09	Standard Open End	X				X
5/8"	ST-0000187-05	ER16	1.378"	2.187"	1.100"	25 mm	ST-0000187-02	Standard Open End	X	X	X	X	X
5/8"	SN-0000187-05	ER20	1.378"	3.010"	1.335"	30 mm	SN-0000187-20	Standard Open End	X	X	X	X	X
1"	ST-0000187	ER16	4.134"	5.875"	1.100"	25 mm	ST-0000187-02	Standard Open End	X	X	X	X	X
1"	ST-0000187-03	ER16	2.756"	4.312"	1.100"	25 mm	ST-0000187-02	Standard Open End	X	X	X	X	X
1"	SN-0000187	ER20	4.134"	5.775"	1.335"	30 mm	SN-0000187-20	Standard Open End	X	X	X	X	X
1"	SN-0000187-03	ER20	2.756"	4.395"	1.335"	30 mm	SN-0000187-20	Standard Open End	X	X	X	X	X

## Rigid Tap Holders for Floating Tap Collets

with one-piece and ball-bearing nose caps



ST-0011202-25B  
(one-piece nose cap)



SN-0011202-25B  
(ball-bearing nose cap)



SN-0011202-05B  
(ball-bearing nose cap)

Shank Dia.	Part Number	Collet Style	Shank Length	Total Length	Cap Dia.	Cap Hex	Cap Part Number	Wrench Part Number	Collets		Tap Collets		
									ER	ERNC	ERTCSP	ERQC	ERTC
5/8"	ST-0011202-25B	ER20	1.378"	3.100"	1.335"	30 mm	—	Standard Open End				X	X
5/8"	SN-0011202-25B	ER20	1.378"	3.100"	1.375"	Slots	SN-0000187-07	SN-0009189-01				X	X
1"	SN-0011202-02B	ER20	4.134"	5.875"	1.375"	Slots	SN-0000187-07	SN-0009189-01				X	X

## Floating Tap Holders for Flexible Split Collets

with one-piece nose cap



ST-0011202-02 B

Shank Dia.	Part Number	Collet Style	Shank Length	Total Length	Cap Dia.	Cap Hex	Cap Part Number	Wrench Part Number	Collets		Tap Collets		
									ER	ERNC	ERTCSP	ERQC	ERTC
1"	ST-0011202-02 B	ER16	2.756"	4.070"	1.100"	25 mm	—	Standard Open End	X		X		

# ER-Style Collet Holders - Metric

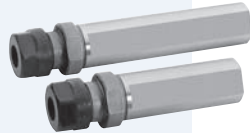
## for Swiss-style & CNC Lathes

### Standard Round Shank Toolholders

with one-piece nose cap



ST-0000187-5M  
ST-0000187-10M



ST-0000187-7M  
ST-0000187-M



SN-0000187-M  
SN-0000187-3M  
SN-0000187-5M

Shank Dia.	Part Number	Collet Style	Shank Length	Total Length	Cap Dia.	Cap Hex	Cap Part Number	Wrench Part Number	Collets		Tap Collets			
									ER	ERN	ERTCSP	ERQC	ERTC	
14 mm	ST-0000187-10 M	ER11	14.7mm	25. mm	19 mm	17 mm	ST-0000187-09	Standard Open End	X		X			
16 mm	ST-0000187-5M	ER16	35. mm	55.5mm	28 mm	25 mm	ST-0000187-02	Standard Open End	X	X	X	X	X	
16 mm	SN-0000187-5M	ER20	35. mm	76.4mm	34 mm	30 mm	SN-0000187-20	Standard Open End	X	X	X	X	X	
25 mm	ST-0000187-7M	ER11	85. mm	104.5mm	19 mm	17 mm	ST-0000187-09	Standard Open End	X					X
25 mm	ST-0000187-M	ER16	105. mm	149. mm	28 mm	25 mm	ST-0000187-02	Standard Open End	X	X	X	X	X	
25 mm	ST-0000187-3M	ER16	70. mm	109.5mm	28 mm	25 mm	ST-0000187-02	Standard Open End	X	X	X	X	X	
25 mm	SN-0000187-M	ER20	105. mm	145.5mm	34 mm	30 mm	SN-0000187-20	Standard Open End	X	X	X	X	X	
25 mm	SN-0000187-3M	ER20	70. mm	111.5mm	34 mm	30 mm	SN-0000187-20	Standard Open End	X	X	X	X	X	

### Rigid Tap Holders for Floating Tap Collets

with one-piece and ball-bearing nose caps



ST-0011202-25MB  
(one-piece nose cap)



SN-0011202-25MB  
(ball-bearing nose cap)



SN-001120-22MB  
(ball-bearing nose cap)

Shank Dia.	Part Number	Collet Style	Shank Length	Total Length	Cap Dia.	Cap Hex	Cap Part Number	Wrench Part Number	Collets		Tap Collets		
									ER	ERN	ERTCSP	ERQC	ERTC
16 mm	ST-0011202-25MB	ER20	35 mm	79 mm	34 mm	30 mm	—	Standard Open End			X	X	
16 mm	SN-0011202-25MB	ER20	35 mm	79 mm	35 mm	Slots	SN-0000187-07	SN-0009189-01			X	X	
25 mm	SN-0011202-2MB	ER20	105 mm	149 mm	35 mm	Slots	SN-0000187-07	SN-0009189-01			X	X	

### Floating Tap Holders for Flexible Split Collets

with one-piece nose cap



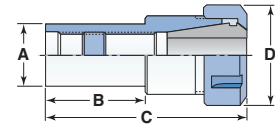
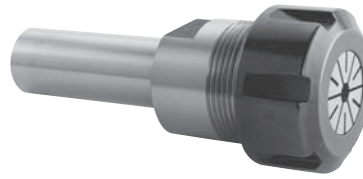
ST-0011202-2M B

Shank Dia.	Part Number	Collet Style	Shank Length	Total Length	Cap Dia.	Cap Hex	Cap Part Number	Wrench Part Number	Collets		Tap Collets		
									ER	ERN	ERTCSP	ERQC	ERTC
25 mm	ST-0011202-2M B	ER16	75 mm	103 mm	28 mm	25 mm	—	Standard Open End	X		X		



# ER Collet Tool Holders

## Straight-shank, Stepped



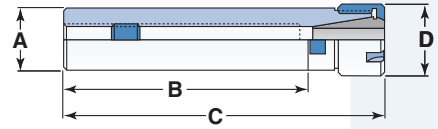
		<b>ER11</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
METRIC		7997-60-08-070000	7	0.28"	45	1.77"	58	2.28"	16	0.63"	7991-01-11-000020M	7992-01-11-000020	
		7997-60-08-080000	8	0.31"	56	2.20"	70	2.76"	16	0.63"	7991-01-11-000020M	7992-01-11-000020	
	INCH	7997-60-08-002500	-	1/4"	45	1.77"	58	2.28"	16	0.63"	7991-01-11-000020M	7992-01-11-000020	
		<b>ER16</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
METRIC		7997-60-16-100000	10	0.39"	44	1.73"	70	2.76"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7997-70-16-100000	10	0.39"	60	2.36"	86	3.39"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7997-80-16-100000	10	0.39"	80	3.15"	120	4.72"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7997-80-16-120000	12	0.47"	80	3.15"	105	4.13"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7997-81-16-120000	12	0.47"	80	3.15"	105	4.13"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-61-16-140000	14	0.55"	30	1.18"	55	2.17"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-71-16-140000	14	0.55"	60	2.36"	97	3.82"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-71-16-160000	16	0.63"	60	2.36"	90	3.55"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
INCH		7997-60-16-003750	-	3/8"	44	1.73"	70	2.76"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7997-90-16-005000	-	1/2"	154	6.06"	168	6.61"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7997-71-16-006250	-	5/8"	60	2.36"	85	3.35"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-81-16-006250	-	5/8"	80	3.15"	105	4.13"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-71-16-007500	-	3/4"	50	1.97"	79	3.11"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-81-16-007500	-	3/4"	80	3.15"	110	4.33"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-91-16-007500	-	3/4"	100	3.94"	125	4.92"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7997-71-16-012500	-	1 1/4"	60	2.36"	85	3.35"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		<b>ER20</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
METRIC		7997-80-20-120000	12	0.47"	100	3.94"	142	5.60"	28	1.10"	7991-01-20-000020	7992-01-20-000020	
		7997-80-20-150000	15	0.59"	100	3.94"	142	5.60"	28	1.10"	7991-01-20-000020	7992-01-20-000020	
		7997-80-20-160000	16	0.63"	100	3.94"	142	5.60"	28	1.10"	7991-01-20-000020	7992-01-20-000020	
		7997-61-20-200000	20	0.79"	30	1.18"	55	2.17"	34	1.34"	7991-01-20-000021 <sup>H</sup>	7992-01-20-000021 <sup>H</sup>	
	INCH	7997-80-20-006250	-	5/8"	100	3.94"	142	5.60"	28	1.10"	7991-01-20-000020	7992-01-20-000020	
		<b>ER25</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
METRIC		7997-72-25-200000	20	0.79"	50	1.97"	85	3.35"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		7997-82-25-200000	20	0.79"	100	3.94"	135	5.31"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		7997-72-25-250000	25	0.98"	50	1.97"	85	3.35"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
	INCH		7997-72-25-006250	-	5/8"	50	1.97"	85	3.35"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>
		7997-72-25-007500	-	3/4"	50	1.97"	85	3.35"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		7997-82-25-007500	-	3/4"	100	3.94"	135	5.31"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		7997-72-25-008750	-	7/8"	140	5.51"	100	3.94"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		<b>ER32</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
METRIC		7997-72-32-200000	20	0.79"	35	1.38"	83	3.27"	50	1.97"	7991-01-32-000220 <sup>E</sup>	7992-01-32-000220 <sup>E</sup>	
		7997-62-32-200000	20	0.79"	50	1.97"	75	2.95"	50	1.97"	7991-01-32-000220 <sup>E</sup>	7992-01-32-000220 <sup>E</sup>	
		7997-72-32-250000	25	0.98"	50	1.97"	95	3.74"	50	1.97"	7991-01-32-000220 <sup>E</sup>	7992-01-32-000220 <sup>E</sup>	
INCH		7997-72-32-010000	-	1"	50	1.97"	95	3.74"	50	1.97"	7991-01-32-000220 <sup>E</sup>	7992-01-32-000220 <sup>E</sup>	
		7997-92-32-012500	-	1 1/4"	50	1.97"	110	4.33"	50	1.97"	7991-01-32-000220 <sup>E</sup>	7992-01-32-000220 <sup>E</sup>	
		7997-82-32-012500	-	1 1/4"	60	2.36"	105	4.13"	50	1.97"	7991-01-32-000220 <sup>E</sup>	7992-01-32-000220 <sup>E</sup>	
		<b>ER40</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
METRIC		7997-72-40-250000	25	0.98"	50	1.97"	95	3.74"	63	2.48"	7991-01-40-000220 <sup>E</sup>	7992-01-40-000220 <sup>E</sup>	
INCH		7997-72-40-010000	-	1"	50	1.97"	95	3.74"	63	2.48"	7991-01-40-000220 <sup>E</sup>	7992-01-40-000220 <sup>E</sup>	
		7997-82-40-010000	-	1"	-	2.375"	110	4.33"	63	2.48"	7991-01-40-000220 <sup>E</sup>	7992-01-40-000220 <sup>E</sup>	
		7997-82-40-012500	-	1 1/4"	60	2.36"	105	4.13"	63	2.48"	7991-01-40-000220 <sup>E</sup>	7992-01-40-000220 <sup>E</sup>	

Note: Toolholders in gray shading can be used on Hardinge machines.

E = "E" Style; H = Hex Style  
Additional information on Caps and Wrenches on page 21

# ER Collet Tool Holders

## Straight-shank



		<b>ER8</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
<b>METRIC</b>		7996-60-08-080000	8	0.31"	56	2.20"	70	2.76"	12	0.47"	7991-01-08-000020	7992-01-08-000020	
		7996-70-08-080000	8	0.31"	80	3.15"	100	3.94"	12	0.47"	7991-01-08-000020	7992-01-08-000020	
		7996-60-08-100000	10	0.39"	56	2.20"	70	2.76"	12	0.47"	7991-01-08-000020	7992-01-08-000020	
		7996-70-08-100000	10	0.39"	80	3.15"	100	3.94"	12	0.47"	7991-01-08-000020	7992-01-08-000020	
		7996-60-08-120000	12	0.47"	80	3.15"	95	3.74"	12	0.47"	7991-01-08-000020	7992-01-08-000020	
<b>INCH</b>		7996-70-08-005000	-	1/2"	80	3.15"	95	3.74"	12	0.47"	7991-01-08-000020	7992-01-08-000020	

		<b>ER11</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
<b>METRIC</b>		7996-81-11-200000	20	0.79"	115	4.53"	145	5.71"	19	0.75"	7991-01-11-000021 <sup>H</sup>	7992-01-11-000021 <sup>H</sup>	
		7996-81-11-220000	22	0.88"	100	3.94"	130	5.12"	19	0.75"	7991-01-11-000021 <sup>H</sup>	7992-01-11-000021 <sup>H</sup>	
<b>INCH</b>		7996-90-11-005000	-	1/2"	154	6.06"	168	6.61"	16	0.63"	7991-01-11-000020	7992-01-11-000020	
		7996-70-11-005000	-	1/2"	80	3.15"	100	3.94"	16	0.63"	7991-01-11-000020	7992-01-11-000020	
		7996-71-11-005000	-	1/2"	80	3.15"	100	3.94"	19	0.75"	7991-01-11-000021 <sup>H</sup>	7992-01-11-000021 <sup>H</sup>	
		7996-91-11-006250	-	5/8"	140	5.51"	155	6.10"	19	0.75"	7991-01-11-000021 <sup>H</sup>	7992-01-11-000021 <sup>H</sup>	
		7996-60-11-006250	-	5/8"	-	2.00"	-	2.50"	16	0.63"	7991-01-11-000020	7992-01-11-000020	
		7996-90-11-006250	-	5/8"	154	6.06"	168	6.61"	16	0.63"	7991-01-11-000020	7992-01-11-000020	
		7996-92-11-006250	-	5/8"	154	6.06"	168	6.61"	19	0.75"	7991-01-11-000021 <sup>H</sup>	7992-01-11-000021 <sup>H</sup>	

		<b>ER12</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
<b>METRIC</b>		7996-60-12-140000	14	0.55"	25	0.98"	38	1.50"	19	0.75"	7991-01-12-000021 <sup>H</sup>	7992-01-12-000021 <sup>H</sup>	

		<b>ER16</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>Metric</b>	<b>Inch</b>	<b>Metric</b>	<b>Inch</b>	<b>Metric</b>	<b>Inch</b>	<b>Metric</b>	<b>Inch</b>		
<b>METRIC</b>		7996-61-16-200000	20	0.79"	30	1.18"	55	2.17"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7996-71-16-200000	20	0.79"	50	1.97"	79	3.10"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7996-81-16-200000	20	0.79"	100	3.94"	125	4.92"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7996-90-16-200000	20	0.79"	100	3.94"	135	5.31"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7996-81-16-220000	22	0.87"	80	3.15"	103	4.06"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7996-91-16-220000	22	0.87"	134	5.28"	160	6.30"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
<b>INCH</b>		7996-91-16-006250	-	5/8"	140	5.51"	157	6.18"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7996-80-16-007500	-	3/4"	100	3.94"	135	5.31"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7996-90-16-007500	-	3/4"	134	5.28"	160	6.40"	22	0.87"	7991-01-16-000020	7992-01-16-000020	
		7996-81-16-010000	-	1"	100	3.94"	134	5.28"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	
		7996-91-16-010000	-	1"	140	5.51"	157	6.18"	28	1.10"	7991-01-16-000021 <sup>H</sup>	7992-01-16-000021 <sup>H</sup>	

		<b>ER20</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
<b>METRIC</b>		7996-80-20-200000	20	0.79"	100	3.94"	142	5.60"	28	1.10"	7991-01-20-000020	7992-01-20-000020	
		7996-81-20-200000	20	0.79"	100	3.94"	142	5.60"	34	1.34"	7991-01-20-000021 <sup>H</sup>	7992-01-20-000021 <sup>H</sup>	
		7996-81-20-220000	22	0.87"	100	3.94"	142	5.60"	34	1.34"	7991-01-20-000021 <sup>H</sup>	7992-01-20-000021 <sup>H</sup>	
		7996-91-20-220000	22	0.87"	120	4.72"	160	6.30"	34	1.34"	7991-01-20-000021 <sup>H</sup>	7992-01-20-000021 <sup>H</sup>	
		7996-71-20-220000	22	0.87"	80	3.15"	120	4.72"	34	1.34"	7991-01-20-000021 <sup>H</sup>	7992-01-20-000021 <sup>H</sup>	
		7996-91-20-010000	22	1"	134	5.28"	160	6.30"	28	1.10"	7991-01-20-000020	7992-01-20-000020	

		<b>ER25</b>		<b>A Shank Dia.</b>		<b>B Shank Length</b>		<b>C Total Length</b>		<b>D Cap</b>		<b>Nut (Cap)</b>	<b>Wrench (Not Included)</b>
		<b>Part Number</b>		<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>	<b>mm</b>	<b>Inch</b>		
<b>METRIC</b>		7996-82-25-250000	25	0.98"	100	3.94"	135	5.31"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
<b>INCH</b>		7996-72-25-010000	-	1"	50	1.97"	85	3.35"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		7996-82-25-010000	-	1"	100	3.94"	135	5.31"	42	1.65"	7991-01-25-000220 <sup>E</sup>	7992-01-25-000220 <sup>E</sup>	
		7996-70-25-010000	-	1"	50	1.97"	85	3.35"	35	1.38"	7991-01-25-000020	7992-01-25-000020	
		7996-80-25-010000	-	1"	100	3.94"	135	5.31"	35	1.38"	7991-01-25-000020	7992-01-25-000020	

Note: Tool holders in gray shading can be used on Hardinge machines.

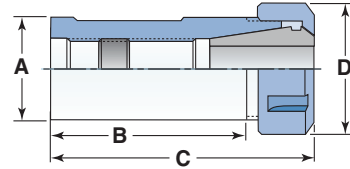
E = "E" Style; H = Hex Style

Additional information on Caps and Wrenches on page 21

# ER Collet Tool Holders

## Straight-shank, Coolant Style

Straight-Shank Coolant-Style ER Collet Toolholders are designed to be used with NC/CNC lathes that have coolant delivery systems built into their tool blocks, such as Okuma and Mori Seiki Lathes.



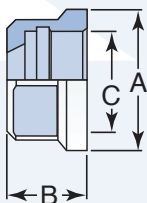
METRIC	ER32	A Shank Dia.		B Shank Length		C Total Length		D Cap		"E"-Style Nut (Cap)	"E"-Style Wrench (Not Included)
	Part Number	mm	Inch	mm	Inch	mm	Inch	mm	Inch		
	7996-01-32-140000	40	1.57"	80	3.15"	160	6.30"	50	1.97"	7991-01-32-000220	7992-01-32-000220

METRIC	ER40	A Shank Dia.		B Shank Length		C Total Length		D Cap		"E"-Style Nut (Cap)	"E"-Style Wrench (Not Included)
	Part Number	mm	Inch	mm	Inch	mm	Inch	mm	Inch		
	7996-01-40-140000	49	1.93"	80	3.15"	125	4.92"	63	2.48"	7991-01-40-000220	7992-01-40-000220

### Cap and Wrenches

for Straight and Stepped ER Collet tool holders

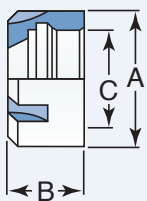
#### Hex Caps and Wrenches



Cap Part Number	Collet Style	A		B		C Thread	Wrench Part Number
		mm	Inch	mm	Inch		
7991-01-11-000021	ER11	19	0.75"	11.3	.44"	M14 X .75	7992-01-11-000021
7991-01-12-000021	ER12	19	0.75"	12.5	.49"	M14 x .75	7992-01-12-000021
7991-01-16-000021	ER16	28	1.10"	17.0	.67"	M22 x 1.5	7992-01-16-000021
7991-01-20-000021	ER20	34	1.34"	19.0	.75"	M25 x 1.5	7992-01-20-000021



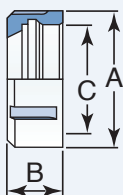
#### Mini Caps and Wrenches



Cap Part Number	Collet Style	A		B		C Thread	Wrench Part Number
		mm	Inch	mm	Inch		
7991-01-08-000020	ER8	12	0.47"	10.8	.42"	M10 x .75	7992-01-08-000020
7991-01-11-000020	ER11	16	0.63"	11.3	.44"	M13 X .75	7992-01-11-000020
7991-01-16-000020	ER16	22	0.87"	17.0	.67"	M19 x 1	7992-01-16-000020
7991-01-20-000020	ER20	28	1.10"	19.0	.75"	M24 x 1	7992-01-20-000020
7991-01-25-000020	ER25	35	1.38"	20.0	.79"	M30 x 1	7992-01-25-000020



#### "E" Style Caps and Wrenches



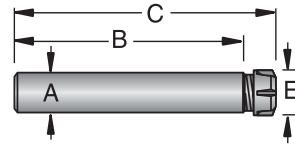
Cap Part Number	Collet Style	A		B		C Thread	Wrench Part Number
		mm	Inch	mm	Inch		
7991-01-25-000220	ER25	42	1.65"	20.0	.79"	M32 x 1.5	7992-01-25-000220
7991-01-32-000220	ER32	50	1.97"	22.0	.87"	M40 x 1.5	7992-01-32-000220
7991-01-40-000220	ER40	63	2.48"	25.0	.98"	M50 x 1.5	7992-01-40-000220



Note: Mini and "E" Style Wrenches are designed to break if over torqued.

# ER-style Collet Holders

for Mills and Knee Mills



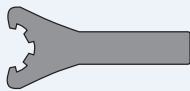
## ER-Style Collet Holders

for Vertical Machining Centers

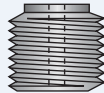
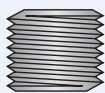


Collet	Part Number	Shank				Standard Cap Part No. (included)
		A	B	C	E	
ER11	7996-01-11-005000	.500"	5.8"	6.6"	.63"	7991-01-11-000001
ER16	7996-01-16-007500	.750"	5.9"	7.0"	1.08"	7991-01-16-000001
ER20	7996-01-20-010000	1.000"	5.8"	7.0"	1.26"	7991-01-20-000001
ER25	7996-01-25-010000	1.000"	5.5"	7.5"	1.65"	7991-01-25-000001
ER32	7996-01-32-012500	1.250"	5.5"	7.5"	1.88"	7991-01-32-000001

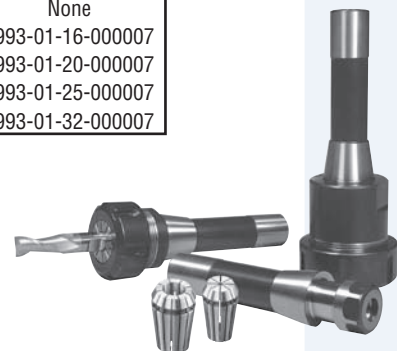
## Optional Caps, Wrenches, Screws and Extractors



Style	Dia. C	Wrench for Std. Cap & Ball Bearing Cap—Part No.	Ball Bearing Cap Part No.	Fine Tune Cap Part No.	U-Balance Cap Part No.	Wrench for Fine Tune & U-Balance Caps—Part No.
ER11	.63"	7992-01-11-000003	—	—	—	—
ER16	1.08"	7992-01-16-000003	—	7991-01-16-000009	7991-01-16-000010	7992-01-16-000009
ER20	1.26"	7992-01-20-000003	7991-01-20-000008	7991-01-20-000009	7991-01-20-000010	7992-01-20-000009
ER25	1.65"	7992-01-25-000003	7991-01-25-000008	7991-01-25-000009	7991-01-25-000010	7992-01-25-000009
ER32	1.88"	7992-01-32-000003	7991-01-32-000008	7991-01-32-000009	7991-01-32-000010	7992-01-32-000009



Style	ER Stop Screw Standard Part No.	ER Stop Screw Std. Coolant Part No.	Thread	Extractor Clip
ER11	—	—	—	None
ER16	7990-01-16-000004	7990-01-16-000006	7/16"-20	7993-01-16-000007
ER20	7990-01-20-000004	7990-01-20-000006	M14-1.5	7993-01-20-000007
ER25	7990-01-25-000004	7990-01-25-000006	M18-1.5	7993-01-25-000007
ER32	7990-01-32-000004	7990-01-32-000006	M22-1.5	7993-01-32-000007



## R8, ER-style Tool Holders

for Bridgeport and other knee mills

Collet Style	Collet Holder Part No.	Taper	L	D	Range of Collets	Replacement Cap Part No.	Optional Wrench Part No.
ER16	1757-00-00-00ER16	R8	5.414" (137.51)	1.102" (28.00)	1/64 to 3/8"	7991-01-16-000021	7992-01-16-000021
ER32	1757-00-00-00ER32	R8	5.450" (138.43)	1.969" (50.00)	1/16 to 25/32"	7991-01-32-000220	7992-01-32-000220
ER40	1757-00-00-00ER40	R8	6.705" (170.30)	2.480" (63.00)	3/32 - 1"	7991-01-40-000220	7992-01-40-000220

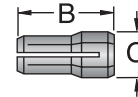
# DA Double-angle Collets

Double-Angle Collets are held in the proper size DAH holders shown on the following pages. The double-angle collet is noted for its parallel gripping capability due to the two angles and the opposed split configuration which places the parallel bearing on the tool shank as well as the full diameter of the tool. Collet range is -.5 mm (-.0196")



Dimensions

Style	B	C
DA300	1.08"	.375"
DA200	1.18"	.539"
DA100	1.44"	.769"
DA180	1.62"	1.035"

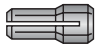


## DA300 Collets – Inch and Metric



INCH	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
		1891-00-19-000312	.0312" 1/32"	1891-00-19-000937	.0937" 3/32"	1891-00-19-001562	.1562" 5/32"	1891-00-19-002187
	1891-00-19-000468	.0468" 3/64"	1891-00-19-001093	.1093" 7/64"	1891-00-19-001718	.1718" 11/64"	1891-00-19-002343	.2343" 15/64"
	1891-00-19-000625	.0625" 1/16"	1891-00-19-001250	.1250" 1/8"	1891-00-19-001875	.1875" 3/16"	1891-00-19-002500	.2500" 1/4"
	1891-00-19-000781	.0781" 5/64"	1891-00-19-001406	.1406" 9/64"	1891-00-19-002031	.2031" 13/64"	—	—
METRIC	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
	1891-00-17-010000	1.0 mm	1891-00-17-025000	2.5 mm	1891-00-17-040000	4.0 mm	1891-00-17-055000	5.5 mm
	1891-00-17-015000	1.5 mm	1891-00-17-030000	3.0 mm	1891-00-17-045000	4.5 mm	1891-00-17-060000	6.0 mm
	1891-00-17-020000	2.0 mm	1891-00-17-035000	3.5 mm	1891-00-17-050000	5.0 mm	1891-00-17-065000	6.5 mm

## DA200 Collets – Inch and Metric



INCH	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
		1889-00-19-000468	.0468" 3/64"	1889-00-19-001406	.1406" 9/64"	1889-00-19-002343	.2343" 15/64"	1889-00-19-003281
	1889-00-19-000625	.0625" 1/16"	1889-00-19-001562	.1562" 5/32"	1889-00-19-002500	.2500" 1/4"	1889-00-19-003437	.3437" 11/32"
	1889-00-19-000781	.0781" 5/64"	1889-00-19-001718	.1718" 11/64"	1889-00-19-002656	.2656" 17/64"	1889-00-19-003593	.3593" 29/64"
	1889-00-19-000937	.0937" 3/32"	1889-00-19-001875	.1875" 3/16"	1889-00-19-002812	.2812" 9/32"	1889-00-19-003750	.3750" 3/8"
	1889-00-19-001093	.1093" 7/64"	1889-00-19-002031	.2031" 13/64"	1889-00-19-002968	.2968" 19/64"	1889-00-19-003906	.3906" 25/64"
	1889-00-19-001250	.1250" 1/8"	1889-00-19-002187	.2187" 7/32"	1889-00-19-003125	.3125" 5/16"	—	—
METRIC	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
	1889-00-17-010000	1.0 mm	1889-00-17-035000	3.5 mm	1889-00-17-060000	6.0 mm	1889-00-17-085000	8.5 mm
	1889-00-17-015000	1.5 mm	1889-00-17-040000	4.0 mm	1889-00-17-065000	6.5 mm	1889-00-17-090000	9.0 mm
	1889-00-17-020000	2.0 mm	1889-00-17-045000	4.5 mm	1889-00-17-070000	7.0 mm	1889-00-17-095000	9.5 mm
	1889-00-17-025000	2.5 mm	1889-00-17-050000	5.0 mm	1889-00-17-075000	7.5 mm	—	—
	1889-00-17-030000	3.0 mm	1889-00-17-055000	5.5 mm	1889-00-17-080000	8.0 mm	—	—

## DA100 Collets – Inch (Metric shown on next page)

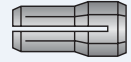


INCH	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
		1887-00-19-000468	.0468" 3/64"	1887-00-19-001875	.1875" 3/16"	1887-00-19-003281	.3281" 21/64"	1887-00-19-004687
	1887-00-19-000625	.0625" 1/16"	1887-00-19-002031	.2031" 13/64"	1887-00-19-003437	.3437" 11/32"	1887-00-19-004843	.4843" 31/64"
	1887-00-19-000781	.0781" 5/64"	1887-00-19-002187	.2187" 7/32"	1887-00-19-003593	.3593" 23/64"	1887-00-19-005000	.5000" 1/2"
	1887-00-19-000937	.0937" 3/32"	1887-00-19-002343	.2343" 15/64"	1887-00-19-003750	.3750" 3/8"	1887-00-19-005156	.5156" 33/64"
	1887-00-19-001093	.1093" 7/64"	1887-00-19-002500	.2500" 1/4"	1887-00-19-003906	.3906" 25/64"	1887-00-19-005312	.5312" 17/32"
	1887-00-19-001250	.1250" 1/8"	1887-00-19-002656	.2656" 17/64"	1887-00-19-004062	.4062" 13/32"	1887-00-19-005468	.5468" 35/64"
	1887-00-19-001406	.1406" 9/64"	1887-00-19-002812	.2812" 9/32"	1887-00-19-004218	.4218" 27/64"	1887-00-19-005625	.5625" 9/16"
	1887-00-19-001562	.1562" 5/32"	1887-00-19-002968	.2968" 19/64"	1887-00-19-004375	.4375" 7/16"	—	—
	1887-00-19-001718	.1718" 11/64"	1887-00-19-003125	.3125" 5/16"	1887-00-19-004531	.4531" 29/64"	—	—



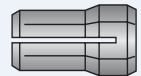
# DA Double-angle Collets

## DA100 Collets – Metric



METRIC	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
	1887-00-17-010000	1.0 mm	1887-00-17-050000	5.0 mm	1887-00-17-090000	9.0 mm	1887-00-17-130000	13.0 mm
	1887-00-17-015000	1.5 mm	1887-00-17-055000	5.5 mm	1887-00-17-095000	9.5 mm	1887-00-17-135000	13.5 mm
	1887-00-17-020000	2.0 mm	1887-00-17-060000	6.0 mm	1887-00-17-100000	10.0 mm	1887-00-17-140000	14.0 mm
	1887-00-17-025000	2.5 mm	1887-00-17-065000	6.5 mm	1887-00-17-105000	10.5 mm	1887-00-17-145000	14.5 mm
	1887-00-17-030000	3.0 mm	1887-00-17-070000	7.0 mm	1887-00-17-110000	11.0 mm	1887-00-17-150000	15.0 mm
	1887-00-17-035000	3.5 mm	1887-00-17-075000	7.5 mm	1887-00-17-115000	11.5 mm	—	—
	1887-00-17-040000	4.0 mm	1887-00-17-080000	8.0 mm	1887-00-17-120000	12.0 mm	—	—
	1887-00-17-045000	4.5 mm	1887-00-17-085000	8.5 mm	1887-00-17-125000	12.5 mm	—	—

## DA180 Collets – Inch and Metric



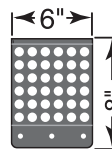
INCH	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
	1885-00-19-000468	.0468" <sup>3</sup> / <sub>64</sub> "	1885-00-19-002343	.2343" <sup>15</sup> / <sub>64</sub> "	1885-00-19-004218	.4218" <sup>27</sup> / <sub>64</sub> "	1885-00-19-006093	.6093" <sup>39</sup> / <sub>64</sub> "
	1885-00-19-000625	.0625" <sup>1</sup> / <sub>16</sub> "	1885-00-19-002500	.2500" <sup>1</sup> / <sub>4</sub> "	1885-00-19-004375	.4375" <sup>7</sup> / <sub>16</sub> "	1885-00-19-006250	.6250" <sup>5</sup> / <sub>8</sub> "
	1885-00-19-000781	.0781" <sup>5</sup> / <sub>64</sub> "	1885-00-19-002656	.2656" <sup>17</sup> / <sub>64</sub> "	1885-00-19-004531	.4531" <sup>29</sup> / <sub>64</sub> "	1885-00-19-006406	.6406" <sup>41</sup> / <sub>64</sub> "
	1885-00-19-000937	.0937" <sup>3</sup> / <sub>32</sub> "	1885-00-19-002812	.2812" <sup>9</sup> / <sub>32</sub> "	1885-00-19-004687	.4687" <sup>15</sup> / <sub>32</sub> "	1885-00-19-006562	.6562" <sup>21</sup> / <sub>32</sub> "
	1885-00-19-001093	.1093" <sup>7</sup> / <sub>64</sub> "	1885-00-19-002968	.2968" <sup>19</sup> / <sub>64</sub> "	1885-00-19-004843	.4843" <sup>31</sup> / <sub>64</sub> "	1885-00-19-006718	.6718" <sup>43</sup> / <sub>64</sub> "
	1885-00-19-001250	.1250" <sup>1</sup> / <sub>8</sub> "	1885-00-19-003125	.3125" <sup>5</sup> / <sub>16</sub> "	1885-00-19-005000	.5000" <sup>1</sup> / <sub>2</sub> "	1885-00-19-006875	.6875" <sup>11</sup> / <sub>16</sub> "
	1885-00-19-001406	.1406" <sup>9</sup> / <sub>64</sub> "	1885-00-19-003281	.3281" <sup>21</sup> / <sub>64</sub> "	1885-00-19-005156	.5156" <sup>33</sup> / <sub>64</sub> "	1885-00-19-007031	.7031" <sup>45</sup> / <sub>64</sub> "
	1885-00-19-001562	.1562" <sup>5</sup> / <sub>32</sub> "	1885-00-19-003437	.3437" <sup>11</sup> / <sub>32</sub> "	1885-00-19-005312	.5312" <sup>17</sup> / <sub>32</sub> "	1885-00-19-007187	.7187" <sup>23</sup> / <sub>32</sub> "
	1885-00-19-001718	.1718" <sup>11</sup> / <sub>64</sub> "	1885-00-19-003593	.3593" <sup>23</sup> / <sub>64</sub> "	1885-00-19-005468	.5468" <sup>35</sup> / <sub>64</sub> "	1885-00-19-007343	.7343" <sup>47</sup> / <sub>64</sub> "
	1885-00-19-001875	.1875" <sup>3</sup> / <sub>16</sub> "	1885-00-19-003750	.3750" <sup>3</sup> / <sub>8</sub> "	1885-00-19-005625	.5625" <sup>9</sup> / <sub>16</sub> "	1885-00-19-007500	.7500" <sup>3</sup> / <sub>4</sub> "
	1885-00-19-002031	.2031" <sup>13</sup> / <sub>64</sub> "	1885-00-19-003906	.3906" <sup>25</sup> / <sub>64</sub> "	1885-00-19-005781	.5781" <sup>37</sup> / <sub>64</sub> "	—	—
1885-00-19-002187	.2187" <sup>7</sup> / <sub>32</sub> "	1885-00-19-004062	.4062" <sup>13</sup> / <sub>32</sub> "	1885-00-19-005937	.5937" <sup>19</sup> / <sub>32</sub> "	—	—	

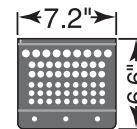
METRIC	Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
	1885-00-17-010000	1.0 mm	1885-00-17-060000	6.0 mm	1885-00-17-110000	11.0 mm	1885-00-17-160000	16.0 mm
	1885-00-17-015000	1.5 mm	1885-00-17-065000	6.5 mm	1885-00-17-115000	11.5 mm	1885-00-17-165000	16.5 mm
	1885-00-17-020000	2.0 mm	1885-00-17-070000	7.0 mm	1885-00-17-120000	12.0 mm	1885-00-17-170000	17.0 mm
	1885-00-17-025000	2.5 mm	1885-00-17-075000	7.5 mm	1885-00-17-125000	12.5 mm	1885-00-17-175000	17.5 mm
	1885-00-17-030000	3.0 mm	1885-00-17-080000	8.0 mm	1885-00-17-130000	13.0 mm	1885-00-17-180000	18.0 mm
	1885-00-17-035000	3.5 mm	1885-00-17-085000	8.5 mm	1885-00-17-135000	13.5 mm	1885-00-17-185000	18.5 mm
	1885-00-17-040000	4.0 mm	1885-00-17-090000	9.0 mm	1885-00-17-140000	14.0 mm	1885-00-17-190000	19.0 mm
	1885-00-17-045000	4.5 mm	1885-00-17-095000	9.5 mm	1885-00-17-145000	14.5 mm	1885-00-17-195000	19.5 mm
	1885-00-17-050000	5.0 mm	1885-00-17-100000	10.0 mm	1885-00-17-150000	15.0 mm	1885-00-17-200000	20.0 mm
	1885-00-17-055000	5.5 mm	1885-00-17-105000	10.5 mm	1885-00-17-155000	15.5 mm	—	—

## Double-Angle Collet Sets

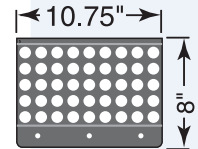
Style		Part Number	Qty.	Range & Increment
DA300	Inch	0931-00-19-300009	9	1/8" to 1/4" (1/64" Incr.)
DA300	Inch	0931-00-19-300005	5	1/8" to 1/4" (1/32" Incr.)
DA200	Inch	0931-00-19-200017	17	1/8" to 3/8" (1/64" Incr.)
DA200	Inch	0931-00-19-200009	9	1/8" to 3/8" (1/32" Incr.)
DA100	Inch	0931-00-19-000000	34	3/64" to 9/16" (1/64" Incr.)
DA100	Metric	0931-00-17-000000	4	4.5, 6, 7, 8 (.5mm Incr.)
DA180	Inch	0933-00-19-000000	40	3/64" to 3/4" (1/64" Incr.)
DA180	Metric	0933-00-17-000000	32	4.5 to 19 (.5mm Incr.)



Holds 36  
100DA Collets  
Part Number  
0946-10-00-000036



Holds (18) 300DA,  
(27) 200DA and  
(9) ER16 Collets  
Part Number  
0946-00-00-000054



Holds 45  
180DA Collets  
Part Number  
0946-18-00-000045

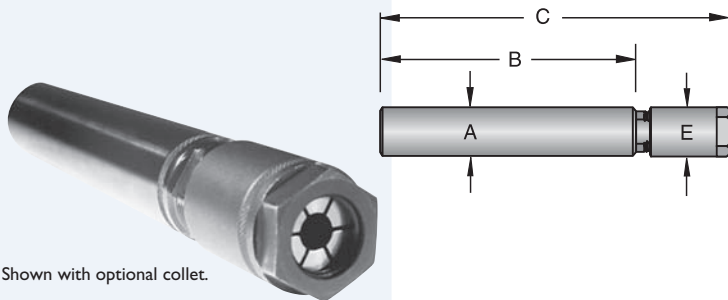
## DA Collet Racks

Collet racks will help minimize damage to the precision surfaces and critical diameters of your collet. Collets which are loosely put in a drawer are subject to damage. Damaged collets may result in your cutting tools not being on the toolholder or spindle's centerline, resulting in inaccurate machining.

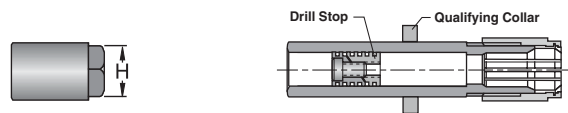
## Double-angle Collet Holders

Double-Angle (DA) Collet Extension Tool Holders mount directly into a round shank tool holder on both mills and lathes. The DAH model holders will accept DA100, DA180, DA200 or DA300 collets.

Optional qualifying collars and chuck stops are available. The collars position and lock on the holder shank to qualify the tool's position in the DAH holder. Chuck stops are positioned inside the holder body to provide a qualified locating stop for tooling and help to prevent tool "push back".



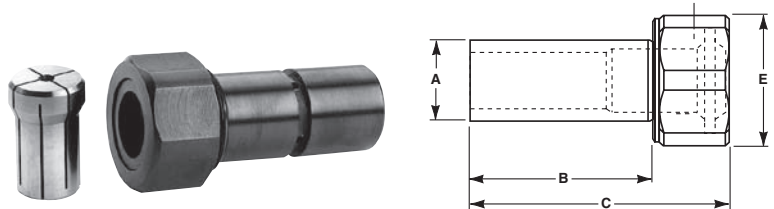
Shown with optional collet.



Collet Style	Model Number	Part Number	Shank A	B	Length C	Cap E	Cap (included) Part No.	Bushing/Retaining Wire**	Hex	Qualifying Collar (Optional) Part No.	Drill Stop (Optional) Part No.
DA300	DAH330	1925-00-00-000000	.500"	2.188"	3.50"	.560"	1933-00-00-000000	1935 1937	1/2"	1941-00-00-000000	1939-00-00-000000
DA300	DAH350	1927-00-00-000000	.500"	4.188"	5.50"	.560"	1933-00-00-000000	1935 1937	1/2"	1941-00-00-000000	1939-00-00-000000
DA300	—	7996-03-30-005000	.500"	5.500"	6.79"	.560"	7991-03-30-000001	1935 1937	1/2"	—	7990-03-30-000004
DA300	DAH335	1943-00-00-000000	.625"	2.188"	3.50"	.680"	1951-00-00-000000	1935 1937	5/8"	1957-00-00-000000	1939-00-00-000000
DA300	DAH355	1945-00-00-000000	.625"	4.188"	5.50"	.680"	1951-00-00-000000	1935 1937	5/8"	1957-00-00-000000	1939-00-00-000000
DA200	DAH255	1959-00-00-000000	.750"	1.875"	3.50"	.812"	1967-00-00-000000	1969 1971	11/16"	1975-00-00-000000	1973-00-00-000000
DA200	DAH235	1961-00-00-000000	.750"	3.875"	5.50"	.812"	1967-00-00-000000	1969 1971	11/16"	1975-00-00-000000	1973-00-00-000000
DA200	—	7996-03-20-007500	.750"	5.500"	7.23"	.860"	7991-03-20-000001	1969 1971	3/4"	—	7990-03-20-000004
DA100	DAH135	1977-00-00-000000	1.000"	1.875"	3.50"	1.062"	1985-00-00-000000	1987 1989	15/16"	1993-00-00-000000	1991-00-00-000000
DA100	DAH155	1979-00-00-000000	1.000"	3.875"	5.50"	1.062"	1985-00-00-000000	1987 1989	15/16"	1993-00-00-000000	1991-00-00-000000
DA100	—	7996-03-10-010000	1.000"	5.500"	7.47"	1.062"	7991-03-10-000001	1987 1989	31/32"	—	7990-03-10-000004
DA180	—	7996-03-18-012500	1.250"	5.500"	7.37"	1.440"	7991-03-18-000001	—	1 1/4"	—	7990-03-18-000004

\*\* Bushing and Retaining Wire required when reordering Cap.

### SB- and SG-Style DA180 Tool Holders for CNC Lathes

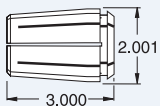
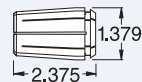
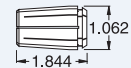


Collet Style	Model Number	Part Number	Shank A	B	Length C	Cap E	Cap (Included) Part Number	Hex	Qualifying Collar (Optional) Part No.	Drill Stop (Optional) Part No.
DA180	SG-180	SG 0000187	1.250"	2.500"	3.469"	1.747"	SG -0000187-02	1 3/4"	Not Required	SB -0000187-05 & 06
DA180	SG-180M	SG 0000187 M	32 mm	2.500"	3.469"	1.747"	SG -0000187-02	1 3/4"	Not Required	SB -0000187-05 & 06
DA180	SB-180	SBA0000187	1.125"	2.500"	3.560"	1.750"	SBA-0000187-02	Pin	Not Required	SB -0000187-05 & 06

# TG-style Collets - Inch

## TG75, TG100 and TG150

**TG-Style Single-Angle High-Precision (tremendous grip) Collets** are a shallow, single-angle collet used to ensure precise concentricity between the collet, the holder and the tool. The nose cap incorporates a rotating ball assembly with a radial float. The standard precision is per DIN 6341:  $\frac{3}{32}$ " to  $1\frac{1}{2}$ ", 0.0005" TIR. The collet collapse range is  $\frac{1}{64}$ ". Collets with seals are available for thru-coolant applications.



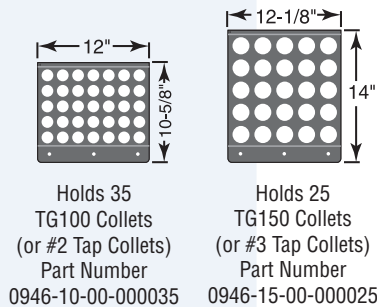
TG75 Collet Part Number	Size	
1907-00-19-000937	.0937"	$\frac{3}{32}$ "
1907-00-19-001093	.1093"	$\frac{7}{64}$ "
1907-00-19-001250	.1250"	$\frac{1}{8}$ "
1907-00-19-001406	.1406"	$\frac{9}{64}$ "
1907-00-19-001562	.1562"	$\frac{5}{32}$ "
1907-00-19-001718	.1718"	$\frac{11}{64}$ "
1907-00-19-001875	.1875"	$\frac{3}{16}$ "
1907-00-19-002037	.2037"	$\frac{13}{64}$ "
1907-00-19-002187	.2187"	$\frac{7}{32}$ "
1907-00-19-002343	.2343"	$\frac{15}{64}$ "
1907-00-19-002500	.2500"	$\frac{1}{4}$ "
1907-00-19-002656	.2656"	$\frac{17}{64}$ "
1907-00-19-002812	.2812"	$\frac{9}{32}$ "
1907-00-19-002968	.2968"	$\frac{19}{64}$ "
1907-00-19-003125	.3125"	$\frac{5}{16}$ "
1907-00-19-003281	.3281"	$\frac{21}{64}$ "
1907-00-19-003437	.3437"	$\frac{11}{32}$ "
1907-00-19-003593	.3593"	$\frac{23}{64}$ "
1907-00-19-003750	.3750"	$\frac{3}{8}$ "
1907-00-19-003906	.3906"	$\frac{25}{64}$ "
1907-00-19-004062	.4062"	$\frac{13}{32}$ "
1907-00-19-004218	.4218"	$\frac{27}{64}$ "
1907-00-19-004375	.4375"	$\frac{7}{16}$ "
1907-00-19-004531	.4531"	$\frac{29}{64}$ "
1907-00-19-004687	.4687"	$\frac{15}{32}$ "
1907-00-19-004843	.4843"	$\frac{31}{64}$ "
1907-00-19-005000	.5000"	$\frac{1}{2}$ "
1907-00-19-005156	.5156"	$\frac{33}{64}$ "
1907-00-19-005312	.5312"	$\frac{17}{32}$ "
1907-00-19-005468	.5468"	$\frac{35}{64}$ "
1907-00-19-005625	.5625"	$\frac{9}{16}$ "
1907-00-19-005781	.5781"	$\frac{37}{64}$ "
1907-00-19-005937	.5937"	$\frac{19}{32}$ "
1907-00-19-006093	.6093"	$\frac{39}{64}$ "
1907-00-19-006250	.6250"	$\frac{5}{8}$ "
1907-00-19-006406	.6406"	$\frac{41}{64}$ "
1907-00-19-006562	.6562"	$\frac{21}{32}$ "
1907-00-19-006718	.6718"	$\frac{43}{64}$ "
1907-00-19-006875	.6875"	$\frac{11}{16}$ "
1907-00-19-007031	.7031"	$\frac{45}{64}$ "
1907-00-19-007187	.7187"	$\frac{23}{32}$ "
1907-00-19-007343	.7343"	$\frac{47}{64}$ "
1907-00-19-007500	.7500"	$\frac{3}{4}$ "
1907-00-19-007656	.7656"	$\frac{49}{64}$ "
1907-00-19-007812	.7812"	$\frac{25}{32}$ "
1907-00-19-007968	.7968"	$\frac{51}{64}$ "
1907-00-19-008125	.8125"	$\frac{13}{16}$ "
1907-00-19-008281	.8281"	$\frac{53}{64}$ "
1907-00-19-008437	.8437"	$\frac{27}{32}$ "
1907-00-19-008593	.8593"	$\frac{55}{64}$ "
1907-00-19-008750	.8750"	$\frac{7}{8}$ "
1907-00-19-008906	.8906"	$\frac{57}{64}$ "
1907-00-19-009062	.9062"	$\frac{29}{32}$ "
1907-00-19-009218	.9218"	$\frac{59}{64}$ "
1907-00-19-009375	.9375"	$\frac{15}{16}$ "
1907-00-19-009531	.9531"	$\frac{61}{64}$ "
1907-00-19-009687	.9687"	$\frac{31}{32}$ "
1907-00-19-009843	.9843"	$\frac{63}{64}$ "
1907-00-19-007500	.7500"	$\frac{3}{4}$ "

TG100 Collet Part Number	Size	
1905-00-19-000937	.0937"	$\frac{3}{32}$ "
1905-00-19-001093	.1093"	$\frac{7}{64}$ "
1905-00-19-001250	.1250"	$\frac{1}{8}$ "
1905-00-19-001406	.1406"	$\frac{9}{64}$ "
1905-00-19-001562	.1562"	$\frac{5}{32}$ "
1905-00-19-001718	.1718"	$\frac{11}{64}$ "
1905-00-19-001875	.1875"	$\frac{3}{16}$ "
1905-00-19-002031	.2031"	$\frac{13}{64}$ "
1905-00-19-002187	.2187"	$\frac{7}{32}$ "
1905-00-19-002343	.2343"	$\frac{15}{64}$ "
1905-00-19-002500	.2500"	$\frac{1}{4}$ "
1905-00-19-002656	.2656"	$\frac{17}{64}$ "
1905-00-19-002812	.2812"	$\frac{9}{32}$ "
1905-00-19-002968	.2968"	$\frac{19}{64}$ "
1905-00-19-003125	.3125"	$\frac{5}{16}$ "
1905-00-19-003281	.3281"	$\frac{21}{64}$ "
1905-00-19-003437	.3437"	$\frac{11}{32}$ "
1905-00-19-003593	.3593"	$\frac{23}{64}$ "
1905-00-19-003750	.3750"	$\frac{3}{8}$ "
1905-00-19-003906	.3906"	$\frac{25}{64}$ "
1905-00-19-004062	.4062"	$\frac{13}{32}$ "
1905-00-19-004218	.4218"	$\frac{27}{64}$ "
1905-00-19-004375	.4375"	$\frac{7}{16}$ "
1905-00-19-004531	.4531"	$\frac{29}{64}$ "
1905-00-19-004687	.4687"	$\frac{15}{32}$ "
1905-00-19-004843	.4843"	$\frac{31}{64}$ "
1905-00-19-005000	.5000"	$\frac{1}{2}$ "
1905-00-19-005156	.5156"	$\frac{33}{64}$ "
1905-00-19-005312	.5312"	$\frac{17}{32}$ "
1905-00-19-005468	.5468"	$\frac{35}{64}$ "
1905-00-19-005625	.5625"	$\frac{9}{16}$ "
1905-00-19-005781	.5781"	$\frac{37}{64}$ "
1905-00-19-005937	.5937"	$\frac{19}{32}$ "
1905-00-19-006093	.6093"	$\frac{39}{64}$ "
1905-00-19-006250	.6250"	$\frac{5}{8}$ "
1905-00-19-006406	.6406"	$\frac{41}{64}$ "
1905-00-19-006562	.6562"	$\frac{21}{32}$ "
1905-00-19-006718	.6718"	$\frac{43}{64}$ "
1905-00-19-006875	.6875"	$\frac{11}{16}$ "
1905-00-19-007031	.7031"	$\frac{45}{64}$ "
1905-00-19-007187	.7187"	$\frac{23}{32}$ "
1905-00-19-007343	.7343"	$\frac{47}{64}$ "
1905-00-19-007500	.7500"	$\frac{3}{4}$ "
1905-00-19-007656	.7656"	$\frac{49}{64}$ "
1905-00-19-007812	.7812"	$\frac{25}{32}$ "
1905-00-19-007968	.7968"	$\frac{51}{64}$ "
1905-00-19-008125	.8125"	$\frac{13}{16}$ "
1905-00-19-008281	.8281"	$\frac{53}{64}$ "
1905-00-19-008437	.8437"	$\frac{27}{32}$ "
1905-00-19-008593	.8593"	$\frac{55}{64}$ "
1905-00-19-008750	.8750"	$\frac{7}{8}$ "
1905-00-19-008906	.8906"	$\frac{57}{64}$ "
1905-00-19-009062	.9062"	$\frac{29}{32}$ "
1905-00-19-009218	.9218"	$\frac{59}{64}$ "
1905-00-19-009375	.9375"	$\frac{15}{16}$ "
1905-00-19-009531	.9531"	$\frac{61}{64}$ "
1905-00-19-009687	.9687"	$\frac{31}{32}$ "
1905-00-19-009843	.9843"	$\frac{63}{64}$ "
1905-00-19-010000	1.000"	1"

TG150 Collet Part Number	Size	
1909-00-19-005000	.5000"	$\frac{1}{2}$ "
1909-00-19-005156	.5156"	$\frac{33}{64}$ "
1909-00-19-005312	.5312"	$\frac{17}{32}$ "
1909-00-19-005468	.5468"	$\frac{35}{64}$ "
1909-00-19-005625	.5625"	$\frac{9}{16}$ "
1909-00-19-005781	.5781"	$\frac{37}{64}$ "
1909-00-19-005937	.5937"	$\frac{19}{32}$ "
1909-00-19-006093	.6093"	$\frac{39}{64}$ "
1909-00-19-006250	.6250"	$\frac{5}{8}$ "
1909-00-19-006406	.6406"	$\frac{41}{64}$ "
1909-00-19-006562	.6562"	$\frac{21}{32}$ "
1909-00-19-006718	.6718"	$\frac{43}{64}$ "
1909-00-19-006875	.6875"	$\frac{11}{16}$ "
1909-00-19-007031	.7031"	$\frac{45}{64}$ "
1909-00-19-007187	.7187"	$\frac{23}{32}$ "
1909-00-19-007343	.7343"	$\frac{47}{64}$ "
1909-00-19-007500	.7500"	$\frac{3}{4}$ "
1909-00-19-007656	.7656"	$\frac{49}{64}$ "
1909-00-19-007812	.7812"	$\frac{25}{32}$ "
1909-00-19-007968	.7968"	$\frac{51}{64}$ "
1909-00-19-008125	.8125"	$\frac{13}{16}$ "
1909-00-19-008281	.8281"	$\frac{53}{64}$ "
1909-00-19-008437	.8437"	$\frac{27}{32}$ "
1909-00-19-008593	.8593"	$\frac{55}{64}$ "
1909-00-19-008750	.8750"	$\frac{7}{8}$ "
1909-00-19-008906	.8906"	$\frac{57}{64}$ "
1909-00-19-009062	.9062"	$\frac{29}{32}$ "
1909-00-19-009218	.9218"	$\frac{59}{64}$ "
1909-00-19-009375	.9375"	$\frac{15}{16}$ "
1909-00-19-009531	.9531"	$\frac{61}{64}$ "
1909-00-19-009687	.9687"	$\frac{31}{32}$ "
1909-00-19-009843	.9843"	$\frac{63}{64}$ "
1909-00-19-010000	1.000"	1"
1909-00-19-010156	1.0156"	$\frac{1}{64}$ "
1909-00-19-010312	1.0312"	$\frac{1}{32}$ "
1909-00-19-010468	1.0468"	$\frac{13}{64}$ "
1909-00-19-010625	1.0625"	$\frac{1}{16}$ "
1909-00-19-010781	1.0781"	$\frac{15}{64}$ "
1909-00-19-010937	1.0937"	$\frac{19}{32}$ "
1909-00-19-011093	1.1093"	$\frac{17}{64}$ "
1909-00-19-011250	1.1250"	$\frac{1}{8}$ "
1909-00-19-011406	1.1406"	$\frac{19}{64}$ "
1909-00-19-011562	1.1562"	$\frac{13}{16}$ "
1909-00-19-011718	1.1718"	$\frac{11}{64}$ "
1909-00-19-011875	1.1875"	$\frac{13}{16}$ "
1909-00-19-012031	1.2031"	$\frac{19}{64}$ "
1909-00-19-012187	1.2187"	$\frac{17}{32}$ "
1909-00-19-012343	1.2343"	$\frac{15}{64}$ "
1909-00-19-012500	1.2500"	$\frac{1}{4}$ "
1909-00-19-012656	1.2656"	$\frac{17}{64}$ "
1909-00-19-012812	1.2812"	$\frac{19}{32}$ "
1909-00-19-012968	1.2968"	$\frac{19}{64}$ "
1909-00-19-013125	1.3125"	$\frac{15}{16}$ "
1909-00-19-013281	1.3281"	$\frac{121}{64}$ "
1909-00-19-013437	1.3437"	$\frac{11}{32}$ "
1909-00-19-013593	1.3593"	$\frac{123}{64}$ "
1909-00-19-013750	1.3750"	$\frac{13}{8}$ "
1909-00-19-013906	1.3906"	$\frac{125}{64}$ "
1909-00-19-014062	1.4062"	$\frac{113}{32}$ "
1909-00-19-014218	1.4218"	$\frac{127}{64}$ "
1909-00-19-014375	1.4375"	$\frac{17}{16}$ "
1909-00-19-014531	1.4531"	$\frac{129}{64}$ "
1909-00-19-014687	1.4687"	$\frac{153}{32}$ "
1909-00-19-014843	1.4843"	$\frac{131}{64}$ "
1909-00-19-015000	1.5000"	$1\frac{1}{2}$ "

# TG-style Collets - Metric

## TG100, TG150, Fractional Sets & Collet Racks



**Collet Racks** help minimize damage to the precision surfaces and critical diameters of your collet. Collets which are loosely put in a drawer are subject to damage. Damaged collets may result in your cutting tools not being on the toolholder or spindle's centerline, resulting in inaccurate machining.

TG75 Collet Set Part Number	Qty.	Range & Increment
0930-00-19-000043	43	3/32" to 3/4" (1/64" Incr.)
0930-00-19-000025	25	3/8" to 3/4" (1/64" Incr.)
0930-00-19-000022	22	3/32" to 3/4" (1/32" Incr.)
0930-00-19-000013	13	3/8" to 3/4" (1/32" Incr.)
0930-00-19-000011	11	1/8" to 3/4" (1/16" Incr.)
TG100 Collet Set Part Number	Qty.	Range & Increment
0932-00-19-000059	59	3/32" to 1" (1/64" Incr.)
0932-00-19-000041	41	3/8" to 1" (1/64" Incr.)
0932-00-19-000030	30	3/32" to 1" (1/32" Incr.)
0932-00-19-000021	21	3/8" to 1" (1/32" Incr.)
TG150 Collet Set Part Number	Qty.	Range & Increment
0934-00-19-000065	65	1/2" to 1 1/2" (1/64" Incr.)
0934-00-19-000033	33	1/2" to 1 1/2" (1/32" Incr.)
0934-00-19-000017	17	1/2" to 1 1/2" (1/16" Incr.)

Note: Sealed Collets are available.  
 TG-style Tap Collets are available (for 1/4" to 1" taps - no metric sizes).

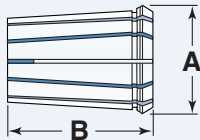
TG100 Collet Part Number	TG150 Collet Part Number	Metric Size
1905-00-17-060000	—	6.0
1905-00-17-065000	—	6.5
1905-00-17-070000	—	7.0
1905-00-17-075000	—	7.5
1905-00-17-080000	—	8.0
1905-00-17-085000	—	8.5
1905-00-17-090000	—	9.0
1905-00-17-095000	—	9.5
1905-00-17-100000	—	10.0
1905-00-17-105000	—	10.5
1905-00-17-110000	—	11.0
1905-00-17-115000	—	11.5
1905-00-17-120000	1909-00-17-120000	12.0
1905-00-17-125000	1909-00-17-125000	12.5
1905-00-17-130000	1909-00-17-130000	13.0
1905-00-17-135000	1909-00-17-135000	13.5
1905-00-17-140000	1909-00-17-140000	14.0
1905-00-17-145000	1909-00-17-145000	14.5
1905-00-17-150000	1909-00-17-150000	15.0
1905-00-17-155000	1909-00-17-155000	15.5
1905-00-17-160000	1909-00-17-160000	16.0
1905-00-17-165000	1909-00-17-165000	16.5
1905-00-17-170000	1909-00-17-170000	17.0
1905-00-17-175000	1909-00-17-175000	17.5
1905-00-17-180000	1909-00-17-180000	18.0
1905-00-17-185000	1909-00-17-185000	18.5
1905-00-17-190000	1909-00-17-190000	19.0
1905-00-17-195000	1909-00-17-195000	19.5
1905-00-17-200000	1909-00-17-200000	20.0
1905-00-17-205000	1909-00-17-205000	20.5
1905-00-17-210000	1909-00-17-210000	21.0
1905-00-17-215000	1909-00-17-215000	21.5
1905-00-17-220000	1909-00-17-220000	22.0
1905-00-17-225000	1909-00-17-225000	22.5
1905-00-17-230000	1909-00-17-230000	23.0
1905-00-17-235000	1909-00-17-235000	23.5
1905-00-17-240000	1909-00-17-240000	24.0
1905-00-17-245000	1909-00-17-245000	24.5
1905-00-17-250000	1909-00-17-250000	25.0
1905-00-17-255000	1909-00-17-255000	25.5
—	1909-00-17-260000	26.0
—	1909-00-17-265000	26.5
—	1909-00-17-270000	27.0
—	1909-00-17-275000	27.5
—	1909-00-17-280000	28.0
—	1909-00-17-285000	28.5
—	1909-00-17-290000	29.0
—	1909-00-17-295000	29.5
—	1909-00-17-300000	30.0
—	1909-00-17-305000	30.5
—	1909-00-17-310000	31.0
—	1909-00-17-315000	31.5
—	1909-00-17-320000	32.0
—	1909-00-17-325000	32.5
—	1909-00-17-330000	33.0
—	1909-00-17-335000	33.5
—	1909-00-17-340000	34.0
—	1909-00-17-345000	34.5
—	1909-00-17-350000	35.0
—	1909-00-17-355000	35.5
—	1909-00-17-360000	36.0
—	1909-00-17-365000	36.5
—	1909-00-17-370000	37.0
—	1909-00-17-375000	37.5
—	1909-00-17-380000	38.0
—	1909-00-17-385000	38.5
—	1909-00-17-390000	39.0
—	1909-00-17-395000	39.5
—	1909-00-17-400000	40.0

# HDO-style Collets - Metric (RDO), HDO25, HDO35, HDO44



HDO Collets are interchangeable with Ortlieb-type (RDO) collets. These rigid, high precision collets are recommended for milling. Standard size HDO collets are manufactured per DIN Form B specifications. They are available in inch and metric sizes from stock. The maximum collet TIR is .005 mm (.0002"). The working range of the collet is 0.5 mm (.019").

HDO collets are also used for high speed woodworking applications up to 30,000 RPM (Perske Routers). Collets are available with seals for thru-coolant applications. HDO16 and HDO20 collets are available on request.



**Dimensions**

Style	A - Dia.		B - Length	
	mm	Inch	mm	Inch
25	25.5	1.00"	40	1.57"
35	35.3	1.39"	52	2.05"
44	44.0	1.73"	60	2.36"

HDO25 Collet Part Number	Size Range		HDO35 Collet Part Number	HDO44 Collet Part Number
	mm	Inch		
2535-00-17-020000	2.0 - 1.5	.079" - .059"	2537-00-17-020000	—
2535-00-17-025000	2.5 - 2.0	.098" - .079"	2537-00-17-025000	—
2535-00-17-030000	3.0 - 2.5	.118" - .098"	2537-00-17-030000	—
2535-00-17-035000	3.5 - 3.0	.138" - .118"	2537-00-17-035000	—
2535-00-17-040000	4.0 - 3.5	.157" - .138"	2537-00-17-040000	2539-00-17-040000
2535-00-17-045000	4.5 - 4.0	.177" - .157"	2537-00-17-045000	2539-00-17-045000
2535-00-17-050000	5.0 - 4.5	.197" - .177"	2537-00-17-050000	2539-00-17-050000
2535-00-17-055000	5.5 - 5.0	.217" - .197"	2537-00-17-055000	2539-00-17-055000
2535-00-17-060000	6.0 - 5.5	.236" - .217"	2537-00-17-060000	2539-00-17-060000
2535-00-17-065000	6.5 - 6.0	.255" - .236"	2537-00-17-065000	2539-00-17-065000
2535-00-17-070000	7.0 - 6.5	.275" - .255"	2537-00-17-070000	2539-00-17-070000
2535-00-17-075000	7.5 - 7.0	.295" - .276"	2537-00-17-075000	2539-00-17-075000
2535-00-17-080000	8.0 - 7.5	.315" - .295"	2537-00-17-080000	2539-00-17-080000
2535-00-17-085000	8.5 - 8.0	.334" - .315"	2537-00-17-085000	2539-00-17-085000
2535-00-17-090000	9.0 - 8.5	.354" - .334"	2537-00-17-090000	2539-00-17-090000
2535-00-17-095000	9.5 - 9.0	.374" - .354"	2537-00-17-095000	2539-00-17-095000
2535-00-17-100000	10.0 - 9.5	.394" - .374"	2537-00-17-100000	2539-00-17-100000
2535-00-17-105000	10.5 - 10.0	.413" - .394"	2537-00-17-105000	2539-00-17-105000
2535-00-17-110000	11.0 - 10.5	.433" - .413"	2537-00-17-110000	2539-00-17-110000
2535-00-17-115000	11.5 - 11.0	.452" - .433"	2537-00-17-115000	2539-00-17-115000
2535-00-17-120000	12.0 - 11.5	.472" - .452"	2537-00-17-120000	2539-00-17-120000
2535-00-17-125000	12.5 - 12.0	.492" - .472"	2537-00-17-125000	2539-00-17-125000
2535-00-17-130000	13.0 - 12.5	.512" - .492"	2537-00-17-130000	2539-00-17-130000
2535-00-17-135000	13.5 - 13.0	.531" - .512"	2537-00-17-135000	2539-00-17-135000
2535-00-17-140000	14.0 - 13.5	.551" - .531"	2537-00-17-140000	2539-00-17-140000
2535-00-17-145000	14.5 - 14.0	.570" - .551"	2537-00-17-145000	2539-00-17-145000
2535-00-17-150000	15.0 - 14.5	.590" - .570"	2537-00-17-150000	2539-00-17-150000
2535-00-17-155000	15.5 - 15.0	.610" - .590"	2537-00-17-155000	2539-00-17-155000
2535-00-17-160000	16.0 - 15.5	.629" - .610"	2537-00-17-160000	2539-00-17-160000
—	16.5 - 16.0	.649" - .629"	2537-00-17-165000	2539-00-17-165000
—	17.0 - 16.5	.669" - .649"	2537-00-17-170000	2539-00-17-170000
—	17.5 - 17.0	.688" - .669"	2537-00-17-175000	2539-00-17-175000
—	18.0 - 17.5	.708" - .688"	2537-00-17-180000	2539-00-17-180000
—	18.5 - 18.0	.728" - .708"	2537-00-17-185000	2539-00-17-185000
—	19.0 - 18.5	.748" - .728"	2537-00-17-190000	2539-00-17-190000
—	19.5 - 19.0	.767" - .748"	2537-00-17-195000	2539-00-17-195000
—	20.0 - 19.5	.787" - .767"	2537-00-17-200000	2539-00-17-200000
—	20.5 - 20.0	.807" - .787"	2537-00-17-205000	2539-00-17-205000
—	21.0 - 20.5	.827" - .807"	2537-00-17-210000	2539-00-17-210000
—	21.5 - 21.0	.846" - .827"	2537-00-17-215000	2539-00-17-215000
—	22.0 - 21.5	.866" - .846"	2537-00-17-220000	2539-00-17-220000
—	22.5 - 22.0	.885" - .866"	2537-00-17-225000	2539-00-17-225000
—	23.0 - 22.5	.906" - .885"	2537-00-17-230000	2539-00-17-230000
—	23.5 - 23.0	.925" - .906"	2537-00-17-235000	2539-00-17-235000
—	24.0 - 23.5	.945" - .925"	2537-00-17-240000	2539-00-17-240000
—	24.5 - 24.0	.964" - .945"	2537-00-17-245000	2539-00-17-245000
—	25.0 - 24.5	.984" - .964"	2537-00-17-250000	2539-00-17-250000
—	25.5 - 25.0	1.003" - .984"	—	2539-00-17-255000
—	26.0 - 25.5	1.024" - 1.003"	—	2539-00-17-260000
—	26.5 - 26.0	1.043" - 1.024"	—	2539-00-17-265000
—	27.0 - 26.5	1.062" - 1.043"	—	2539-00-17-270000
—	27.5 - 27.0	1.082" - 1.062"	—	2539-00-17-275000
—	28.0 - 27.5	1.102" - 1.082"	—	2539-00-17-280000
—	28.5 - 28.0	1.122" - 1.102"	—	2539-00-17-285000
—	29.0 - 28.5	1.141" - 1.122"	—	2539-00-17-290000
—	29.5 - 29.0	1.161" - 1.141"	—	2539-00-17-295000
—	30.0 - 29.5	1.181" - 1.161"	—	2539-00-17-300000
—	30.5 - 30.0	1.200" - 1.181"	—	2539-00-17-305000
—	31.0 - 30.5	1.220" - 1.200"	—	2539-00-17-310000
—	31.5 - 31.0	1.240" - 1.220"	—	2539-00-17-315000
—	32.0 - 31.5	1.260" - 1.240"	—	2539-00-17-320000



## HDO-style Collets - Fractional (RDO), HD025, HD035, HD044

HD025 Collet Part Number	Size Range		HD035 Collet Part Number	HD044 Collet Part Number
	Inch	mm		
2535-00-19-001250	1/8"	3.17	2537-00-19-001250	2539-00-19-001250
2535-00-19-001875	3/16"	4.75	2537-00-19-001875	2539-00-19-001875
2535-00-19-002500	1/4"	6.35	2537-00-19-002500	2539-00-19-002500
2535-00-19-003125	5/16"	7.92	2537-00-19-003125	2539-00-19-003125
2535-00-19-003750	3/8"	9.52	2537-00-19-003750	2539-00-19-003750
2535-00-19-004375	7/16"	11.10	2537-00-19-004375	2539-00-19-004375
2535-00-19-005000	1/2"	12.70	2537-00-19-005000	2539-00-19-005000
2535-00-19-005625	9/16"	14.40	2537-00-19-005625	2539-00-19-005625
2535-00-19-006250	5/8"	15.80	2537-00-19-006250	2539-00-19-006250
—	11/16"	17.40	2537-00-19-006875	2539-00-19-006875
—	3/4"	19.00	2537-00-19-007500	2539-00-19-007500
—	13/16"	20.63	2537-00-19-008125	2539-00-19-008125
—	7/8"	22.22	2537-00-19-008750	2539-00-19-008750
—	15/16"	23.81	2537-00-19-009375	2539-00-19-009375
—	1"	25.40	2537-00-19-010000	2539-00-19-010000
—	1 1/16"	26.98	—	2539-00-19-010625
—	1 1/8"	28.57	—	2539-00-19-011250
—	1 3/16"	30.16	—	2539-00-19-011875
—	1 1/4"	31.75	—	2539-00-19-012500

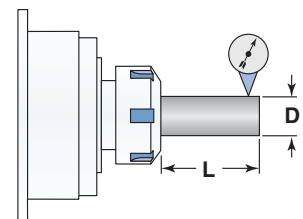


## HDO-style Collet Sets - Metric & Fractional

HD025 Collet Set Part Number	Series	Qty.	Min./Max. Range	Increment
0951-25-17-000029	HDO25	29	1.5 to 16 mm	.5 mm
0951-25-19-000009	HDO25	9	1/8" to 5/8"	1/16"
HD035 Collet Set Part Number	Series	Qty.	Min./Max. Range	Increment
0951-35-17-000047	HDO35	47	1.5 to 25 mm	.5 mm
0951-35-19-000015	HDO35	15	1/8" to 1"	1/16"
HD045 Collet Set Part Number	Series	Qty.	Min./Max. Range	Increment
0951-44-17-000057	HDO44	57	3.5 to 32 mm	.5 mm
0951-44-19-000019	HDO44	19	1/8" to 1 1/4"	1/16"

### TIR Precision Per DIN 6388B

L Length mm	L Length Inch	D Diameter mm	D Diameter Inch	Normal mm	Normal Inch	High Precision mm	High Precision Inch
6	.236"	1.0 - 1.5	.0397" - .0590"	0.015	.00059"	0.008	.00031"
10	.394"	1.6 - 2.9	.0629" - .1141"	0.015	.00059"	0.008	.00031"
16	.630"	3.0 - 5.9	.1181" - .2322"	0.015	.00059"	0.008	.00031"
25	.984"	6.0 - 9.9	.2362" - .3897"	0.015	.00059"	0.008	.00031"
40	1.574"	10.0 - 17.9	.3937" - .6929"	0.020	.00078"	0.010	.00039"
50	1.968"	18.0 - 23.9	.7086" - .9409"	0.020	.00078"	0.010	.00039"
60	2.362"	24.0 - 29.9	.9448" - 1.1771"	0.020	.00078"	0.010	.00039"
80	3.149"	30.0 - 50.0	1.1811" - 1.9685"	0.030	.00118"	0.015	.00059"



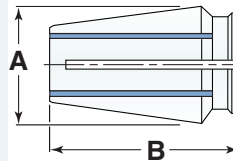
# HF-style Collets (AF)

## HF-25, HF38 and HF50



HF Collets are considered one of the most accurate style collets available and interchangeable with Universal Acura-Flex style (AF) collets. The collets will collapse 1/4". Sealed collets are available for thru-coolant applications.

### Dimensions



Style	A - Dia.		B - Length	
	Inch	mm	inch	mm
HF25	.483"	12.27	1.000"	25.41
HF38	.563"	14.31	1.030"	26.18
HF50	.720"	18.30	1.160"	29.48
HF75	1.131"	28.70	2.020"	51.30
HF100	1.446"	36.70	2.500"	63.50

### HF25 Collets – Inch

Part Number	Size	Part Number	Size	Part Number	Size
2541-00-19-000781	.0781" 5/64"	2541-00-19-001406	.1406" 9/64"	2541-00-19-002031	.2031" 13/64"
2541-00-19-000937	.0937" 3/32"	2541-00-19-001562	.1562" 5/32"	2541-00-19-002187	.2187" 7/32"
2541-00-19-001093	.1093" 7/64"	2541-00-19-001718	.1718" 11/64"	2541-00-19-002343	.2343" 15/64"
2541-00-19-001250	.1250" 1/8"	2541-00-19-001875	.1875" 3/16"	2541-00-19-002500	.2500" 1/4"

### HF25 Collets – Metric

Part Number	Size
2541-00-17-030000	3 mm .1181"
2541-00-17-050000	5 mm .1968"

### HF38 Collets – Inch

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
2543-00-19-000781	.0781" 5/64"	2543-00-19-001562	.1562" 5/32"	2543-00-19-002343	.2343" 15/64"	2543-00-19-003125	.3125" 5/16"
2543-00-19-000937	.0937" 3/32"	2543-00-19-001718	.1718" 11/64"	2543-00-19-002500	.2500" 1/4"	2543-00-19-003281	.3281" 21/64"
2543-00-19-001093	.1093" 7/64"	2543-00-19-001875	.1875" 3/16"	2543-00-19-002656	.2656" 17/64"	2543-00-19-003437	.3437" 11/32"
2543-00-19-001250	.1250" 1/8"	2543-00-19-002031	.2031" 13/64"	2543-00-19-002812	.2812" 9/32"	2543-00-19-003593	.3593" 23/64"
2543-00-19-001406	.1406" 9/64"	2543-00-19-002187	.2187" 7/32"	2543-00-19-002968	.2968" 19/64"	2543-00-19-003750	.3750" 3/8"

### HF38 Collets – Metric

Part Number	Size
2543-00-17-030000	3 mm .1181"
2543-00-17-050000	5 mm .1968"
2543-00-17-070000	7 mm .2755"
2543-00-17-090000	9 mm .3543"

### HF50 Collets – Inch

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
2545-00-19-001250	.1250" 1/8"	2545-00-19-002343	.2343" 15/64"	2545-00-19-003437	.3437" 11/32"	2545-00-19-004531	.4531" 29/64"
2545-00-19-001406	.1406" 9/64"	2545-00-19-002500	.2500" 1/4"	2545-00-19-003593	.3593" 23/64"	2545-00-19-004687	.4687" 15/32"
2545-00-19-001562	.1562" 5/32"	2545-00-19-002656	.2656" 17/64"	2545-00-19-003750	.3750" 3/8"	2545-00-19-004843	.4843" 31/64"
2545-00-19-001718	.1718" 11/64"	2545-00-19-002812	.2812" 9/32"	2545-00-19-003906	.3906" 25/64"	2545-00-19-005000	.5000" 1/2"
2545-00-19-001875	.1875" 3/16"	2545-00-19-002968	.2968" 19/64"	2545-00-19-004062	.4062" 13/32"	—	—
2545-00-19-002031	.2031" 13/64"	2545-00-19-003125	.3125" 5/16"	2545-00-19-004218	.4218" 27/64"	—	—
2545-00-19-002187	.2187" 7/32"	2545-00-19-003281	.3281" 21/64"	2545-00-19-004375	.4375" 7/16"	—	—

### HF50 Collets – Metric

Part Number	Size
2545-00-17-050000	5 mm .1968"
2545-00-17-070000	7 mm .2755"
2545-00-17-090000	9 mm .3543"

# HF-style Collets (AF)

## HF75, HF100 and HF Collet Sets

### HF75 Collets – Inch

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
2571-00-19-001250	.1250" <sup>1</sup> / <sub>8</sub> "	2571-00-19-002968	.2968" <sup>19</sup> / <sub>64</sub> "	2571-00-19-004687	.4687" <sup>15</sup> / <sub>32</sub> "	2571-00-19-006406	.6406" <sup>41</sup> / <sub>64</sub> "
2571-00-19-001406	.1406" <sup>9</sup> / <sub>64</sub> "	2571-00-19-003125	.3125" <sup>5</sup> / <sub>16</sub> "	2571-00-19-004843	.4843" <sup>31</sup> / <sub>64</sub> "	2571-00-19-006562	.6562" <sup>21</sup> / <sub>32</sub> "
2571-00-19-001562	.1562" <sup>5</sup> / <sub>32</sub> "	2571-00-19-003281	.3281" <sup>21</sup> / <sub>64</sub> "	2571-00-19-005000	.5000" <sup>1</sup> / <sub>2</sub> "	2571-00-19-006718	.6718" <sup>49</sup> / <sub>64</sub> "
2571-00-19-001718	.1718" <sup>11</sup> / <sub>64</sub> "	2571-00-19-003437	.3437" <sup>11</sup> / <sub>32</sub> "	2571-00-19-005156	.5156" <sup>33</sup> / <sub>64</sub> "	2571-00-19-006875	.6875" <sup>11</sup> / <sub>16</sub> "
2571-00-19-001875	.1875" <sup>3</sup> / <sub>16</sub> "	2571-00-19-003593	.3593" <sup>23</sup> / <sub>64</sub> "	2571-00-19-005312	.5312" <sup>17</sup> / <sub>32</sub> "	2571-00-19-007031	.7031" <sup>45</sup> / <sub>64</sub> "
2571-00-19-002031	.2031" <sup>13</sup> / <sub>64</sub> "	2571-00-19-003750	.3750" <sup>3</sup> / <sub>8</sub> "	2571-00-19-005468	.5468" <sup>35</sup> / <sub>64</sub> "	2571-00-19-007187	.7187" <sup>29</sup> / <sub>32</sub> "
2571-00-19-002187	.2187" <sup>7</sup> / <sub>32</sub> "	2571-00-19-003906	.3906" <sup>25</sup> / <sub>64</sub> "	2571-00-19-005625	.5625" <sup>9</sup> / <sub>16</sub> "	2571-00-19-007343	.7343" <sup>47</sup> / <sub>64</sub> "
2571-00-19-002343	.2343" <sup>15</sup> / <sub>64</sub> "	2571-00-19-004060	.4060" <sup>13</sup> / <sub>32</sub> "	2571-00-19-005781	.5781" <sup>37</sup> / <sub>64</sub> "	2571-00-19-007500	.7500" <sup>3</sup> / <sub>4</sub> "
2571-00-19-002500	.2500" <sup>1</sup> / <sub>4</sub> "	2571-00-19-004218	.4218" <sup>27</sup> / <sub>64</sub> "	2571-00-19-005937	.5937" <sup>19</sup> / <sub>32</sub> "	2571-00-19-007656	.7656" <sup>49</sup> / <sub>64</sub> "
2571-00-19-002656	.2656" <sup>17</sup> / <sub>64</sub> "	2571-00-19-004375	.4375" <sup>7</sup> / <sub>16</sub> "	2571-00-19-006093	.6093" <sup>39</sup> / <sub>64</sub> "	2571-00-19-007812	.7812" <sup>25</sup> / <sub>32</sub> "
2571-00-19-002812	.2812" <sup>9</sup> / <sub>32</sub> "	2571-00-19-004531	.4531" <sup>29</sup> / <sub>64</sub> "	2571-00-19-006250	.6250" <sup>5</sup> / <sub>8</sub> "	—	—

### HF75 Collets – Metric

Part Number	Size
2571-00-17-050000	5 mm .1968"
2571-00-17-070000	7 mm .2755"
2571-00-17-090000	9 mm .3543"

### HF100 Collets – Inch

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
2573-00-19-002343	.2343" <sup>15</sup> / <sub>64</sub> "	2573-00-19-004375	.4375" <sup>7</sup> / <sub>16</sub> "	2573-00-19-006406	.6406" <sup>41</sup> / <sub>64</sub> "	2573-00-19-008437	.8437" <sup>27</sup> / <sub>32</sub> "
2573-00-19-002500	.2500" <sup>1</sup> / <sub>4</sub> "	2573-00-19-004531	.4531" <sup>29</sup> / <sub>64</sub> "	2573-00-19-006562	.6562" <sup>21</sup> / <sub>32</sub> "	2573-00-19-008593	.8593" <sup>55</sup> / <sub>64</sub> "
2573-00-19-002656	.2656" <sup>17</sup> / <sub>64</sub> "	2573-00-19-004687	.4687" <sup>15</sup> / <sub>32</sub> "	2573-00-19-006718	.6718" <sup>43</sup> / <sub>64</sub> "	2573-00-19-008750	.8750" <sup>7</sup> / <sub>8</sub> "
2573-00-19-002812	.2812" <sup>9</sup> / <sub>32</sub> "	2573-00-19-004843	.4843" <sup>31</sup> / <sub>64</sub> "	2573-00-19-006875	.6875" <sup>11</sup> / <sub>16</sub> "	2573-00-19-008906	.8906" <sup>57</sup> / <sub>64</sub> "
2573-00-19-002968	.2968" <sup>19</sup> / <sub>64</sub> "	2573-00-19-005000	.5000" <sup>1</sup> / <sub>2</sub> "	2573-00-19-007031	.7031" <sup>45</sup> / <sub>64</sub> "	2573-00-19-009062	.9062" <sup>29</sup> / <sub>32</sub> "
2573-00-19-003125	.3125" <sup>5</sup> / <sub>16</sub> "	2573-00-19-005156	.5156" <sup>33</sup> / <sub>64</sub> "	2573-00-19-007187	.7187" <sup>23</sup> / <sub>32</sub> "	2573-00-19-009218	.9218" <sup>59</sup> / <sub>64</sub> "
2573-00-19-003281	.3281" <sup>21</sup> / <sub>64</sub> "	2573-00-19-005312	.5312" <sup>17</sup> / <sub>32</sub> "	2573-00-19-007343	.7343" <sup>47</sup> / <sub>64</sub> "	2573-00-19-009375	.9375" <sup>15</sup> / <sub>16</sub> "
2573-00-19-003437	.3437" <sup>11</sup> / <sub>32</sub> "	2573-00-19-005468	.5468" <sup>35</sup> / <sub>64</sub> "	2573-00-19-007500	.7500" <sup>3</sup> / <sub>4</sub> "	2573-00-19-009531	.9531" <sup>61</sup> / <sub>64</sub> "
2573-00-19-003593	.3593" <sup>23</sup> / <sub>64</sub> "	2573-00-19-005625	.5625" <sup>9</sup> / <sub>16</sub> "	2573-00-19-007656	.7656" <sup>49</sup> / <sub>64</sub> "	2573-00-19-009687	.9687" <sup>31</sup> / <sub>32</sub> "
2573-00-19-003750	.3750" <sup>3</sup> / <sub>8</sub> "	2573-00-19-005781	.5781" <sup>37</sup> / <sub>64</sub> "	2573-00-19-007812	.7812" <sup>25</sup> / <sub>32</sub> "	2573-00-19-009843	.9843" <sup>63</sup> / <sub>64</sub> "
2573-00-19-003906	.3906" <sup>25</sup> / <sub>64</sub> "	2573-00-19-005937	.5937" <sup>19</sup> / <sub>32</sub> "	2573-00-19-007968	.7968" <sup>51</sup> / <sub>64</sub> "	2573-00-19-010000	1.0000" 1"
2573-00-19-004062	.4062" <sup>13</sup> / <sub>32</sub> "	2573-00-19-006093	.6093" <sup>39</sup> / <sub>64</sub> "	2573-00-19-008125	.8125" <sup>13</sup> / <sub>16</sub> "	—	—
2573-00-19-004218	.4218" <sup>27</sup> / <sub>64</sub> "	2573-00-19-006250	.6250" <sup>5</sup> / <sub>8</sub> "	2573-00-19-008281	.8281" <sup>53</sup> / <sub>64</sub> "	—	—

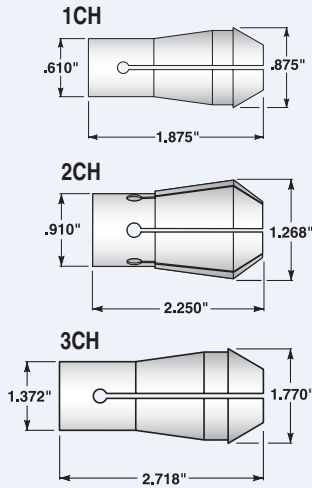
### HF100 Collets – Metric

Part Number	Size
2573-00-17-070000	7 mm .2755"
2573-00-17-090000	9 mm .3543"

### HF Collet Sets

Part Number	Series	Qty.	Range	Increment
0952-25-19-000012	HF25	12	<sup>5</sup> / <sub>64</sub> " to <sup>1</sup> / <sub>4</sub> "	<sup>1</sup> / <sub>64</sub> "
0952-38-19-000020	HF38	20	<sup>5</sup> / <sub>64</sub> " to <sup>3</sup> / <sub>8</sub> "	<sup>1</sup> / <sub>64</sub> "
0952-50-19-000025	HF50	25	<sup>1</sup> / <sub>8</sub> " to <sup>1</sup> / <sub>2</sub> "	<sup>1</sup> / <sub>64</sub> "
0952-75-19-000042	HF75	41	<sup>1</sup> / <sub>8</sub> " to <sup>3</sup> / <sub>4</sub> "	<sup>1</sup> / <sub>64</sub> "
0952-75-19-000021	HF75	21	<sup>1</sup> / <sub>8</sub> " to <sup>3</sup> / <sub>4</sub> "	<sup>1</sup> / <sub>32</sub> "
0952-75-19-000011	HF75	11	<sup>1</sup> / <sub>8</sub> " to <sup>3</sup> / <sub>4</sub> "	<sup>1</sup> / <sub>16</sub> "
0952-10-19-000050	HF100	50	<sup>15</sup> / <sub>64</sub> " to 1"	<sup>1</sup> / <sub>64</sub> "
0952-10-19-000025	HF100	25	<sup>1</sup> / <sub>4</sub> " to 1"	<sup>1</sup> / <sub>32</sub> "
0952-10-19-000013	HF100	13	<sup>1</sup> / <sub>4</sub> " to 1"	<sup>1</sup> / <sub>16</sub> "

# Cincinnati Monoset Toolholder Collets



## 1CH Collets – Inch

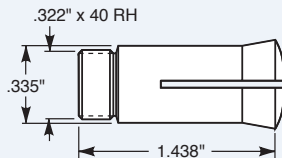
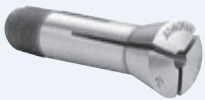
Part Number	Size	
8859-00-19-000937	.0937"	3/32"
8859-00-19-001250	.1250"	1/8"
8859-00-19-001562	.1562"	5/32"
8859-00-19-001718	.1718"	11/64"
8859-00-19-001875	.1875"	3/16"
8859-00-19-002031	.2031"	13/64"
8859-00-19-002187	.2187"	7/32"
8859-00-19-002343	.2343"	15/64"
8859-00-19-002500	.2500"	1/4"
8859-00-19-002656	.2656"	17/64"
8859-00-19-002812	.2812"	9/32"
8859-00-19-003125	.3125"	5/16"
8859-00-19-003437	.3437"	11/32"
8859-00-19-003593	.3592"	23/64"
8859-00-19-003750	.3750"	3/8"
8859-00-19-004062	.4062"	13/32"
8859-00-19-004375	.4375"	7/16"
8859-00-19-004687	.4687"	15/32"
8859-00-19-005000	.5000"	1/2"

2CH fractional Collets available on request – Part Number 91619

## 3CH Collets – Inch

Part Number	Size	
8737-00-19-002500	.2500"	1/4"
8737-00-19-003125	.3125"	5/16"
8737-00-19-003750	.3750"	3/8"
8737-00-19-004062	.4062"	13/32"
8737-00-19-004375	.4375"	7/16"
8737-00-19-004687	.4687"	15/32"
8737-00-19-004843	.4843"	31/64"
8737-00-19-005000	.5000"	1/2"
8737-00-19-005625	.5625"	9/16"
8737-00-19-006250	.6250"	5/8"
8737-00-19-006406	.6406"	41/64"
8737-00-19-006875	.6875"	11/16"
8737-00-19-007500	.7500"	3/4"
8737-00-19-008125	.8125"	13/16"
8737-00-19-008750	.8750"	7/8"
8737-00-19-009375	.9375"	15/16"
8737-00-19-010000	1.0000"	1"
8737-00-19-010625	1.0625"	1 1/16"
8737-00-19-011250	1.1250"	1 1/8"
8737-00-19-011875	1.1875"	1 3/16"
8737-00-19-012187	1.2187"	1 7/32"
8737-00-19-012500	1.2500"	1 1/4"

# 1C Collets and Collet Holders



Collets listed are round. Hex, Square and Decimal are available on request. Hex maximum hole is 7/32", square maximum hole is 11/64". Metric decimal collets available from 0.5mm to 6mm in 0.1mm increments.

## 1C Collets – Inch

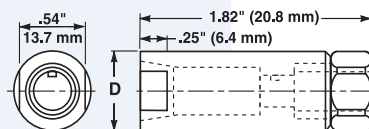
Part Number	Size	
1511-00-19-000156	.0156"	1/64"
1511-00-19-000312	.0312"	1/32"
1511-00-19-000468	.0468"	3/64"
1511-00-19-000625	.0625"	1/16"
1511-00-19-000781	.0781"	5/64"
1511-00-19-000937	.0937"	3/32"
1511-00-19-001093	.1093"	7/64"
1511-00-19-001250	.1250"	1/8"
1511-00-19-001406	.1406"	9/64"
1511-00-19-001562	.1562"	5/32"
1511-00-19-001718	.1718"	11/64"
1511-00-19-001875	.1875"	3/16"
1511-00-19-002031	.2031"	13/64"
1511-00-19-002187	.2187"	7/32"
1511-00-19-002343	.2343"	15/64"
1511-00-19-002500	.2500"	1/4"

## 1C Collets – Metric

Part Number	Size	
1511-00-17-005000	.50	.0196"
1511-00-17-007500	.75	.0295"
1511-00-17-010000	1.0	.0393"
1511-00-17-015000	1.5	.0590"
1511-00-17-020000	2.0	.0787"
1511-00-17-025000	2.5	.0984"
1511-00-17-030000	3.0	.1181"
1511-00-17-035000	3.5	.1377"
1511-00-17-040000	4.0	.1574"
1511-00-17-045000	4.5	.1771"
1511-00-17-050000	5.0	.1968"
1511-00-17-055000	5.5	.2165"
1511-00-17-060000	6.0	.2362"
1511-00-17-062000	6.2	.2440"



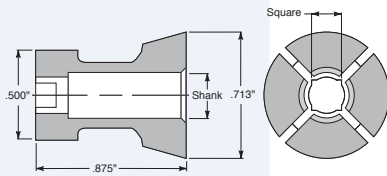
Drill and collet sold separately



1C Collets and holders are an accurate method of holding drills, center drills, round shank boring bars, round shank turning tools and reamers. The **T17 Holder** is hardened and ground and mounts directly into a round shank tool holder. Turning a nut at the rear of the assembly draws the collet into the assembly, where the matching angles of the collet and holder cause the collet to close down on the tool.

Model Number	Part Number	Dimensions	
		Shank	"D"
T17-5/8	37 -0000102	Inch	.625"
		MM	15.87
T17-3/4	37 -0000102-01	Inch	.750"
		MM	19.05
Clean-out Tap for 1C Draw Plug			
	37 -0000546-AA		

# TT Tap Holder Collets & Tap Holder



**TT Tap Collets** are used in the Hardinge® TT-<sup>5</sup>/<sub>8</sub> and TT-<sup>3</sup>/<sub>4</sub> Tap Holders. These collets are stocked in ANSI (USA) and ISO (England) standards. The ANSI inch series tap collets relate to taps manufactured in the United States. Metric collets manufactured in the United States have the same shank sizes as those used for the inch series. The metric collets manufactured to the ISO standard have different shank sizes than the ANSI series metric collets. Both styles are stock items ready for immediate delivery.

**NOTE:** Always check the size of your tap shank and then match it to the shank size in the charts below. Imported metric taps may not have the same shank size as other taps you have been using. The chart on page 37 indicates the different shank sizes for the same metric tap depending on the country of origin.

## ANSI (USA) – Inch

Part Number	Shank Dia.	Collet Square	Tap Size
1761-00-18-001410	0.141"	0.114"	# 0-6
1761-00-18-001680	0.168"	0.135"	# 8
1761-00-18-001940	0.194"	0.156"	# 10
1761-00-18-002200	0.220"	0.169"	# 12
1761-00-18-002550	0.255"	0.195"	¼"
1761-00-18-003180	0.318"	0.242"	⅜"
1761-00-18-003810	0.381"	0.290"	½"
1761-00-18-003230	0.323"	0.246"	7/16"
1761-00-18-003670	0.367"	0.279"	1/2"
1761-00-18-003125	0.3125"	0.238"	1/8" P.
0935-00-00-000000	<b>Kit of 10 Collets</b>		

## JIS (Japanese) – Metric

Part Number	Shank Metric	Shank Square	Tap Size
1761-00-17-030000	4 mm	0.1260"	M3
1761-00-17-040000	5 mm	0.1575"	M4
1761-00-17-055000	5.5 mm	0.2165"	M5
1761-00-17-060000	6 mm	0.2362"	M6
1761-00-17-080000	8 mm	—	M8
1761-00-17-100000	7 mm	0.2165"	M10
1761-00-17-120000	8.5mm	0.2559"	M12

Note: JIS part number relates to tap size not shank.

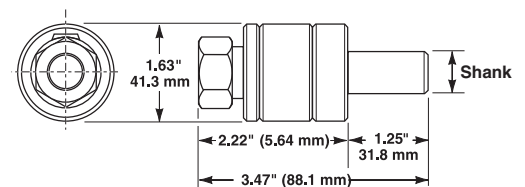
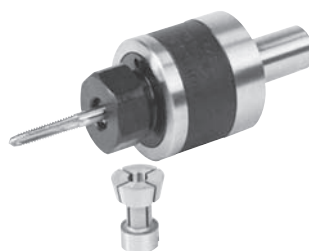
ANSI Metric Tap Shank Sizes			
M 1 to M3.5	.141"	M7 & M8	.318"
M4	.168"	M10	.381"
M4.5 & M5	.194"	M12	.367"
M6 & M6.3	.255"	M14	.429"

Note: See page 37 for shank sizes of Metric taps in ANSI, ISO, JIS, CIC & DIN specifications.

## ISO (England) – Metric/Inch

Part Number	Shank		Collet Square	Tap Size
	mm	Inch		
1761-00-17-025020	2.5	.098"	.083"	M2
1761-00-17-028022	2.8	.110"	.092"	M2.5
1761-00-17-031025	3.15	.124"	.102"	M3
1761-00-17-035028	3.55	.140"	.114"	M3.5
1761-00-17-040031	4.0	.157"	.122"	M4
1761-00-17-045035	4.5	.177"	.144"	M4.5
1761-00-17-050040	5.0	.197"	.157"	M5
1761-00-17-056045	5.6	.221"	.181"	—
1761-00-17-060049	6.0	.236"	.197"	—
1761-00-17-063050	6.3	.248"	.201"	M6
1761-00-17-071056	7.1	.280"	.225"	M7
1761-00-17-080063	8.0	.315"	.248"	M8
1761-00-17-090071	9.0	.354"	.284"	M9
1761-00-17-100080	10.0	.394"	.319"	M10

**Collet-Style Releasing Tap Holders** are used to provide thread length control on either right- or left-hand taps by switching a lever inside the body of the tap holder.



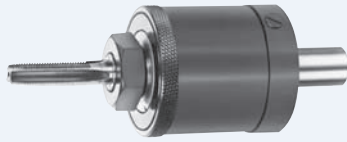
The tap holders are available in <sup>5</sup>/<sub>8</sub>" and <sup>3</sup>/<sub>4</sub>" shank size and mount directly into a round shank tool holder. TT-style tap holder collets are used for accurate holding and centering of taps.

To provide a positive drive for the taps, the collets have a square slot in the back to accommodate the square of the top shank and a notch in the back bearing of the collet that fits over a hardened pin in the bottom of the holder.

Model Number	Part Number	Dimensions	
		Inch	MM
TT-5/8	STA-0011202	.625"	15.85
TT-3/4	STA-0011202-01	.750"	19.0

# Self-Feeding Tap Holder

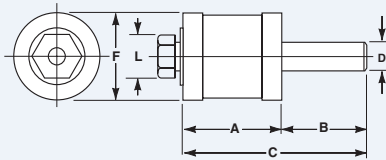
## Collets and Drivers



Model Number	Maximum Tap Size	Maximum Thread Length Adjustment
GK11	1/4" (6.35 mm)	25/32" (19.84 mm)
GK12	1/4" (6.35 mm)	19/32" (15.08 mm)
GK21	9/16" (14.29 mm)	27/32" (21.43 mm)
GK22	9/16" (14.29 mm)	19/32" (15.08 mm)

GK Self-Feeding (Pafix) Tap Holders provide automatic thread-length control. The tap holders eliminate the need to perfectly match the feed rate to the thread pitch, minimizing tool breakage and "pulled" or "squeezed" threads.

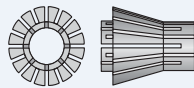
The holders have a 5/8" (15.87mm) shank diameter that allows it to be mounted into a round shank tool holder. Thread length is controlled internally with an adjusting ring in .01" (.25mm) increments. A driver is used in the holder to accommodate the square of the tap shank, providing a positive drive. A collet is used to centralize and hold the tap in the holder. Tap holders are supplied standard with the necessary collets and drivers. Replacement tap collets and drivers are sold separately. The same unit is used for left- and right-hand taps. The GK11 and GK12 models come with 3 tap collets and 4 drivers. The GK21 and GK22 come with 6 tap collets and 6 drivers.



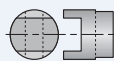
Model Number	Part Number	Dimensions						
			A	B	C	D - Shank	F	L
GK11	K11-0011202-K	Inch	2.17"	1.25"	3.42"	.625"	1.58"	.77"
		MM	55.10	31.80	86.90	15.880	40.10	19.60
GK12	S12-0011202-K	Inch	1.89"	1.25"	3.14"	.625"	1.58"	.77"
		MM	48.00	31.80	79.80	15.880	40.10	19.60
GK21	K21-0011202-K	Inch	2.17"	1.25"	3.42"	.625"	1.58"	.77"
		MM	55.10	31.80	86.90	15.880	40.10	19.60
GK22	S22-0011202-K	Inch	1.89"	1.25"	3.14"	.625"	1.58"	.77"
		MM	48.00	31.80	79.80	15.880	40.10	19.60

NOTE: Collets and Drivers included with each Tap Holder.  
See page 37 for shank sizes of Metric taps in ANSI, ISO, JIS, CIC & DIN specifications.

## Replacement Tap Collets & Drivers



Collet



Driver

Model No.	Tap Eng.	Size mm	Shank Dia.	Collet No.	Tap Sq.	Driver No.	Collet Part Number	Driver Part Number
GK11/12	#6	1.6	.141"	4-3.5	.110"	2.8	1T-0011831-C1*	1T-0011831-D1*
GK11/12	#8	4	.168"	5-4	.131"	3.55	1T-0011831-C2*	1T-0011831-D2*
GK11/12	#10	4.5-5	.194"	5-4	.152"	4	1T-0011831-C2*	1T-0011831-D2*
GK11/12	#12	—	.220"	6.5-5.5	.165"	4	1T-0011831-C3*	1T-0011831-D3*
GK11/12	#14	6	.255"	6.5-5.5	.191"	5	1T-0011831-C3*	1T-0011831-D4*
GK11/12	1/4"	—	.255"	6.5-5.5	.191"	5	1T-0011831-C3*	1T-0011831-D4*
GK21/22	#8	4	.168"	5-4	.131"	3.55	2T-0011831-C1*	2T-0011831-D1*
GK21/22	#10	4.5-5	.194"	5-4	.152"	4	2T-0011831-C2*	2T-0011831-D2*
GK21/22	#12	—	.220"	6-5	.165"	4	2T-0011831-C2*	2T-0011831-D2*
GK21/22	#14	6	.255"	7-6	.191"	5	2T-0011831-C3*	2T-0011831-D3*
GK21/22	1/4"	6.3	.255"	7-6	.191"	5	2T-0011831-C3*	2T-0011831-D3*
GK21/22	5/16"	7-8	.318"	9-8	.238"	6.3	2T-0011831-C4*	2T-0011831-D4*
GK21/22	3/8"	10	.381"	10-9	.286"	7.1	2T-0011831-C5*	2T-0011831-D6*
GK21/22	7/16"	—	.323"	9-8	.242"	6.3	2T-0011831-C4*	2T-0011831-D4*
GK21/22	1/2"	12-12.5	.367"	10-9	.274"	7.1	2T-0011831-C5*	2T-0011831-D6*
GK21/22	9/16"	14	.429"	11-10	.322"	8	2T-0011831-C6	2T-0011831-D7



# Quick-Change Tap Collets for Bilz-style Holders

## Quick-Change Tap Collets – Inch

Collet Size #0 Part Number	Shank Dia.	Square	Tap Size
7989-51-10-001410	0.141"	0.110"	# 0 - #6
7989-51-10-001680	0.168"	0.131"	# 8
7989-51-10-001940	0.194"	0.152"	# 10
7989-51-10-002200	0.220"	0.165"	# 12
7989-51-10-002550	0.255"	0.191"	¼"
7989-51-10-000000	Kit of 5 Collets		

Collet Size #1 Part Number	Shank Dia.	Square	Tap Size
7989-51-11-001410	0.141"	0.110"	# 0 - #6
7989-51-11-001680	0.168"	0.131"	# 8
7989-51-11-001940	0.194"	0.152"	# 10
7989-51-11-002200	0.220"	0.165"	# 12
7989-51-11-002550	0.255"	0.191"	¼"
7989-51-11-003180	0.318"	0.238"	⅜"
7989-51-11-003810	0.381"	0.286"	½"
7989-51-11-003230	0.323"	0.242"	7/16"
7989-51-11-003670	0.367"	0.275"	½"
7989-51-11-004290	0.429"	0.322"	9/16"
7989-51-11-003130	0.313"	0.234"	⅜" Pipe
7989-51-11-004370	0.437"	0.328"	⅜" Pipe
7989-51-11-000001	Kit of 12 Collets		

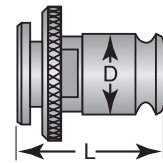
Collet Size #2 Part Number	Shank Dia.	Square	Tap Size
7989-51-12-001410	0.141"	0.110"	# 0 - #6
7989-51-12-001680	0.168"	0.131"	# 8
7989-51-12-001940	0.194"	0.152"	# 10
7989-51-12-002200	0.220"	0.165"	# 12
7989-51-12-002550	0.255"	0.191"	¼"
7989-51-12-003180	0.318"	0.238"	⅜"
7989-51-12-003810	0.381"	0.286"	½"
7989-51-12-003230	0.323"	0.242"	7/16"
7989-51-12-003670	0.367"	0.275"	½"
7989-51-12-004290	0.429"	0.322"	9/16"
7989-51-12-004800	0.480"	0.360"	⅝"
7989-51-12-005420	0.542"	0.406"	11/16"
7989-51-12-005900	0.590"	0.442"	¾"
7989-51-12-006520	0.652"	0.489"	13/16"
7989-51-12-006970	0.697"	0.523"	7/8"
7989-51-12-000000	Kit of 15 Collets		
7989-51-12-003130	0.313"	0.234"	⅜" Pipe
7989-51-12-004370	0.437"	0.328"	⅜" Pipe
7989-51-12-005620	0.562"	0.421"	¼" Pipe
7989-51-12-007000	0.700"	0.531"	⅜" Pipe
7989-51-12-006870	0.687"	0.515"	½" Pipe
7989-51-12-000001	Kit of 5 Collets		

Collet Size #3 Part Number	Shank Dia.	Square	Tap Size
7989-51-13-006520	0.652"	0.489"	13/16"
7989-51-13-006970	0.697"	0.523"	7/8"
7989-51-13-007600	0.760"	0.570"	15/16"
7989-51-13-008000	0.800"	0.600"	1"
7989-51-13-008960	0.896"	0.672"	1 1/8"
7989-51-13-010210	1.021"	0.766"	1 1/4"
7989-51-13-011080	1.108"	0.831"	1 3/8"
7989-51-13-000000	Kit of 7 Collets		
7989-51-13-007000	0.700"	0.531"	⅜" Pipe
7989-51-13-006870	0.687"	0.515"	½" Pipe
7989-51-13-009060	0.906"	0.679"	¾" Pipe
7989-51-13-011250	1.125"	0.843"	1" Pipe
7989-51-13-000001	Kit of 4 Collets		

Collet Size #4 Part Number	Shank Dia.	Square	Tap Size
7989-51-14-008000	0.800"	0.600"	1"
7989-51-14-008960	0.896"	0.672"	1 1/8"
7989-51-14-010210	1.021"	0.766"	1 1/4"
7989-51-14-011080	1.108"	0.831"	1 3/8"
7989-51-14-012330	1.233"	0.925"	1 1/2"
7989-51-14-013050	1.305"	0.979"	1 5/8"
7989-51-14-014300	1.430"	1.072"	1 3/4"
7989-51-14-015190	1.519"	1.139"	1 7/8"
7989-51-14-000000	Kit of 8 Collets		
7989-51-14-009060	0.906"	0.679"	¾" Pipe
7989-51-14-011250	1.125"	0.843"	1" Pipe
7989-51-14-013120	1.312"	0.984"	1 1/4" Pipe
7989-51-14-015000	1.500"	1.125"	1 1/2" Pipe
7989-51-14-000001	Kit of 4 Collets		



This style collet is commonly used with CAT-V or BT rigid or tension compensating tap holders. The collet allows changing of the tap very quickly and maintains gauge lengths between new taps.



Dimensions

Size	D	L
0	0.51" (13mm)	—
1	0.75" (19mm)	1.12" (28.44mm)
2	1.22" (31mm)	1.81" (45.97mm)
3	1.89" (48mm)	2.74" (70mm)
4	2.37" (60mm)	—

## Quick-Change Tap Collets – Metric DIN Standard

Collet Size #1 Part Number	Shank Dia.	Square	Tap Size	Collet Size #2 Part Number	Collet Size #3 Part Number
7989-51-21-035000	3.5mm	2.7mm	M3	—	—
7989-51-21-045000	4.5mm	3.4mm	M4	—	—
7989-51-21-060000	6.0mm	4.9mm	M5,6,8	7989-51-22-060000	—
7989-51-21-080000	8.0mm	6.2mm	M8	7989-51-22-080000	—
7989-51-21-100000	10.0mm	8.0mm	M10	7989-51-22-100000	—
7989-51-21-070000	7.0mm	5.5mm	M10	7989-51-22-070000	—
7989-51-21-090000	9.0mm	7.0mm	M12	7989-51-22-090000	—
7989-51-21-110000	11.0mm	9.0mm	M14	7989-51-22-110000	7989-51-23-110000
7989-51-21-120000	12.0mm	9.0mm	M16	7989-51-22-120000	7989-51-23-120000
—	14.0mm	11.0mm	M18	7989-51-22-140000	7989-51-23-140000
—	16.0mm	12.0mm	M20	7989-51-22-160000	7989-51-23-160000
—	18.0mm	14.5mm	M22,M24	—	7989-51-23-180000
—	20.0mm	16.0mm	M27	—	7989-51-23-200000
—	22.0mm	18.0mm	M30	—	7989-51-23-220000
—	25.0mm	20.0mm	M33	—	7989-51-23-250000

Currently there are five standards for Metric taps, each having a different shank size. There are the ANSI (USA), DIN (Europe), ISO (England), JIS (Japanese), and CIC (Chinese) standards. Because of the variety, you need to check the shank diameter of your metric tap. Compare the dimension with the chart on page 37. We stock popular sizes of these different standards, even though they may not be listed.

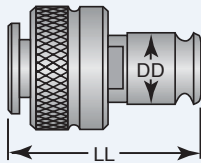
Note: ANSI standard metric taps (the standard common in the United States) cannot be used in the Metric DIN collets shown above.

# Torque Control Tap Collets

## Quick-Change



Torque Control Tap Collets can only be used in Tension/Compression Tap Holders. These collets slip when the torque is exceeded.



Dimensions

Size	DD	LL
0	.51"(13mm)	—
1	.75"(19mm)	1.83"(46.48mm)
2	1.22"(31mm)	2.72"(69.08mm)
3	1.89"(48mm)	3.96"(100.58mm)
4	2.37"(60mm)	—

## Torque Control Quick-Change Tap Collets – Inch

Collet Size #0 Part Number	Shank Dia.	Square	Tap Size
7989-52-10-001410	0.141"	0.110"	# 0 - #6
7989-52-10-001680	0.168"	0.131"	# 8
7989-52-10-001940	0.194"	0.152"	# 10
7989-52-10-002200	0.220"	0.165"	# 12
7989-52-10-002550	0.255"	0.191"	1/4"

Collet Size #1 Part Number	Shank Dia.	Square	Tap Size
7989-52-11-001410	0.141"	0.110"	# 0 - #6
7989-52-11-001680	0.168"	0.131"	# 8
7989-52-11-001940	0.194"	0.152"	# 10
7989-52-11-002200	0.220"	0.165"	# 12
7989-52-11-002550	0.255"	0.191"	1/4"
7989-52-11-003180	0.318"	0.238"	5/16"
7989-52-11-003810	0.381"	0.286"	3/8"
7989-52-11-003230	0.323"	0.242"	7/16"
7989-52-11-003670	0.367"	0.275"	1/2"
7989-52-11-004290	0.429"	0.322"	9/16"
7989-52-11-003130	0.313"	0.234"	1/8" Pipe
7989-52-11-004370	0.437"	0.328"	1/8" Pipe

Collet Size #2 Part Number	Shank Dia.	Square	Tap Size
7989-52-12-003180	0.318"	0.238"	5/16"
7989-52-12-003810	0.381"	0.286"	3/8"
7989-52-12-003230	0.323"	0.242"	7/16"
7989-52-12-003670	0.367"	0.275"	1/2"
7989-52-12-004290	0.429"	0.322"	9/16"
7989-52-12-004800	0.480"	0.360"	5/8"
7989-52-12-005420	0.542"	0.406"	11/16"
7989-52-12-005900	0.590"	0.442"	3/4"
7989-52-12-006520	0.652"	0.489"	13/16"
7989-52-12-006970	0.697"	0.523"	7/8"
7989-52-12-003130	0.313"	0.234"	1/8" Pipe
7989-52-12-004370	0.437"	0.328"	1/8" Pipe
7989-52-12-005620	0.562"	0.421"	1/4" Pipe
7989-52-12-007000	0.700"	0.531"	3/8" Pipe
7989-52-12-006870	0.687"	0.515"	1/2" Pipe

Collet Size #3 Part Number	Shank Dia.	Square	Tap Size
7989-52-13-006520	0.652"	0.489"	13/16"
7989-52-13-006970	0.697"	0.523"	7/8"
7989-52-13-007600	0.760"	0.570"	15/16"
7989-52-13-008000	0.800"	0.600"	1"
7989-52-13-008960	0.896"	0.672"	1 1/8"
7989-52-13-010210	1.021"	0.766"	1 1/4"
7989-52-13-011080	1.108"	0.831"	1 3/8"
7989-52-13-007000	0.700"	0.531"	3/8" Pipe
7989-52-13-006870	0.687"	0.515"	1/2" Pipe
7989-52-13-009060	0.906"	0.679"	3/4" Pipe
7989-52-13-011250	1.125"	0.843"	1" Pipe

## Torque Control Tap Collets – Metric DIN Standard

Size #1 Part Number	Shank Dia.	Square	Tap Size	Size # 2 Part Number	Size #3 Part Number
7989-52-21-035000	3.5mm	2.7mm	M3	—	—
7989-52-21-045000	4.5mm	3.4mm	M4	—	—
7989-52-21-060000	6.0mm	4.9mm	M5,6,8	7989-52-22-060000	—
7989-52-21-080000	8.0mm	6.2mm	M8	7989-52-22-080000	—
7989-52-21-100000	10.0mm	8.0mm	M10	7989-52-22-100000	—
7989-52-21-070000	7.0mm	5.5mm	M10	7989-52-22-070000	—
7989-52-21-090000	9.0mm	7.0mm	M12	7989-52-22-090000	—
7989-52-21-110000	11.0mm	9.0mm	M14	7989-52-22-110000	7989-52-23-110000
—	12.0mm	9.0mm	M16	7989-52-22-120000	7989-52-23-120000
—	14.0mm	11.0mm	M18	7989-52-22-140000	7989-52-23-140000
—	16.0mm	12.0mm	M20	7989-52-22-160000	7989-52-23-160000
—	18.0mm	14.5mm	M22,M24	—	7989-52-23-180000
—	20.0mm	16.0mm	M27	—	7989-52-23-200000
—	22.0mm	18.0mm	M30	—	7989-52-23-220000
—	25.0mm	20.0mm	M33	—	7989-52-23-250000

Collet Size #4 Part Number	Shank Dia.	Square	Tap Size
7989-52-14-008000	0.800"	0.600"	1"
7989-52-14-008960	0.896"	0.672"	1 1/8"
7989-52-14-010210	1.021"	0.766"	1 1/4"
7989-52-14-011080	1.108"	0.831"	1 3/8"
7989-52-14-012330	1.233"	0.925"	1 1/2"
7989-52-14-013050	1.305"	0.979"	1 5/8"
7989-52-14-014300	1.430"	1.072"	1 3/4"
7989-52-14-015190	1.519"	1.139"	1 7/8"
7989-52-14-009060	0.906"	0.679"	3/4" Pipe
7989-52-14-011240	1.125"	0.843"	1" Pipe
7989-52-14-013120	1.312"	0.984"	1 1/4" Pipe
7989-52-14-015000	1.500"	1.125"	1 1/2" Pipe

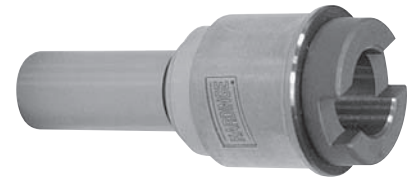
Note: ANSI standard metric taps (the standard common in the United States) cannot be used in the Metric DIN collets shown above.

Currently there are five standards for Metric taps, each having a different shank size. There are the ANSI (USA), DIN (Europe), ISO (England), JIS (Japanese), and CIC (Chinese) standards. Because of the variety, you need to check the shank diameter of your metric tap. Compare the dimension with the chart on page 37. We stock popular sizes of these different standards, even though they may not be listed.

# Bilz-style Tap Holder for Quick-Change Tap Collets

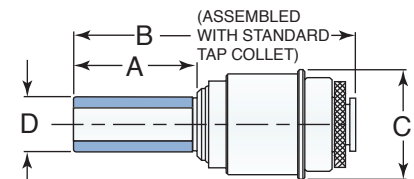
## Straight-Shank Tension/Compression Tap Holders

Part Number	Head Number	A		B		C		D - Shank	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
2547-00-00-000001	#1	6.00"	152.4	8.50"	215.9	1.50"	38.1	1.00"	25.40
2547-00-00-000002	#2	6.00"	152.4	9.25"	234.9	1.88"	47.7	1.00"	25.40



## Straight-Shank Rigid Tap Holders

Part Number	Head Number	A		B		C		D - Shank	
		Inch	mm	Inch	mm	Inch	mm	Inch	mm
2549-00-00-000001	#1	1.72"	43.6	3.92"	99.5	1.50"	38.1	.75"	19.05
2549-00-00-000002	#2	1.72"	43.6	4.70"	119.3	1.88"	47.7	.75"	19.05

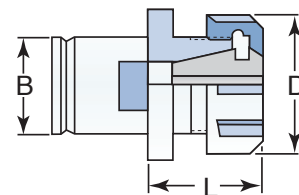


Note: Smaller sizes can be special ordered.

## Adapter for using ER & ERTCSP Collets in Bilz-style or other popular tapping systems

Adapter with ER Collet system can be used for tapping, drilling, reaming, etc. This quick-change adapter fits Bilz-style and other popular tapping systems to hold ER and ERTCSP collets. Collets permit holding ANSI and metric sizes. Fits in holder shown above.

Adapter Part Number	Collet Series	Tap Range	Head	B		L		D	
				Inch	mm	Inch	mm	Inch	mm
2153-00-00-000011	ER11	0-6 - 1/4"	—	0.51"	13	1.10"	28	0.75"	19
2153-00-00-000016	ER16	0-6 - 1/2"	#1	0.75"	19	0.98"	25	1.10"	28
2153-00-00-000025	ER25	0-6 - 3/4"	#2	1.22"	31	1.34"	34	1.65"	42
2153-00-00-000032	ER32	0-6 - 15/16"	#3	1.89"	48	1.89"	48	1.97"	50
2153-00-00-000040	ER40	0-6 - 1 1/8"	#3	1.89"	48	—	—	2.48"	63



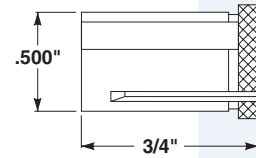
## Metric Tap Shanks — International Standards

	ISO England Metric			JIS Japanese Metric			CIC Chinese Metric			DIN Europe Metric				ANSI USA Metric	
	Shank Inch	Shank mm	Square Inch	Shank Inch	Shank mm	Square Inch	Shank Inch	Shank mm	Square Inch	Shank Inch	Shank mm	Square mm	Square Inch	Inch Shank	Inch Square
Taps Thread															
M2	.098"	2.50	.083"	—	—	—	.0984"	2.500	.083"	—	—	—	—	.141"	.114"
M2.5	.110"	2.80	.092"	—	—	—	—	—	—	—	—	—	—	.141"	.114"
M3	.124"	3.15	.102"	.1575"	4.0	.1260"	.0881"	2.238	.075"	.1378"	3.5	2.7	.1063"	.141"	.114"
M3.5	.140"	3.55	.114"	—	—	—	—	—	—	—	—	—	—	.141"	.114"
M4	.157"	4.00	.122"	.1969"	5.0	.1575"	.1240"	3.150	.102"	.1772"	4.5	3.4	.1339"	.168"	.135"
M4.5	.177"	4.50	.144"	—	—	—	—	—	—	—	—	—	—	.194"	.156"
M5	.197"	5.00	.157"	.2165"	5.5	.1772"	.1574"	4.000	.128"	.2362"	6.0	4.9	.1929"	.194"	.156"
—	.221"	5.60	.181"	—	—	—	—	—	—	—	—	—	—	—	—
—	.236"	6.00	.197"	—	—	—	—	—	—	—	—	—	—	—	—
M6	.248"	6.30	.201"	.2362"	6.0	.1772"	.1771"	4.000	.144"	.2362"	6.0	4.9	.1929"	.255"	.195"
M7	.280"	7.10	.255"	—	—	—	—	—	—	—	—	—	—	.318"	.242"
M8	—	—	—	—	—	—	—	—	—	.2362"	6.0	4.9	.1929"	—	—
M8	.315"	8.00	.248"	.2441"	6.2	.1969"	.2480"	6.300	.201"	.3150"	8.0	6.2	.2441"	.318"	.242"
M9	.354"	9.00	.284"	—	—	—	—	—	—	—	—	—	—	—	—
M10	—	—	—	—	—	—	—	—	—	.2756"	7.0	5.5	.2165"	—	—
M10	.394"	10.00	.319"	.2756"	7.0	.2165"	.3143"	8.000	.252"	.3150"	8.0	8.0	.3150"	.381"	.290"
M12	—	—	—	.3346"	8.5	.2559"	.3543"	9.000	.284"	.3543"	9.0	7.0	.2756"	.367"	.279"

The bore of a tap collet should be the same size as the shank of the tap. Metric tap threads are consistent throughout the world; unfortunately the shanks are not, as you can see by the chart shown above. Because of the number of imported taps on the market, use a micrometer and check the actual size of the tap shank. Look it up on the chart and then order your tap collet accordingly.

# HDB2 Bushings - 1/2" OD

Hardened & Ground, Split



## Inch Fractional

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1763-00-19-000312	.0312" 1/32"	1763-00-19-001250	.1250" 1/8"	1763-00-19-002187	.2187" 7/32"	1763-00-19-003125	.3125" 5/16"
1763-00-19-000468	.0468" 3/64"	1763-00-19-001406	.1406" 9/64"	1763-00-19-002343	.2343" 15/64"	1763-00-19-003281	.3281" 21/64"
1763-00-19-000625	.0625" 1/16"	1763-00-19-001562	.1562" 5/32"	1763-00-19-002500	.2500" 1/4"	1763-00-19-003437	.3437" 11/32"
1763-00-19-000781	.0781" 5/64"	1763-00-19-001718	.1718" 11/64"	1763-00-19-002656	.2656" 17/64"	1763-00-19-003593	.3593" 29/64"
1763-00-19-000937	.0937" 3/32"	1763-00-19-001875	.1875" 3/16"	1763-00-19-002812	.2812" 9/32"	1763-00-19-003750	.3750" 3/8"
1763-00-19-001093	.1093" 7/64"	1763-00-19-002031	.2031" 13/64"	1763-00-19-002968	.2968" 19/64"	—	—

## Tap – No Square

Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	Bore	Tap		Bore	Tap		Bore	Tap		Bore	Tap
1763-00-18-001410	.141"	#0-6	1763-00-18-002200	.220"	#12	1763-00-18-003230	.323"	7/16"	1763-00-18-003810	.381"	3/8"
1763-00-18-001680	.168"	#8	1763-00-18-002550	.255"	1/4"	1763-00-18-003670	.367"	1/2"	—	—	—
1763-00-18-001940	.194"	#10	1763-00-18-003180	.318"	5/16"	—	—	—	—	—	—

## Letter

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1763-00-16-002340	.2340" A	1763-00-16-002610	.2610" G	1763-00-16-002950	.2950" M	1763-00-16-003480	.3480" S
1763-00-16-002380	.2380" B	1763-00-16-002660	.2660" H	1763-00-16-003020	.3020" N	1763-00-16-003580	.3580" T
1763-00-16-002420	.2420" C	1763-00-16-002720	.2720" I	1763-00-16-003160	.3160" O	1763-00-16-003680	.3680" U
1763-00-16-002460	.2460" D	1763-00-16-002770	.2770" J	1763-00-16-003230	.3230" P	1763-00-16-003770	.3770" V
1763-00-16-002500	.2500" E	1763-00-16-002810	.2810" K	1763-00-16-003320	.3320" Q	—	—
1763-00-16-002570	.2570" F	1763-00-16-002900	.2900" L	1763-00-16-003390	.3390" R	—	—

## Number

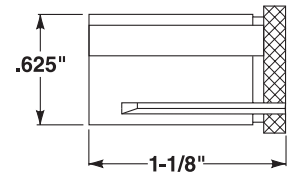
Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1763-00-15-000320	.0320" 67	1763-00-15-000700	.0700" 50	1763-00-15-001130	.1130" 33	1763-00-15-001770	.1770" 16
1763-00-15-000330	.0330" 66	1763-00-15-000730	.0730" 49	1763-00-15-001160	.1160" 32	1763-00-15-001800	.1800" 15
1763-00-15-000350	.0350" 65	1763-00-15-000760	.0760" 48	1763-00-15-001200	.1200" 31	1763-00-15-001820	.1820" 14
1763-00-15-000360	.0360" 64	1763-00-15-000785	.0785" 47	1763-00-15-001285	.1285" 30	1763-00-15-001850	.1850" 13
1763-00-15-000370	.0370" 63	1763-00-15-000810	.0810" 46	1763-00-15-001360	.1360" 29	1763-00-15-001890	.1890" 12
1763-00-15-000380	.0380" 62	1763-00-15-000820	.0820" 45	1763-00-15-001405	.1405" 28	1763-00-15-001910	.1910" 11
1763-00-15-000390	.0390" 61	1763-00-15-000860	.0860" 44	1763-00-15-001440	.1440" 27	1763-00-15-001935	.1935" 10
1763-00-15-000400	.0400" 60	1763-00-15-000890	.0890" 43	1763-00-15-001470	.1470" 26	1763-00-15-001960	.1960" 9
1763-00-15-000410	.0410" 59	1763-00-15-000935	.0935" 42	1763-00-15-001495	.1495" 25	1763-00-15-001990	.1990" 8
1763-00-15-000420	.0420" 58	1763-00-15-000960	.0960" 41	1763-00-15-001520	.1520" 24	1763-00-15-002010	.2010" 7
1763-00-15-000430	.0430" 57	1763-00-15-000980	.0980" 40	1763-00-15-001540	.1540" 23	1763-00-15-002040	.2040" 6
1763-00-15-000465	.0465" 56	1763-00-15-000995	.0995" 39	1763-00-15-001570	.1570" 22	1763-00-15-002055	.2055" 5
1763-00-15-000520	.0520" 55	1763-00-15-001015	.1015" 38	1763-00-15-001590	.1590" 21	1763-00-15-002090	.2090" 4
1763-00-15-000550	.0550" 54	1763-00-15-001040	.1040" 37	1763-00-15-001610	.1610" 20	1763-00-15-002130	.2130" 3
1763-00-15-000595	.0595" 53	1763-00-15-001065	.1065" 36	1763-00-15-001660	.1660" 19	1763-00-15-002210	.2210" 2
1763-00-15-000635	.0635" 52	1763-00-15-001100	.1100" 35	1763-00-15-001695	.1695" 18	1763-00-15-002280	.2280" 1
1763-00-15-000670	.0670" 51	1763-00-15-001110	.1110" 34	1763-00-15-001730	.1730" 17	—	—

## Metric

Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	mm	Inch		mm	Inch		mm	Inch		mm	Inch
1763-00-17-010000	1.0	.0393"	1763-00-17-026000	2.6	.1023"	1763-00-17-042000	4.2	.1653"	1763-00-17-070000	7.0	.2755"
1763-00-17-012000	1.2	.0472"	1763-00-17-028000	2.8	.1102"	1763-00-17-044000	4.4	.1732"	1763-00-17-075000	7.5	.2952"
1763-00-17-014000	1.4	.0551"	1763-00-17-030000	3.0	.1181"	1763-00-17-045000	4.5	.1771"	1763-00-17-080000	8.0	.3149"
1763-00-17-016000	1.6	.0629"	1763-00-17-032000	3.2	.1259"	1763-00-17-046000	4.6	.1811"	1763-00-17-085000	8.5	.3346"
1763-00-17-018000	1.8	.0590"	1763-00-17-034000	3.4	.1338"	1763-00-17-048000	4.8	.1889"	1763-00-17-090000	9.0	.3543"
1763-00-17-020000	2.0	.0787"	1763-00-17-035000	3.5	.1377"	1763-00-17-050000	5.0	.1968"	1763-00-17-095000	9.5	.3740"
1763-00-17-022000	2.2	.0866"	1763-00-17-036000	3.6	.1417"	1763-00-17-055000	5.5	.2165"	1763-00-17-100000	10.0	.3937"
1763-00-17-024000	2.4	.0944"	1763-00-17-038000	3.8	.1496"	1763-00-17-060000	6.0	.2362"	—	—	—
1763-00-17-025000	2.5	.0984"	1763-00-17-040000	4.0	.1574"	1763-00-17-065000	6.5	.2559"	—	—	—

# HDB5 Bushings - 5/8" OD

Hardened & Ground, Split



## Inch Fractional

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1765-00-19-000312	.0312" 1/32"	1765-00-19-001562	.1562" 5/32"	1765-00-19-002812	.2812" 9/32"	1765-00-19-004062	.4062" 13/32"
1765-00-19-000468	.0468" 3/64"	1765-00-19-001718	.1718" 11/64"	1765-00-19-002968	.2968" 19/64"	1765-00-19-004218	.4218" 27/64"
1765-00-19-000625	.0625" 1/16"	1765-00-19-001875	.1875" 3/16"	1765-00-19-003125	.3125" 5/16"	1765-00-19-004375	.4375" 7/16"
1765-00-19-000781	.0781" 5/64"	1765-00-19-002031	.2031" 19/64"	1765-00-19-003281	.3281" 21/64"	1765-00-19-004531	.4531" 29/64"
1765-00-19-000937	.0937" 3/32"	1765-00-19-002187	.2187" 7/32"	1765-00-19-003437	.3437" 11/32"	1765-00-19-004687	.4687" 15/32"
1765-00-19-001093	.1093" 7/64"	1765-00-19-002343	.2343" 15/64"	1765-00-19-003593	.3593" 23/64"	1765-00-19-004843	.4843" 31/64"
1765-00-19-001250	.1250" 1/8"	1765-00-19-002500	.2500" 1/4"	1765-00-19-003750	.3750" 3/8"	1765-00-19-005000	.5000" 1/2"
1765-00-19-001406	.1406" 9/64"	1765-00-19-002656	.2656" 17/64"	1765-00-19-003906	.3906" 25/64"	—	—

## Letter

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1765-00-16-002340	.2340" A	1765-00-16-002660	.2660" H	1765-00-16-003160	.3160" O	1765-00-16-003770	.3770" V
1765-00-16-002380	.2380" B	1765-00-16-002720	.2720" I	1765-00-16-003230	.3230" P	1765-00-16-003860	.3860" W
1765-00-16-002420	.2420" C	1765-00-16-002770	.2770" J	1765-00-16-003320	.3320" Q	1765-00-16-003970	.3970" X
1765-00-16-002460	.2460" D	1765-00-16-002810	.2810" K	1765-00-16-003390	.3390" R	1765-00-16-004040	.4040" Y
1765-00-16-002500	.2500" E	1765-00-16-002900	.2900" L	1765-00-16-003480	.3480" S	1765-00-16-004130	.4130" Z
1765-00-16-002570	.2570" F	1765-00-16-002950	.2950" M	1765-00-16-003580	.3580" T	—	—
1765-00-16-002610	.2610" G	1765-00-16-003020	.3020" N	1765-00-16-003680	.3680" U	—	—

## Number

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1765-00-15-000320	.0320" 67	1765-00-15-000700	.0700" 50	1765-00-15-001130	.1130" 33	1765-00-15-001770	.1770" 16
1765-00-15-000330	.0330" 66	1765-00-15-000730	.0730" 49	1765-00-15-001160	.1160" 32	1765-00-15-001800	.1800" 15
1765-00-15-000350	.0350" 65	1765-00-15-000760	.0760" 48	1765-00-15-001200	.1200" 31	1765-00-15-001820	.1820" 14
1765-00-15-000360	.0360" 64	1765-00-15-000785	.0785" 47	1765-00-15-001285	.1285" 30	1765-00-15-001850	.1850" 13
1765-00-15-000370	.0370" 63	1765-00-15-000810	.0810" 46	1765-00-15-001360	.1360" 29	1765-00-15-001890	.1890" 12
1765-00-15-000380	.0380" 62	1765-00-15-000820	.0820" 45	1765-00-15-001405	.1405" 28	1765-00-15-001910	.1910" 11
1765-00-15-000390	.0390" 61	1765-00-15-000860	.0860" 44	1765-00-15-001440	.1440" 27	1765-00-15-001935	.1935" 10
1765-00-15-000400	.0400" 60	1765-00-15-000890	.0890" 43	1765-00-15-001470	.1470" 26	1765-00-15-001960	.1960" 9
1765-00-15-000410	.0410" 59	1765-00-15-000935	.0935" 42	1765-00-15-001495	.1495" 25	1765-00-15-001990	.1990" 8
1765-00-15-000420	.0420" 58	1765-00-15-000960	.0960" 41	1765-00-15-001520	.1520" 24	1765-00-15-002010	.2010" 7
1765-00-15-000430	.0430" 57	1765-00-15-000980	.0980" 40	1765-00-15-001540	.1540" 23	1765-00-15-002040	.2040" 6
1765-00-15-000465	.0465" 56	1765-00-15-000995	.0995" 39	1765-00-15-001570	.1570" 22	1765-00-15-002055	.2055" 5
1765-00-15-000520	.0520" 55	1765-00-15-001015	.1015" 38	1765-00-15-001590	.1590" 21	1765-00-15-002090	.2090" 4
1765-00-15-000550	.0550" 54	1765-00-15-001040	.1040" 37	1765-00-15-001610	.1610" 20	1765-00-15-002130	.2130" 3
1765-00-15-000595	.0595" 53	1765-00-15-001065	.1065" 36	1765-00-15-001660	.1660" 19	1765-00-15-002210	.2210" 2
1765-00-15-000635	.0635" 52	1765-00-15-001100	.1100" 35	1765-00-15-001695	.1695" 18	1765-00-15-002280	.2280" 1
1765-00-15-000670	.0670" 51	1765-00-15-001110	.1110" 34	1765-00-15-001730	.1730" 17	—	—

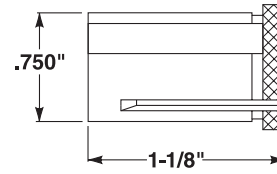
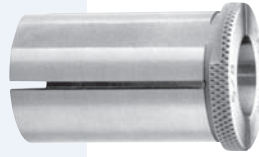
## Metric

Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	mm	Inch		mm	Inch		mm	Inch		mm	Inch
1765-00-17-010000	1.0	.0393"	1765-00-17-045000	4.5	.1771"	1765-00-17-075000	7.5	.2952"	1765-00-17-110000	11.0	.4330"
1765-00-17-015000	1.5	.0590"	1765-00-17-050000	5.0	.1968"	1765-00-17-080000	8.0	.3150"	1765-00-17-115000	11.5	.4527"
1765-00-17-020000	2.0	.0787"	1765-00-17-055000	5.5	.2165"	1765-00-17-085000	8.5	.3346"	1765-00-17-120000	12.0	.4724"
1765-00-17-025000	2.5	.0984"	1765-00-17-060000	6.0	.2362"	1765-00-17-090000	9.0	.3543"	1765-00-17-125000	12.5	.4921"
1765-00-17-030000	3.0	.1181"	1765-00-17-061000	6.1	.2402"	1765-00-17-095000	9.5	.3740"	1765-00-17-130000	13.0	.5118"
1765-00-17-035000	3.5	.1377"	1765-00-17-065000	6.5	.2559"	1765-00-17-100000	10.0	.3937"	—	—	—
1765-00-17-040000	4.0	.1574"	1765-00-17-070000	7.0	.2756"	1765-00-17-105000	10.5	.4133"	—	—	—



# HDB6 Bushings - 3/4" OD

Hardened & Ground, Split



## Inch Fractional

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1881-00-19-000625	.0625" 1/16"	1881-00-19-002187	.2187" 7/32"	1881-00-19-003750	.3750" 3/8"	1881-00-19-005312	.5312" 17/32"
1881-00-19-000781	.0781" 5/64"	1881-00-19-002343	.2343" 15/64"	1881-00-19-003906	.3906" 25/64"	1881-00-19-005468	.5468" 35/64"
1881-00-19-000937	.0937" 3/32"	1881-00-19-002500	.2500" 1/4"	1881-00-19-004062	.4062" 13/32"	1881-00-19-005625	.5625" 9/16"
1881-00-19-001093	.1093" 7/64"	1881-00-19-002656	.2656" 17/64"	1881-00-19-004218	.4218" 27/64"	1881-00-19-005781	.5781" 37/64"
1881-00-19-001250	.1250" 1/8"	1881-00-19-002812	.2812" 9/32"	1881-00-19-004375	.4375" 7/16"	1881-00-19-005937	.5937" 19/32"
1881-00-19-001406	.1406" 9/64"	1881-00-19-002968	.2968" 19/64"	1881-00-19-004531	.4531" 29/64"	1881-00-19-006093	.6093" 39/64"
1881-00-19-001562	.1562" 5/32"	1881-00-19-003125	.3125" 5/16"	1881-00-19-004687	.4687" 15/32"	1881-00-19-006250	.6250" 5/8"
1881-00-19-001718	.1718" 11/64"	1881-00-19-003281	.3281" 21/64"	1881-00-19-004843	.4843" 31/64"	—	—
1881-00-19-001875	.1875" 3/16"	1881-00-19-003437	.3437" 11/32"	1881-00-19-005000	.5000" 1/2"	—	—
1881-00-19-002031	.2031" 13/64"	1881-00-19-003593	.3593" 23/64"	1881-00-19-005156	.5156" 33/64"	—	—

## Letter

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1881-00-16-002340	.2340" A	1881-00-16-002660	.2660" H	1881-00-16-003160	.3160" O	1881-00-16-003770	.3770" V
1881-00-16-002380	.2380" B	1881-00-16-002720	.2720" J	1881-00-16-003230	.3230" P	1881-00-16-003860	.3860" W
1881-00-16-002420	.2420" C	1881-00-16-002770	.2770" I	1881-00-16-003320	.3320" Q	1881-00-16-003970	.3970" X
1881-00-16-002460	.2460" D	1881-00-16-002810	.2810" K	1881-00-16-003390	.3390" R	1881-00-16-004040	.4040" Y
1881-00-16-002500	.2500" E	1881-00-16-002900	.2900" L	1881-00-16-003480	.3480" S	1881-00-16-004130	.4130" Z
1881-00-16-002570	.2570" F	1881-00-16-002950	.2950" M	1881-00-16-003580	.3580" T	—	—
1881-00-16-002610	.2610" G	1881-00-16-003020	.3020" N	1881-00-16-003680	.3680" U	—	—

## Number

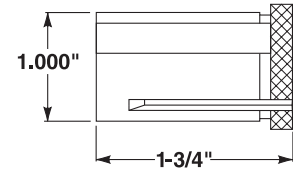
Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1881-00-15-000635	.0635" 52	1881-00-15-000995	.0995" 39	1881-00-15-001470	.1470" 26	1881-00-15-001850	.1850" 13
1881-00-15-000670	.0670" 51	1881-00-15-001015	.1015" 38	1881-00-15-001495	.1495" 25	1881-00-15-001890	.1890" 12
1881-00-15-000700	.0700" 50	1881-00-15-001040	.1040" 37	1881-00-15-001520	.1520" 24	1881-00-15-001910	.1910" 11
1881-00-15-000730	.0730" 49	1881-00-15-001065	.1065" 36	1881-00-15-001540	.1540" 23	1881-00-15-001935	.1935" 10
1881-00-15-000760	.0760" 48	1881-00-15-001100	.1100" 35	1881-00-15-001570	.1570" 22	1881-00-15-001960	.1960" 9
1881-00-15-000785	.0785" 47	1881-00-15-001110	.1110" 34	1881-00-15-001590	.1590" 21	1881-00-15-001990	.1990" 8
1881-00-15-000810	.0810" 46	1881-00-15-001130	.1130" 33	1881-00-15-001610	.1610" 20	1881-00-15-002010	.2010" 7
1881-00-15-000820	.0820" 45	1881-00-15-001160	.1160" 32	1881-00-15-001660	.1660" 19	1881-00-15-002040	.2040" 6
1881-00-15-000860	.0860" 44	1881-00-15-001200	.1200" 31	1881-00-15-001695	.1695" 18	1881-00-15-002055	.2055" 5
1881-00-15-000890	.0890" 43	1881-00-15-001285	.1285" 30	1881-00-15-001730	.1730" 17	1881-00-15-002090	.2090" 4
1881-00-15-000935	.0935" 42	1881-00-15-001360	.1360" 29	1881-00-15-001770	.1770" 16	1881-00-15-002130	.2130" 3
1881-00-15-000960	.0960" 41	1881-00-15-001405	.1405" 28	1881-00-15-001800	.1800" 15	1881-00-15-002210	.2210" 2
1881-00-15-000980	.0980" 40	1881-00-15-001440	.1440" 27	1881-00-15-001820	.1820" 14	1881-00-15-002280	.2280" 1

## Metric

Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	mm	Inch		mm	Inch		mm	Inch		mm	Inch
1881-00-17-010000	1.0	.0393"	1881-00-17-050000	5.0	.1968"	1881-00-17-090000	9.0	.3543"	1881-00-17-130000	13.0	.5118"
1881-00-17-015000	1.5	.0590"	1881-00-17-055000	5.5	.2165"	1881-00-17-095000	9.5	.3740"	1881-00-17-135000	13.5	.5314"
1881-00-17-020000	2.0	.0787"	1881-00-17-060000	6.0	.2362"	1881-00-17-100000	10.0	.3937"	1881-00-17-140000	14.0	.5511"
1881-00-17-025000	2.5	.0984"	1881-00-17-065000	6.5	.2559"	1881-00-17-105000	10.5	.4133"	1881-00-17-145000	14.5	.5708"
1881-00-17-030000	3.0	.1181"	1881-00-17-070000	7.0	.2756"	1881-00-17-110000	11.0	.4330"	1881-00-17-150000	15.0	.5905"
1881-00-17-035000	3.5	.1377"	1881-00-17-075000	7.5	.2952"	1881-00-17-115000	11.5	.4527"	1881-00-17-155000	15.5	.6102"
1881-00-17-040000	4.0	.1574"	1881-00-17-080000	8.0	.3150"	1881-00-17-120000	12.0	.4724"	1881-00-17-160000	16.0	.6299"
1881-00-17-045000	4.5	.1771"	1881-00-17-085000	8.5	.3346"	1881-00-17-125000	12.5	.4921"	—	—	—

# HDB8 Bushings - 1" / 25mm OD

Hardened & Ground, Split

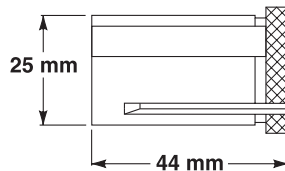


## Inch Fractional

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1893-00-19-000312	.0312" 1/32"	1893-00-19-002500	.2500" 1/4"	1893-00-19-004687	.4687" 15/32"	1893-00-19-006875	.6875" 11/16"
1893-00-19-000468	.0468" 3/64"	1893-00-19-002656	.2656" 17/64"	1893-00-19-004843	.4843" 31/64"	1893-00-19-007031	.7031" 45/64"
1893-00-19-000625	.0625" 1/16"	1893-00-19-002812	.2812" 9/32"	1893-00-19-005000	.5000" 1/2"	1893-00-19-007187	.7187" 23/32"
1893-00-19-000781	.0781" 5/64"	1893-00-19-002968	.2968" 19/64"	1893-00-19-005156	.5156" 33/64"	1893-00-19-007343	.7343" 47/64"
1893-00-19-000937	.0937" 3/32"	1893-00-19-003125	.3125" 5/16"	1893-00-19-005312	.5312" 17/32"	1893-00-19-007500	.7500" 3/4"
1893-00-19-001093	.1093" 7/64"	1893-00-19-003281	.3281" 21/64"	1893-00-19-005468	.5468" 35/64"	1893-00-19-007656	.7656" 49/64"
1893-00-19-001250	.1250" 1/8"	1893-00-19-003437	.3437" 11/32"	1893-00-19-005625	.5625" 9/16"	1893-00-19-007812	.7812" 25/32"
1893-00-19-001406	.1406" 9/64"	1893-00-19-003593	.3593" 23/64"	1893-00-19-005781	.5781" 37/64"	1893-00-19-007968	.7968" 51/64"
1893-00-19-001562	.1562" 5/32"	1893-00-19-003750	.3750" 3/8"	1893-00-19-005937	.5937" 19/32"	1893-00-19-008125	.8125" 13/16"
1893-00-19-001718	.1718" 11/64"	1893-00-19-003906	.3906" 25/64"	1893-00-19-006093	.6093" 39/64"	1893-00-19-008281	.8281" 53/64"
1893-00-19-001875	.1875" 3/16"	1893-00-19-004062	.4062" 13/32"	1893-00-19-006250	.6250" 5/8"	1893-00-19-008437	.8437" 27/32"
1893-00-19-002031	.2031" 13/64"	1893-00-19-004218	.4218" 27/64"	1893-00-19-006406	.6406" 41/64"	1893-00-19-008593	.8593" 55/64"
1893-00-19-002187	.2187" 7/32"	1893-00-19-004375	.4375" 7/16"	1893-00-19-006562	.6562" 21/32"	1893-00-19-008750	.8750" 7/8"
1893-00-19-002343	.2343" 15/64"	1893-00-19-004531	.4531" 29/64"	1893-00-19-006718	.6718" 43/64"	—	—

## Metric

Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	mm	Inch		mm	Inch		mm	Inch		mm	Inch
1893-00-17-010000	1.0	.0393"	1893-00-17-060000	6.0	.2362"	1893-00-17-110000	11.0	.4330"	1893-00-17-160000	16.0	.6299"
1893-00-17-015000	1.5	.0590"	1893-00-17-065000	6.5	.2559"	1893-00-17-115000	11.5	.4527"	1893-00-17-165000	16.5	.6496"
1893-00-17-020000	2.0	.0787"	1893-00-17-070000	7.0	.2756"	1893-00-17-120000	12.0	.4724"	1893-00-17-170000	17.0	.6692"
1893-00-17-025000	2.5	.0984"	1893-00-17-075000	7.5	.2952"	1893-00-17-125000	12.5	.4921"	1893-00-17-175000	17.5	.6889"
1893-00-17-030000	3.0	.1181"	1893-00-17-080000	8.0	.3150"	1893-00-17-130000	13.0	.5118"	1893-00-17-180000	18.0	.7086"
1893-00-17-035000	3.5	.1377"	1893-00-17-085000	8.5	.3346"	1893-00-17-135000	13.5	.5314"	1893-00-17-185000	18.5	.7283"
1893-00-17-040000	4.0	.1574"	1893-00-17-090000	9.0	.3543"	1893-00-17-140000	14.0	.5511"	1893-00-17-190000	19.0	.7480"
1893-00-17-045000	4.5	.1771"	1893-00-17-095000	9.5	.3740"	1893-00-17-145000	14.5	.5708"	1893-00-17-195000	19.5	.7677"
1893-00-17-050000	5.0	.1968"	1893-00-17-100000	10.0	.3937"	1893-00-17-150000	15.0	.5905"	1893-00-17-200000	20.0	.7874"
1893-00-17-055000	5.5	.2165"	1893-00-17-105000	10.5	.4133"	1893-00-17-155000	15.5	.6102"	—	—	—

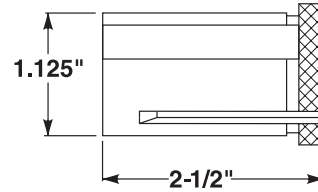
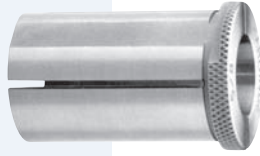


## Metric OD & ID

Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	mm	Inch		mm	Inch		mm	Inch		mm	Inch
2051-00-17-020000	2.0	.0787"	2051-00-17-070000	7.0	.2756"	2051-00-17-120000	12.0	.4724"	2051-00-17-170000	17.0	.6692"
2051-00-17-025000	2.5	.0984"	2051-00-17-075000	7.5	.2952"	2051-00-17-125000	12.5	.4921"	2051-00-17-175000	17.5	.6889"
2051-00-17-030000	3.0	.1181"	2051-00-17-080000	8.0	.3150"	2051-00-17-130000	13.0	.5118"	2051-00-17-180000	18.0	.7086"
2051-00-17-035000	3.5	.1377"	2051-00-17-085000	8.5	.3346"	2051-00-17-135000	13.5	.5314"	2051-00-17-185000	18.5	.7283"
2051-00-17-040000	4.0	.1574"	2051-00-17-090000	9.0	.3543"	2051-00-17-140000	14.0	.5511"	2051-00-17-190000	19.0	.7480"
2051-00-17-045000	4.5	.1771"	2051-00-17-095000	9.5	.3740"	2051-00-17-145000	14.5	.5708"	2051-00-17-195000	19.5	.7677"
2051-00-17-050000	5.0	.1968"	2051-00-17-100000	10.0	.3937"	2051-00-17-150000	15.0	.5905"	2051-00-17-200000	20.0	.7874"
2051-00-17-055000	5.5	.2165"	2051-00-17-105000	10.5	.4133"	2051-00-17-155000	15.5	.6102"	—	—	—
2051-00-17-060000	6.0	.2362"	2051-00-17-110000	11.0	.4330"	2051-00-17-160000	16.0	.6299"	—	—	—
2051-00-17-065000	6.5	.2559"	2051-00-17-115000	11.5	.4527"	2051-00-17-165000	16.5	.6496"	—	—	—

# HDB9 Bushings - 1-1/8" OD

Hardened & Ground, Split

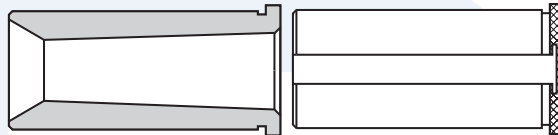


## Inch Fractional

Part Number	Size	Part Number	Size	Part Number	Size	Part Number	Size
1883-00-19-003750	.3750" $\frac{3}{8}$ "	1883-00-19-005468	.5468" $\frac{35}{64}$ "	1883-00-19-007187	.7187" $\frac{23}{32}$ "	1883-00-19-008906	.8906" $\frac{57}{64}$ "
1883-00-19-003906	.3906" $\frac{25}{64}$ "	1883-00-19-005625	.5625" $\frac{9}{16}$ "	1883-00-19-007343	.7343" $\frac{47}{64}$ "	1883-00-19-009062	.9062" $\frac{29}{32}$ "
1883-00-19-004062	.4062" $\frac{13}{32}$ "	1883-00-19-005781	.5781" $\frac{37}{64}$ "	1883-00-19-007500	.7500" $\frac{3}{4}$ "	1883-00-19-009218	.9218" $\frac{59}{64}$ "
1883-00-19-004218	.4218" $\frac{27}{64}$ "	1883-00-19-005937	.5937" $\frac{19}{32}$ "	1883-00-19-007656	.7656" $\frac{49}{64}$ "	1883-00-19-009375	.9375" $\frac{15}{16}$ "
1883-00-19-004375	.4375" $\frac{7}{16}$ "	1883-00-19-006093	.6093" $\frac{39}{64}$ "	1883-00-19-007812	.7812" $\frac{25}{32}$ "	1883-00-19-009531	.9531" $\frac{61}{64}$ "
1883-00-19-004531	.4531" $\frac{29}{64}$ "	1883-00-19-006250	.6250" $\frac{5}{8}$ "	1883-00-19-007968	.7968" $\frac{51}{64}$ "	1883-00-19-009687	.9687" $\frac{31}{32}$ "
1883-00-19-004687	.4687" $\frac{15}{32}$ "	1883-00-19-006406	.6406" $\frac{41}{64}$ "	1883-00-19-008125	.8125" $\frac{13}{16}$ "	1883-00-19-009843	.9843" $\frac{63}{64}$ "
1883-00-19-004843	.4843" $\frac{31}{64}$ "	1883-00-19-006562	.6562" $\frac{21}{32}$ "	1883-00-19-008281	.8281" $\frac{53}{64}$ "	1883-00-19-010000	1.0000" 1"
1883-00-19-005000	.5000" $\frac{1}{2}$ "	1883-00-19-006718	.6718" $\frac{43}{64}$ "	1883-00-19-008437	.8437" $\frac{27}{32}$ "	—	—
1883-00-19-005156	.5156" $\frac{33}{64}$ "	1883-00-19-006875	.6875" $\frac{11}{16}$ "	1883-00-19-008593	.8593" $\frac{55}{64}$ "	—	—
1883-00-19-005312	.5312" $\frac{17}{32}$ "	1883-00-19-007031	.7031" $\frac{45}{64}$ "	1883-00-19-008750	.8750" $\frac{7}{8}$ "	—	—

## Taper Hole – ID

Part Number	OD	Size	Taper	Length
1883-08-00-020000	1 $\frac{1}{8}$ "	#2	Morse	2.50"
1883-08-00-030000	1 $\frac{1}{8}$ "	#3	Morse	2.50"



## Metric

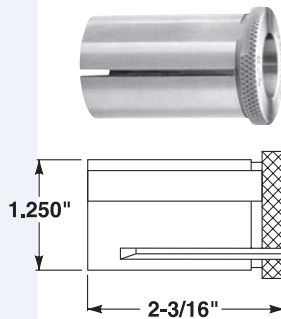
Part Number	Size		Part Number	Size		Part Number	Size		Part Number	Size	
	mm	Inch		mm	Inch		mm	Inch		mm	Inch
1883-00-17-090000	9.0	.3543"	1883-00-17-135000	13.5	.5314"	1883-00-17-180000	18.0	.7086"	1883-00-17-225000	22.5	.8858"
1883-00-17-095000	9.5	.3740"	1883-00-17-140000	14.0	.5511"	1883-00-17-185000	18.5	.7283"	1883-00-17-230000	23.0	.9055"
1883-00-17-100000	10.0	.3937"	1883-00-17-145000	14.5	.5708"	1883-00-17-190000	19.0	.7480"	1883-00-17-235000	23.5	.9251"
1883-00-17-105000	10.5	.4133"	1883-00-17-150000	15.0	.5905"	1883-00-17-195000	19.5	.7677"	1883-00-17-240000	24.0	.9448"
1883-00-17-110000	11.0	.4330"	1883-00-17-155000	15.5	.6102"	1883-00-17-200000	20.0	.7874"	1883-00-17-245000	24.5	.9645"
1883-00-17-115000	11.5	.4527"	1883-00-17-160000	16.0	.6299"	1883-00-17-205000	20.5	.8070"	1883-00-17-250000	25.0	.9842"
1883-00-17-120000	12.0	.4724"	1883-00-17-165000	16.5	.6496"	1883-00-17-210000	21.0	.8267"	—	—	—
1883-00-17-125000	12.5	.4921"	1883-00-17-170000	17.0	.6692"	1883-00-17-215000	21.5	.8464"	—	—	—
1883-00-17-130000	13.0	.5118"	1883-00-17-175000	17.5	.6889"	1883-00-17-220000	22.0	.8661"	—	—	—

## HDB10 Bushings - 1-1/4" OD

Hardened & Ground, Split

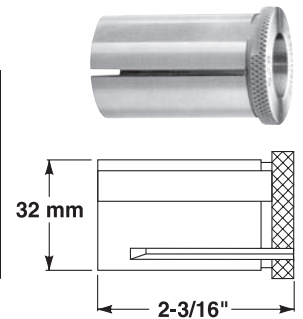
### Inch Fractional

Part Number	Size	
2043-00-19-003750	.3750"	3/8"
2043-00-19-005000	.5000"	1/2"
2043-00-19-006250	.6250"	5/8"
2043-00-19-007500	.7500"	3/4"
2043-00-19-008750	.8750"	7/8"
2043-00-19-010000	1.0000"	1"



### Metric OD & ID

Part Number	Size	
	mm	Inch
2045-00-17-100000	10.0	.3937"
2045-00-17-120000	12.0	.4724"
2045-00-17-160000	16.0	.6299"
2045-00-17-200000	20.0	.7874"
2045-00-17-250000	25.0	.9842"

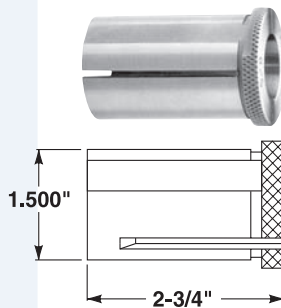


## HDB12 Bushings - 1-1/2" OD

Hardened & Ground, Split

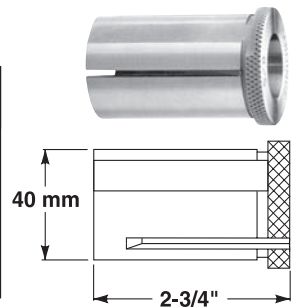
### Inch Fractional

Part Number	Size	
2047-00-19-003750	.3750"	3/8"
2047-00-19-005000	.5000"	1/2"
2047-00-19-006250	.6250"	5/8"
2047-00-19-007500	.7500"	3/4"
2047-00-19-008750	.8750"	7/8"
2047-00-19-010000	1.0000"	1"
2047-00-19-012500	1.2500"	1 1/4"



### Metric OD & ID

Part Number	Size	
	mm	Inch
2049-00-17-100000	10.0	.3937"
2049-00-17-120000	12.0	.4724"
2049-00-17-160000	16.0	.6299"
2049-00-17-200000	20.0	.7874"
2049-00-17-250000	25.0	.9842"
2049-00-17-320000	32.0	1.2598"



## HDB Bushing Sets

### HDB Bushing Sets

Part Number	Style	Type	Qty.	Range	Increment
0937-00-19-000000	HDB2	Fractional	23	1/32" to 3/8"	1/64"
0937-00-16-000000	HDB2	Letter	22	A to V	—
0937-00-15-000000	HDB2	Number	67	#1 thru #67	—
0938-00-19-000000	HDB5	Fractional	31	1/32" to 1/2"	1/64"
0938-00-16-000000	HDB5	Letter	26	A to Z	—
0938-00-15-000000	HDB5	Number	52	#1 thru #52	—
0939-00-19-000000	HDB6	Fractional	37	1/16" to 5/8"	1/64"
0939-00-16-000000	HDB6	Letter	26	A to Z	—
0939-00-15-000000	HDB6	Number	52	#1 thru #52	—
0940-00-19-000000	HDB8	Fractional	14	1/16" to 7/8"	1/16"
0941-00-19-000000	HDB9	Fractional	41	3/8" to 1"	1/64"

# HDC-style Slotted Bushings



HDC-Style Solid Bushings have one or two longitudinal slots, depending on the size of the bore. The slot allows the set screw from the tool holder to locate directly on the body of the tool. The HDC10 has a 1 1/4" or a 32mm OD. The HDC12 has a 1 1/2" or a 40mm OD. Both styles are available with fractional or metric size bores and with female Morse tapers.

## HDC10 Inch Fractional

Part Number	OD	Bore	Decimal	Length
1829-00-19-003750	1 1/4"	3/8"	.3750"	3.38"
1829-00-19-005000	1 1/4"	1/2"	.5000"	3.38"
1829-00-19-006250	1 1/4"	5/8"	.6250"	3.38"
1829-00-19-007500	1 1/4"	3/4"	.7500"	3.38"
1829-00-19-008750	1 1/4"	7/8"	.8750"	3.38"
1829-00-19-010000	1 1/4"	1"	1.000"	3.38"
1829-00-19-011250	1 1/4"	1 1/8"	1.125"	3.38"

## HDC12 Inch Fractional

Part Number	OD	Bore	Decimal	Length
1895-00-19-003750	1 1/2"	3/8"	.3750"	3.56"
1895-00-19-005000	1 1/2"	1/2"	.5000"	3.56"
1895-00-19-006250	1 1/2"	5/8"	.6250"	3.56"
1895-00-19-007500	1 1/2"	3/4"	.7500"	3.56"
1895-00-19-008750	1 1/2"	7/8"	.8750"	3.56"
1895-00-19-010000	1 1/2"	1"	1.0000"	3.56"
1895-00-19-011250	1 1/2"	1 1/8"	1.1250"	3.56"
1895-00-19-012500	1 1/2"	1 1/4"	1.2500"	3.56"

## HDC10 Taper Hole – ID

Part Number	OD	Size	Taper	Length
1829-08-80-000003	1 1/4"	#3	Morse	3.38"

## HDC12 Taper Hole – ID

Part Number	OD	Size	Taper	Length
9189526001652L	1 1/2"	#3	Morse	3.56"
1895-08-80-000004	1 1/2"	#4	Morse	3.56"

## HDC10M Metric OD & ID

Part Number	OD	Bore	Decimal	Length
1831-00-17-080000	32 mm	8	.3149"	3.38"
1831-00-17-100000	32 mm	10	.3937"	3.38"
1831-00-17-120000	32 mm	12	.4724"	3.38"
1831-00-17-160000	32 mm	16	.6299"	3.38"
1831-00-17-200000	32 mm	20	.7874"	3.38"
1831-00-17-250000	32 mm	25	.9842"	3.38"

## HDC12M Metric OD & ID

Part Number	OD	Bore	Decimal	Length
1897-00-17-100000	40 mm	10	.3937"	3.56"
1897-00-17-120000	40 mm	12	.4724"	3.56"
1897-00-17-160000	40 mm	16	.6299"	3.56"
1897-00-17-200000	40 mm	20	.7874"	3.56"
1897-00-17-250000	40 mm	25	.9842"	3.56"
1897-00-17-300000	40 mm	30	1.1811"	3.56"
1897-00-17-320000	40 mm	32	1.2598"	3.56"

## HDC10M Taper Hole – ID Metric

Part Number	OD	Size	Taper	Length
1831-08-80-000002	32 mm	#2	Morse	3.38"
1831-08-80-000003	32 mm	#3	Morse	3.38"

## HDC12M Taper Hole – ID Metric

Part Number	OD	Size	Taper	Length
1897-08-80-000002	40 mm	#2	Morse	3.56"
1897-08-80-000003	40 mm	#3	Morse	3.56"
1897-08-80-000004	40 mm	#4	Morse	3.56"

## HDC10M Metric OD / Inch ID

Part Number	OD	Bore	Decimal	Length
1831-00-19-003750	32 mm	3/8"	.3870"	3.38"
1831-00-19-005000	32 mm	1/2"	.5000"	3.38"
1831-00-19-006250	32 mm	5/8"	.6250"	3.38"
1831-00-19-007500	32 mm	3/4"	.7500"	3.38"
1831-00-19-008750	32 mm	7/8"	.8750"	3.38"
1831-00-19-010000	32 mm	1"	1.0000"	3.38"

## HDC12M Metric OD / Inch ID

Part Number	OD	Bore	Decimal	Length
1897-00-19-005000	40 mm	1/2"	.5000"	3.56"
1897-00-19-006250	40 mm	5/8"	.6250"	3.56"
1897-00-19-007500	40 mm	3/4"	.7500"	3.56"
1897-00-19-008750	40 mm	7/8"	.8750"	3.56"
1897-00-19-010000	40 mm	1"	1.0000"	3.56"
1897-00-19-011250	40 mm	1 1/8"	1.1250"	3.56"
1897-00-19-012500	40 mm	1 1/4"	1.2500"	3.56"



## HDC-style Slotted Bushings

Designed for Hardinge Quest® TwinTurn® CNC Turning Centers

The HDCI0TT series have a 1/4" or a 32mm OD.

### HDCI0TT Inch Fractional

Part Number	OD	Bore	Decimal	Length
2053-00-19-003750	1/4"	3/8"	.3750"	2.95"
2053-00-19-005000	1/4"	1/2"	.5000"	2.95"
2053-00-19-006250	1/4"	5/8"	.6250"	2.95"
2053-00-19-007500	1/4"	3/4"	.7500"	2.95"
2053-00-19-008750	1/4"	7/8"	.8750"	2.95"
2053-00-19-010000	1/4"	1"	1.0000"	2.95"

### HDCI0MTT Metric

Part Number	OD	Bore	Decimal	Length
2055-00-17-080000	32 mm	8 mm	.3149"	2.95"
2055-00-17-100000	32 mm	10 mm	.3937"	2.95"
2055-00-17-120000	32 mm	12 mm	.4724"	2.95"
2055-00-17-160000	32 mm	16 mm	.6299"	2.95"
2055-00-17-200000	32 mm	20 mm	.7874"	2.95"
2055-00-17-250000	32 mm	25 mm	.9842"	2.95"

### HDCI0TTL Inch Fractional

for Offset Holders

Part Number	OD	Bore	Decimal	Length
2067-00-19-003750	1/4"	3/8"	.3750"	2.55"
2067-00-19-005000	1/4"	1/2"	.5000"	2.55"
2067-00-19-006250	1/4"	5/8"	.6250"	2.55"
2067-00-19-007500	1/4"	3/4"	.7500"	2.55"
2067-00-19-008750	1/4"	7/8"	.8750"	2.55"
2067-00-19-010000	1/4"	1"	1.0000"	2.55"

### HDCI0MTTL Metric

for Offset Holders

Part Number	OD	Bore	Decimal	Length
2069-00-17-080000	32 mm	8 mm	.3149"	2.55"
2069-00-17-100000	32 mm	10 mm	.3937"	2.55"
2069-00-17-120000	32 mm	12 mm	.4724"	2.55"
2069-00-17-160000	32 mm	16 mm	.6299"	2.55"
2069-00-17-200000	32 mm	20 mm	.7874"	2.55"
2069-00-17-250000	32 mm	25 mm	.9842"	2.55"



## HDZ-style Slotted Bushings

### Preset

HDZ-Style Solid Bushings feature one or two longitudinal slots, depending on the size of the bore. The slot allows the set screws from the tool holder to locate directly on the body of the tool. The bushing has a flange with two set screws 90° apart. The tool can be put in the bushing and set to a specific dimension from the locating shoulder and locked in place. The HDZ10 bushing has a 1/4" or a 32mm OD. The HDZ12 bushing has a 1/2" or a 40mm OD. Both bushings are available in metric or inch ODs and/or IDs.



### HDZ10 Inch Fractional

Part Number	OD	Bore	Decimal	Length
2059-00-19-003750	1/4"	3/8"	.3750"	3.56"
2059-00-19-005000	1/4"	1/2"	.5000"	3.56"
2059-00-19-006250	1/4"	5/8"	.6250"	3.56"
2059-00-19-007500	1/4"	3/4"	.7500"	3.56"
2059-00-19-008750	1/4"	7/8"	.8750"	3.56"
2059-00-19-010000	1/4"	1"	1.0000"	3.56"

### HDZ10M Metric

Part Number	OD	Bore	Decimal	Length
2061-00-17-100000	32 mm	10 mm	.3937"	3.56"
2061-00-17-120000	32 mm	12 mm	.4724"	3.56"
2061-00-17-160000	32 mm	16 mm	.6299"	3.56"
2061-00-17-200000	32 mm	20 mm	.7874"	3.56"
2061-00-17-250000	32 mm	25 mm	.9842"	3.56"

### HDZ12 Inch Fractional

Part Number	OD	Bore	Decimal	Length
2063-00-19-003750	1/2"	3/8"	.3750"	3.87"
2063-00-19-005000	1/2"	1/2"	.5000"	3.87"
2063-00-19-006250	1/2"	5/8"	.6250"	3.87"
2063-00-19-007500	1/2"	3/4"	.7500"	3.87"
2063-00-19-008750	1/2"	7/8"	.8750"	3.87"
2063-00-19-010000	1/2"	1"	1.0000"	3.87"
2063-00-19-012500	1/2"	1 1/4"	1.2500"	3.87"

### HDZ12M Metric

Part Number	OD	Bore	Decimal	Length
2065-00-17-100000	40 mm	10 mm	.3937"	3.87"
2065-00-17-120000	40 mm	12 mm	.4724"	3.87"
2065-00-17-160000	40 mm	16 mm	.6299"	3.87"
2065-00-17-200000	40 mm	20 mm	.7874"	3.87"
2065-00-17-250000	40 mm	25 mm	.9842"	3.87"
2065-00-17-320000	40 mm	32 mm	1.2598"	3.87"

## Frequently Asked Questions



**“I’m using a small diameter split drill bushing and I can’t seem to get the drill parallel to the centerline of the spindle. Why?”**

- A common cause for this problem is locking the second set screw on the bushing. The holes for small diameter drills do not extend the full length of the bushing. The back end of the bushing usually has a large internal chamfer or a counterbore. This cleared area is under the second lock screw. When you tighten this screw, the bushing may distort, shifting the drill’s position. There may be line contact on which the drill will pivot. The solution is to use the front locking screw only.
- A second cause is that the bushing is too short. The first set screw is locking on the back of the bushing, causing it to collapse instead of gripping the shank of the tool.

**“I am trying to drill a very accurate hole using a DA-style collet system without any success. Any suggestions?”**

- Extremely accurate drilling requires a very good holder and collet. With the considerable flexibility of the DA, TG and ER collets, we tend to forget the cardinal rule for collets – the bore of the collet should be the exact size of the diameter being gripped for the best TIR and gripping force. Therefore, for extremely accurate drilling, the collet bore should be the same size as the shank of the drill.

- Second, if you have a choice of holders, it is best to use the ER collet holder over the DA collet holder. The DA holder is a double-angle holder; with a closing angle on the front and back of the collet. The theory is that the collet will close parallel to the centerline of the holder. Unfortunately, it is very difficult to manufacture a holder and collet that accurately mate. For standard drilling tolerances, this usually is not a problem, but can be when doing extremely close tolerance drilling.

The ER is considered a single-angle collet because the major closing angle is long and shallow. This results in better concentricity than the double-angle system.

The TG collet system is better than the ER system because it has an even shallower closing angle. Unfortunately, this system is usually for larger shanks and most holders that use these collets are for vertical machining centers.

- For extremely accurate drilling, the bore of the collet should be the exact size of the shank of the drill.

## Frequently Asked Questions

### **“I’ve tried rigid tapping using standard ER collets in my non-floating holders and I’m breaking taps. Why is this happening and is there a reasonably-priced solution?”**

- Your machine tool may not be designed for rigid tapping, you did not buy that option, or there is a small error between the spindle reversal and slide reversal. These are machine tool problems that you can work around without disassembling the machine. Use a floating tap collet such as the ERQC or the ERTC. These collets fit in the standard rigid holder and will float longitudinally.
- If you want to continue to use your current collets, floating tap holders are available. These holders are longer than the standard holders and more expensive than the floating tap collets.

### **“The TIR of the drill being held in my ER collet is excessive. What TIR can I expect from a standard ER collet?”**

- Quick fix — if you are using a ball bearing cap on your ER holder, change it to a one-piece cap. The ball bearing cap allows you to use more torque when gripping solid floating tap collets, but when used for drilling, the TIR is not as accurate as the one-piece cap.
- All of our ER collets are made to the DIN 6499 specification. Refer to page 12 for the acceptable TIR for your collet. When checking the collet and holder, use a certified gauge plug. First, indicate the seat of the holder; then assemble collet and gauge plug and indicate the plug at the “L” dimension. Make corrections for holder seat runout (the most accurate check is to use a coordinate measuring system – most indicators do not give a true reading when rotating 360° from the lathe spindle). If this checks out within specifications, check the gauge pin at the actual drill length, which may be longer than the “L” dimension. If the TIR at this point is too great, you will have to acquire a higher precision collet such as the ERNC. If you're using a metric bushing to hold a fractional drill, a more reasonable solution would be to acquire an inch series collet for the exact shank of your drill.

### **“I am using an ER Collet in a high-speed spindle and am getting vibration that I don’t get with my other holders. What’s wrong?”**

- You're probably using a standard one-piece cap. Acquire a one-piece cap that has a ring to hold the collet instead of the standard cap that has an eccentric slot. The eccentricity of the groove will cause an out-of-balance condition at high rpm. If this does not eliminate the vibration, the complete assembly will have to be precision balanced in relation to the RPM you're running.

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