3-C, 5-C, 16-C, and 3-J

COLLETS

ARE NOW AVAILABLE

Our 3-C, 5-C, 16-C and 3-J Collets
are manufactured to the
same precision specs as
our collets and bushings
for the swiss-type automatics.

They Are Available In:

Round

Hex

Square

Profile

Straight or Stepped Bore

Standard Length

or

Extended Nose Length

Standard Precision

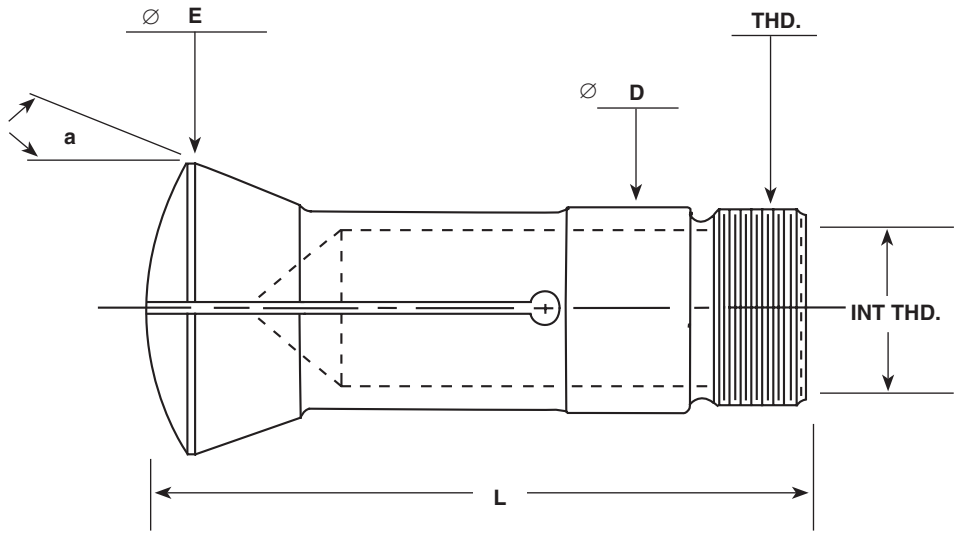
or

Extra Precision

SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

M/E-10 3-C 5-C 16-C 3-J

The M/E-10, 3-C, 5-C, 16-C and 3-J collets are now available, manufactured with the same precision as our collets and bushings for the Swiss-Type Automatics. They are available round, hex, square, special profile, or as through or stepped bores, standard or extra precision. The 5-C is available with an extended or oversized nose.



CAT. NO.	D	a	E	L	INT THD	THD
ME-10	.3935	15	.559	1.675	5/16 – 24	10-10 buttress
3-C	.6495	12½	.853	2.773	–	.640 x 26NS
***5-C**	1.2495	10	1.468	3.393	1.041 – 24	1.238 – 20
16-C	1.8898	11	2.259	4.516	1 11/16 – 20	48 x 1.75mm
3-J	2.000	7	2.205	3.954	1.788 – 24	1.988 x 20

* 5-C collets are available with oversize heads up to 2 inches.

SOUTHWICK & MEISTER INC.
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Extended Nose Collets and Bushings:

Extended nose collets and bushings are used when clearance or reach becomes an issue. Since everyone's needs are specific, there is **NO STANDARD** extension. We recommend that when ordering, you order the extension as short as possible to suit your needs. If you are having the extended portion of the collet or bushing tapered, you can either specify to what diameter you want it tapered to or go with the standard that we have established, which is .200 larger than the bore diameter you require, however, in either case, you must specify that you want the nose tapered.

When ordering extended nose collets or bushings, please refer to the diagrams on the separate extended nose page of our catalog. It is helpful to us in insuring accuracy if you supply the "A" and "B" dimensions when ordering.

Overgrip Collets:

Overgrip collets are used when the collet must be sprung open to clear a larger diameter and grip on a smaller diameter behind that larger diameter. **EXAMPLE:** the threads of a screw measure .262 and the shank of the screw between the threads and the head of the screw is .250. You are inserting the screw "thread end first" into the sub-spindle collet. The collet would have to open up enough to clear the .262 and grip on the .250. Since the shank of the screw is a given length, the .250 bore of the collet must have a specific length assigned to it. We call that the **"LAND"**. Since the machine has limited stroke when opening and closing a collet, you may want to contact the machine manufacturer to see if your specific application would be possible….

When ordering, please supply the following information:
- Bore diameter
- Overgrip diameter
- Land

Step Bore Collets:

Step bore collets are used when the collet must hold 2 or more different diameters of a given part. **EXAMPLE:** A part has a diameter of .250 for .150 in length, then steps down to .200. You are inserting the .200 diameter into the sub spindle first and you need to grip both the .200 and the .250 diameters. The collet would have both bores in it, the .250 at the face of the collet and into the collet for a length of .150. The .200 bore behind the .250 bore would run into the backbore of the collet.

Please be aware that step bore depths of .050 and shorter are EDM'd, (ram style), into the collet with an EDM finish. Bores depths greater than .050 or XP tolerance will be a ground finish. Please specify **"GRIND ALL BORES"** when ordering step bores with bore lengths of .050 or shorter.

When ordering, please supply the following information:
- Step bore collet
- Bore diameter
- Depth of bore
- Thru bore diameter

True Serrated Collets:

Collets with true serrations are used for extra gripping force. Along with the radial grooves that are normally found in our collets with bores .500 and larger, we wire slots along the bore length to provide a waffle pattern.

When ordering, please specify **"TRUE SERRATIONS"**

Collet Bores (Smooth / Grooved):

Please note:

Bore diameters from .013 to .499 are normally smooth. Bore diameters .500 and larger are normally grooved. **IF YOU ARE ORDERING A PICKOFF COLLET,** (sub-spindle collet), it is imperative that you specify smooth bore if that is what you need.

Inclined slotted collets and bushings

In addition to using inclined slotted collets and bushings for pinion stock and profile stock, it can also be used to diminish the scratching of material as it passes thru the collet and bushing.

When ordering, please specify: **"INCLINED SLOTS"**

Drawing back into the guide bushing

When drawing material back into the guide bushing, we suggest adding a radius to the bore at the face of the guide bushing. This will minimize the grabbing effect that a sharper corner of the bore may produce.

When ordering, please specify **"WITH BORE RADIUS"**

Emergency collets and bushings

We offer emergency collets. We call them **HARD BODY SOFT HEAD** collets. They work by placing the provided pins into the pre-slots of the collet and closing the collet, then boring the collet to size. We recommend adding a little dab of grease to the pins when inserting them into the slots.

We recommend **MEEHANITE** guide bushings be used for emergency purposes. When ordering either emergency collets or bushings, please specify a bore diameter **SMALLER** then the finish bore diameter you desire. Even if we do not have the specific drilled bore you need to order available at that time, we may have something smaller in stock that you could use.

Max land bushings and collets

Extra long bores are available in carbide, steel and meehanite. The extra length changes with both the bore diameter and the collet or bushing it is ordered with. Our sales staff will be happy to give you the approximate bore length of the max land you are requesting.

Plastic collets and bushings

Plastic inserted collets and bushings are now available for those parts that require minimal scratching.

Zig-Zag slotting

We offer zig-zag wire slotting on the finish slots to help prevent scratching. Collets and bushings ordered with zig-zag slotting must have an even number of slots.

GENERAL INFORMATION

RETURNS:

Returns can be made with **THE PROPER AUTHORIZATION.** Returns are to be for errors made when taking an order or for manufacturing defects. Inventory reductions can not be allowed as an acceptable return. A return authorization number must be obtained along with the reason for the return.

Allowed returns include but are not limited to the following: Customer errors when ordering stockable fractional items. S&M Inc. errors when taking the order. Allowable **"REWORK"** (items must be in new **UNUSED** condition). Returns may be subject to a restocking charge.

Please refer to the **RETURNS** section of our catalog for more information.

DAMAGED SHIPMENTS:

In the event you receive a damaged shipment, please advise the carrier immediately prior to opening the package. Once the package and it's contents are inspected and found to be damaged, please call us in order to begin the proper procedures for starting a claim and to get a new replacement order processed.

If you are **"FREIGHT COLLECT"**, you are responsible for filing the claim with the carrier with the exception of the first $100. **WE DO NOT INSURE FREIGHT COLLECT SHIPMENTS.**

ORDER CONFIRMATIONS:

If it is necessary for your purchasing department to send out order confirmations, please make certain that the confirmation is **CLEARLY** marked **CONFIRMING ORDER, DO NOT DUPLICATE.**

Duplicate shipments are costly and we can not be held responsible if the confirming e-mail, fax or mail is not marked as such. Also, orders verbally duplicated will not be allowed to be returned if the items are specials.

EXPEDITING ORDERS:

We will gladly expedite your order, but please allow us a reasonable amount of time for us to get your order into the system. In most cases, 3 days will allow us enough time to be able to provide you with an accurate ship date.

QUOTES:

Quotes are provided with an APPROXIMATE manufacturing time… Since your parts may be started from different points of operation, this is just an **APPROXIMATION.** We assume no liability for being within a reasonable amount of time of the quote.

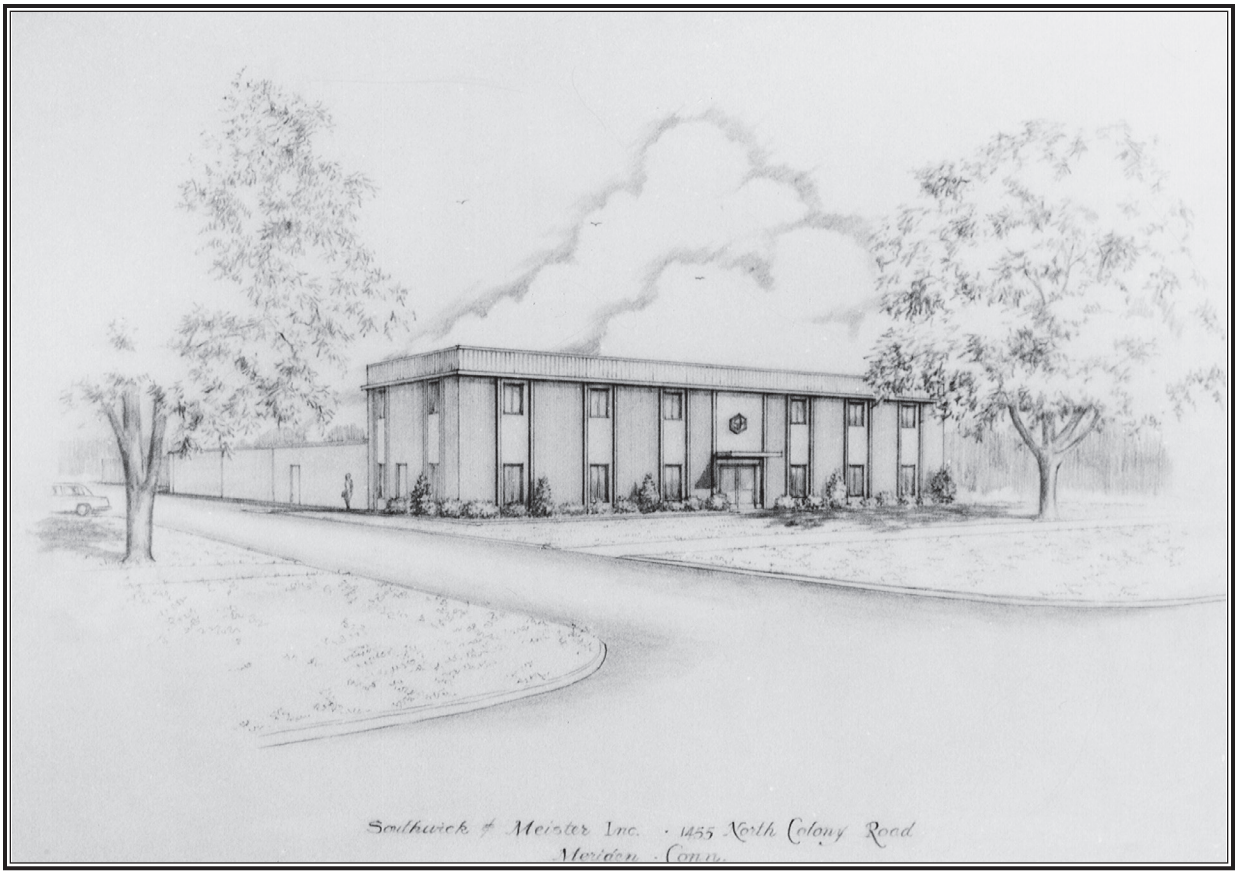
We strive to be as close as humanly possible and will do what we can to get the order out as quoted.

GENERAL INFORMATION

SLIDING HEADSTOCK AUTOMATICS (SWISS TYPE)

Since 1952 we have manufactured collets, carbide bushings and allied tooling for Swiss type automatics. We have consistently added manufacturing capacity and increased our inventory of semi-finished and finished stock. Consequently, we are presently in a position to offer rapid delivery on standard, semi-standard and special items from the largest and most complete selection of Swiss type tooling in the United States.

Whether you operate Swiss type automatics that were built in Switzerland, Germany, France, Japan or the United States, and whether they are cam or N/C controlled, S&M is equipped to serve your requirements.



PLANT ADDRESS:
1455 North Colony Road
Meriden, Connecticut 06450

Phone (203) 237-0000
Website: www.s-mcollets.com

MAILING ADDRESS:
P. O. Box 725
Meriden, Connecticut 06450

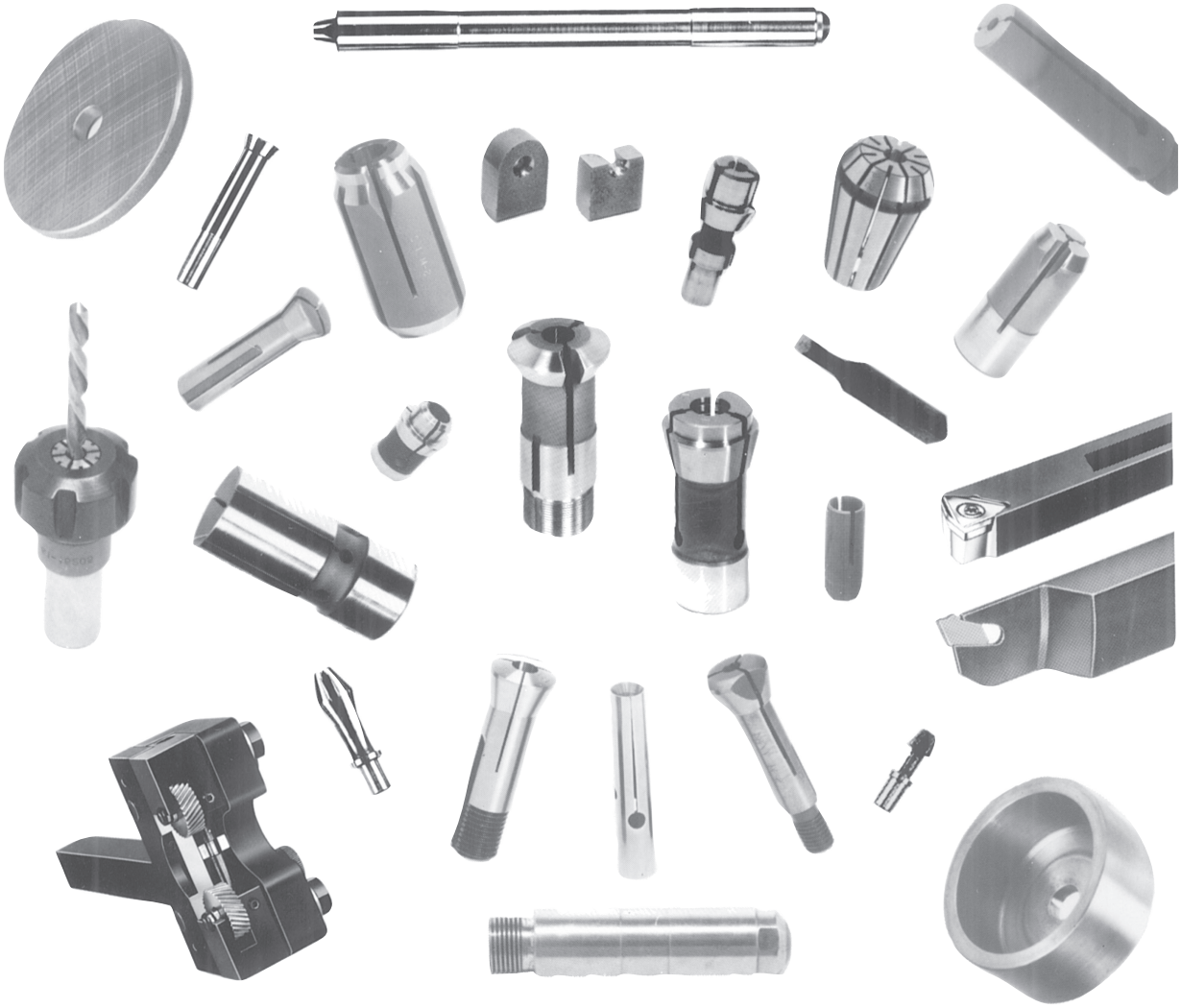
Fax (203) 634-4509
E-Mail: southwickand.meister@snet.net

SALES DEPARTMENT HOURS

Telephone – 7:00 AM thru 4:30 PM *(Eastern Time)*
Fax – Lines Open 24 Hours

Revised January 2017

TOOLING FOR ALL SWISS–TYPE AUTOMATICS



Since 1952, Southwick & Meister, Inc. has been a dependable source for tooling for all makes and models of Swiss-type automatics.

OUR REPUTATION HAS BEEN BUILT ON QUALITY PRODUCTS AND RAPID DELIVERY.

SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

CONTENTS

ORDERING INFORMATION

Collets, bushings, barloader collets, feed fingers and other items are normally stocked in the fractional increments (Inc.) shown. Fractional bores of smaller increments than those listed are available as decimal items.

Unless otherwise specified all dimensions shown are in inches.

MINIMUM ORDER: $15.00

TERMS:

Net 30 days. No cash discount allowed. Past due accounts are subject to 1.5% per month carrying charge (18% annual percentage rate). Shipments are automatically held for accounts exceeding 60 days. Accounts over 90 days (60 days past due) are subject to collection and future orders are shipped COD. Statements are not mailed. All new accounts must have a favorable Dun & Bradstreet rating or supply financial information including credit references. A credit form is available on request.

RETURNS:

1. A return authorization number must be obtained from our Sales Department and marked on the outside of the returned package with a copy of the original packing slip. A detailed reason for the return must be enclosed with the returned part(s).
2. Stock items with standard bore sizes ordered in error are subject to a restocking charge.
3. Made-to-order items and standard items with special bore sizes that are ordered in error are not returnable.
4. In the event of a quality question, the parts involved are subject to Southwick & Meister's inspection before a final disposition can be made.

FOB:

Meriden, Connecticut. The title of ownership changes hands at the moment of pickup by the carrier, which is also the invoice date. The responsibility for delayed or lost shipments is that of the receiver, although Southwick & Meister will assist in tracing and expediting such shipments.

EXPORT ORDERS:

Export orders are shipped only after the customer has requested, received and approved a pro forma invoice. Advance payment by certified check, money order or irrevocable letter of credit is required for each export shipment. Export orders are subject to extra charges for handling and documentation.

QUOTATIONS: Valid for 30 days.

All conditions are subject to change without notice.

Individual catalogs are available for most CNC machines.

SOUTHWICK & MEISTER INC.
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HELPFUL ORDERING TIPS

Please know your customer account number. This will insure that your package goes to you, and not another company with a similar name.

If using a credit card, please have your account number and expiration date readily available.

Be sure to list the proper suffix after specials.

OG – Overgrip
M – Meehanite
ST – Steel
XP – Extra Precision
C – Carbide
SM – Smooth Bore
GR – Grooved Bore
HX – Hex
SQ – Square
BLK – Blank
INC – Inclined Slots
EN – Extended Nose
TS – True Serrations
HBSH – Hard Body Soft Head
SS – Stainless Steel
ZZ – Zig Zag Finish Slots (Must be an even # of slots)
P – Plastic
EOG – Extreme Overgrip
ML – Max Land (Extra bore length)

For those customers experiencing problems with whipping stock or alignment of stock thru the collet or guide bushing, we offer the same collet and guide bushing with a *Meehanite Guide* in the back bore. Just specify when ordering **"with Meehanite Plug".**

If ordering extended nose collets or bushings, please be sure you have the proper dimensions. You may refer to the extended nose chart in this catalog, or specify either standard nose length plus your dimension or total nose length (including the standard nose length). Also, if a taper on the nose is required, please notify us at the time the order is placed.

Carbide bushings and collets are available in extra long carbide bore lengths. The length varies depending on the bore diameter and which collet and bushing is being used.

Collet bores up to and including .499 are standard as smooth bores. .500 and larger are standard as grooved bores. Please refer to the suffix list above when ordering non-standard items.

If we are to ship any other way than UPS ground service, please be sure to specify when the order is placed. If special shipping requirements are not specified, this includes consignee and collect, we will ship UPS ground.

If requiring next day air shipments, please make sure the item ordered is in stock. Please do not assume that because you asked for next day delivery, we have the item in stock.

Please to be sure to check the proper collet and bushing identification number (alpha numeric) by referring to your machine identification chart.

If following a quote with a purchase order, please refer to the person you quoted with.This person may be holding the parts you need.

PRODUCT DATA

Steel Collets	Supplied as standard for headstocks and attachments. Headstock collet tapers are cam ground to provide radial relief, which prevents sticking. Collets are available in any round or profile bore size. Pick-up collets with an extended nose length (EN) are made to order.
Steel Collet Bores	Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering. When ordering pick-off collets, please specify smooth bore.
Carbide Lined Collets	They have a wear life many times that of steel collets; in addition, they resist “galling” and “scratching” of problem materials.
Carbide Lined Bushings	Push or draw type (threaded) are available in any round bore size from .030 to 1.250 inches.
Meehanite Bushings	Meehanite bushings are made in any round bore size. Meehanite is compatible with most materials including those which have a high tendency to “pick-up”. However, meehanite has a wear life that is considerably shorter than that of carbide.
Steel Bushings	Hardened steel bushings are available in any round or profile bore size. These bushings are normally used in a revolving holder.
Inclined Slotted Collets & Bushings	These items are frequently used for pinion stock as the spring slots are never parallel to the pinion teeth.
MPC Collet System	This double angle, multi-slotted, quick releasing style collet collapses approximately .040 inch parallel to its axis to hold any drill, reamer, tap, or boring tool. Eight OD sizes cover a bore range from .020 to 1.024 inches. Holders are stocked in 41 styles with shank diameters ranging from .250 to 1.250 inches. Metric and fractional bore sizes are available.
Automatic Bar Feed Collets	Many styles are manufactured for either feeding the bar or retracting the remnant. These items are sometimes referred to as clamping collets, finger chucks, barfeed collets, or multibar collets, but basically perform the same function. Popular sizes are shipped from stock. Other sizes are made to order from semifinished stock.
Carbide Cutting Tools	Brazed type tools are stocked for all Swiss type automatics. We also carry the standard line of **ISCAR** insert type tooling, in addition to special insert tooling designed specifically for Swiss type automatics.
Push Rods, Replaceable Metal Flags & Tips	Both stationary and revolving tip rods are stocked for most machines. Three sizes of replaceable metal flags cover all applications. Two sizes of replaceable tips are available for replaceable tip push rods.

PICK–OFF COLLETS

With the increasing use of pick-off collets with both standard and extended nose lengths (EN), there is a potential problem for users.

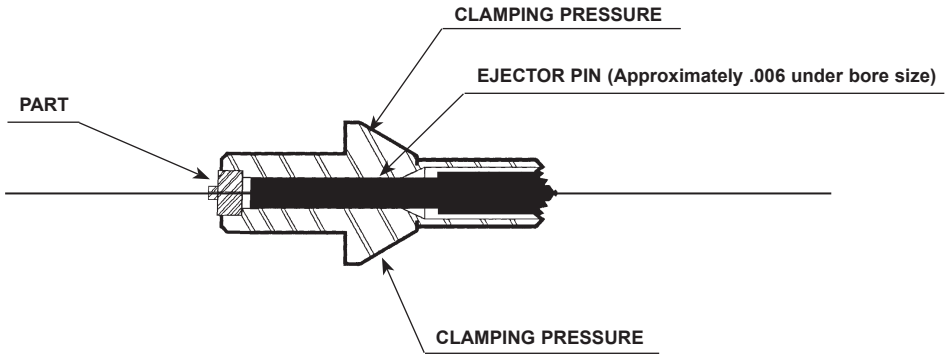
PROBLEM

Generally, pick-off collets grip short part lengths that only occupy the front section of the bore. With all of the clamping force on the collet angle—which is a considerable distance from the part being held—the collet begins to collapse under the angle. At this point, the bore is no longer parallel and does not squarely grip the part, which usually results in the parts running eccentric and slipping in the collet. When this happens, the natural reaction is to increase the clamping pressure. Finally, the collet prematurely fails.

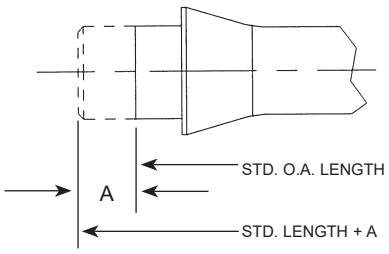
Another problem that is peculiar to pick-off collets is that they are sometimes closed without a part in place. Having no internal resistance puts undue strain on the collet walls, which can contribute to premature collet failure.

RECOMMENDATIONS

Whenever possible, turn the front end of the ejector pin to about .006 inch under the thru-bore size. In the retracted position, the end of the pin should be approximately 1/8 inch behind the work part. With the pin inside the bore at all times, overclosing is prevented.



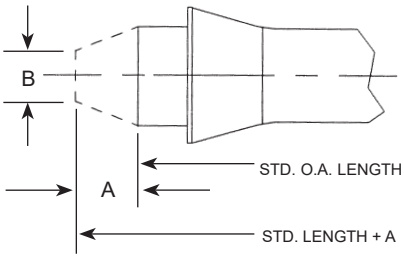
ORDERING INFORMATION FOR (EN) EXTENDED NOSE COLLETS



STRAIGHT NOSE

(EN) EXTENDED NOSE COLLET

"A" must be given when collet is ordered.



TAPERED NOSE

(EN) EXTENDED NOSE COLLET

"A" & "B" must be given when collet is ordered.

NOTE: Many machines use the same collet in the pick-off attachment that is used in the headstock. Headstock collet bores that are 1/2 inch and larger are grooved for extra holding power, while pick-off collets generally require a smooth bore. For this reason, if you require a collet for a pick-off operation, please specify smooth bore when ordering.

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NEW PRODUCT

BIOCOMPATIBLE

Collets and Bushings

(Patent Pending)

Concerned about the possibility of contamination transfer onto your product?

While addressing concerns about the transfer of contaminants during machining, Southwick & Meister, Inc. has developed a collet and bushing that is biocompatible with your manufactured medical/dental device part by reducing, if not eliminating, material transfer during the machining process.

Our patent pending specialty process/product aims at making your machining process
as “Medical Friendly” as possible.

Contact us to discuss your specific requirements.

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Bore Radius

(Convex or Concave)

As a special request, a bore radius can be added to the bushing or collet during manufacturing.

In the case of a bushing, you may want a convex bore radius on the bore edge in order to prevent shearing when pulling the stock back in. On the subspindle collet, you may want a convex bore radius so as not to mark the part with a sharp corner.

A concave spherical radius can be added, especially for the manufacturing of screws, where broaching the hex into the head may push the screw back against a sharp corner and damage the finish on the screw head. By allowing the collet to seat against a mating contour, the likelihood of such damage is reduced.

When ordering a concave bore radius, a sample of the part with the spherical radius is required to insure proper fit. A detailed drawing of the part with the radius called out is also required.

This is a special item and commands a higher price as well as a longer lead time.

If ordering collets and/or bushings with a bore radius, a sketch is helpful in order to accurately quote the items for you.

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Max Land Bushings

Max land, (maximum bore length), bushings are available for bore sizes over .120 (3.04mm) when drawing back into the bushing is a requirement.

As the bore diameter gets larger, the bore length will increase by bore group. Please see table below. The bore lengths listed are approximate and vary from bushing to bushing. These bushings are specials, command a higher price and require a slightly longer lead time. They may also be purchased in XP (extra precision). When ordering ask for MAX LAND.

In some instances, a steel bushing may be purchased with even a longer bore length, but this bore surface will be a wire EDM finish and will not be of the same T.I.R. quality as that of a ground bushing.

Upon request, meehanite (cast iron) guides may be inserted into the rear of the bushing for aiding in alignment. The plug is set into the back-bore under the threads with a bore diameter of approximately .003 over the working bore size. This reduces alignment issues. When ordering ask for MEEHANITE PLUG IN BACK BORE.

Bore Size	Approximate Standard Bore Length	Max Bore Length
1/8	1/2	.850
3/16	9/16	1.000
1/4	5/8	1.000
5/16	5/8	1-1/8
3/8	11/16	1-1/4
7/16	3/4	1-1/4
1/2	3/4	1-1/4
9/16	3/4	1-3/8
5/8	7/8	1-3/8
11/16	7/8	1-3/8
3/4	7/8	1-3/8
13/16	7/8	1-3/8
7/8	7/8	1-3/8
15/16	1/1	1-3/8
1/1	1/1	1-3/8
1-1/16	1/1	1-3/8
1-1/8	1/1	1-3/8
1-3/16-1-5/16	1-1/8	Not Available

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Plastic Lined Collets & Bushings

We now offer “PLASTIC” lined collets and bushings to assist you with your surface finish requirements. We know that traditional steel and carbide products will have significant longer life, but when surface finish is critical, this thermoplastic product may be what is required.

Bore diameters start at 1/16 (.0625) on collets and bushings with a 13mm tail or smaller.

For collets and busings with a tail diameter that is larger than 13mm, the minimum bore diameter is 1/8 (.125).

You may order this product by simply adding the suffix “P” to our part number.

Example:

TF25 3/16 = STEEL collet

TF25-P 3/16 = PLASTIC collet

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Profile Bores / Step Bores

Southwick & Meister possess comprehensive EDM processes with small hole, wire and ram capabilities. Through bores can be produced with inner diameters as small as .010 of an inch and finish bores as small as .013 of an inch utilizing wire EDM.

Our wire machines are capable of cutting a variety of bore configurations. We require that detailed part drawings are provided to facilitate the development of the process program. Samples of the parts to be produced are requested so that we can confirm proper fit between the part and the collet/bushing prior to shipment. Outer diameter to inner diameter ratio constraints for carbide cylinders prohibits us from wiring certain shapes and configurations into carbide bushings. Therefore, bushings are supplied in steel unless agreed upon prior to ordering.

Step bores that are EDM rammed rather than machined are shipped with an EDM finish. Counter bores with a depth greater than .050 of an inch are normally ground. Upon request, most counter bores with a depth of .049 of an inch or less can be plunge ground in order to provide the best finish possible. Bore diameter, depth of bore diameter and through bore diameter must be specified at the time of order. Requirements for ground bore surfaces must be stated at the time of order. Multi-step bores can be provided, but it is highly recommended that configuration drawings accompany the order.

Due to the additional pre-manufacture engineering and manufacturing processing required to produce this product, pricing and lead time will deviate from that of standard product and should be quoted prior to ordering.

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Zig-Zag Slotted Collets & Bushings

We now offer “ZIG-ZAG SLOTTED” collet and bushings to assist you with your finished surface requirements. This type of slotting reduces horizontal scratching from standard slotted collets and bushings. Because your stock will slide across the slots rather than along the slots, the result will be minimal scratching.

Collets and bushings with ZIG-ZAG slotting will need to have either 2, 4 or 6 slots.

Ordering a ZIG-ZAG slotted collet or bushing requires you to add a “ZZ” to the standard slotted part number and inform us how many even number of slots you require.

Example:

TF25 3/16 = STEEL collet

TF25-ZZ 3/16 with 4 slots = ZIG-ZAG slotted collet

Extreme Overgrip Collet

When the standard overgrip collet just isn't enough.

Available for overgripping diameters up to 3mm (.118) over the grip diameter (on diameter).

Example:

Grip diameter is .250
overgrip diameter could be as much as .368.

When Ordering:

Please specify how long the grip diameter needs to be.

SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

CITIZEN CNC TURNING CENTERS

QUICK REFERENCE GUIDE*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL SLEEVE COLLET	ROTARY TOOL COLLET	PICK-OFF COLLET
A16	TF20	0201 MPC COLLETS	VARIOUS	—	TF20
A20	TF25	TD25-NS	MPC11/16	MPC16	TF25
A20 Non-Guide Bushing Model	BL25	N/A	MPC11/16	MPC16	TF25
A32	TF37-SP	TD32	VARIOUS MPC COLLETS		TF37-SP
A320	TF25	TD25-NS	VARIOUS MPC COLLETS	VARIOUS MPC COLLETS	TF25
B12	TF16	SD125R MPC11	TF8	MPC11	—
B12 I	TF16	SD125R	MPC11	N/A	N/A
B12 II	TF16	SD125R	MPC11	MPC8	N/A
B12 V	TF16	SD125R	MPC11	N/A	TF16
B12 VI	TF16	SD125R	MPC11	MPC8	TF16
BL12	BL12	N/A	MPC11/16	—	TF16
BL25	BL25	N/A	MPC11/16	MPC11	TF30
B20	TF25	TD25NS MPC11	TF8	MPC11	TF25
B20 I	TF25	TD25NS	MPC16	N/A	N/A
B20 V	TF25	TD25NS	MPC16	N/A	TF25
BNA-42GTY	TF48	—	—	—	—
C16	TF20	0201	MPC11	MPC11	TF20
C32	TF37-SP	TD32	—	—	TF37-SP
D10	TF15	TD10	TF8	—	—
D16	TF25	TP20	TF12	—	—
E16J	TF25	0201 MPC16	TF8 MPC11	0136	TF25
E216	TF25	0201	MPC16	MPC12/16	TF25
E220	TF25	TSD20	MPC16	MPC12/16	TF25
E225 (25J)	TF30	CD25	MPC16	MPC12/16	TF30
E232	TF37	TD32	MPC16	MPC12/16	TF37
E32	TF37-SP	TD32	MPC16	MPC12/16	TF37-SP
E32 IV	TF37-SP	TD32	MPC16	MPC11/16	TF37-SP
E32K	TF37	TD32 MPC16	TF10	MPC12/16	TF37
F10	TF15	TD10	TF8	—	—

*** Refer to separate section in this catalog for MPC attachment collets.**

CONTINUED ON NEXT PAGE

CITIZEN CNC TURNING CENTERS

QUICK REFERENCE GUIDE* *(Continued)*

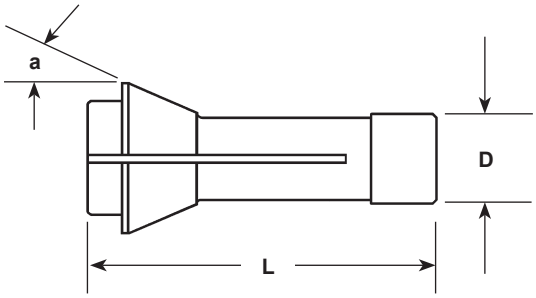
MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL SLEEVE COLLET	ROTARY TOOL COLLET	PICK-OFF COLLET
F12	TF16	SD125R	TF8 MPC16	0136	TF16
F16	TF25	0201	TF8 MPC16	0136	TF25
F20	TF25	TSD20	TF10 MPC16	TF8 MPC16	TF25
F25	TF30	CD25	TF10 MPC16	TF8 MPC16	TF30
FL32	TF37-SP	N/A	MPC20/25	MPC11/16/20	TF37-SP
FL42	TF48	N/A			TF48
G16	TF25	0201	TF8	—	—
G32	TF37-SP	TD32	VARIOUS MPCCOLLETS	—	TF37-SP
K16	TF20	0201	—	—	TF20
K16C	BL16	N/A	MPC11/16	MPC11	TF20
L10	TF15	TD10	TF8	TF8	TF8
L16	TF25	0201	TF8 MPC16	—	—
L16V	TF25	0201	TF8 MPC16	—	TF25
L16VI	TF25	0201	TF8 MPC16	MPC16	TF25
L20	TF25	TD25-NS	MPC16	MPC16	TF25
L20 I	TF25	TD25NS	MPC16	MPC11/16	N/A
L20 III	TF25	TD25NS	MPC16	MPC11/16	N/A
L20 VII	TF25	TD25NS	MPC16	MPC11/16	TF25
L25	TF30	CD25	MPC16	MPC16	TF30
L32	TF37-SP	TD32	MPC16	MPC16	TF37-SP
M12	TF16	SD125R	MPC11/16	TF8/MPC11	TF16
M16	TF20	0201	MPC11/16	TF8/MPC11	TF20
M20	TF25	TD25-NS	TF8 MPC16	0136 TF8-MPC11/16	TF25
M32	TF37-SP	TD32	MPC16	MPC11/16	TF37-SP
RO4	TF8	PD4	MPC8	MPC8	TF8
RO7	TF15	TD7	MPC8	MPC8	TF15

— Not Applicable.

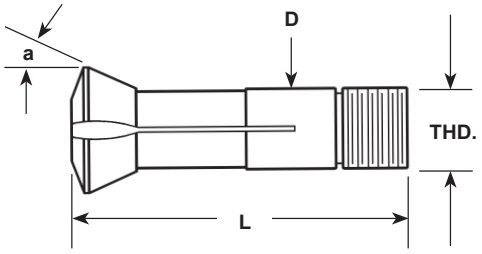
NA Not Available from Southwick & Meister.

*** Refer to separate section in this catalog for MPC attachment collets.**

STEEL COLLETS
ROUND



CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
0136	7mm .276	26mm 1.024	15°	1/64 .001	3/64 – 3/16 .020 – .188
TF8	8mm .315	41mm 1.614	16°	1/64 .001	1/16 – 1/4 .020 – .250
TF10	10mm .393	47mm 1.850	20°	1/64 .001	1/16 – 9/32 .020 – .281
TF12	12mm .472	64mm 2.520	16°	1/32 .001	1/16 – 5/16 .030 – .375
TF15	15mm .590	64mm 2.520	16°	1/64 .001	1/16 – 7/16 .030 – .500
TF16	16mm .630	64mm 2.520	16°	1/64 .001	1/16 – 1/2 .030 – .500
TF20	20mm .787	67mm 2.638	16°	1/32 .001	1/8 – 5/8 .050 – .630
TF25	25mm .984	77mm 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
TF30	30mm 1.181	80mm 3.150	16°	1/16 .001	3/16 – 1in. .150 – 1.000
TF37	37mm 1.456	92mm 3.622	16°	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TF37-SP	37mm 1.456	92mm 3.622	16°	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TF48	48mm 1.889	94mm 3.700	15°	1/16 .001	3/8 – 1 1/4 .300 – 1.500



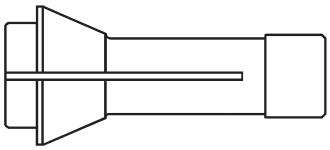
CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
BL12	.7499	3.020	15°	18.5 x 1.2	1/16 .001	1/8 – 9/16 .100 – .570
BL16	.9055	3.386	20°	21.1 x 1.2	1/16 .001	1/8 – 3/4 .100 – .750
BL25	1.299	3.938	15°	32 x 1.5	1/16 .001	1/8 – 1/1 .100 – 1.040

NOTE:
1. Collets are available in standard and extra precision (XP) for critical applications.
2. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
3. When ordering pick-off collets, please specify smooth bore.
4. If a collet used in a pick-off application requires an extended nose length, use the suffix “EN” and refer to separate section for ordering details.
5. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.
6. The TF37-SP is a basic TF37 collet with minor modifications necessary when used in the models E32, L32 and M32 machines.

CITIZEN CNC TURNING CENTERS

STEEL COLLETS

HEXAGON & SQUARE



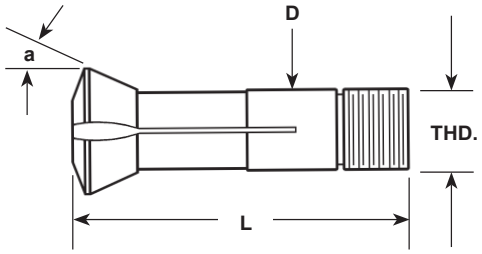
HEXAGON		
CAT. NO.	INC.	RANGE
TF15HX	1/32	1/8 – 3/8
TF16HX	1/32	1/8 – 7/16
TF20HX	1/16	1/8 – 1/2
TF25HX	1/16	3/16 – 11/16
TF30HX	1/16	1/4 – 3/4
TF37HX	1/16	1/4 – 1 1/16
TF37-SPHX	1/16	1/4 – 1 1/16
TF48HX	1/16	3/8 – 1 1/4

SQUARE		
CAT. NO.	INC.	RANGE
TF15SQ	1/32	1/8 – 11/32
TF16SQ	1/32	1/8 – 11/32
TF20SQ	1/16	1/8 – 7/16
TF25SQ	1/16	3/16 – 9/16
TF30SQ	1/16	1/4 – 11/16
TF37SQ	1/16	1/4 – 7/8
TF37-SPSQ	1/16	1/4 – 7/8
TF48SQ	1/16	1/4 – 1 1/4

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

CARBIDE DRAW BUSHINGS

ROUND



CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
PD4	9mm .354	44mm 1.732	16°	8 x .75	1/64 .001	1/16 – 3/16 .030 – .188
TD10	16mm .630	60mm 2.362	16°	14 x 1	1/64 .001	1/16 – 13/32 .030 – .406
SD125R	18mm .709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
0201	24mm .945	61mm 2.402	30°	24 x 1	1/32 .001	1/8 – 5/8 .100 – .625
TD25-NS	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
TSD20	32mm 1.260	70mm 2.756	30°	32 x 1	1/16 .001	1/8 – 13/16 .100 – .813
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1 in. .100 – 1.000
TD32	42mm 1.654	82mm 3.228	20°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250

NOTE: Generally guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

STEEL DRAW BUSHINGS

HEXAGON & SQUARE

HEXAGON		
CAT. NO.	INC.	RANGE
PD4HX	1/32	1/8 – 3/16
TD10HX	1/32	1/8 – 5/16
SD125RHX	1/32	1/8 – 7/16
0201HX	1/16	3/16 – 9/16
TD25-NSHX	1/16	3/16 – 11/16
TSD20HX	1/16	1/4 – 3/4
CD25HX	1/16	1/4 – 3/4
TD32HX	1/16	1/4 – 1 1/16

SQUARE		
CAT. NO.	INC.	RANGE
PD4SQ	1/32	1/8 – 5/32
TD10SQ	1/32	1/8 – 9/32
SD125RSQ	1/32	1/8 – 11/32
0201SQ	1/16	3/16 – 1/2
TD25-NSSQ	1/16	3/16 – 9/16
TSD20SQ	1/16	1/4 – 5/8
CD25SQ	1/16	1/4 – 11/16
TD32SQ	1/16	1/4 – 7/8

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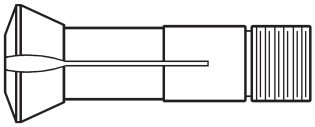
DRAW BUSHINGS
STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
PD4	1/16 .001	1/16 – 3/16 .050 – .203
TD10	1/16 .001	1/16 – 3/8 .050 – .390
SD125R	1/16 .001	1/16 – 1/2 .050 – .500
0201	1/16 .001	1/8 – 5/8 .100 – .670
TD25NS	1/16 .100	1/8 – 3/4 .050 – .796

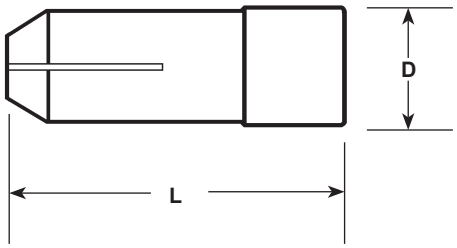
CAT. NO.	INC.	RANGE
TSD20	1/16 .001	3/16 – 7/8 .200 – .875
CD25	1/16 .001	3/16 – 1 in. .100 – 1.000
TD32	1/16 .001	1/4 – 1 1/4 .100 – 1.250

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

CARBIDE PUSH BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS		INC.	RANGE
	D	L		
TP20	28mm 1.102	45mm 1.772	1/32	1/8 – 3/4 .050 – .787



STEEL PUSH BUSHINGS
HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TP20HX	1/16	3/16 – 11/16

SQUARE □		
CAT. NO.	INC.	RANGE
TP20SQ	1/16	3/16 – 9/16

SOUTHWICK & MEISTER INC.

DOUBLE TAPER GUIDE BUSHINGS – DTA SERIES

For Citizen's Adaptive Guide Bushing Systems

DTA SERIES

The design of the double taper bushing (DTA Series) allows for fluctuations in the O.D. of the barstock. With it's unique holder assembly, the bushing compensates for variations in non-ground stock up to .008 (inches).

CITIZEN MODEL	CAT NO.	D	L	INC.	RANGE
L20, M20	**#28 DTA**	28MM 1.102	40MM 1.575	.001	.125 – .787
L32, M32, C32	**#42 DTA**	42MM 1.654	50.2MM 1.978	.001	.200 – 1.250

* Round, hex and square bore sizes supplied in steel and bronze.
* If ordering steel, add the suffix ST.
* If ordering bronze, add the suffix BZ.
* When ordering, order to the maximum stock size.
* Approximately 7 business days to manufacture.
* Replacement springs and rings are available upon request.

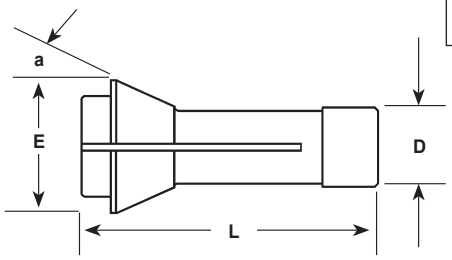
SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

Quick Reference Guide*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL COLLET	PICK-OFF COLLET
SD16	CM16C	CM16D	VARIOUS MPC	CM16C
SD20	CM20C	CM20D	VARIOUS MPC	CM20C

***Refer to separate section in this catalog for MPC attachment collets.**

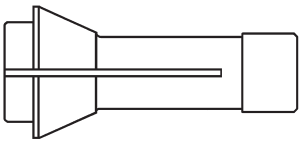
STEEL COLLETS
ROUND



CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	E	L	a°		
CM16C	20mm .787	1.033	2.638	15	1/32 .001	1/8 – 5/8 .050 – .630
CM20C	26mm 1.022	1.098	2.640	16.5	1/16 .001	3/16 – 3/4 .050 – .750

NOTE
1. Collets are normally stocked in the fractional increments shown. All other bores are made to order.
2. Collets are available in standard and extra precision (XP) for critical applications.
3. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
4. When ordering pick-off collets, please specify smooth bore.
5. If a collet used in a pick-off application requires an extended nose length, use the sufix “EN” and refer to separate section for ordering details.
6. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.

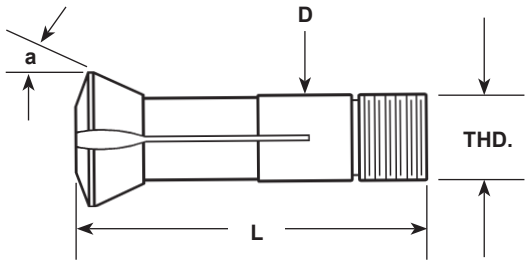
STEEL COLLETS
HEXAGON & SQUARE



HEXAGON ⬡		
CAT. NO.	INC.	RANGE
CM16CHX	1/16	1/8 – 1/2
CM20CHX	1/16	3/16 – 5/8

SQUARE □		
CAT. NO.	INC.	RANGE
CM16CSQ	1/16	3/16 – 1/2
CM20CSQ	1/16	3/16 – 9/16

CUBIC CNC TURNING CENTERS



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
CM16D	20mm .787	2.773	15°	20 x 1	1/32 .001	1/8 – 5/8 .050 – .630
CM20D	30mm 1.181	2.324	16°	30 x 1	1/16 .001	3/16 – 3/4 .050 – .750

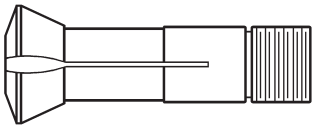
NOTE: Generally, guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

STEEL DRAW BUSHINGS
HEXAGON & SQUARE

CAT. NO.	INC.	RANGE
CM16DHX	1/16	1/8 – 1/2
CM20DHX	1/16	1/4 – 5/8

CAT. NO.	INC.	RANGE
CM16DSQ	1/16	3/16 – 1/2
CM20DSQ	1/16	1/4 – 9/16

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.



DRAW BUSHINGS
STEEL OR MEEHANITE

CAT. NO.	INC.	RANGE
CM16D	1/16 .001	1/8 – 1/2 .100 – .547
CM20D	1/16 .001	3/16 – 3/4 .150 – .750

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

SOUTHWICK & MEISTER INC.
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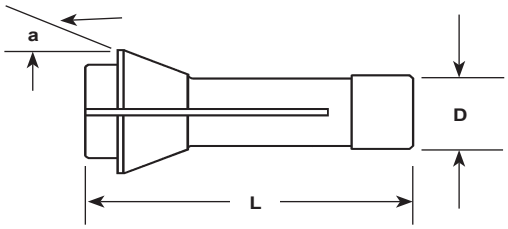
HANWHA CNC SWISS TURNING CENTERS

Quick Reference Guide*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL COLLET	PICK-OFF COLLET
HANEX 25	TF30	CD25	MPC11 MPC16	TF30
ML12S	TF16	SD125R	MPC11	TF16
ML20H (18H)	TF25	TD25-NS	MPC11 MPC16	TF25
ML20S (18S)	TF25	TD25-NS	MPC11 MPC16	TF25
ML26H	TF30	CD25	MPC11 MPC16	TF30
ML26S	TF30	CD25	MPC11 MPC16	TF30
SL12S	TF16	SD125R	MPC11 MPC16	TF16
SL12SE	TF16	SD125R	MPC11 MPC16	TF16
SL16	TF22	TD20R/16	VARIOUS MPC	TF22
SL20H	TF25	TD25-NS	MPC11 MPC16	TF25
SL20HP	TF25	TD25-NS	MPC11 MPC16	TF25
SL20S	TF25	TD25-NS	MPC11 MPC16	TF25
SL26H	TF30	CD25	MPC11 MPC16	TF30
SL26HP	TF30	CD25	MPC11 MPC16	TF30
SL26S	TF30	CD25	MPC11 MPC16	TF30
SL32HP	TF37	TD32S	MPC16	TF37
SL35	F40-SL35	TD45	VARIOUS MPC	F40-SL35
STL32H	TF37	TD32S	VARIOUS MPC	TF37
XP12S	TF16	SD125R	VARIOUS MPC	TF16
XP16	TF22	TD20R/16	VARIOUS MPC	TF22
XP20S	TF25	TD25-NS	VARIOUS MPC	TF25
XD20	TF25	TD25-NS	VARIOUS MPC	TF25
XD26	TF30	CD25	VARIOUS MPC	TF30
XD32H	TF37	TD32S	VARIOUS MPC	TF37
XD35M	F40-SL35	TD45	VARIOUS MPC	F40-SL35
XD38	TF44	H38D	VARIOUS MPC	TF44

***Refer to separate section in this catalog for MPC attachment collets.**

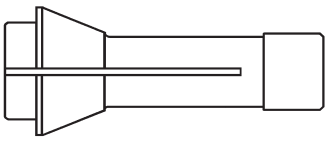
HANWHA CNC SWISS TURNING CENTERS



STEEL COLLETS

CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
TF16	16MM .630	64MM 2.520	16°	1/64 .001	1/16 – 1/2 .030 – .500
TF22	22MM .866	55MM 2.165	15°	1/16 .001	1/8 – 5/8 .100 – .650
TF25	25MM .984	77MM 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
TF30	30MM 1.181	80MM 3.150	16°	1/16 .001	3/16 – 1 in. .150 – 1.000
TF37	37MM 1.456	92MM 3.622	16°	1/16 .001	3/16 – 1 1/4 .200 – 1.250
F40-SL35	40MM 1.574	92MM 3.622	16°	1/16 .001	3/16 – 1 3/8 .200 – 1.380
TF44	44MM 1.732	92MM 3.622	16.5°	1/16 .001	1/4 – 1 3/8 .250 – 1.500

NOTE:
1. Collets are available in standard and extra precision (XP) for critical applications.
2. Collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
3. When ordering pick-off collets, please specify smooth bore if required.
4. If a collet used in a pick-off application requires an extended nose length, use the suffix “EN” and refer to separate section for ordering details.
5. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.



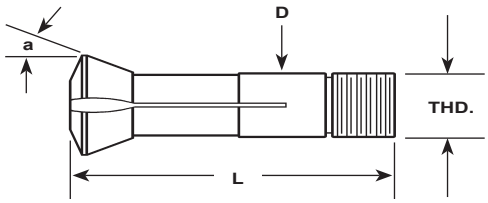
STEEL COLLETS
HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TF16HX	1/32	1/8 – 7/16
TF22HX	1/16	1/8 – 9/16
TF25HX	1/16	3/16 – 11/16
TF30HX	1/16	1/4 – 3/4
TF37HX	1/16	1/4 – 1 1/16
F40-SL35HX	1/16	1/4 – 1 1/8
TF44HX	1/16	1/4 – 1 1/8

SQUARE □		
CAT. NO.	INC.	RANGE
TF16SQ	1/32	1/8 – 11/32
TF22SQ	1/16	1/8 – 7/16
TF25SQ	1/16	3/16 – 9/16
TF30SQ	1/16	1/4 – 11/16
TF37SQ	1/16	1/4 – 7/8
F40-SL35SQ	1/16	1/4 – 15/16
TF44SQ	1/16	1/4 – 1/1

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509



CARBIDE DRAW BUSHINGS

ROUND

NOTE:

Generally guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
SD125R	18mm .709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
TD20R/16	22mm 0.866	67.3mm 2.652	16°	22 x 1	1/32 .001	1/8 – 5/8 .050 – .630
TD25-NS	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1 in. .100 – 1.000
TD32S	42mm 1.654	82mm 3.228	16°	40 x 1	1/16 .001	3/16 – 1 1/4 .200 – 1.250
TD45	45mm 1.771	82mm 3.228	16°	42 x 1	1/16 .001	3/16 – 1 3/8 .200 – 1.380
H38D	46mm 1.811	82mm 3.228	16°	45 x 1	1/16 .001	1/4 – 1 3/8 .250 – 1.500

STEEL DRAW BUSHINGS

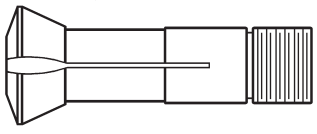
HEXAGON & SQUARE

HEXAGON		
CAT. NO.	INC.	RANGE
SD125RHX	1/32	1/8 – 7/16
TD20R/16HX	1/16	1/8 – 1/2
TD25-NSHX	1/16	3/16 – 11/16
CD25HX	1/16	1/4 – 3/4
TD32SHX	1/16	1/4 – 1 1/16
TD45HX	1/16	1/4 – 1 1/8
H38DHX	1/16	1/4 – 1 1/8

SQUARE		
CAT. NO.	INC.	RANGE
SD125RSQ	1/32	1/8 – 11/32
TD20R/16SQ	1/16	1/8 – 7/16
TD25-NSSQ	1/16	3/16 – 9/16
CD25SQ	1/16	1/4 – 11/16
TD32SSQ	1/16	1/4 – 7/8
TD45SQ	1/16	1/4 – 15/16
H38DSQ	1/16	1/4 – 1/1

DRAW BUSHINGS

STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
SD125R	1/16 .001	1/16 – 1/2 .050 –.500
TD20R/16	1/16 .100	1/8 – 5/8 .100 – .630
TD25-NS	1/16 .100	1/8 – 3/4 .050 – .796

CAT. NO.	INC.	RANGE
CD25	1/16 .001	3/16 – 1 in. .100 – 1.000
TD32S	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD45	1/16 .001	1/4 – 1 3/8 .200 – 1.380
H38D	1/16 .001	1/4 – 1/1 .200 – 1.50

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

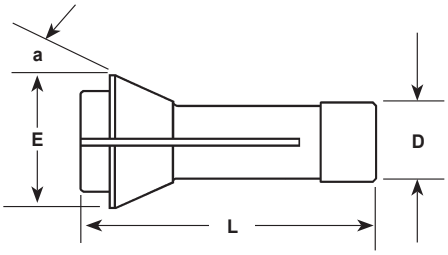
Your Account Number_____

Quick Reference Guide*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL COLLET	PICK-OFF COLLET
SM20	TF25	TD25-NS	MPC16	TF25
SQC20	TF25	TD25-NS	MPC16	TF25
SQC32	TF44	TD32S	MPC16	TF37
SQC38	TF48	TD38	MPC16	TF44

***Refer to separate section in this catalog for MPC attachment collets.**

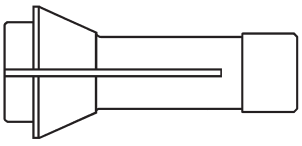
STEEL COLLETS
ROUND



CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	E	L	a°		
TF25	25mm .984	35mm 1.380	77mm 3.032	16	1/32 .001	1/8 – 15/16 .120 – .813
TF37	37mm 1.456	47mm 1.850	92mm 3.622	16	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TF44	44mm 1.732	52mm 2.047	92mm 3.622	16-1/2	1/16 .001	1/4 – 1 7/16 .200 – 1.490
TF48	48mm 1.889	60mm 2.362	94mm 3.700	15°	1/16 .001	3/8 – 1 1/2 .300 – 1.500

NOTE
1. Collets are normally stocked in the fractional increments shown. All other bores are made to order.
2. Collets are available in standard and extra precision (XP) for critical applications.
3. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
4. When ordering pick-off collets, please specify smooth bore.
5. If a collet used in a pick-off application requires an extended nose length, use the sufix “EN” and refer to separate section for ordering details.
6. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.

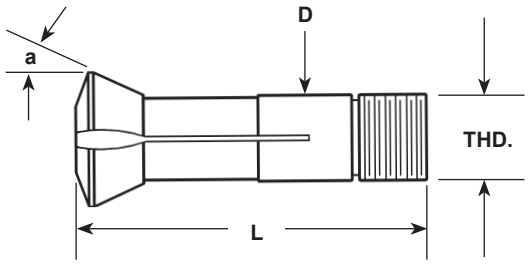
STEEL COLLETS
HEXAGON & SQUARE



HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TF25HX	1/16	3/16 – 11/16
TF37HX	1/16	1/4 – 1 1/16
TF44HX	1/16	1/4 – 1 1/4
TF48HX	1/16	3/8 – 1 1/4

SQUARE □		
CAT. NO.	INC.	RANGE
TF25SQ	1/16	3/16 – 9/16
TF37SQ	1/16	1/4 – 7/8
TF44SQ	1/16	1/4 – 7/8
TF48SQ	1/16	1/4 – 1 1/4

KSI CNC TURNING CENTERS



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
TD25-NS	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
TD32S	42mm 1.654	82mm 3.228	16°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD38	46mm 1.811	92mm 3.622	16°	45 x 1	1/16 .001	1/4 – 1 7/16 .200 – 1.490

NOTE: Generally, guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

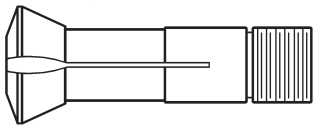
STEEL DRAW BUSHINGS
HEXAGON & SQUARE

CAT. NO.	INC.	RANGE
TD25-NSHX	1/16	3/16 – 11/16
TD32SHX	1/16	1/4 – 1 1/16
TD38HX	1/16	1/4 – 1 1/4

CAT. NO.	INC.	RANGE
TD25-NSSQ	1/16	3/16 – 9/16
TD32SSQ	1/16	1/4 – 7/8
TD38SQ	1/16	1/4 – 1.000

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

DRAW BUSHINGS
STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
TD25-NS	1/16 .001	1/8 – 3/4 .050 – .796
TD32S	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD38	1/16 .001	1/4 – 1 7/16 .200 – 1.490

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

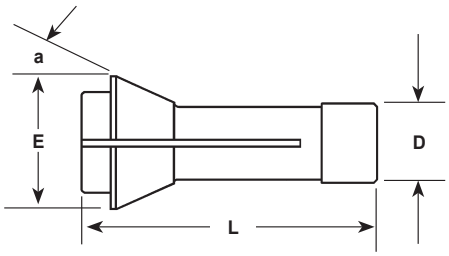
SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

Quick Reference Guide*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL COLLET	PICK-OFF COLLET
SA12	TF16	SD125R	MPC11	TF16
SA18A	TF25	TD25-NS	MPC11/MPC16	TF25
SA20	TF25	TD25-NS	MPC16	TF25
SA26	F32-221	CD25	MPC16	F32-221
SA32	TF37	TD32S	MPC16	TF37
SA38	TF44	TD38	MPC16	TF37

***Refer to separate section in this catalog for MPC attachment collets.**

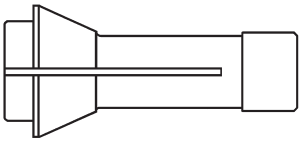
STEEL COLLETS
ROUND



CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	E	L	a°		
TF16	16mm .630	21mm .827	64mm 2.520	16	1/64 .001	1/16 – 1/2 .030 – .500
TF25	25mm .984	35mm 1.380	77mm 3.032	16	1/32 .001	1/8 – 13/16 .120 – .813
F32-221	32mm 1.260	45mm 1.771	75mm 2.953	15	1/16 .001	1/4 – 11/16 .200 – 1.062
TF37	37mm 1.456	47mm 1.850	92mm 3.622	16	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TF44	44mm 1.732	52mm 2.047	92mm 3.622	16-½	1/16 .001	1/4 – 17/16 .200 – 1.490

NOTE
1. Collets are normally stocked in the fractional increments shown. All other bores are made to order.
2. Collets are available in standard and extra precision (XP) for critical applications.
3. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
4. When ordering pick-off collets, please specify smooth bore.
5. If a collet used in a pick-off application requires an extended nose length, use the sufix “EN” and refer to separate section for ordering details.
6. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.

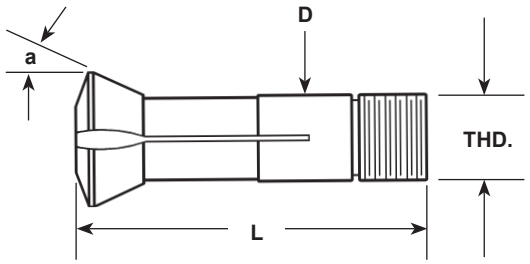
STEEL COLLETS
HEXAGON & SQUARE



HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TF16HX	1/32	1/8 – 7/16
TF25HX	1/16	3/16 – 11/16
F32-221HX	1/16	1/4 – 13/16
TF37HX	1/16	1/4 – 11/16
TF44HX	1/16	1/4 – 1 1/4

SQUARE □		
CAT. NO.	INC.	RANGE
TF16SQ	1/32	1/8 – 11/32
TF25SQ	1/16	3/16 – 9/16
F32-221SQ	1/16	1/4 – 3/4
TF37SQ	1/16	1/4 – 7/8
TF44SQ	1/16	1/4 – 7/8

NEXTURN CNC TURNING CENTERS



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
SD125R	18mm .709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
TD25-NS	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1 in. .200 – 1.000
TD32S	42mm 1.654	82mm 3.228	16°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD38	46mm 1.811	92mm 3.622	16°	45 x 1	1/16 .001	1/4 – 1 7/16 .200 – 1.490

NOTE: Generally, guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

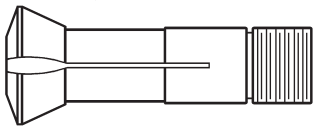
STEEL DRAW BUSHINGS
HEXAGON & SQUARE

CAT. NO.	INC.	RANGE
SD125RHX	1/32	1/8 – 7/16
TD25-NSHX	1/16	3/16 – 11/16
CD25HX	1/16	1/4 – 3/4
TD32SHX	1/16	1/4 – 1 1/16
TD38HX	1/16	1/4 – 1 1/4

CAT. NO.	INC.	RANGE
SD125RSQ	1/32	1/8 – 11/32
TD25-NSSQ	1/16	3/16 – 9/16
CD25SQ	1/16	1/4 – 11/16
TD32SSQ	1/16	1/4 – 7/8
TD38SQ	1/16	1/4 – 7/8

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

DRAW BUSHINGS
STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
SD125R	1/16 .001	1/16 – 1/2 .050 – .500
TD25-NS	1/16 .001	1/8 – 3/4 .050 – .796
CD25	1/16 .001	3/16 – 1 in. .100 – 1.000
TD32S	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD38	1/16 .001	1/4 – 1 7/16 .200 – 1.490

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

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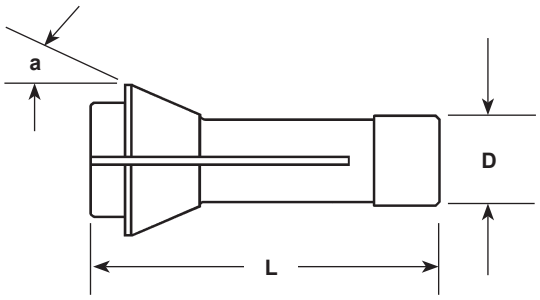
SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

MAIER CNC SWISS TURNING CENTERS

QUICK REFERENCE GUIDE*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL/ MILL COLLET	TURN TOOL SHANK	PICK-OFF COLLET
ML-12A	TF15	SD125R	MPC11	12MM	TF15
ML-12B	TF15	SD125R	MPC11	12MM	TF15
ML-12C	TF15	SD125R	MPC11	12MM	TF15
ML-12D	TF15	SD125R	MPC11	12MM	TF15
ML-16A	TF20	TD20R	MPC11	12MM	TF20
ML-16B	TF20	TD20R	MPC11	12MM	TF20
ML-16C	TF20	TD20R	MPC11	12MM	TF20
ML-16D	TF20	TD20R	MPC11	12MM	TF20
ML-20A	TF25	TD25S	MPC16	16MM	TF25
ML-20B	TF25	TD25S	MPC16	16MM	TF25
ML-20C	TF25	TD25S	MPC16	16MM	TF25
ML-20D	TF25	TD25S	MPC16	16MM	TF25
ML-20E	TF25	TD25S	MPC16	16MM	TF25
ML-26A	F32-221	CD25	MPC16	16MM	F32-221
ML-26B	F32-221	CD25	MPC16	16MM	F32-221
ML-26C	F32-221	CD25	MPC16	16MM	F32-221
ML-26D	F32-221	CD25	MPC16	16MM	F32-221
ML-26E	F32-221	CD25	MPC16	16MM	F32-221
ML-32A	TF37	TD32S	MPC16	16MM	TF37
ML-32B	TF37	TD32S	MPC16	16MM	TF37
ML-32C	TF37	TD32S	MPC16	16MM	TF37
ML-32D	TF37	TD32S	MPC16	16MM	TF37
ML-32E	TF37	TD32S	MPC16	16MM	TF37

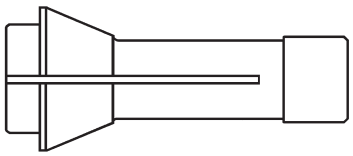
*** Refer to separate section in this catalog for MPC attachment collets.**



STEEL COLLETS

CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
TF15	15MM .590	64MM 2.520	16°	1/64 .001	1/16 – 7/16 .030 – .500
TF20	20MM .787	67MM 2.638	16°	1/32 .001	1/8 – 5/8 .050 – .630
TF25	25MM .984	77MM 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
F32-221	32MM 1.260	75MM 2.953	15°	1/16 .001	1/4 – 1 1/4 .200 – 1.062
TF37	37MM 1.456	92MM 3.622	16°	1/16 .001	1/4 – 1 1/4 .200 – 1.250

NOTE:
1. Collets are available in standard and extra precision (XP) for critical applications.
2. Collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
3. When ordering pick-off collets, please specify smooth bore if required.
4. If a collet used in a pick-off application requires an extended nose length, use the suffix “EN” and refer to separate section for ordering details.
5. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.



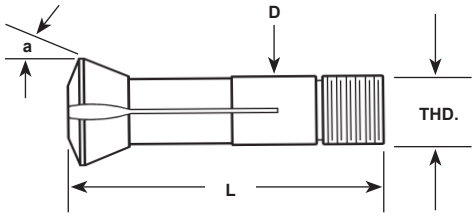
STEEL COLLETS
HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TF15HX	1/32	1/8 – 3/8
TF20HX	1/16	1/8 – 1/2
TF25HX	1/16	3/16 – 11/16
F32-221HX	1/16	1/4 – 13/16
TF37HX	1/16	1/4 – 1 1/16

SQUARE □		
CAT. NO.	INC.	RANGE
TF15SQ	1/32	1/8 – 11/32
TF20SQ	1/16	1/8 – 7/16
TF25SQ	1/16	3/16 – 9/16
F32-221SQ	1/16	1/4 – 3/4
TF37SQ	1/16	1/4 – 7/8

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

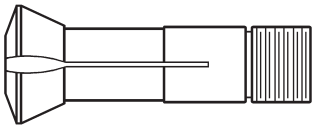
CARBIDE DRAW BUSHINGS
ROUND



CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
SD125R	18mm .709	60mm 2.362	30°	18 x 1	1/32 .001	1/16 – 1/2 .030 – .500
TD20R	22mm .866	68mm 2.677	16°	22 x 1	1/32 .001	1/8 – 5/8 .050 – .630
TD25S	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1.000 .200 – 1.000
TD32	42mm 1.654	82mm 3.228	20°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250

NOTE: Generally, guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

STEEL DRAW BUSHINGS
HEXAGON & SQUARE



CAT. NO.	INC.	RANGE
SD125RHX	1/32	1/8 – 7/16
TD20RHX	1/16	1/8 – 1/2
TD25SHX	1/16	3/16 – 11/16
CD25HX	1/16	1/4 – 3/4
TD32HX	1/16	1/4 – 1 1/16

CAT. NO.	INC.	RANGE
SD125RSQ	1/32	1/8 – 11/32
TD20RSQ	1/16	1/8 – 7/16
TD25SRQ	1/16	3/16 – 9/16
CD25SQ	1/16	1/4 – 11/16
TD32SQ	1/16	1/4 – 7/8

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

DRAW BUSHINGS
STEEL OR MEEHANITE

CAT. NO.	INC.	RANGE
SD125R	1/16 .001	1/16 – 1/2 .050 – .500
TD20R	1/16 .001	1/8 – 5/8 .100 – .630
TD25S	1/16 .001	1/8 – 3/4 .100 – .796

CAT. NO.	INC.	RANGE
CD25	1/16 .001	3/16 – 1in. .100 – 1.000
TD32	1/16 .001	1/4 – 1 1/4 .200 – 1.250

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

NOMURA CNC TURNING CENTERS

QUICK REFERENCE GUIDE*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	PICK-OFF COLLET
NN12K	P1053C/P1653C	P853D/P1053D/P1653D	——
NN13S	P1653C	P1653D	——
NN13S II	P1653C	P1653D	——
NN13SB	P1653C	P1653D	P1653C
NN13T	P1653C	P1653D	——
NN13TB	P1653C	P1653D	P1653C
NN16BII	P1653C	P1653D	P1653C
NN16H	P1653C	P1653D	——
NN16H III	P1653C	P1653D	——
NN16B III	P1653C	P1653D	P1653C
NN16HA	P1653C	P1653D	——
NN16HB	P1653C	P1653D	P1653C
NN16K	P1053C/P1653C	P853D/P1053D/P1653D	——
NN16KF	P1053C/P1653C	P853D/P1053D/P1653D	NN16KFCDC
NN16T	P1053C	P853D/P1053D/P1653D	——
NN16UII	P1653C	P1653D	——
NN16UB	P1653C	P1653D	P1653C
NN20BII	P1653C/NN20KFC	P1653D/NN20KD	P1653C/NN20KFC
NN20BIII	P1653C/NN20KFC	P1653D/NN20KD	P1653C/NN20KFC
NN20F	P1653C	P1653D/NN20KD	NN16KFCDC
NN20H	P1653C/NN20KFC	P1653D/NN20KD	——
NN20H III	P1653C/NN20KFC	P1653D/NN20KD	——
NN20HA	P1653C/NN20KFC	P1653D/NN20KD	——
NN20J	P1653C/NN20KFC	P1653D/NN20KD	P1653C/NN20KFC
NN20K	P2553C	P1653D/NN20KD	——
NN20KF	NN20KFC	P1653D/NN20KD	——
NN20R	P1653C/NN20KFC	P1653D/NN20KD	——
NN20UB	P1653C/NN20KFC	P1653D/NN20KD	P1653C/NN20KFC
NN20UII	P1653C/NN20KFC	P1653D/NN20KD	——
NN25R	P1653C/P2553C	P1653D/P2553D	——
NN25RY	P1653C/P2553C	P1653D/P2553D	——
NN25RYA	P1653C/P2553C	P1653D/P2553D	——
NN30TC	P1653C/P2553C	P1653D/P2553D	——
NN30TD	P1653C/P2553C	P1653D/P2553D	——
NN32YB	P1653C/P2553/NN30TC	P1653D/P2553D/NN30TD	P1653C/P2553C/NN30TC

CONTINUED ON NEXT PAGE

Collets and bushings from smaller capacity machines may be used in larger capacity machines by changing the adapter sleeves.

To insure getting the correct parts, check the inside diameter of the sleeve you are using and compare it to the bearing diameter (D) of the collet and bushing listed on the next page.

*** Refer to separate section in this catalog for MPC attachment collets.**

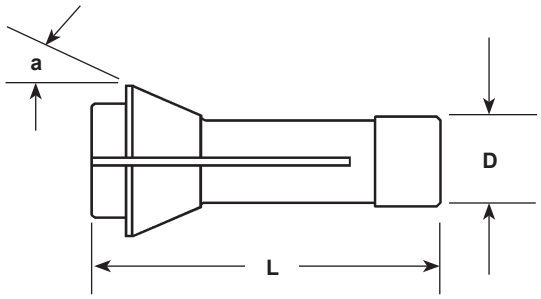
QUICK REFERENCE GUIDE* *(Continued)*

MACHINE	HEADSTOCK COLLECT	GUIDE BUSHING	PICK-OFF COLLET
P1053	P1053C/P1653C	P853D/P1053D/P1653D	——
P1253	P1053C/P1653C	P853D/P1053D/P1653D	——
P1653	P1053C/P1653C	P853D/P1053D/P1653D	——
P2553	P2553C	P2553D	——
SN-160	P1653C	P1653D	——
SN-160A	P1653C	P1653D	——
SN-160C	P1653C	P1653D	——
SN-160D	P1653C	P1653D	——

Collets and bushings from smaller capacity machines may be used in larger capacity machines by changing the adapter sleeves.

To insure getting the correct parts, check the inside diameter of the sleeve you are using and compare it to the bearing diameter (D) of the collet and bushing listed on the next page.

*** Refer to separate section in this catalog for MPC attachment collets.**



STEEL COLLETS
ROUND

CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
NSP1022C	16mm .630	65mm 2.599	15°	1/32 .001	1/16 – 1/2 .050 – .365
P1053C	16mm .630	50mm 1.969	151/2°	1/32 .001	1/16 – 1/2 .030 – .500
P1653C	20mm .787	68mm 2.677	13°	1/32 .001	1/8 – 5/8 .100 – .630
NN16KFCDC	24mm .944	77mm 3.031	17°	1/16 .001	1/8 – 5/8 .100 – .630
NN20KFC	26mm 1.023	72mm 2.835	15°	1/16 .001	1/8 – 3/4 .100 – .787
P2553C	32mm 1.260	85mm 3.347	13°	1/16 .001	3/16 – 1” .100 – 1.000
NN30TC	42mm 1.653	85mm 3.347	13°	1/16 .001	1/4 – 1 1/4 .250 – 1.250

STEEL COLLETS
HEXAGON & SQUARE

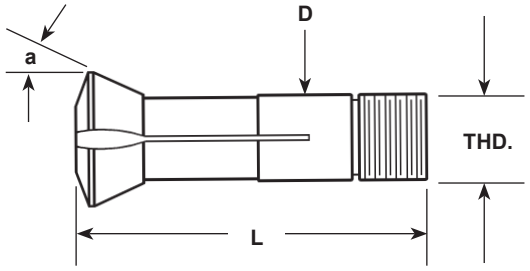
HEXAGON ⬡		
CAT. NO.	INC.	RANGE
P1053CHX	1/32	1/8 – 7/16
P1653CHX	1/16	3/16 – 1/2
NN20KFCHX	1/16	3/16 – 5/8
P2553CHX	1/16	1/4 – 3/4
NN30TCHX	1/16	13/16 – 1 1/4

SQUARE □		
CAT. NO.	INC.	RANGE
P1053CSQ	1/32	1/8 – 7/16
P1653CSQ	1/16	3/16 – 1/2
NN20KFCSQ	1/16	3/16 – 9/16
P2553CSQ	1/16	1/4 – 11/16
NN30TCSQ	1/16	13/16 – 1 1/4

ATTACHMENT COLLETS
ROUND

CAT. NO.	D	INC.	RANGE
P8DC	6MM	.001	.030 – .197
P16DC	10MM	.001	.030 – .314

Collets are normally stocked in the fractional increments shown in the “Inc.” column.



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
P853D	14mm .551	61.5mm 2.421	15 1/2°	14 x 1	1/64 .001	1/16 – 5/16 .050 – .315
P1053D	16mm .630	63mm 2.480	15 1/2°	14 x 1	1/16 .001	1/16 – 13/32 .050 – .406
P1653D	22mm .866	70mm 2.756	15°	20 x 1	1/16 .001	1/8 – 19/32 .100 – .590
NN20KD	30mm 1.181	68mm 2.677	15 1/2°	30 x 1	1/16 .001	3/16 – 3/4 .150 – .787
P2553D	36mm 1.417	90mm 3.543	13°	36 x 1	1/16 .001	3/16 – 1" .200 – 1.000
NN30TD	44mm 1.732	90mm 3.543	13°	40 x 1	1/16 .001	1/4 – 1 1/4 in. .200 – 1.250

NOTE: Generally, guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

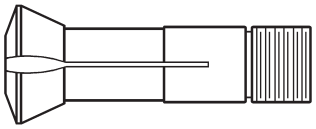
STEEL DRAW BUSHINGS
HEXAGON & SQUARE

CAT. NO.	INC.	RANGE
P853DHX	1/32	1/8 – 5/16
P1053DHX	1/32	1/8 – 5/16
P1653DHX	1/16	3/16 – 1/2
NN20KDHX	1/16	3/16 – 5/8
P2553DHX	1/16	1/4 – 3/4
NN30TDHX	1/16	13/16 – 1 1/4

CAT. NO.	INC.	RANGE
P853DSQ	1/32	1/8 – 9/32
P1035DSQ	1/32	1/8 – 9/32
P1653DSQ	1/16	3/16 – 3/8
NN20KDSQ	1/16	3/16 – 9/16
P2553DSQ	1/16	1/4 – 3/4
NN30TDSQ	1/16	13/16 – 1 1/4

DRAW BUSHINGS

STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
P853D	1/16 .001	1/16 – 3/8 .050 – .390
P1053D	1/16 .001	1/16 – 3/8 .050 – .390
P1653D	1/16 .001	1/8 – 1/2 .100 – .547

CAT. NO.	INC.	RANGE
NN20KD	1/16 .001	3/16 – 3/4 .150 – .750
P2553D	1/16 .001	1/4 – 1 1/4 .200 – 1.250
NN30TD	1/16 .001	1/4 – 1 1/4 .200 – 1.250

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

STAR CNC TURNING CENTERS

Star Quick Reference Guide*

MACHINE	HEADSTOCK COLLET	BUSHING	ATTACH.COL MPC	ATTACH.COL "F" STYLE	PICK-OFF "F" STYLE
ECAS 16	TF20	TD20R	MPC 11 - MPC 16	–	TF20
ECAS 20	TF25	TD25S	MPC 11 - MPC 16	–	TF25
ECAS 32	TF37	TD32S	Various MPC Collets	–	TF37
JNC10	TF15	TD10	–	TF10	–
JNC16	TF20	TD20R SNC15	– –	TF10	– –
JNC25/32	TF37	TD32S	MPC 11 - MPC 16	–	–
KJR16B	TF20	TD20R	–	–	TF20
KJR25/25B	TF30	CD25	MPC 11 - MPC 16	–	TF3O
KNC16/20B	TF25	TD25S	MPC 11 - MPC 16	–	TF25
KNC25/32B	TF37	TD32S	MPC 11 - MPC 16	–	TF37
RNC10/10B	TF15	TD10	–	–	–
RNC16/16B	TF20	TD20R	MPC 11 - MPC 16	–	–
SA12	TF20	SNC15-0S	MPC 11 - MPC 16	–	TF20
SB12/12R	TF18	SNC15-0S	MPC 11 - MPC 16	–	TF18
SA16	TF20	TD20R	MPC 11 - MPC 16	–	TF20
SB16	TF20	TD20R	MPC 11 - MPC 16	–	TF20
SE12	TF20	SNC15	MPC 11 - MPC 16	–	–
SE16	TF20	TD20R	MPC 11 - MPC 16	–	–
SF25	TF37	–	MPC 11 - MPC 16	–	0161
SG42	TF48/NFT	–	MPC 11 - MPC 16	–	TF48/NFT
SH7	TF15	SW7	MPC 11 - MPC 16	–	–
SH12	TF20	SNC15	MPC 11 - MPC 16	–	–
SH16	TF20	TD20R	MPC 11 - MPC 16	–	–
SI12	TF20	SNC15-OS	MPC 11 - MPC 16	–	TF15
SNC10DX	TF15	TD10	–	TF10	SNC15DX
SNC15DX	TF20	TD20R	–	TF10	–
SNC25DX	TF34	TD32S CD25	– –	TF10 F18 - 579	– –

CONTINUED ON NEXT PAGE

In some older machines, the pick-off collet is not the same as the headstock collet that is listed above. To ensure ordering the correct collet, check the back bearing diameter of the collet you are using.

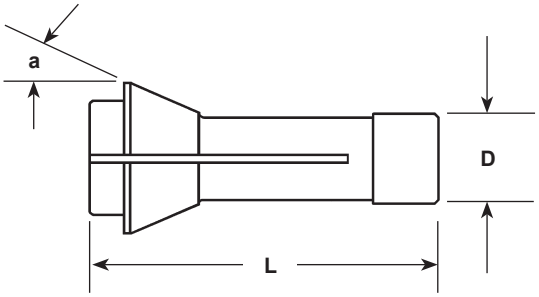
***Refer to separate section in this catalong for MPC attachment collets.**

Star Quick Reference Guide* (Continuted)

MACHINE	HEADSTOCK COLLET	BUSHING	ATTACH.COL MPC	ATTACH.COL "F" STYLE	PICK-OFF "F" STYLE
SR10J	TF15	TD10	Various MPC Collets	–	TF15
SR16	TF20	TD20R	MPC11 - MPC 16	–	TF20
SR20	TF25	TD25S	MPC 11 - MPC 16	–	TF25
SR32	TF37	TD32S	–	–	TF37
STM32	TF37	TD32S	– –	F18 - 579 TF10 - TF15	– –
STM38	TF48	STM38	– –	F18 - 579 TF10 - TF15	–
ST38	TF48/NFT	STM38ALT	–	–	TF48/NFT
SST16	TF20	TD20R	MPC 11 - MPC 16	–	TF10-TF20
SV12	TF20	TD20R	MPC 11 - MPC 16	–	TF20
SV20	TF25	TD25S	MPC 11/16/20	_	TF25
SV32J	TF37	TD32S	–	–	TF37
SV38R	TF48NFT	STM38ALT	Various MPC Collets	–	TF48NFT
SW7	TF15	SW7 TD10	MPC 11	– –	TF15 or TF10
SW12RZ	TF18	SNC15-OS	Various MPC Collets	–	TF18
SW20	TF25	TD25S	Various MPC Collets	–	TF25
VNC12	TF20	TD20R	MPC 11 - MPC 16	–	TF15
VNC20	TF25	TD25S	MPC 11 - MPC 16	–	TF20
VNC32	TF37	TD32S	MPC 11 - MPC 16	–	TF30
MAF42	TF48	–	–	–	–

In some older machines, the pick-off collet is not the same as the headstock collet that is listed above. To ensure ordering the correct collet, check the back bearing diameter of the collet you are using.

***Refer to separate section in this catalong for MPC attachment collets.**



STEEL COLLETS
ROUND

CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
TF8	8MM .315	41MM 1.614	16°	1/64 .001	1/16 – 1/4 .020 – .250
TF10	10MM .393	47MM 1.850	20°	1/64 .001	1/16 – 9/32 .020 – .281
TF15	15MM .590	64MM 2.520	16°	1/64 .001	1/16 – 7/16 .030 – .500
F18-579	18MM .708	64MM 2.520	16°	1/32 .001	1/8 – 1/2 .050 – .500
TF20	20MM .787	67MM 2.638	16°	1/32 .001	1/8 – 5/8 .050 – .630
TF25	25MM .984	77MM 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
TF30	30MM 1.181	80MM 3.150	16°	1/16 .001	3/16 – 1in. .100 – 1.000
TF34	34MM 1.338	80MM 3.150	16°	1/16 .001	3/16 – 1 1/8 .100 – 1.125
TF37	37MM 1.456	92MM 3.622	16°	1/16 .001	3/16 – 1 1/4 .200 – 1.250
TF48	48MM 1.889	94MM 3.700	15°	1/16 .001	3/8 – 1 1/4 .300 – 1.500

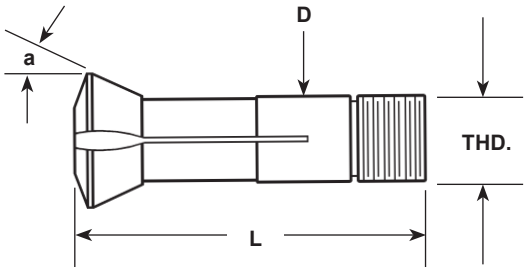
NOTE:
1. Collets are available in standard and extra precision (XP) for critical applications.
2. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
3. When ordering pick-off collets, please specify smooth bore.
4. If a collet used in a pick-off application requires an extended nose length, use the suffix “EN” and refer to separate section for ordering details.
5. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.

STEEL COLLETS
HEXAGON & SQUARE

HEXAGON		
CAT. NO.	INC.	RANGE
TF15HX	1/32	1/8 – 3/8
TF20HX	1/16	1/8 – 1/2
TF25HX	1/16	3/16 – 11/16
TF30HX	1/16	1/4 – 3/4
TF34HX	1/16	1/4 – 3/4
TF37HX	1/16	1/4 – 1 1/16
TF48HX	1/16	3/8 – 1 1/4

SQUARE		
CAT. NO.	INC.	RANGE
TF15SQ	1/32	1/8 – 11/32
TF20SQ	1/16	1/8 – 7/16
TF25SQ	1/16	3/16 – 9/16
TF30SQ	1/16	1/4 – 11/16
TF34SQ	1/16	1/4 – 3/4
TF37SQ	1/16	1/4 – 7/8
TF48SQ	1/16	1/4 – 1 1/4

STAR CNC TURNING CENTERS



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
SW7	11mm .433	60mm 2.087	16°	10 x .75	1/64 .001	1/16 – 1/4 .030 – .265
TD10	16mm .630	60mm 2.362	16°	14 x 1	1/64 .001	1/16 – 13/32 .030 – .406
SNC15	21mm .826	57.5mm 2.266	12 1/2°	18 x 1	1/32 .001	1/8 – 9/16 .050 – .562
TD20R	22mm .866	68mm 2.677	16°	22 x 1	1/32 .001	1/8 – 5/8 .050 – .630
TD25S	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1in. .200 – 1.000
TD32S	42mm 1.654	82mm 3.228	16°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250
STM38	48mm 1.889	82mm 3.228	16°	46 x 1	1/16 .001	1/4 – 1 1/2 .300 – 1.500

NOTE: Generally guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

STEEL DRAW BUSHINGS
HEXAGON & SQUARE

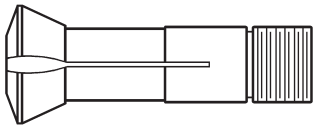
HEXAGON		
CAT. NO.	INC.	RANGE
SW7HX	1/32	1/8 – 1/4
TD10HX	1/32	1/8 – 5/16
SNC15HX	1/32	1/8 – 7/16
TD20RHX	1/16	1/8 – 1/2
TD25SHX	1/16	3/16 – 11/16
CD25HX	1/16	1/4 – 3/4
TD32SHX	1/16	1/4 – 1 1/16
STM38HX	1/16	3/8 – 1 1/4

SQUARE		
CAT. NO.	INC.	RANGE
SW7SQ	1/32	1/8 – 3/16
TD10SQ	1/32	1/8 – 9/32
SNC15SQ	1/32	1/8 – 7/16
TD20RSQ	1/16	1/8 – 7/16
TD25SSQ	1/16	3/16 – 9/16
CD25SQ	1/16	1/4 – 11/16
TD32SSQ	1/16	1/4 – 7/8
STM38SQ	1/16	3/8 – 1 1/4

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

DRAW BUSHINGS

STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
SW7	1/16 .001	1/16 – 1/4 .050 –.265
TD10	1/16 .001	1/16 – 3/8 .050 – .390
SNC15	1/16 .001	1/8 – 9/16 .100 – .562
TD20R	1/16 .001	1/8 – 5/8 .100 – .630
TD25S	1/16 .001	1/8 – 3/4 .100 – .796

CAT. NO.	INC.	RANGE
CD25	1/16 .001	3/16 – 1 in. .100 – .1.000
TD32S	1/16 .001	1/4 – 1 1/4 .200 – 1.250
STM38	1/16 .001	3/8 – 1 1/2 .300 – 1.500

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

* When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

TORNOS CNC TURNING CENTERS

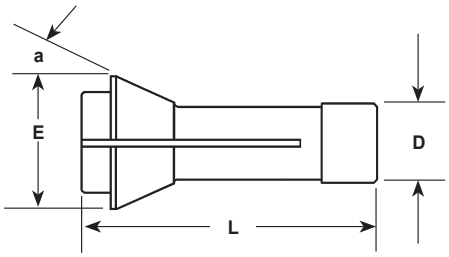
QUICK REFERENCE GUIDE*

MACHINE	HEADSTOCK COLLET	GUIDE BUSHING	DRILL SLEEVE COLLET	CROSS DRILL COLLET	PICK-OFF COLLET
ENC74	TF13	TD10	MPC12	MPC12	TF13
ENC162	TF15 F20-201	0201	MPC16 MPC25	WJ#3	
ENC164	TF15 F20-201	0201	MPC16 MPC25	WJ#3	TF15 F20-201
ENC262	TF25 0161	T200	MPC16 MPC25	MPC25	
ENC264	TF25 0161	T200	MPC16 MPC25	MPC25	TF25 0161
ENC167	TF25	TD25/167	MPC12/16/20	MPC 12/16/20	TF25
TOP100	TF16	TD10TXP TD18TXP	MPC16 MPC25	MPC12 MPC25	TF13
TOP200	0161	T200	MPC16 MPC20 MPC25	MPC20 MPC25	TF25 0161
TMB26	F32-221	SD255-36	MPC25 MPC32	MPC20 W-15	
ELECTOR16	F20-201	0201	AE4402	WJ#3	
DECO 2000 10MM	TF13	TD10	MPC11/12	MPC11/12	TF13
DECO2000 13/16	F20-201	0201	MPC20	MPC20	F20-201
DECO 2000 20MM	TF25	TD25/167	MPC25	MPC25	TF25
DECO 2000 25.4MM	0161	CD25	MPC25	MPC25	0161
DECO 2000 26/32MM	TF37	TD32S	MPC25	MPC25	TF37
DELTA 12/5	F20-201	TD26	–	–	F20-201
DELTA 20	TF24	TD26	–	–	–
SIGMA 20	0161	CD25	–	–	–
EVODECO 16A	F20-201	0201	–	–	TF20

*** Refer to separate section in this catalog for MPC collets.**

TORNOS CNC TURNING CENTERS

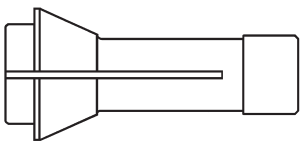
STEEL COLLETS
ROUND



CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	E	L	a°		
TF8	8mm .315	12mm .472	41mm 1.614	16	1/64 .001	1/16 – 1/4 .018 – .250
TF10	10mm .393	16mm .630	47mm 1.850	20	1/64 .001	1/16 – 9/32 .018 – .281
TF13	13mm .512	19mm .748	64mm 2.520	16	1/64 .001	1/16 – 3/8 .030 – .393
AE4402	14mm .550	18mm .709	46mm 1.811	13	1/64 .001	1/32 – 3/8 .030 – .393
TF15	15mm .590	21mm .827	64mm 2.520	16	1/64 .001	1/16 – 7/16 .030 – .500
TF16	16mm .630	21mm .827	64mm 2.520	16	1/64 .001	1/16 – 1/2 .030 – .500
F20-201	20mm .787	26mm 1.024	54mm 2.126	15	1/32 .001	1/2 – 5/8 .062 – .630
TF25	25mm .984	35mm 1.380	77mm 3.032	16	1/32 .001	1/8 – 3/16 .120 – .813
0161	30mm 1.181	38mm 2.559	65mm 1.496	15	1/16 .001	1/4 –1'' .200 – 1.000
F32-221	32mm 1.260	45mm 1.771	75mm 2.953	15	1/16 .001	1/4 – 1 1/4 .200 – 1.062
TF37	37mm 1.456	47mm 1.850	92mm 3.622	16	1/16 .001	1/4 – 1 1/4 .200 – 1.250

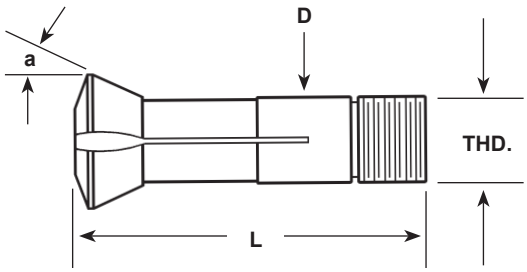
NOTE
1. Collets are normally stocked in the fractional increments shown. All other bores are made to order.
2. Collets are available in standard and extra precision (XP) for critical applications.
3. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
4. When ordering pick-off collets, please specify smooth bore.
5. If a collet used in a pick-off application requires an extended nose length, use the sufix “EN” and refer to separate section for ordering details.
6. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.

STEEL COLLETS
HEXAGON & SQUARE



HEXAGON		
CAT. NO.	INC.	RANGE
TF10HX	1/32	1/8 – 1/4
TF13HX	1/32	1/8 – 11/32
AE4402HX	1/32	1/8 – 11/32
TF15HX	1/32	1/8 – 3/8
TF16HX	1/32	1/8 – 7/16
F20-201HX	1/16	1/8 – 1/2
TF25HX	1/16	3/16 – 11/16
0161HX	1/16	1/4 – 3/4
F32-221HX	1/16	1/4 – 13/16
TF37HX	1/16	1/4 – 1 1/16

SQUARE		
CAT. NO.	INC.	RANGE
TF10SQ	1/32	1/8 – 3/16
TF13SQ	1/32	1/8 – 9/32
AE4402SQ	1/32	1/8 – 9/32
TF15SQ	1/32	1/8 – 11/32
TF16SQ	1/32	1/8 – 11/32
F20-201SQ	1/16	1/8 – 7/16
TF25SQ	1/16	3/16 – 9/16
0161SQ	1/16	1/4 – 11/16
F32-221SQ	1/16	1/4 – 3/4
TF37SQ	1/16	1/4 – 7/8



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD.		
TD10	16mm .630	60mm 2.362	16°	14 x 1	1/64 .001	1/16 – 13/32 .030 – .406
TD10TXP	16mm .630	59mm 2.323	16°	16 x 1	.001	.050 – .406
TD18TXP	18mm .708	100mm 3.937	20°	18 x 1	.001	.070 – .500
0201	24mm .945	61mm 2.402	30°	24 x 1	1/32 .001	1/8 – 5/8 .100 – .630
TD25/167	28mm 1.102	81mm 3.188	30°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
T200XP	34mm 1.339	150mm 5.906	20 1/2°	32 x 1.5	.001	.100 – 1.000
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1 in. .100 – 1.000
SD255-36	40mm 1.575	71.5mm 2.815	30°	36 x 1	1/16 .001	1/4 – 1 1/16 .250 – 1.063
TD32S	42mm 1.654	82mm 3.228	16°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250

NOTE: 1. Bushings are normally stocked in the fractional increments (INC) shown. All other bores are made to order.

2. Carbide bushings are normally supplied in standard precision. In cases where extreme concentricity is required between the stock diameter and turned diameters, extra precision (XP) bushings are available.

3. In addition to carbide and steel, meehanite bushings are available. Meehanite is compatible with most materials, including those that have a high tendency to “Pick-Up”. However, meehanite has a wear life that is considerably shorter than carbide. Meehanite bushings are supplied in round bores only.

STEEL DRAW BUSHINGS
HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TD10HX	1/32	1/8 – 5/16
TD10THX	1/32	1/8 – 5/16
TD18THX	1/32	1/8 – 7/16
0201HX	1/16	3/16 – 9/16
TD25/167HX	1/16	3/16 – 11/16
T200HX	1/16	1/4 – 13/16
CD25HX	1/16	1/4 – 3/4
SD255-36HX	1/16	1/4 – 7/8
TD32SHX	1/16	1/4 – 1 1/16

SQUARE □		
CAT. NO.	INC.	RANGE
TD10SQ	1/32	1/8 – 9/32
TD10TSQ	1/32	1/8 – 9/32
TD18TSQ	1/32	1/8 – 11/32
0201SQ	1/16	3/16 – 1/2
TD25/167SQ	1/16	3/16 – 9/16
T200SQ	1/16	1/4 – 11/16
CD25SQ	1/16	1/4 – 11/16
SD255-36SQ	1/16	1/4 – 3/4
TD32SSQ	1/16	1/4 – 7/8

Ordering Notes

Phone Number 203-237-0000

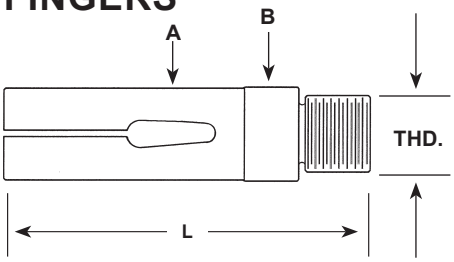
Fax Number 203-634-4509

Your Account Number_____

QUICK REFERENCE GUIDE

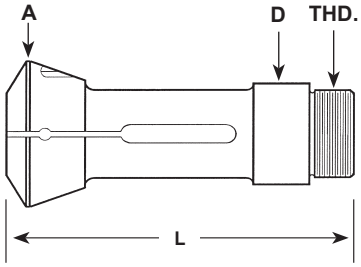
MACHINE	FEED FINGER	SPINDLE COLLET	PICK-OFF COLLET
20/6	DMFF20/6	DMCOL20/6	DMPO28
20/8	DMFF20/6	DMCOL20/6	DMPO28
26/6	DMFF26/6	DMCOL26/6	DMPO35.5

FEED FINGERS



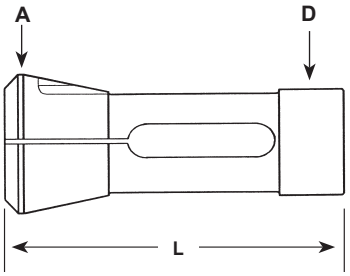
REFERENCE DIMENSIONS				
CAT. NO.	**A**	**B**	**L**	**THREAD**
DMFF20/6	.969	.984	3.543	24 x 1
DMFF26/6	1.299	1.378	4.646	33 x 1.5

SPINDLE COLLETS



REFERENCE DIMENSIONS				
CAT. NO.	**D**	**L**	**A**	**THREAD**
DMCOL20/6	1.3385	3.543	1.654	30 x 1mm LH
DMCOL26/6	1.811	4.724	2.378	40 x 1.5mm LH

PICKOFF COLLETS



REFERENCE DIMENSIONS			
CAT. NO.	**D**	**L**	**A**
DMPO28	1.1024	2.874	1.260
DMPO35.5	1.3976	3.150	1.575

SOUTHWICK & MEISTER INC.
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Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

TSUGAMI CNC TURNING CENTERS

QUICK REFERENCE GUIDE

Tsugami Name	Rem Name	Head Stock Collet	Guide Bushing	Cross Drill Collet	Face Drill Collet	High Speed Drill Collet	Cross Tap	Vert. Drill	Sub-Spindle
B007	B007	TF10	TD7	MPC11	MPC11	—	—	—	TF10
BW07		TF10	TD7	MPC11	MPC11	—	—	—	TF10
NT11	ST400	TF15	SD125R	—	—	—	—	—	—
NT11S	NT11S	TF15	SD125R	—	—	—	—	—	—
NP11	ST400P	TF15	SD125R	—	MPC12	—	—	—	TF15
BS12/BO12	BX12	TF24	TSG20R	MPC11/16	MPC11/16	—	—	—	TF24
BS12/BO12	BZ12	TF24	TSG20R	MPC11/16	MPC11/16	—	—	—	TF24
BS12V/BO12V	BS12V/B012V	TF24	TSG20R	MPC11/16	MPC11/16	—	—	—	TF24
BE12III	BE12III	TF24	TSG20R	MPC11/16	MPC11/16	—	—	—	TF24
BN12	BN12	TF24	TSG20R	MPC11/16	MPC11/16	—	—	—	TF24
BW12	BW12	TF24	TSG20R	MPC16/20	MPC11/16	—	—	—	TF24
BU12	BU12	TF24	TSG20R	MPC16/20	MPC11/16	—	—	—	TF24
NT12	ST500	TF20	TD20/TD20R	MPC12	MPC12	TF8	TF8	MPC16	—
NT16	ST600	TF20	TD25	MPC12	MPC12	TF8	TF8	MPC12	—
NP16	ST600P	TF20	TD25	MPC12	MPC12	TF8	TF8	MPC16	TF20
NMP1611	ST600MARKII	TF20	TD25	MPC12	MPC12	TF8	TF8	MPC16	TF20
S16D	S16D	TF24	TSG20R	MPC12	MPC12	—	—	—	TF24
S16H	S16H	TF24	TSG20R	MPC12	MPC12	—	—	—	TF24
S16P	S16P	TF24	TSG20R	MPC12	MPC12	—	—	—	TF24
NT17	ST700	TF24	TSG20R	—	—	—	—	—	—
NT17S	NT17S	TF24	TSG20R	—	—	—	—	—	—
NP17	ST700P	TF24	TSG20R	MPC12	MPC12	—	—	—	TF24
BS18/BO18	BX18	TF24	TSG20R	MPC11	MPC11	—	—	—	TF24
BS19	BS19	TF25	TD25	MPC11	MPC11	—	—	—	TF25
BE19	BE19	TF25	TD25	MPC11/16	MPC11	—	—	—	TF25
NT20	ST800	TF25	TD25	MPC16	MPC16	—	—	MPC16/20	—
NP20I	ST800P	TF25	TD25	MPC16	MPC16	—	—	MPC16/20	TF25
NP20II	ST800MARK II	TF25	TD25	MPC16	—	—	—	—	TF25
NP20III	NP20III	TF25	TD25	MPC16	—	—	—	—	TF25
S20P	S20P	TF25	TD25	—	—	—	—	—	TF25
BS20A	SX20A	TF25	TD25	MPC16/20	—	—	—	—	TF25
S20D	S20D	TF25	TD25	MPC16	—	—	—	—	TF25
BS20B	SX20B	TF25	TD25	MPC16/20	—	—	—	—	TF25
BS20C	SX20C	TF25	TD25	MPC16/20	—	—	—	—	TF25
BS20V	BS20V	TF25	TD25	MPC16/20	—	—	—	—	TF25
SS20	SS20	TF25	TD25	MPC16/20	—	—	—	—	TF25
BU20		TF25	TD25	MPC16/20	—	—	—	—	TF25
BH20	BH20	TF25	TD25	MPC16/20	—	—	—	—	TF25
S20H	S20H	TF25	TD25	MPC16	—	—	—	—	TF25
BE20III	BE20III	TF25	TD25	MPC11/16	—	—	—	—	TF25
BE20V	BE20V	TF25	TD26/TD25	MPC11/16	—	—	—	—	TF25
NT25	ST1000	TF37	TD32	MPC16	MPC16	—	—	MPC16/20	—

CONTINUED ON NEXT PAGE

SOUTHWICK & MEISTER INC.
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TSUGAMI CNC TURNING CENTERS

QUICK REFERENCE GUIDE *(Continued)*

Tsugami Name	Rem Name	Head Stock Collet	Guide Bushing	Cross Drill Collet	Face Drill Collet	High Speed Drill Collet	Cross Tap	Vert. Drill	Sub-Spindle
S25P	S25P	0166	CD25	MPC16	MPC16	—	—	—	0166
S25D	S25D	0166	CD25	MPC16	MPC16	—	—	—	0166
S25H	S25H	0166	CD25	MPC16	MPC16	—	—	—	0166
BS26	SX26	0166	CD25	MPC16/20	MPC16	—	—	—	0166
BA26	BA26	0166	TD33	MPC16	MPC16	—	—	—	0166
BS32	BS32	BS32C	BS32B	MPC16/20	MPC16	—	—	—	BS32C
NT32	ST1250	TF37	TD32	MPC16	MPC16	—	—	MPC16/20	—
NP32	ST1250P	TF37	TD32	MPC16	MPC16	—	—	MPC16/20	
NP32II	ST1250MARK II	TF37	TD32	MPC16	MPC16	—	—	MPC16/20	TF37
NP32III	NP32III	TF37	TD32	MPC16	MPC16	—	—	MPC16/20	TF37
SS32	SS32	TF37	TD32	MPC16/20	MPC16	—	—	—	TF37
NU4Y	NEW	—	—	—	—	—		MPC16/20	—
MERCURY	MERCURY	NA	—	MPC16	MPC16	—	—	MPC16/20	—
FA45	FA45	NA	—	MPC32	MPC32	MPC32	—	—	PKFA45
FA65	FA65	NA	—	MPC32	MPC32	MPC32	—	—	PKFA65
MB385/4	MB385/4	16C	—	MPC16	MPC16	—	—	—	BS38
BU26S/SY	BU26S/SY	0166	CD25	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	0166
BU38S/SY BO385	BU38S/SY	TF43	STM38	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	BS38
BH385	BH38	TF43	STM38	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	BS38
MU26S/SY	MU26S/SY	0166	CD25	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	0166
MU38S/SY	MU38S/SY	TF43	STM38	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	BS38
TMU1	TMU1	TF43	STM38	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	BS38
S207		TF25	TD26	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	TF25
SS26		0166	CD25	MPC16	MPC16	MPC16	—	—	0166
BO385L		2601-3233	—	MPC16	MPC16	—	—	—	BS38
BO206		TF25	*TD26 *TD25	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	TF25
BO226		HA33	CD25	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	
BO325		TF37	TD32	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	TF37
BO326		TF37	TD32	Various MPC	Various MPC	Various MPC	Various MPC	Various MPC	TF37

— Not Applicable.

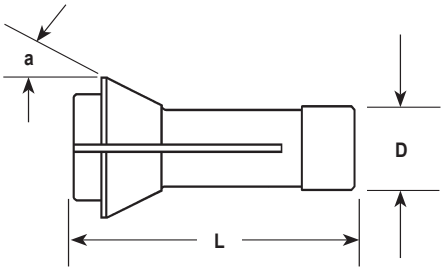
NA Not Available from Southwick & Meister.

BX AND BZ MACHINES HAVE 3 LEVELS: **LEVEL 1:** Does not have a pick-off unit. **LEVEL 2 :** Does have a pick-off unit. **LEVEL3:** Has a pick-off unit and cross working tools utilizing MPC11/16 collets.

NOTE: Use column #1, TSUGAMI NAME, when referring to machine models. Refer to separate section in this catalog for MPC attachment collets.

***** TD26 is the standard bushing. If cage type, then use TD25.

STEEL COLLETS
ROUND



CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
TF8	8mm .315	41mm 1.614	16°	1/64 .001	1/16 – 1/4 .018 – .250
TF15	15mm .590	64mm 2.520	16°	1/64 .001	1/16 – 7/16 .030 – .500
TF20	20mm .787	67mm 2.638	16°	1/32 .001	1/8 – 5/8 .050 – .630
TF24	24mm .944	62mm 2.440	15°	1/32 .001	1/8 – 11/16 .062 – .687
TF25	25mm .984	77mm 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
0166	32mm 1.260	65mm 2.559	15°	1/16 .001	3/16 – 1.00 .100 – 1.00
BS32C	37mm 1.456	91mm 3.583	16°	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TF37	37mm 1.456	92mm 3.622	16°	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TF43	43mm 1.693	92mm 3.622	16°	1/16 .001	1/4 – 1 1/2 .250 – 1.500
PKFA-45	44mm 1.732	75mm 2.953	15°	.001	.500 – 1.500
PKFA-65	44mm 1.732	75mm 2.953	15°	.001	1.000 – 2.500
BS38	48mm 1.889	100mm 3.937	15°	.001	1/4 – 1 1/2 .200 – 1.550
16C**	48mm 1.889	114.7mm 4.515	10°	.001	1/4 – 1 5/8 .200 – 1.625

** **Internal Thread** 1 1/4 – 20NS and **External Thread** 1.870 x 1.75 mm

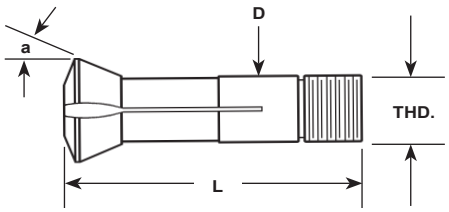
NOTE:
1. Collets are available in standard and extra precision (XP) for critical applications.
2. Headstock collet bores 1/2 inch and larger are grooved for extra holding power. Any variation must be specified when ordering.
3. When ordering pick-off collets, please specify smooth bore.
4. If a collet used in a pick-off application requires an extended nose length, use the prefix “EN” and refer to separate section for ordering details.
5. Carbide lined collets have a wear life many times that of steel collets; in addition, they resist “galling and scratching” of problem materials.

STEEL COLLETS
HEXAGON & SQUARE

HEXAGON		
CAT. NO.	INC.	RANGE
TF15HX	1/32	1/8 – 3/8
TF20HX	1/32	1/8 – 1/2
TF24HX	1/16	3/16 – 9/16
TF25HX	1/16	3/16 – 11/16
0166HX	1/16	1/4 – 7/8
TF37HX	1/16	1/4 – 1 1/16
TF43HX	1/16	1/4 – 1 1/4
BS32CHX	1/16	1/4 – 1 1/16
BS38HX	1/16	1/4 – 1 3/8
16CHX	1/16	1/4 – 1 3/8

SQUARE		
CAT. NO.	INC.	RANGE
TF15SQ	1/32	1/8 – 11/32
TF20SQ	1/32	1/8 – 7/16
TF24SQ	1/16	3/16 – 1/2
TF25SQ	1/16	3/16 – 9/16
0166SQ	1/16	1/4 – 3/4
TF37SQ	1/16	1/4 – 7/8
TF43SQ	1/16	1/4 – 1/1
BS32CSQ	1/16	1/4 – 7/8
BS38SQ	1/16	1/4 – 1 1/16
16CSQ	1/16	1/4 – 1 1/16

TSUGAMI CNC TURNING CENTERS



CARBIDE DRAW BUSHINGS
ROUND

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD. mm		
TD7	11mm .433	53mm 2.087	16°	10 x .75	1/64 .001	1/16 – 1/4 .030 – .265
SD125R	18mm .630	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
TD20	22mm .866	68mm 2.677	16°	19 x 1	1/32 .001	1/8 – 17/32 .050 – .532
TD20R	22mm .866	68mm 2.677	16°	22 x 1	1/32 .001	1/8 – 5/8 .050 – .630
TSG20R	23mm .905	72mm 2.834	16°	22 x 1	1/32 .001	1/8 – 11/16 .062 – .687
TD25	28mm 1.102	82mm 3.228	30°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
TD26	26mm 1.024	77mm 3.031	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
CD25	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1 in. .100 – 1.000
BS32B	41mm 1.614	54mm 2.126	10°	38 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD32	42mm 1.654	82mm 3.228	20°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD33	30mm 1.181	70mm 2.756	16°	30 x 1	1/16 .001	1/4 – 1 in. .100 – 1.000
STM38	48mm 1.889	82mm 3.228	16°	46 x 1	1/16 .001	1/4 – 1 1/2 .300 – 1.500

NOTE: Generally guide bushings are used in stationary or revolving guide bushing holders. For profile material, revolving bushings are essential. However, in special cases where round stock is turned in revolving bushings and extreme concentricity between the stock and the turned diameters is required, extra precision (XP) bushings are available. These bushings command higher prices, longer deliveries, and should only be specified when the requirements justify their use.

STEEL DRAW BUSHINGS
HEXAGON & SQUARE

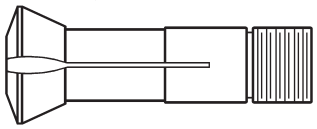
HEXAGON		
CAT. NO.	**INC.**	**RANGE**
TD7HX	1/32	1/8 – 1/4
SD125RHX	1/32	1/8 – 7/16
TD20HX	1/16	1/8 – 7/16
TD20RHX	1/16	1/8 – 1/2
TSG20RHX	1/16	3/16 – 1/2
TD25HX	1/16	3/16 – 11/16
CD25HX	1/16	1/4 – 3/4
BS32BHX	1/16	1/4 – 1 1/16
TD32HX	1/16	1/4 – 1 1/16
TD33HX	1/16	1/4 – 3/4
STM38HX	1/16	3/8 – 1 1/4

SQUARE		
CAT. NO.	**INC.**	**RANGE**
TD7SQ	1/32	1/8 – 3/16
SD125RSQ	1/32	1/8 – 11/32
TD20SQ	1/16	1/8 – 3/8
TD20RSQ	1/16	1/8 – 7/16
TSG20RSQ	1/16	3/16 – 7/16
TD25SQ	1/16	3/16 – 9/16
CD25SQP	1/16	1/4 – 11/16
BS32BSQ	1/16	1/4 – 7/8
TD32SQ	1/16	1/4 – 7/8
TD33SQ	1/16	1/4 – 11/16
STM38SQ	1/16	3/8 – 1 1/4

Hexagon and square collets and bushings are normally stocked in the increments (INC) listed. Odd size hexagon and square bores and other profile shapes are made to order. In these cases, it is requested that a stock sample be sent with the purchase order.

DRAW BUSHINGS

STEEL OR MEEHANITE



CAT. NO.	INC.	RANGE
TD7	1/16 .001	1/16 – 1/4 .050 – .265
SD125R	1/16 .001	1/16 – 1/2 .050 – .500
TD20	1/16 .001	1/8 – 9/16 .100 – .562
TD20R	1/16 .001	1/8 – 5/8 .100 – .650
TSG20R	1/16 .100	1/8 – 11/16 .100 – .687

CAT. NO.	INC.	RANGE
TD25	1/16 .001	1/8 – 3/4 .100 – .796
TD26	1/16 .001	1/8 – 3/4 .100 – .750
CD25	1/16 .001	3/16 – 1 in. .100 – 1.000
BS32B	1/16 .001	1/4 – 1 1/4 .200 – 1.250
TD32	1/16 .001	1/4 – 1 1/4 .100 – 1.250
TD33	1/16 .001	1/4 – 1 in ..100 – 1.000
STM38	1/16 .001	3/8 – 1 1/2 .300 – 1.500

NOTE: Meehanite is compatible with most materials, including those which have a high tendency to “pick up”. However, meehanite has a wear life that is considerably shorter than that of carbide. Meehanite is supplied in round bore sizes only.

*When ordering please add a suffix of “ST” for steel bushing or “M” for meehanite bushing.

Ordering Notes

Phone Number 203-237-0000

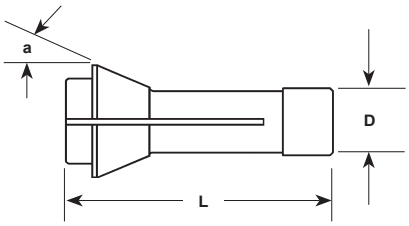
Fax Number 203-634-4509

Your Account Number_____

TRAUB CNC TURNING CENTERS

QUICK REFERENCE GUIDE*

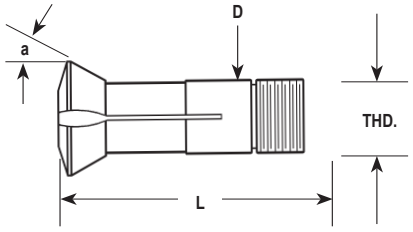
MACHINE	HD/STK COLLET	SUB/SP COLLET	GUIDE BUSHING	STATIONARY HOLDERS	ROTATING HOLDERS
TNL12	TF16	TF16	TRB468	VARIOUS MPC COLLETS	VARIOUS MPC COLLETS
TNL16G	TF20	TF20	TD20R	MPC11 MPC16	MPC11 MPC16
TNL16G	0156	0156	TD25S	MPC11 MPC16	MPC11 MPC16
TNL26	TF30	TF30	TRB761	VARIOUS MPC COLLETS	VARIOUS MPC COLLETS



STEEL COLLETS
ROUND

The TNG16G can use either the TF20 or 0156 collet depending on the spindle arrangement for a particular machine. Check the reference chart before ordering.

CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	a°		
TF16	16mm .630	64mm 2.520	16°	1/64 .001	1/16 – 1/2 .030 – .500
TF20	20mm .787	67mm 2.638	16°	1/32 .001	1/16 – 5/8 .050 – .630
0156	25mm .984	65mm 2.559	15°	1/16 .001	1/4 – 13/16 .100 – .813
TF30	30mm 1.181	80mm 3.150	16°	1/16 .001	3/16 – 1/1 .150 – 1.000



CARBIDE DRAW BUSHINGS
ROUND

The TNG16G can use either the TD20R or TD25S bushing depending on the sleeve arrangement for a particular machine. Check the reference chart before ordering.

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	L	a°	THD.mm		
TRB468	21mm .827	65.5mm 2.579	12°	18 x 1	1/32 .001	1/8 – 9/16 .050 – .562
TD20R	22mm .866	68mm 2.677	16°	22 x 1	1/32 .001	1/8 – 5/8 .050 – .630
TD25S	28mm 1.102	82mm 3.228	16°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
TRB761	34mm 1.339	87.5mm 3.445	10°	34 x 1	1/16 .001	3/16 – 1/1 .100 – 1.000

Collet and steel bushing are available in square and hexagon bores.

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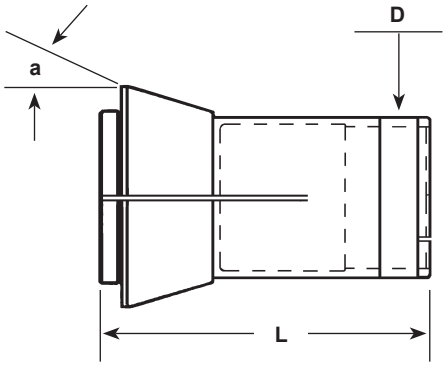
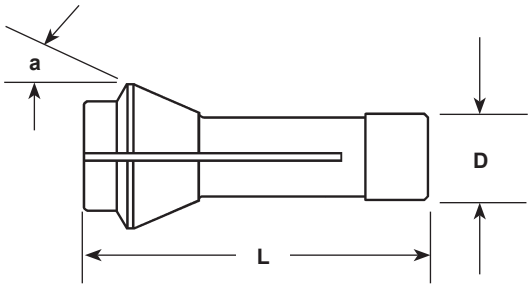


The following sub-spindle (pick-off) collets are available for the machines listed. Headstock collets for these machines are not available from Southwick & Meister, Inc.

SUB-SPINDLE COLLETS

CAT. NO.	REFERENCE DIMENSIONS			MACHINE
	D	L	a°	
TK612	35mm 1.378	46mm 1.811	15°	TNM28 TNS30
TK721	46mm 1.811	65mm 2.559	15°	TNM42 TNS42
TK800	61.5mm 2.421	70mm 2.756	15°	TNM42-65

Some of the above collets are available with an extended nose length when extra tool clearance is required.



STEEL COLLETS
ROUND

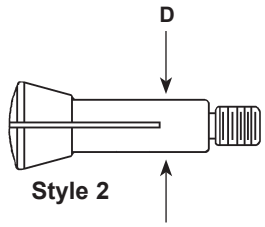
CAT. NO.	MACHINE HEADSTOCK	REFERENCE DIMENSIONS			INC.	RANGE
		D	L	a°		
AE4393	A/AS/AR-7	10mm .393	46mm 1.811	20°	1/64 .001	1/32 – 9/32 .030 – .281
AE4402	A/AS/AR-10	14mm .550	46mm 1.811	13°	1/64 .001	1/32 – 3/8 .030 – .393
BE4190	B/BR-12	18mm .708	67mm 2.638	15°	1/32 .001	1/8 – 1/2 .100 – .500
BE4189	B/BR-20	26mm 1.022	67mm 2.638	13°	1/32 .001	1/8 – 3/4 .100 – .787
BU1766	C/CR-32	39mm 1.535	80mm 3.150	15°	1/16 .001	1/4 – 1 1/4 .200 – 1.260

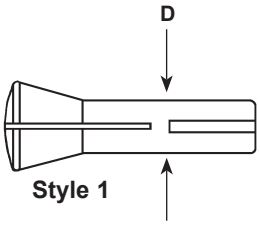
Carbide Lined Collets for the above machines are available on request. Carbide lined collets have wear ratio many times that of steel collets and also resist "**GALLING**" and "**SCRATCHING**" on problem materials.

Steel Collets are available in round, hexagon, square or profile bores.

Inclined slotted collets, frequently used on pinion stock, are available for all machines.

ATTACHMENT COLLETS
ROUND





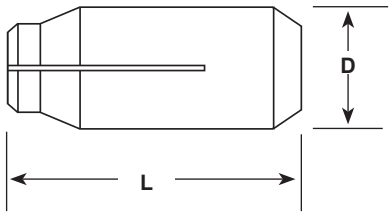
CAT. NO.	STYLE	D	INC.	RANGE
P5	1	5MM	.001	.020 – .110
P6	1	6MM	.001	.020 – .135

CAT. NO.	STYLE	D	INC.	RANGE
WJ#1	2	6MM	.001	.020 – .095
WJ#3	2	8MM	.001	.020 – .158
WJ#4	2	10MM	.001	.020 – .252

Larger capacity available in step bore design.

BECHLER CAM MACHINES

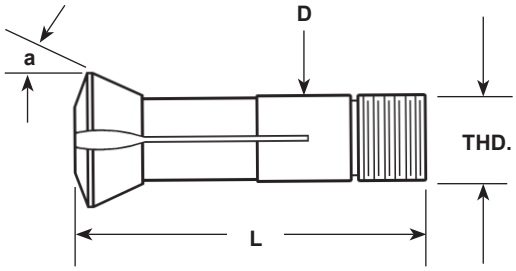
CARBIDE PUSH BUSHINGS
ROUND



CAT. NO.	MACHINE	REFERENCE DIMENSIONS		INC.	RANGE	REMARKS
		D	L			
AE3964	A/AS/AR-7 A/AS/AR-10	16mm .630	40mm 1.575	1/64 .001	1/32 – 9/32 .030 – .282	All “A” models to 9/32 bore
AE4552	A/AS/AR-10	20mm .787	40mm 1.575	1/64 .001	17/64 – 25/64 .125 – .393	Reinforced type bores over 9/32
BE3826	B/BR-12/20	30mm 1.181	60mm 2.362	1/32 .001	1/8 – 5/8 .125 – .625	All “B” models to 5/8 bore
BE3834	B/BR-20	34mm 1.339	60mm 2.362	1/32 .001	21/32 – 25/32 .250 –.787	Reinforced type bores over 5/8
BU2255	C/CR-32	48mm 1.890	72mm 2.835	1/16 .001	1/4 – 1” .250 – 1.000	All “C” models to 1” bore
BU3324	C/CR-32	52mm 2.047	72mm 2.835	1/16 .001	1” – 1 1/4 1.001 – 1.260	Reinforced type bores over 1”

The above bushings are also available in meehanite and steel. Meehanite bushings are compatible with all materials, including stainless steels, but have a shorter wear life. Steel bushings are normally used for brass, nylon or other materials that are compatible with steel. All of the push bushings listed are available in round bores only.

CARBIDE DRAW BUSHINGS



CAT. NO.	MACHINE	REFERENCE DIMENSIONS				INC.	RANGE
		D	L	a°	THD. mm		
TD10	A/AS/AR-10	16mm .630	60mm 2.362	16°	14 x 1	1/64 .001	1/16 – 13/32 .030 – .406
SD125	A/AS/AR-10	16mm .630	60mm 2.362	30°	14 x 1	1/64 .001	1/16 – 13/32 .030 – .406
SD125R	A/AS/AR-10	18mm .709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
BD10	A/AS/AR-10	20mm .787	55mm 2.165	30°	20 x 1	1/64 .001	1/16 – 7/16 .050 – .438
TD25	B/BR-20	28mm 1.102	82mm 3.228	30°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781

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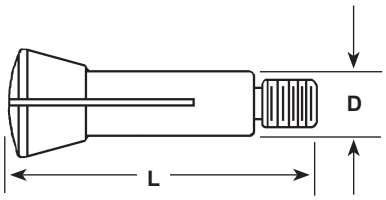
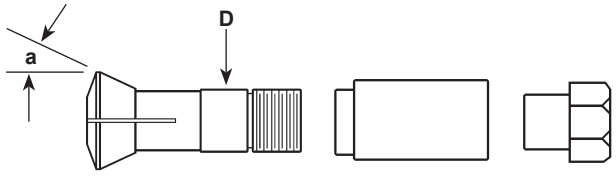


ROTATING GUIDE BUSHINGS

ROUND, HEXAGON, SQUARE OR OTHER PROFILE BORES

CAT. NO.	MACHINE	REFERENCE DIMENSIONS		INC.	RANGE
		D	L		
AE1670	A/AS/AR-7 A/AS/AR-10	13mm .512	41.5mm 1.634	1/64 .001	1/16 - 3/8 .050 -.375
BR1253	B/BR-12	21mm .827	57.5mm 2.264	1/32 .001	1/8 - 1/2 .100-.500
BR1666	B/BR-20	27mm 1.063	57.5mm 2.264	1/32 .001	5/32 - 3/4 .150 -.787
BU2235	C/CR-32	40mm 1.575	65mm 2.559	1/16 .001	1/4 - 1 1/4 .240 -1.260



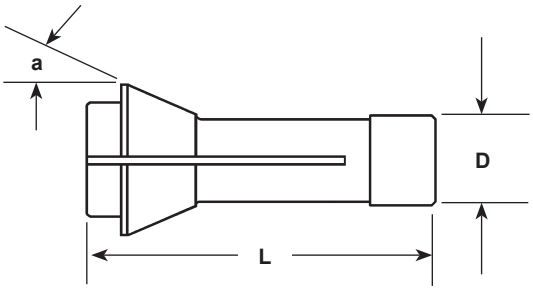
DRAW BUSHINGS ADAPTERS AND NUTS

BECHLER MACHINE	BUSHING			ADAPTER	NUT	
	CAT. NO.	D	a	CAT.NO.	CAT.NO	THD.MM
A/AS/AR-10	TD10	16mm	16°	A10-TD10	TD10N	14 x 1
A/AS/AR-10	SD125	16mm	30°	A10-SD125	SD125N	14 x 1
A/AS/AR-10	SD125R	18mm	30°	A10-SD125R	SD125RN	18 x 1
B/BR20	TD25	28mm	30°	B20-TD25	TD25N	25 x 1

The above adapters, which fit directly into the machine housing of the Bechler “A” and “B” automatics, accept the most popular Tornos and Strohm draw bushings without intermediate sleeves or adapters.

PETERMANN CAM MACHINES

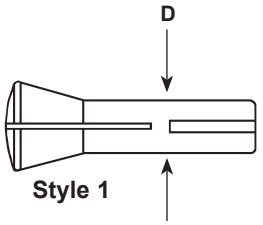
STEEL COLLETS
ROUND

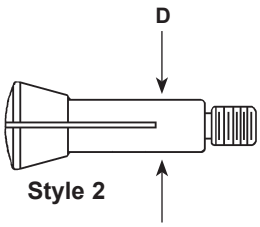


CAT. NO.	MACHINE		REFERENCE DIMENSIONS			INC.	RANGE
	HEADSTOCK	ATTACH.	D	L	a°		
0131		P4	4.5mm .177	17.25mm .679	15°	1/64 .001	3/64 - 1/8 .018 - .125
0136	PO P3	P7	7mm .276	26mm 1.024	15°	1/64 .001	3/64 - 3/16 .018 - .188
TF8	P4	P7R	8mm .315	41mm 1.614	16°	1/64 .001	1/16 - 1/4 .018 - .250
TF10	P7	P10 P16	10mm .393	47mm 1.850	20°	1/64 .001	1/16 - 9/32 .018 - .281
0146	P7R		15mm .590	47mm 1.850	20°	1/32 .001	1/16 - 7/16 .050 - .438
0147	P10	P16 P25	16mm .630	55mm 2.165	15°	1/32 .001	1/16 - 1/2 .050 - .500
0151	P10R	P16 P25	20mm .787	60mm 2.362	15°	1/32 .001	1/8 - 21/32 .100 - .656
0152	P16		22mm .866	66mm 2.598	16°	1/32 .001	1/8 - 11/16 .100 - .688
0156	2A		25mm .984	65mm 2.559	15°	1/16 .001	1/4 - 13/16 .100 - .813
0166	P25		32mm 1.260	65mm 2.559	15°	1/16 .001	1/4- 1” .200 - 1.000

Collets are available in round, hexagonal and square bore sizes.

ATTACHMENT COLLETS
ROUND





CAT. NO.	STYLE	D	INC.	RANGE	Remarks
P6	1	6MM .236	1/64 .001	3/64 - 1/8 .020 - .135	Stepped bore over .135
WJ#1 (DR6)	2	6MM .236	1/64 .001	3/64 - 3/32 .020 - .095	Stepped bore over .100
WJ#4 (DR10)	2	10MM .393	1/64 .001	1/16 - 1/4 .020 - .252	Stepped bore over .252

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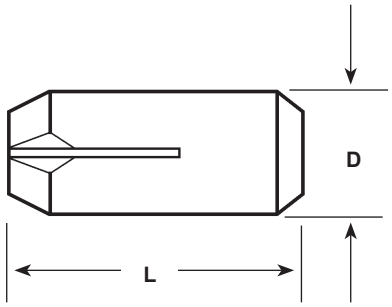
CARBIDE PUSH BUSHINGS

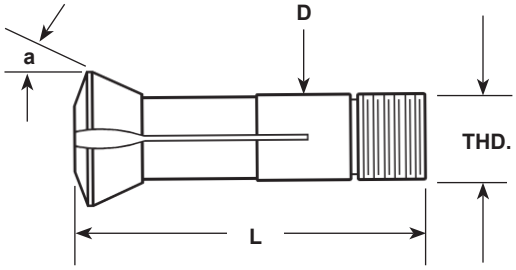
ROUND,



CAT. NO.	MACHINE	REFERENCE DIMENSIONS		INC.	RANGE
		D	L		
0012	P7	13mm .512	30mm 1.181	1/64 .001	1/16 – 1/4 .030 – .281
0014	P7R P10	22mm .866	42mm 1.654	1/32 .001	1/16 – 1/2 .050 – .500

CARBIDE DRAW BUSHINGS

ROUND



CAT. NO.	MACHINE	REFERENCE DIMENSIONS				INC.	RANGE
		D	L	a°	THD. mm		
0100	P4	9mm .354	25mm .984	30°	6 x .5 (Int.)	1/64 .001	3/64 – 5/32 .030 – .164
PD4	P4	9mm .354	44mm 1.732	16°	8 x .75	1/64 .001	1/16 – 3/16 .030 – .188
TD7	P7	11mm .433	53mm 2.087	16°	10 x .75	1/64 .001	1/16 – 1/4 .030 – .265
0201	P16	24mm .945	61mm 2.402	30°	24 x 1	1/32 .001	1/8 – 1/4 .100 – .625
0200	P25	40mm 1.575	73mm 2.874	30°	40 x 1	1/16 .001	1/4 – 1 1/16 .200 – 1.063

The 0100 bushing has internal threads.

Sleeves and Nuts are available for most draw type bushings.

Carbide Bushings are stocked only in round fractional sizes, but are made to order in any metric or decimal bore sizes

Meehanite Bushings are available only in round bore sizes. Please use suffix “M” when ordering.

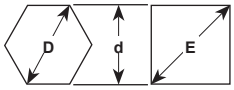
Steel Bushings are available in round, hexagonal and square bore sizes. Please use suffix “ST” when ordering.

DIMENSION ACROSS CORNERS

HEXAGONAL & SQUARE

Dimension ACROSS CORNERS

D = 1.1547d
E = 1.4142d



INCHES			MILLIMETERS		
d	D	E	d	D	E
1/8	.1443	.1768	3	3.464	4.243
5/32	.1804	.2206	4	4.619	5.657
3/16	.2165	.2652	5	5.774	7.071
7/32	.2526	.3094	6	6.928	8.485
1/4	.2887	.3536	7	8.083	9.899
9/32	.3248	.3977	8	9.238	11.314
5/16	.3608	.4419	9	10.392	12.728
11/32	.3969	.4862	10	11.547	14.142
3/8	.4330	.5303	11	12.702	15.556
13/32	.4691	.5744	12	13.856	16.970
7/16	.5052	.6187	13	15.011	18.385
15/32	.5413	.6629	14	16.166	19.799
1/2	.5774	.7071	15	17.321	21.213
17/32	.6134	.7512	16	18.475	22.627
9/16	.6495	.7955	17	19.630	24.041
19/32	.6856	.8398	18	20.785	25.456
5/8	.7217	.8839	19	21.939	23.870
21/32	.7578	.9280	20	23.094	28.284
11/16	.7939	.9723	21	24.249	29.698
23/32	.8299	1.0165	22	25.403	31.112
3/4	.8660	1.0607	24	27.713	33.941
13/16	.9382	1.1490	26	30.022	36.769
7/8	1.0104	1.2374	28	32.332	39.598
15/16	1.0825	1.3258	30	34.641	42.426
1	1.1547	1.4142	32	36.950	45.254

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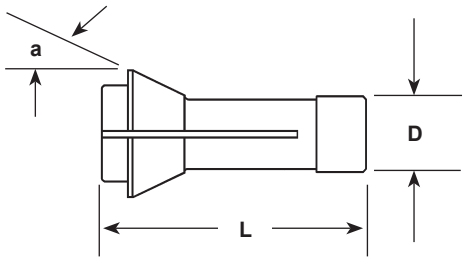
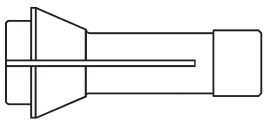
STEEL COLLETS
ROUND



CAT. NO.	MACHINE		REFERENCE DIMENSIONS			INC.	RANGE
	HEADSTOCK	ATTACH.	D	L	a°		
TF5		M45 M125	5mm .197	24.7mm .975	16°	.001	.030 – .125
TF8	M45	M105 M125	8mm .315	41mm 1.614	16°	1/64 .001	1/16 – 1/4 .020 – .250
TF10	M75		10mm .393	47mm 1.850	20°	1/64 .001	1/16 – 9/32 .020 – .281
TF15	M125 M105	M205 M255	15mm .590	64mm 2.520	16°	1/64 .001	1/16 – 7/16 .030 – .500
TF15R*	M125		15mm .590	64mm 2.520	16°	1/64 .001	3/8 – 7/16 .375 – .500
TF25	M205		25mm .984	77mm 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
TF30	M255		30mm 1.181	80mm 3.150	16°	1/16 .001	3/16 – 1” .150 – 1.000

*The TF15 and the TF15R collets are identical with the exception of the front nose diameter which is 15mm on the TF15 and 17.5mm on the TF15R. The additional 2.5mm provides extra strength for bore sizes close to the collet capacity. The TF15R is only available in bore sizes from 3/8 to capacity. Nose caps for both collets are supplied as standard equipment for the Strohm M125.

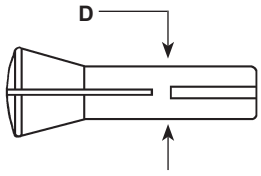
STEEL COLLETS
HEXAGON & SQUARE



HEXAGON		
CAT. NO.	INC.	RANGE
TF8HX	1/32	1/8 – 3/16
TF10HX	1/32	1/8 – 1/4
TF15HX	1/32	1/8 – 3/8
TF15RHX	1/32	1/8 – 3/8
TF25HX	1/16	3/16 – 11/16
TF30HX	1/16	1/4 – 3/4

SQUARE		
CAT. NO.	INC.	RANGE
TF8SQ	1/32	1/8 – 5/32
TF10SQ	1/32	1/8 – 3/16
TF15SQ	1/32	1/8 – 11/32
TF15RSQ	1/32	1/8 – 11/32
TF25SQ	1/16	3/16 – 9/16
TF30SQ	1/16	1/4 – 11/16

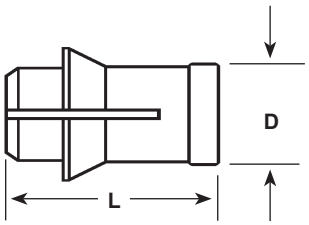
ATTACHMENT COLLETS



CAT. NO.	MACHINE	D	INC.	RANGE
P5	M45 Drill Att.	5MM .197	1/64 .001	3/64 – 3/32 .020 – .110

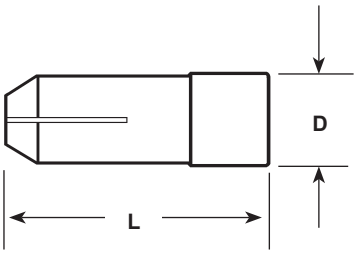
STROHM CAM MACHINES

PICK-UP COLLETS

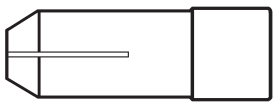


CAT. NO.	MACHINE	REFERENCE DIMENSIONS		INC.	RANGE
		D	L		
PK125 6MM Nose	M125	12mm .472	21mm .827	1/32 .001	1/16 - 5/16 .030 -.375
PK125EN 8MM Nose	M125	12mm .472	23mm .905	1/16 .001	1/16 - 5/16 .030-.375

CARBIDE PUSH BUSHINGS
ROUND



CAT. NO.	MACHINE	REFERENCE DIMENSIONS		INC.	RANGE
		D	L		
TP4	M45	9mm .354	30mm 1.181	1/64 .001	1/16 – 1/8 .030 – .172
TP10	M105 M125	16mm .630	35mm 1.378	1/64 .001	1/16 – 3/8 .030 – .375
TP20	M205	28mm 1.102	45mm 1.772	1/32 .001	1/8 – 3/4 .050 – .787
TP25	M255	32mm 1.260	45mm 1.772	1/16 .001	3/16 – 13/16 .150 – .813



STEEL BUSHINGS
HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TP4HX	1/32	1/8 – 5/32
TP10HX	1/32	1/8 – 13/32
TP20HX	1/16	3/16 – 11/16
TP25HX	1/16	3/16 – 3/4

SQUARE □		
CAT. NO.	INC.	RANGE
TP4SQ	1/32	1/8 –
TP10SQ	1/32	1/8 – 11/32
TP20SQ	1/16	3/16 – 9/16
TP25RSQ	1/16	3/16 – 11/16

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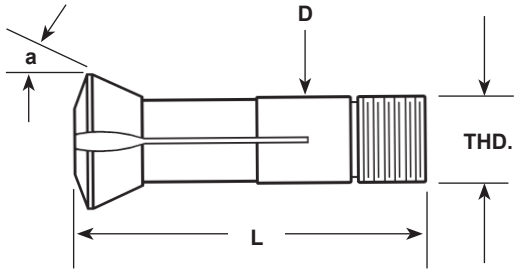
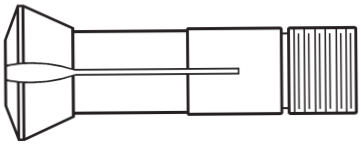
CARBIDE DRAW BUSHINGS

ROUND



CAT. NO.	MACHINE	REFERENCE DIMENSIONS				INC.	RANGE
		D	L	a°	THD. mm		
0100	M45	9mm .354	25mm .984	30°	6 x .5 (Int.)	1/64 .001	3/64 - 5/32 .030 - .164
SD125	M125 M105	16mm .630	60mm 2.362	30°	14 x 1	1/64 .001	1/16 - 13/32 .030 - .406
SD125R	M125	18mm .709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 - 1/2 .030 - .500
SD125R-16	M125	18mm .709	60mm 2.362	30°	16 x 1	1/32 .001	1/16 - 7/16 .030- .438
SD205	M205	26mm 1.024	74mm 2.913	30°	24 x 1	1/16 .001	1/8 - 5/8 .100 - .625
SD255	M255	40mm 1.575	73mm 2.874	30°	40 x 1	1/16 .001	1/4 - 11/16 .250 - 1.063



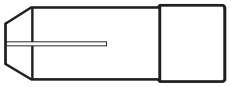
STEEL BUSHINGS

HEXAGON & SQUARE

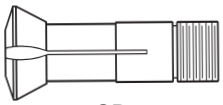
HEXAGON ⬡		
CAT. NO.	INC.	RANGE
SD125HX	1/32	1/8 – 5/16
SD125RHX	1/32	1/8 – 7/16
SD125R16HX	1/32	1/8 – 3/8
SD205HX	1/16	3/16 – 5/8
SD255-36HX	1/16	1/4 – 3/4

SQUARE □		
CAT. NO.	INC.	RANGE
SD125SQ	1/32	1/8 – 9/32
SD125RSQ	1/32	1/8 – 11/32
SD125R16SQ	1/32	1/8 – 5/16
SD205SQ	1/16	3/16 – 1/2
SD255-36SQ	1/16	1/4 – 3/4

STROHM CAM MACHINES



TP



SD

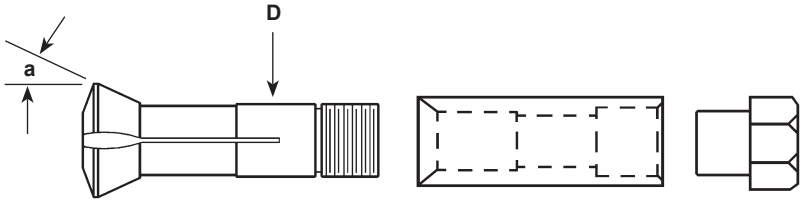
STEEL BUSHINGS OR MEEHANITE BUSHINGS ROUND

CAT. NO.	INC.	RANGE
TP4	1/32 .001	1/16 – 3/16 .050 – .188
TP10	1/16 .001	1/16 – 7/16 .050 – .438
TP20	1/16 .001	1/8 – 3/4 .100 – .787
TP25	1/16 .001	3/16 – 1" .150 – 1.032

CAT. NO.	INC.	RANGE
SD125	1/16 .001	1/16 – 3/8 .050 – .406
SD125R	1/16 .001	1/16 – 1/2 .050 – .500
SD205	1/16 .001	1/8 – 3/4 .100 – .750
SD255	1/16 .001	1/4 – 1" .200 – 1.063

* When ordering please add a suffix of "ST" for steel bushings or "M" for meehanite bushings.

DRAW BUSHINGS SLEEVES AND NUTS



	BUSHING			SLEEVE		NUT	
MACHINE	**CAT. NO.**	**D**	**A**	**CAT. NO.**	**OD X ID**	**CAT. NO.**	**THD. MM**
M45	0100*	9mm	30°	0100SL	13 x 9	0100N	6 x .5
M105 & M125	SD125	16mm	30°	SD125SL	22 x 16	SD125N	14 x 1
M105 & M125	SD125R	18mm	30°	SD125RSL	22 x 18	SD125RN	18 x 1
M205	SD205	26mm	30°	SD205SL	38 x 26	SD205N	24 x 1
M255	SD255	40mm	30°	SD255SL	50 x 40	SD255N	40 x 1

* The 0100 bushing has internal threads

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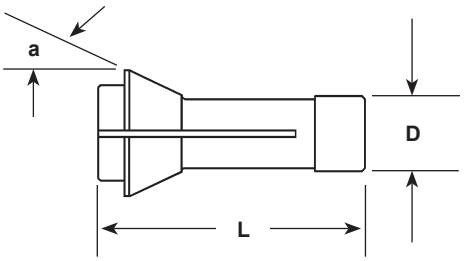
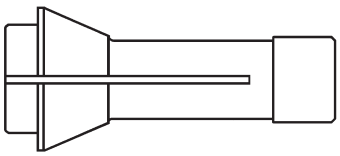
STEEL COLLETS
ROUND



CAT. NO.	MACHINE		REFERENCE DIMENSIONS			INC.	RANGE
	HEADSTOCK	ATTACH.	D	L	a		
TF6		M7 R10/R125	6mm .236	30mm 1.181	15°	.001	1/8 – 5/32 .030 – .156
TF7		R10/R125	7mm .276	41mm 1.614	16°	1/64 .001	1/16 – 3/16 .020 – .188
TF8	M4	M7 R10/R125	8mm .315	41mm 1.614	16°	1/64 .001	1/16 – 1/4 .020 – .250
TF10	M7	M15 R16	10mm .393	47mm 1.850	20°	1/64 .001	1/16 – 9/32 .020 – .281
TF12		M15 R16/20	12mm .472	64mm 2.520	16°	1/64 .001	1/16 – 5/16 .030 – .375
TF13	MS7	M7 CT. HSK.	13mm .512	64mm 2.520	16°	1/64 .001	1/16 – 3/8 .030 – .393
TF15	R10		15mm .590	64mm 2.520	16°	1/64 .001	1/16 – 7/16 .030 – .500
TF16	R125	M20/25/28 MR32	16mm .630	64mm 2.520	16°	1/64 .001	1/16 – 1/2 .030 – .500
TF20	M15 R16		20mm .787	67mm 2.638	16°	1/32 .001	1/8 – 5/8 .050 – .630
TF25	M20 R/RR20		25mm .984	77mm 3.032	16°	1/32 .001	1/8 – 13/16 .100 – .813
TF34	M25/28		34mm 1.339	80mm 3.150	16°	1/16 .001	3/16 – 1 1/8 .100 – 1.125
TF37	MR32		37mm 1.456	92mm 3.622	16°	1/16 .001	1/4 – 1 1/4 .200 – 1.250

STEEL COLLETS
HEXAGON & SQUARE

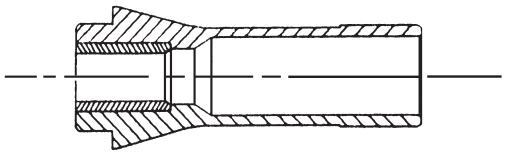


HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TF8HX	1/32	1/8 – 3/16
TF10HX	1/32	1/8 – 1/4
TF15HX	1/32	1/8 – 3/8
TF16HX	1/32	1/8 – 7/16
TF20HX	1/16	3/16 – 1/2
TF25HX	1/16	3/16 – 11/16
TF34HX	1/16	1/4 – 3/4
TF37HX	1/16	1/4 – 1 1/16

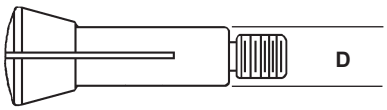
SQUARE □		
CAT. NO.	INC.	RANGE
TF8SQ	1/32	1/8 – 5/32
TF10SQ	1/32	1/8 – 3/16
TF15SQ	1/32	1/8 – 11/32
TF16SQ	1/32	1/8 – 11/32
TF20SQ	1/16	3/16 – 7/16
TF25SQ	1/16	3/16 – 9/16
TF34SQ	1/16	1/4 – 3/4
TF37SQ	1/16	1/4 – 1”

CARBIDE COLLETS
ROUND

CAT. NO.	INC.	RANGE
TF8C	1/32 .001	1/16 – 5/32 .050 – .160
TF10C	1/32 .001	1/16 – 1/4 .050 – .250
TF15C	1/32 .001	1/16 – 3/8 .050 – .375
TF15RC	1/32 .001	3/8 – 7/16 .375 – .438
TF16C	1/32 .001	1/16 – 13/32 .050 – .406
TF25C	1/16 .001	1/8 – 11/16 .100– .688



Carbide lined collets have wear properties many times that of steel collets and in addition resist “Galling” or “Scratching” on problem materials.



DRILL COLLETS

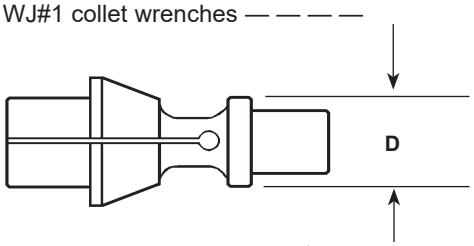
CAT. NO.	D	INC.	REMARKS
WJ#1 (DR6)	6mm .236	1/64 .001	3/64 – 3/32 .018 – .095
WJ#3 (DR8)	8mm .315	1/64 .001	3/64 – 5/32 .018 – .158

The WJ#1 collet is supplied with both a wrench flat and a keyway so that it can be used in attachments with or without a locating key or pin.

The WJ#1 has a stepped bore over .095.

The WJ#3 has a stepped bore over .158.

WJ#1 collet wrenches — — — —



PICK-UP COLLETS

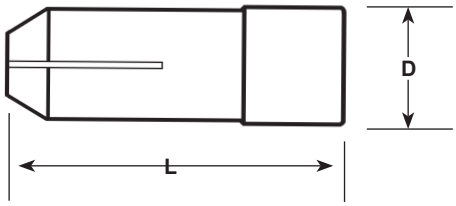
CAT. NO.	D	INC.	REMARKS
PK7	7mm	.001	Made to order only. Price on application.
PK8	8mm	.001	
PK12	12mm	.001	

A layout is required for all pick-up collets that require an ejector pin assembly.

The layout can be supplied by the customer or made by the S&M engineering department. In either case it is necessary to identify the gripping diameter of the part, the location of the part in the collet and the nose length of the collet.

Prices are calculated on engineering and manufacturing time.

All pick-up collets are made to order.



CARBIDE PUSH BUSHINGS
ROUND

CAT. NO.	MACHINE	REFERENCE DIMENSIONS		INC.	RANGE
		D	L		
TP4	M4	9mm .354	30mm 1.181	1/64 .001	1/16 – 1/8 .030 – .172
TP7	M7	11mm .433	30mm 1.181	1/64 .001	1/16 – 7/32 .030– .234
TP10	R10 R125	16mm .630	35mm 1.378	1/64 .001	1/16 – 3/8 .030 – .375
TP15	M15 R16	24mm .945	42mm 1.654	1/32 .001	1/8 – 17/32 .050 – .563
TP20	M20 R20/RR20	28mm 1.102	45mm 1.772	1/32 .001	1/8 – 3/4 .050 – .787
TP25	M20 M25	32mm 1.260	45mm 1.772	1/16 .001	3/16 – 13/16 .150 – .813
TP28	M25/28	38mm 1.496	45mm 1.772	1/16 .001	1/4 – 1" .200 – 1.000
TP28L	M25/28	38mm 1.496	60mm 2.362	1/16 .001	1/4 – 1" .200 – 1.000
TP32	MR32	46mm 1.811	60mm 2.362	1/16 .001	1/4 – 1 1/4 .200 – 1.250

STEEL BUSHINGS
HEXAGON & SQUARE

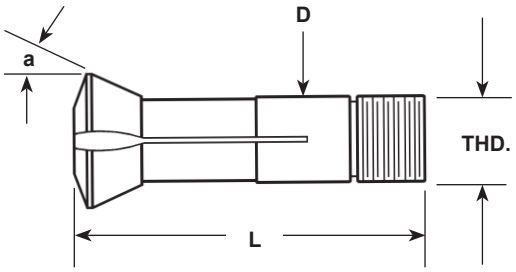
HEXAGON ⬡		
CAT. NO.	INC.	RANGE
TP4HX	1/32	1/8 – 5/32
TP7HX	1/32	1/8 – 1/4
TP10HX	1/32	1/8 – 13/32
TP15HX	1/16	1/8 – 1/2
TP20HX	1/16	3/16 – 11/16
TP25HX	1/16	3/16 – 3/4
TP28HX	1/16	1/4 – 1/2
TP28LHX	1/16	9/16 – 3/4
TP32HX	1/16	1/4 – 3/4

SQUARE □		
CAT. NO.	INC.	RANGE
TP4SQ	1/32	1/8
TP7SQ	1/32	1/8 – 3/16
TP10SQ	1/32	1/8 – 11/32
TP15SQ	1/16	1/8 – 7/16
TP20SQ	1/16	3/16 – 9/16
TP25SQ	1/16	3/16 – 11/16
TP28SQ	1/16	1/4 – 1/2
TP28LSQ	1/16	9/16 – 3/4
TP32SQ	1/16	1/4 – 3/4

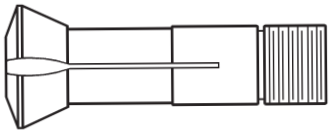
TORNOS CAM MACHINES

CARBIDE DRAW BUSHINGS

ROUND



CAT. NO.	MACHINE	REFERENCE DIMENSIONS				INC.	RANGE
		D	L	a°	THD. mm		
TD4	M4	9mm .354	44mm 1.732	16°	8 x .5	1/64 .001	1/16 – 3/16 .030 – .188
TD7	M7	11mm .433	53mm 2.087	16°	10 x .75	1/64 .001	1/16 – 1/4 .030 – .265
TD10	R10/R125 M10	16mm .630	60mm 2.362	16°	14 x 1	1/64 .001	1/16 – 13/32 .030 – .406
SD125R	R10/R125 M10	18mm .709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
SD125R-16 Rev. Holder	R10/R125	18mm .709	60mm 2.362	30°	16 x 1	1/32 .001	1/16 – 7/16 .030 – .438
TD20	R16/R20 RR20 M15	22mm .866	68mm 2.677	16°	19 x 1	1/32 .001	1/8 – 17/32 .050 – .532
TD25	R20/RR20 M20 M25/28	28mm 1.102	82mm 3.228	30°	25 x 1	1/32 .001	1/8 – 3/4 .100 – .781
TD32	MR32	42mm 1.654	82mm 2.228	20°	40 x 1	1/16 .001	1/4 – 1 1/4 .200 – 1.250



STEEL BUSHINGS

HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	**INC.**	**RANGE**
TD4HX	1/32	1/8 – 3/16
TD7HX	1/32	1/8 – 1/4
TD10HX	1/32	1/8 – 5/16
SD125RHX	1/32	1/8 – 7/16
SD125R-16HX	1/32	1/8 – 3/8
TD20HX	1/16	3/16 – 1/2
TD25HX	1/16	3/16 – 11/16
TD32HX	1/16	1/4 – 3/4

SQUARE □		
CAT. NO.	**INC.**	**RANGE**
TD4SQ	1/32	1/8 – 5/32
TD7SQ	1/32	1/8 – 3/16
TD10SQ	1/32	1/8 – 9/32
SD125SQ	1/32	1/8 – 11/32
SD125R-16SQ	1/32	1/8 – 5/16
TD20SQ	1/16	3/16 – 3/8
TD25SQ	1/16	3/16 – 9/16
TD32SQ	1/16	1/4 – 3/4

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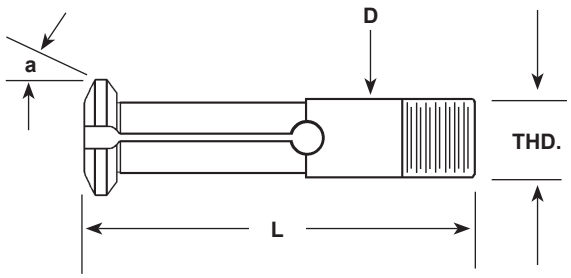
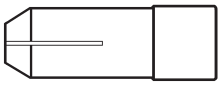
CARBIDE DRAW BUSHINGS

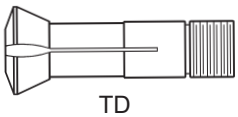
SELF ADJUSTING



CAT. NO.	MACHINE	REFERENCE DIMENSIONS				INC.	RANGE
		D	L	a°	THD. mm		
TD4SA	M4	10mm .393	56mm 2.206	36°	10 x 1	.001	.030 – .213
TD7SA	M7 R10/R125	13mm .512	68mm 2.677	36°	13 x 1	.001	.030 – .276 .
TD10SA	R125	18mm .709	68mm 2.677	36°	18 x 1	.001	.050 – .500



TP



TD

STEEL BUSHINGS OR MEEHANITE BUSHINGS

ROUND

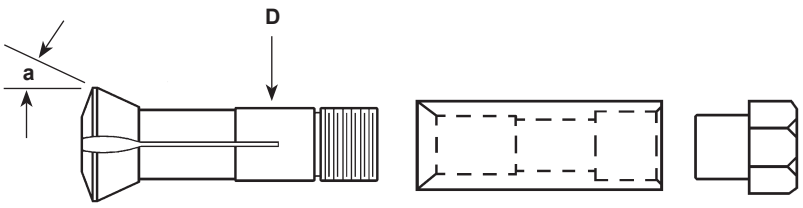
CAT. NO.	INC.	RANGE
TP4	1/32 .001	1/16 – 3/16 .050 – .188
TP7	1/32 .001	1/16 – 9/32 .050 – .281
TP10	1/16 .001	1/16 – 7/16 .050 – .438
TP15	1/16 .001	1/16 – 9/16 .050 – .590
TP20	1/16 .001	1/8 – 3/4 .100 – .787
TP25	1/16 .001	3/16 – 1" .150 – 1.032
TP28	1/16 .001	1/4 – 1 1/4 .200 – 1.125
TP28L	1/16 .001	1/4 – 1 1/8 .200 – 1.125
TP32	1/16 .001	1/4 – 1 1/4 .200 – 1.250

CAT. NO.	INC.	RANGE
TD4	1/16 .001	1/16 – 3/16 .050 – .203
TD7	1/16 .001	1/16 – 1/4 .050 – .265
TD10	1/16 .001	1/16 – 3/8 .050 – .390
SD125R	1/16 .001	1/16 – 1/2 .050 – .500
TD20	1/16 .001	1/8 – 1/2 .100 – .547
TD25	1/16 .001	1/8 – 3/4 .100 – .796
TD32	1/16 .001	1/4 – 1 1/4 .200 – 1.250

Meehanite Bushings are available in round bore sizes only.

TORNOS CAM MACHINES

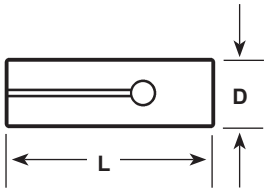
DRAW BUSHINGS SLEEVES AND NUTS



MACHINE	BUSHINGS			SLEEVE		NUT	
	CAT. NO.	D	a°	CAT. NO.	OD x ID	Cat. No.	THD.MM
M4	TD4	9mm	16°	TD4SL	13 x 9	TD4N	8 x .5
M7	TD7	11mm	16°	TD7SL	15 x 11	TD7N	10 x .75
R10 & R125	TD10	16mm	16°	TD10SL	22 x 16	TD10N	14 x 1
R10 & R125	SD125R	18mm	30°	SD125RSL	22 x 18	SD125RN	18 x 1
M15, R16 & RR20	TD20	22mm	16°	TD20SL	32 x 22	TD20N	19 x 1
M20 & M25/28	TD25	28mm	30°	TD25SL	40 x 28	TD25N	25 x 1
R20	TD25	28mm	30°	R20S	36 x 28	TD25N	25 x 1
M32	TD32	42mm	20°	TD32SL	52 x 42	TD32N	40 x 1

Adapters are available so that the TD10 and the SD125R can be used in the Bechler A/AR-10 machines and the TD25 can be used in the B/BR-20 machines. With accommadating sleeves, some draw bushings may be used in other sliding headstock automatics.

MULTI-BAR COLLETS



CAT. NO.	REFERENCE DIMENSIONS		INC.	RANGE
	D	L		
#320	4.5mm .177	22mm .866	1/64 .001	1/16 – 1/8 .050 – .125
#550	5.5mm .216	22mm .866	1/64 .001	1/16 – 5/32 .050 – .160
#7	7mm .275	22mm .866	1/64 .001	1/16 – 7/32 .050 – .220
#10	10mm .393	26mm 1.023	1/64 .001	1/16 – 5/16 .050 – .315
#12	12mm .472	26mm 1.023	1/16 .001	1/8 – 3/8 .100 – .375
#20L	20mm .787	60mm 2.632	1/16 .001	1/8 – 5/8 .100 – .630

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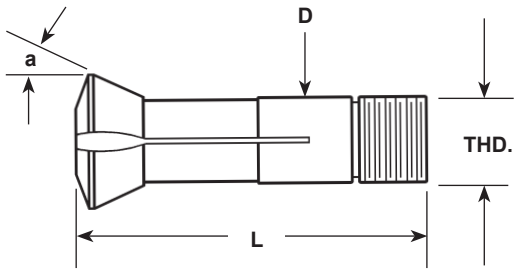
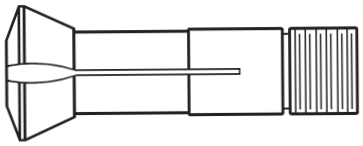
CARBIDE DRAW BUSHINGS
ROUND



CAT. NO.	MACHINE	REFERENCE DIMENSIONS				INC.	RANGE
		D	L	a°	THD. mm		
TSD4	Tornos M4 Strohm M45	9mm .354	52mm 2.047	30°	9 x .7	1/64 .001	1/16 – 3/16 .030 – .188
TSD7	Tornos M7 Strohm M75	12mm .472	52mm 2.047	30°	12 x 1	1/64 .001	1/16 – 1/4 .030 – .265
SD125R	Tornos R10 & R125 . Strohm M105 & M125	18mm 709	60mm 2.362	30°	18 x 1	1/64 .001	1/16 – 1/2 .030 – .500
TSD15	Tornos M15 & R16	25mm .984	72mm 2.834	30°	25 x 1	1/32 .001	1/8 – 19/32 .100 – .594
TSD20	Tornos M20 & RR20 1	32mm .260	70mm 2.756	30°	32 x 1	1/16 .001	1/8 – 13/16 .100 – .813
TSD42	Traub A42	40mm 1.575	65.5mm 2.580	30°	40 x 1	1/32 .001	1/4 – 1 1/16 .200 – 1.063



STEEL BUSHINGS
OR
MEEHANITE BUSHINGS
ROUND

CAT. NO.	INC.	RANGE
TSD4	1/16 .001	1/16 – 3/16 .050 –.203
TSD7	1/16 .001	1/16 – 1/4 .050 – .265
SD125R	1/16 .001	1/16 – 1/2 .050 – .500

CAT. NO.	INC.	RANGE
TSD15	1/16 .001	1/4 – 11/16 .200 – .688
TSD20	1/16 .001	1/4 – 7/8 .200 – .875
TSD42	1/16 .001	1/4 – 1" .200 – 1.063

When ordering please add a suffix of “ST” for steel bushings or “M” for meehanite bushings.

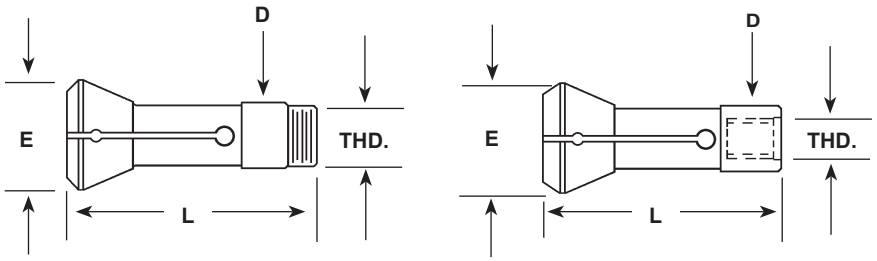
Some Tornos and Strohm machines in the United States are equipped to use the above series of bushings. However, with the exception of the SD125R, these bushings are more popular in Europe. Machines sold through the United States distributors are not normally equipped with accommodating sleeves.

QUICK REFERENCE GUIDE*

MACHINE	SPINDLE COLLET	FEED FINGER	PICK-OFF COLLET	ATTACHMENT COLLETS	TUBE BUSHING
			AS621211	*	N/A
AS14	AS12115	AS1265	AS621025	*	N/A
SAS16	AS12607	AS12611	AS621025	*	AS151719
BS20	BS12367	BS12369	BS621007	*	BS151209

NOTE * A variety of attachment collets are used to hold drills, reamers, boring tools, etc. Many attachments use the popular MPC 16, 20, 25, 32 and 40 collets. See separate section in this catalog for MPC collets that are available.

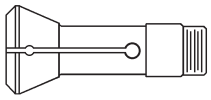
STEEL SPINDLE COLLETS
ROUND

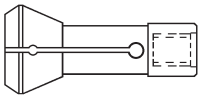


CATALOG NUMBER	REFERENCE DIMENSIONS					INC.	RANGE
	D	E	L	a°	THD		
AS12115	25mm .984	35mm 1.378	75mm 2.9534	16	INT 22 x 1	1/16 .001	1/8 – 9/16 .100 – .562
AS12607	25mm .984	35mm 1.378	94mm 3.700	16	EXT 25 x 1	1/16 .001	3/16 – 5/8 .150 – .630
BS12367	36mm 1.417	45mm 1.772	107mm 4.123	16	INT 33 x 1.25	1/16 .001	1/4 – 13/16 .200 – .826

NOTE 1. Collets are normally stocked in the fractional increments (INC) shown. Fractional bores of smaller increments, decimal sizes or metric sizes are made to order.

2. Round bores 3/8 diameter and larger are grooved for additional holding power. If not required specify “Smooth Bore” when ordering.

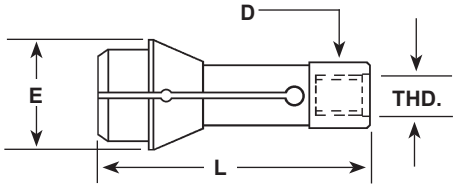




STEEL COLLETS
HEXAGON & SQUARE

HEXAGON ⬡		
CAT. NO.	INC.	RANGE
AS12115HX	1/16	1/8 – 7/16
AS12607HX	1/16	3/16 – 9/16
BS12367HX	1/16	1/4 – 11/16

SQUARE □		
CAT. NO.	INC.	RANGE
AS12115SQ	1/16	1/8 – 3/8
AS12607SQ	1/16	3/16 – 7/16
BS12367SQ	1/16	1/4 – 9/16

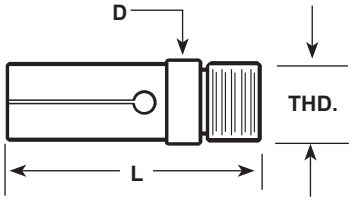


PICK–OFF COLLETS
ROUND STEEL

CAT. NO.	REFERENCE DIMENSIONS				INC.	RANGE
	D	E	L	THD.		
AS621211	13mm .512	19mm .748	66 2.598	INT 11 x .75	.001	.030 – .398
AS621025	16mm .630	21mm .827	66 2.598	INT 14 x .75	.001	.030 – .500
BS621007	25mm .984	35mm 1.378	77 3.032	INT 22 x 1	.001	.100 – .787

NOTE 1. All pick-off collets are made with smooth bores unless otherwise specified.

2. If an ejector pin assembly is required, specify when ordering collet.
Example: SAS16-AS621025 - with ejector assembly.



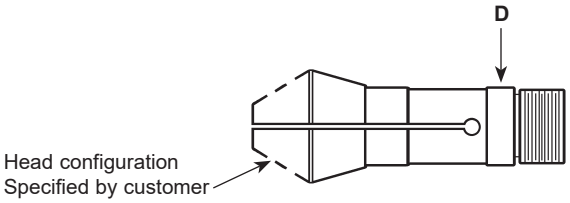
FEED FINGERS
ROUND STEEL

CAT. NO.	REFERENCE DIMENSIONS			INC.	RANGE
	D	L	THD.		
AS1265	17.9mm .705	70mm 2.756	16 x.75	1/16 .001	1/8 – 9/16 .100 – .562
AS12611	22.8mm .898	98mm 3.858	20 x .75	1/16 .001	3/16 – 5/8 .150 – .630
BS12369	27.7mm 1.091	116mm 4.567	25 x 1	1/16 .001	1/4 – 13/16 .200 – .826

NOTE: 1. Hexagon and Square Feed Fingers are available in the same size range as the matching headstock collets. Use the catalog number with suffix HX or SQ. when ordering.

2. Unless otherwise specified, feed fingers are supplied with normal tension. If extra “light” or “heavy” tension is required this should be noted when ordering.

WIRTH ET GRUFFAT



ROTARY TRANSFER MACHINE

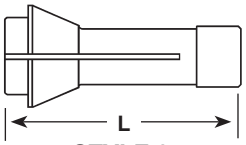
CAT. NO.	D	INC.	THRU BORE RANGE
W20-WG	20MM .787	.001	.100 – .590
W25-WG	25MM .984	.001	.100 – .720
5C-WG	1.2495	.001	.100 – 1.000

The rotary transfer machines are available in 6, 8, 10 and 12 station models. Most use the W20-WG collet except for some that are designed to use the W25-WG or the 5C-WG collet. These collets are normally made in sets. The rear bore diameter and length are held to close tolerances for smooth action of the ejector pin. Whether the parts are located by a step in the collet bore or by the ejector pin, the locating dimensions are held uniformly within a given set.

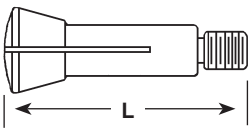
Due to the wide variety of part configurations. all collet sets are made to order. A part sample, a drawing of the part located in the collet and a drawing of the ejector pin are required with each order. Any design work by Southwick & Meister, Inc. will reflect appropriate engineering charges.

METRIC COLLETS

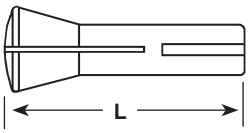
MISCELLANEOUS STYLES



STYLE 3



STYLE 2



STYLE 1

CAT. NO.	MACHINE	REFERENCE DIMENSIONS			INC.	RANGE
		STYLE	D	L		
P5	MISC.	1	5mm .196	22mm .886	1/64 .001	3/64 – 7/64 .020 – .110
P6	MISC.	1	6mm .236	23.8mm .937	1/64 .001	3/64 – 1/8 .020 – .135
WJ#1	MISC.	2	6mm .236	31mm 1.221	1/64 .001	3/64 – 3/32 .020 – .095
WJ#3	MISC.	2	8mm .315	35.3mm 1.390	1/64 .001	3/64 – 5/32 .020 – .158
P9	MISC.	1	9mm .354	39.5mm 1.555	1/32 .001	1/16 – 3/16 .050 – .190
WJ#4	MISC.	2	10mm .393	43.6mm 1.717	1/64 .001	1/16 – 1/4 .020 – .252
W12	MISC.	2	12mm .472	47.8mm 1.883	1/32 .001	1/16 – 5/16 .030 – .312
W15	MISC.	2	15mm .590	58.3mm 2.295	1/32 .001	1/16 – 3/8 .030 – .400
SV70	SCHAUBLIN	3	12mm .472	44.5mm 1.753	1/16 .001	1/16 – 5/16 .030 – .360
W20-4	MISC.	2	20mm .787	72.9mm 2.870	1/16 .001	1/8 – 5/8 .100 – .625
W25-5	MISC.	2	25mm .984	97.6mm 3.843	1/16 .001	1/8 – 3/4 .100 – .750

* Larger capacity available in step bore design.

SOUTHWICK & MEISTER INC.
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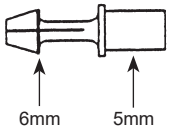
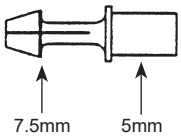
ESCOMATIC COLLETS AND CARBIDE BUSHINGS

D2 Collets

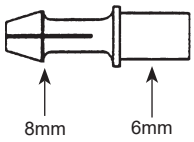
COUNTER COLLET STANDARD – SMALL		
CAT. NO.	INC.	RANGE
D2CC-S	.001	.015 – .099



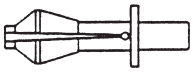
COUNTER COLLET STANDARD – MEDIUM		
CAT. NO.	INC.	RANGE
D2CC-M	.001	.100 – .156



COUNTER COLLET STANDARD – LARGE		
CAT. NO.	INC.	RANGE
D2CC-L	.001	.157 – .188

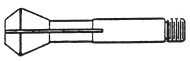


COUNTER COLLET OVERGRIPPING		
CAT. NO.	INC.	RANGE
D2CC-OG	.001	.030 – .125

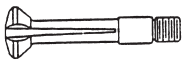


D4 Collets

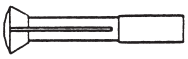
COUNTER COLLET STANDARD		
CAT. NO.	INC.	RANGE
D4CC	.001	.023 – .160



COUNTER COLLET OVERGRIPPING		
CAT. NO.	INC.	RANGE
D4CC-OG	.001	.030 – .160

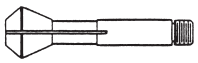


DRILL COLLET FOR TURRET		
CAT. NO.	INC.	RANGE
D4DC	.001	.030 – .160

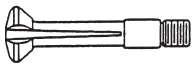


D6, D6R and 640 Collets

COUNTER COLLET STANDARD		
CAT. NO.	INC.	RANGE
D6CC	.001	.030 – .250

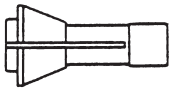


COUNTER COLLET OVERGRIPPING		
CAT. NO.	INC.	RANGE
D6CC-OG	.001	.030 – .250

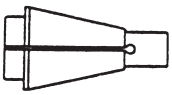


Please specify gripping diameter, overgrip diameter and bore length.

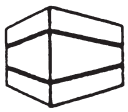
FEED COLLET (USED IN PAIRS)		
CAT. NO.	INC.	RANGE
D6FC	.001	.030 – .250
640FC	.001	.030 – .250



DRILL COLLET		
CAT. NO.	INC.	RANGE
D6DC	.001	.030 – .250

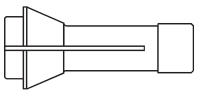


CROSS DRILL COLLET		
CAT. NO.	INC.	RANGE
D6CDC	.001	.030 – .250

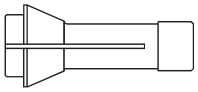


D9 Collets

STEADY COLLET		
CAT. NO.	INC.	RANGE
D9SC	.001	.030 – .354



FEED COLLET		
CAT. NO.	INC.	RANGE
0146	.001	.030 – .354

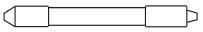


SOUTHWICK & MEISTER INC.
PHONE (203) 237-0000 FAX (203) 634-4509

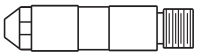
ESCOMATIC CARBIDE TOOLS AND BUSHINGS

Carbide Bushings

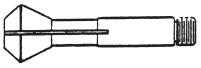
CARBIDE BUSHING D2 and D4		
CAT. NO.	**INC.**	**RANGE**
D24GB	.001	.030 – .236



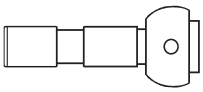
CARBIDE BUSHING D6 and D6R		
CAT. NO.	**INC.**	**RANGE**
D6GB	.001	.030 – .250

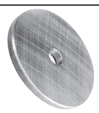


CARBIDE BUSHING 640		
CAT. NO.	**INC.**	**RANGE**
640GB	.001	.030 – .250



CARBIDE BUSHING D9		
CAT. NO.	**INC.**	**RANGE**
D9GB	.001	.030 – .354



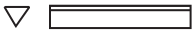


FEED ROLLS D2 and D4	
CAT. NO.	**WIRE DIAMETER**
D24FRS	.030 – .250

All feed rolls are “V” type with a 90° included angle. Most popular sizes are carried in stock.

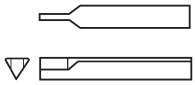
Carbide Tools

D2 and D4	
CAT. NO.	**GRADE**
D24CT-N2	General purpose applications



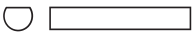
No Pre-Form
Un-Ground

D2 and D4	
CAT. NO.	**GRADE**
D24CT-F2	General purpose applications
D24CT-F9	Micro-grain for tougher alloys



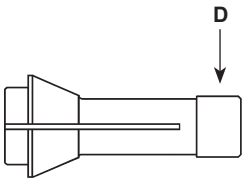
Pre-Formed
Un-Ground

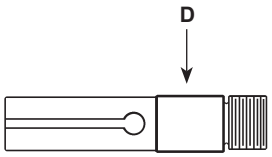
D6, D6R and D9	
CAT. NO.	**GRADE**
D6CT2	General purpose applications
D6CT9	Micro-grain for tougher alloys



Ground On
OD and Flat

CARBIDE WIRE STRAIGHTENING PADS D6 and D6R		
	RANGE	
CAT. NO.	**(MM)**	**(INCH)**
WSP-1	TO - 1mm	TO -.040
WSP-2	1.1mm - 2mm	.041 - .080
WSP-3	2.1mm - 3mm	.081 - .120
WSP-4	3.1mm - 4mm	.121 - .160
WSP-5	4.1mm - 5mm	.161 - .200
WSP-6	5.1mm - 6mm	.201 - .240
WSP-7	6.1mm - 7mm	.241 - .280





STEEL COLLETS AND FEED FINGERS ROUND

COLLETS			
CAT. NO.	INC.	D	RANGE
#00 B&S	1/64 .001	0.685	1/16 – 1/2 .050 – .500
#10 B&S	1/64 .001	0.935	1/16 – 5/8 .050 – .625
#10Y B&S	1/32 .001	0.935	1/16 – 5/8 .100 – .625
#11 B&S	1/64 .001	1.06	1/8 – 13/16 .100 – .813
#11-C B&S	1/64 .001	1.185	1/8 – 13/16 .100 – .813
#21 B&S	1/32 .001	1.248	1/8 – 1" .100 – 1.000
#22 B&S	1/16 .001	1.495	1/4 – 1 1/8" .200 – 1.125

FEED FINGERS			
CAT. NO.	INC.	D	RANGE
#00 FF	1/64 .001	0.482	1/16 – 5/16 .050 – .313
#10 FF	1/64 .001	0.625	1/16 – 3/8 .050 – .375
#10A FF	1/64 .001	0.672	1/8 – 1/2 .100 – .500
#11 FF	1/64 .001	0.812	1/8 – 1/2 .100 – .500
#11A FF	1/32 .001	0.866	1/8 – 5/8 .100 – .625

Steel items are available in round, hexagonal, square or profile bores.

CARBIDE LINED COLLETS AND FEED FINGERS ROUND

NOTE: The "C" in the Cat. No. designates carbide.

BROWN & SHARPE CARBIDE LINE COLLETS		
CAT. NO.	INC.	RANGE
#00C B&S	1/32 .001	1/16 – 3/8 .050 – .375
#10C B&S	1/32 .001	1/8 – 1/2 .050 – .500
#11C B&S	1/32 .001	1/8 – 5/8 .100 – .625
#11-CC B&S	1/32 .001	1/8 – 5/8 .100 – .625
#21C B&S	1/16 .001	3/16 – 3/4 .150 – .750
#22C B&S	1/16 .001	1/4 – 7/8 .200 – .875

BROWN & SHARPE CARBIDE LINES FEED FINGERS		
CAT. NO.	INC.	RANGE
#00C FF	1/32 .001	1/16 – 5/16 .050 – .313
#10C FF	1/32 .001	1/16 – 3/8 .050 – .375
#10AC FF	1/32 .001	1/8 – 7/16 .100 – .438
#11C FF	1/32 .001	1/8 – 9/16 .100 – .563
#11AC FF	1/32 .001	1/8 – 5/8 .100 – .625

All dimension in inches.

Ordering Notes

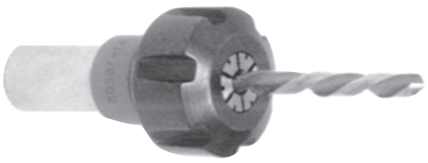
Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

MULTI-PURPOSE COLLET (MPC) SYSTEM

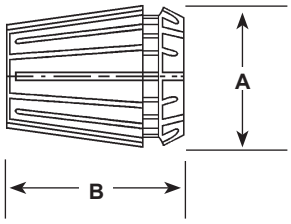
The Multi-Purpose Collet System was designed as an economical method of accurately holding drills, reamers, taps, boring tools, grinding wheels, etc., in all types of machining and grinding operations.



The **MPC** collet is a unique, quick releasing, multi-slotted collet that collapses parallel to its axis.

The metric series of **MPC** collets are all made to a nominal metric bore size in increments of .5MM or 1MM and will collapse .5MM to 1MM depending on collet size. Refer to the “Collet Selection Chart” — (Metric).

MPC COLLETS SETS METRIC AND FRACTIONAL



CAT. NO	REF. DIM. A	REF. DIM. B
MPC8	8.5	13.5
MPC11	11.5	18
MPC12	12	19.5
MPC16	17	27.5
MPC20	21	31.5
MPC25	26	34
MPC32	33	40
MPC40	41	46

COLLETS

COLLET HOLDERS

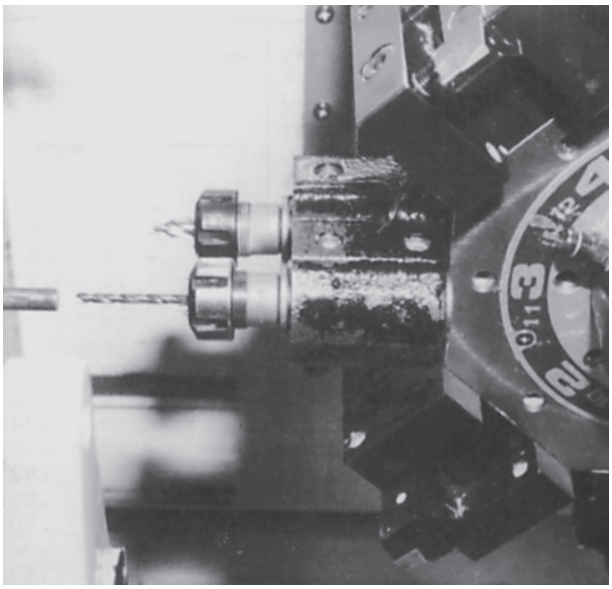
TAPPING COLLETS

CLAMPING NUTS

WRENCHES

All collet sets are supplied in wooden boxes.

The slim design of the MPC Collet Holder allows a center drill and drill to be mounted in a twin turret tool holder on the CNC turning machine shown at the right. Interference would be encountered using conventional drill chucks. In addition, the drills are held more accurately on center with considerably less overhang.



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MPC COLLETS

COLLET SELECTION CHART / METRIC

MPC8	
CAT NO.	**RANGE INCHES**
MPC8 - 1	.039 - .020
MPC8 - 1.5	.059 - .039
MPC8 - 2	.079 - .059
MPC8 - 2.5	.098 - .079
MPC8 - 3	.118 - .098
MPC8 - 3.5	.138 - .118
MPC8 - 4	.157 - .138
MPC8 - 4.5	.177 - .157
MPC8 - 5	.197 - .177
9 COLLETS / SET	

MPC11	
CAT NO.	**RANGE INCHES**
MPC11 - 1	.039 - .020
MPC11 - 1.5	.059 - .039
MPC11 - 2	.079 - .059
MPC11 - 2.5	.098 - .079
MPC11 - 3	.118 - .098
MPC11 - 3.5	.138 - .118
MPC11 - 4	.157 - .138
MPC11 - 4.5	.177 - .157
MPC11 - 5	.197 - .177
MPC11 - 5.5	.217 - .197
MPC11 - 6	.236 - .217
MPC11 - 6.5	.256 - .236
MPC11 - 7	.276 - .256
13 COLLETS / SET	

MPC12	
CAT NO.	**RANGE INCHES**
MPC12 - 1	.039 - .020
MPC12 - 1.5	.059 - .039
MPC12 - 2	.079 - .059
MPC12 - 2.5	.098 - .079
MPC12 - 3	.118 - .098
MPC12 - 3.5	.138 - .118
MPC12 - 4	.157 - .138
MPC12 - 4.5	.177 - .157
MPC12 - 5	.197 - .177
MPC12 - 5.5	.217 - .197
MPC12 - 6	.236 - .217
MPC12 - 6.5	.256 - .236
MPC12 - 7	.276 - .256
13 COLLETS / SET	

MPC16	
CAT NO.	**RANGE INCHES**
MPC16 - 1	.039 - .020
MPC16 - 2	.079 - .039
MPC16 - 3	.118 - .079
MPC16 - 4	.157 - .118
MPC16 - 5	.197 - .157
MPC16 - 6	.236 - .197
MPC16 - 7	.276 - .236
MPC16 - 8	.315 - .276
MPC16 - 9	.354 - .315
MPC16 - 10	.394 - .354
10 COLLETS / SET	

MPC20	
CAT NO.	**RANGE INCHES**
MPC20 - 2	.079 - .039
MPC20 - 3	.118 - .079
MPC20 - 4	.157 - .118
MPC20 - 5	.197 - .157
MPC20 - 6	.236 - .197
MPC20 - 7	.276 - .236
MPC20 - 8	.315 - .276
MPC20 - 9	.354 - .315
MPC20 - 10	.394 - .354
MPC20 - 11	.433 - .394
MPC20 - 12	.472 - .433
MPC20 - 13	.512 - .472
12 COLLETS / SET	

MPC25	
CAT NO.	**RANGE INCHES**
MPC25 - 2	.079 - .039
MPC25 - 3	.118 - .079
MPC25 - 4	.157 - .118
MPC25 - 5	.197 - .157
MPC25 - 6	.236 - .197
MPC25 - 7	.276 - .236
MPC25 - 8	.315 - .276
MPC25 - 9	.354 - .315
MPC25 - 10	.394 - .354
MPC25 - 11	.433 - .394
MPC25 - 12	.472 - .433
MPC25 - 13	.512 - .472
MPC25 - 14	.551 - .512
MPC25 - 15	.591 - .551
MPC25 - 16	.630 - .591
15 COLLETS / SET	

MPC32	
CAT NO.	**RANGE INCHES**
MPC32 - 3	.118 - .079
MPC32 - 4	.157 - .118
MPC32 - 5	.197 - .157
MPC32 - 6	.236 - .197
MPC32 - 7	.276 - .236
MPC32 - 8	.315 - .276
MPC32 - 9	.354 - .315
MPC32 - 10	.394 - .354
MPC32 - 11	.433 - .394
MPC32 - 12	.472 - .433
MPC32 - 13	.512 - .472
MPC32 - 14	.551 - .512
MPC32 - 15	.591 - .551
MPC32 - 16	.630 - .591
MPC32 - 17	.669 - .630
MPC32 - 18	.709 - .669
MPC32 - 19	.748 - .709
MPC32 - 20	.787 - .748
18 COLLETS / SET	

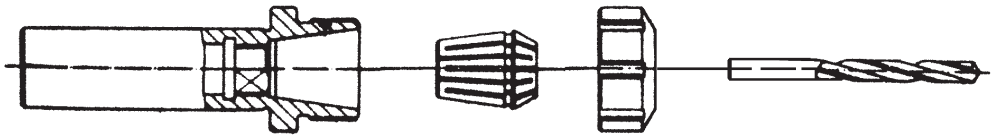
MPC40	
CAT NO.	**RANGE INCHES**
MPC40 - 4	.157 - .118
MPC40 - 5	.197 - .157
MPC40 - 6	.236 - .197
MPC40 - 7	.276 - .236
MPC40 - 8	.315 - .276
MPC40 - 9	.354 - .315
MPC40 - 10	.394 - .354
MPC40 - 11	.433 - .394
MPC40 - 12	.472 - .433
MPC40 - 13	.512 - .472
MPC40 - 14	.551 - .512
MPC40 - 15	.591 - .551
MPC40 - 16	.630 - .591
MPC40 - 17	.669 - .630
MPC40 - 18	.709 - .669
MPC40 - 19	.748 - .709
MPC40 - 20	.787 - .748
MPC40 - 21	.827 - .787
MPC40 - 22	.866 - .827
MPC40 - 23	.906 - .866
MPC40 - 24	.945 - .906
MPC40 - 25	.984 - .945
MPC40 - 26	1.024 - .984
23 COLLETS / SET	

When ordering individual collets, specify collet style and bore size.

EXAMPLE: If a MPC16 collet is needed with a 5MM bore (Range .197-.157), a MPC16-5 collet would be specified.

When ordering metric sets please specify collet type with suffix "SM".

Example: MPC 16SM



MPC COLLETS – FRACTIONAL

The fractional series **MPC** collets have the same O.D. configuration as the metric series, but are made with nominal fraction bores in 1/32 increments. They collapse approximately 1/32.

Both series have the same working range and either can be used for metric or fractional tools. However, the **OPTIMUM CONDITION** is when the shank of the tool being held is as close to the nominal collet bore size as possible. For example, to hold a 1/4 drill, a 7-6MM (.276–.237) metric collet would be used, collapsing from .276 to .250 or (.026). In the fractional series, a collet with a 1/4 nominal bore size would be used. The later would be preferable.

COLLET SELECTION CHART*

FRACTIONAL

MPC11	
CAT NO.	**RANGE INCHES**
MPC11 - 1/16	.063 - .044
MPC11 - 3/32	.093 - .074
MPC11 - 1/8	.125 - .106
MPC11 - 5/32	.156 - .137
MPC11 - 3/16	.188 - .169
MPC11 - 7/32	.219 - .200
MPC11 - 1/4	.250 - .231
7 COLLETS / SET	

MPC16	
CAT NO.	**RANGE INCHES**
MPC16 - 1/16	.063 - .032
MPC16 - 3/32	.094 - .063
MPC16 - 1/8	.125 - .094
MPC16 - 5/32	.156 - .125
MPC16 - 3/16	.188 - .156
MPC16 - 7/32	.219 - .188
MPC16 - 1/4	.250 - .219
MPC16 - 9/32	.281 - .250
MPC16 - 5/16	.313 - .281
MPC16 - 11/32	.344 - .313
MPC16 - 3/8	.375 - .344
MPC16 - 13/32	.406 - .375
12 COLLETS / SET	

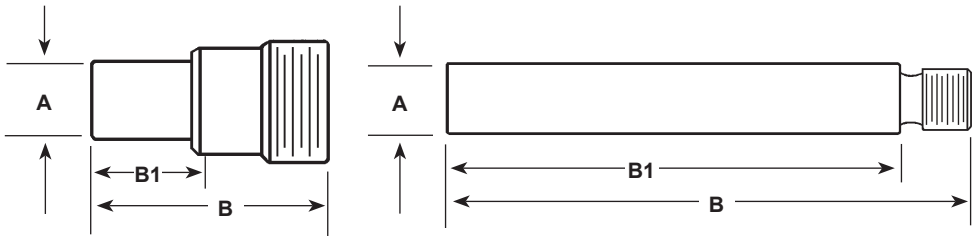
MPC20	
CAT NO.	**RANGE INCHES**
MPC20 - 1/16	.063 - .032
MPC20 - 3/32	.094 - .063
MPC20 - 1/8	.125 - .094
MPC20 - 5/32	.156 - .125
MPC20 - 3/16	.188 - .156
MPC20 - 7/32	.219 - .188
MPC20 - 1/4	.250 - .219
MPC20 - 9/32	.281 - .250
MPC20 - 5/16	.313 - .281
MPC20 - 11/32	.344 - .313
MPC20 - 3/8	.375 - .344
MPC20 - 13/32	.406 - .375
MPC20 - 7/16	.438 - .406
MPC20 - 15/32	.469 - .438
MPC20 - 1/2	.500 - .469
15 COLLETS / SET	

MPC25	
CAT NO.	**RANGE INCHES**
MPC25 - 3/32	.094 - .063
MPC25 - 1/8	.125 - .094
MPC25 - 5/32	.156 - .125
MPC25 - 3/16	.188 - .156
MPC25 - 7/32	.219 - .188
MPC25 - 1/4	.250 - .219
MPC25 - 9/32	.281 - .250
MPC25 - 5/16	.313 - .281
MPC25 - 11/32	.344 - .313
MPC25 - 3/8	.375 - .344
MPC25 - 13/32	.406 - .375
MPC25 - 7/16	.438 - .406
MPC25 - 15/32	.469 - .438
MPC25 - 1/2	.500 - .469
MPC25 - 17/32	.531 - .500
MPC25 - 9/16	.563 - .531
MPC25 - 19/32	.594 - .563
MPC25 - 5/8	.625 - .594
18 COLLETS / SET	

MPC32			
CAT NO.	**RANGE INCHES**	**CAT NO.**	**RANGE INCHES**
MPC32 - 3/16	.188 - .156	MPC32 - 7/16	.438 - .406
MPC32 - 7/32	.219 - .188	MPC32 - 15/32	.469 - .438
MPC32 - 1/4	.250 - .219	MPC32 - 1/2	.500 - .469
MPC32 - 9/32	.281 - .250	MPC32 - 17/32	.531 - .500
MPC32 - 5/16	.313 - .281	MPC32 - 9/16	.563 - .531
MPC32 - 11/32	.344 - .313	MPC32 - 19/32	.594 - .563
MPC32 - 3/8	.375 - .344	MPC32 - 5/8	.625 - .594
MPC32 - 13/32	.406 - .375	MPC32 - 21/32	.656 - .625
		MPC32 - 11/16	.688 - .656
		MPC32 - 23/32	.719 - .688
		MPC32 - 3/4	.750 - .719
19 COLLETS / SET			

*When ordering sets, please specify collet type with suffix "**SF**". Example: **MPC16SF.**

MPC STRAIGHT SHANK HOLDERS



CATALOG NUMBER	COLLET USED	SHANK DIA. A	SHANK LENGTH		TOTAL LENGTH	NUT STYLE
			B1 (MM)	B1 (IN.)	B (MM)	B (MM)
CY8-8-56M	MPC8	8MM	56	2.20	70	M
CY8-8-80M	MPC8	8MM	80	3.15	100	M
CY8-10-80M	MPC8	10MM	80	3.15	95	M
CY8-12-80M	MPC8	12MM	80	3.15	95	M
CY8-.500-80M	MPC8	.500	80	3.15	95	M
CY11-7-56M	MPC11	7MM	56	2.20	64	M
CY11-8-56M	MPC11	8MM	56	2.20	70	M
CY11-.250-45M	MPC11	.250	45	1.77	58	M
CY11-.500-154M	MPC11	.500	154	6.06	168	M
CY11-.625-154M	MPC11	.625	154	6.06	168	M
CY11-16-140M	MPC11	16MM	140	5.512	172.5	M
CY11-.750-85MDE	MPC11	.750	85	3.346	100	M(x2)
CY11-22-100H	MPC11	22MM	100	3.94	125	H
CY12-14-25H	MPC12	14MM	25	.98	38	H
CY12-.500-25H	MPC12	.500	25	.98	38	H
CY12-20-80H	MPC12	20MM	80	3.15	99	H
CY12-1.000-140H	MPC12	1.00	140	5.51	159	H
CY16-.500-154M	MPC16	.500	154	6.06	168	M
CY16-.625-60H	MPC16	.625	60	2.36	85	H
CY16-.625-80M	MPC16	.625	80	3.15	110	M
CY16-.625-140H	MPC16	.625	140	5.51	157	H
CY16-.750-50H	MPC16	.750	50	1.97	75	H
CY16-.750-100H	MPC16	.750	100	3.94	125	H
CY16-.750-134M	MPC16	.750	134	5.28	160	M
CY16-20-100H	MPC16	20MM	100	3.94	125	H
CY16-22-80H	MPC16	22MM	80	3.15	100	H
CY16-22-134H	MPC16	22MM	134	5.28	160	H
CY16-1.000-100H	MPC16	1.00	100	3.94	134	H
CY16-1.000-140H	MPC16	1.00	140	5.51	157	H
CY20-.625-100M	MPC20	.625	100	3.94	125	M
CY20-16-100M	MPC20	16MM	100	3.94	125	M
CY20-.750-30H	MPC20	.750	30	1.18	55	H
CY20-20-100M	MPC20	20MM	30	3.94	125	M
CY20-22-80H	MPC20	22MM	80	3.15	100	H
CY20-22-123H	MPC20	22MM	123	4.84	140	H
CY20-1.00-134M	MPC20	1.00	134	5.28	160	M
CY25-.750-35S	MPC25	.750	35	1.38	70	S
CY25-.750-50S	MPC25	.750	50	1.97	85	S
CY25-.750-100S	MPC25	.750	100	3.94	135	S
CY25-20-50S	MPC25	20MM	50	1.97	85	S
CY25-1.000-50S	MPC25	1.00	50	1.97	85	S
CY25-1.000-100S	MPC25	1.00	100	3.94	135	S
CY32-.750-50S	MPC32	.750	35	1.38	80	S
CY32-20-50S	MPC32	20MM	35	1.38	80	S
CY32-1.000-50S	MPC32	1.00	50	1.97	95	S
CY32-1.250-60S	MPC32	1.25	60	2.36	105	S
CY40-25-50S	MPC40	25MM	50	1.97	95	S
CY40-1.000-50S	MPC40	1.00	50	1.97	95	S
CY40-1.250-60S	MPC40	1.25	60	2.36	105	S

SOUTHWICK & MEISTER INC.
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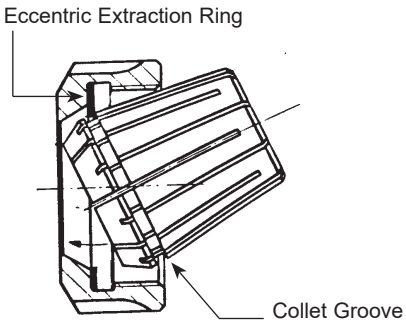
COLLET INSTALLATION



1. Insert the collet into the nut at an angle (as shown) and engage the protruding section of the eccentric extraction ring into the groove of the collet.
2. With the collet parallel to the nut check to make sure the collet groove is being held in place by the extraction ring.
3. Insert the collet and nut assembly into the collet holder and take a few turns on the nut.
4. Insert the tool to be gripped and tighten the nut.
5. To release the collet, unscrew the nut.

MPC NUTS AND WRENCHES

STYLE M

STYLE H

STYLE S

NUTS			WRENCHES
CAT NO.	NUT OD	THREAD	CAT. NO.
CY 8-N-M	12	M10x .75	CY 8-W-M
CY11-N-M	16	M13x .75	CY11-W-M
CY11-N-H	19	M14x .75	CY11-W-H
CY12-N-H	19	M14x .75	CY12-W-H
CY16-N-M	22	M19x1.00	CY16-W-M
CY16-N-H	28	M22x1.50	CY16-W-H
CY16-N-S	32	M22x1.50	CY16-W-S
CY20-N-M	28	M24x1.00	CY20-W-M
CY20-N-H	34	M25x1.50	CY20-W-H
CY20-N-S	35	M25x1.50	CY20-W-S
CY25-N-S	42	M32x1.50	CY25-W-S
CY32-N-S	50	M40x1.50	CY32-W-S
CY40-N-S	63	M50x1.50	CY40-W-S

DRILL CHART

FRACTIONAL SIZES	LETTER 64TH SIZES	DECIMAL EQUIVALENT (inches)	M. M. SIZES	METRIC EQUIVALENT (mm)
	97	.0059	0.15	
	96	.0063	0.16	
	95	.0067	0.17	
	94	.0071	0.18	
	93	.0075	0.19	
	92	.0079	0.20	
	91	.0083		0.211
	90	.0087	0.22	
	89	.0091		0.231
	88	.0095		0.241
		.0098	0.25	
	87	.0100		0.254
	86	.0105		0.267
	85	.0110	0.28	
	84	.0115		0.292
		.0118	0.30	
	83	.0120		0.305
	82	.0125		0.318
		.0126	0.32	
	81	.0130		0.330
	80	.0135		0.343
		.0138	0.35	
	79	.0145		0.368
		.0150	0.38	
1/64		.0156		0.397
		.0157	0.40	
	78	.0160		0.406
		.0165	0.42	
		.0177	0.45	
	77	.0180		0.457
		.0189	0.48	
		.0197	0.50	
	76	.0200		0.508
	75	.0210		0.533
		.0217	0.55	
	74	.0225		0.572
		.0236	0.60	
	73	.0240		0.610
	72	.0250		0.635
		.0256	0.65	
	71	.0260		0.660
		.0276	0.70	
	70	.0280		0.711
	69	.0292		0.742
		.0295	0.75	
1/32	68	.0310		0.787
		.0312		0.794
		.0315	0.80	
	67	.0320		0.813
	66	.0330		0.838
		.0335	0.85	
	65	.0350		0.889
		.0354	0.90	
	64	.0360		0.914
	63	.0370		0.940
		.0374	0.95	
	62	.0380		0.965
	61	.0390		0.991
		.0394	1.00	
	60	.0400		1.016
	59	.0410		1.041
		.0413	1.05	
	58	.0420		1.067
	57	.0430		1.092
		.0433	1.10	
		.0453	1.15	
3/64	56	.0465		1.181
		.0469		1.191
		.0472	1.20	
		.0492	1.25	
		.0512	1.30	
	55	.0520		1.321
		.0531	1.35	
	54	.0550		1.397
		.0551	1.40	
		.0571	1.45	
		.0591	1.50	
	53	.0595		1.511
1/16		.0610	1.55	
		.0625		1.588
		.0630	1.60	
	52	.0635		1.613
		.0650	1.65	
		.0669	1.70	
	51	.0670		1.702
	50	.0689	1.75	
		.0700		1.778
	49	.0709	1.80	
		.0728	1.85	
		.0730		1.854
		.0748	1.90	
	48	.0760		1.930
		.0768	1.95	
5/64		.0781		1.984
	47	.0785		1.994
		.0787	2.00	
		.0807	2.05	
	46	.0810		2.057
	45	.0820		2.083
		.0827	2.10	
		.0846	2.15	
	44	.0860		2.184
		.0866	2.20	
		.0886	2.25	
	43	.0890		2.261
		.0906	2.30	
		.0925	2.35	
	42	.0935		2.375
3/32		.0938		2.381
		.0945	2.40	
	41	.0960		2.438
		.0965	2.45	
	40	.0980		2.489
		.0984	2.50	
	39	.0995		2.527
	38	.1015		2.578
		.1024	2.60	
	37	.1040		2.642
		.1063	2.70	
	36	.1065		2.705
7/64		.1094		2.778
	35	.1100		2.794
		.1102	2.80	
	34	.1110		2.819
	33	.1130		2.870
		.1142	2.90	
	32	.1160		2.946
		.1181	3.00	
	31	.1200		3.048
		.1220	3.10	
1/8		.1250		3.175
		.1260	3.20	
	30	.1285		3.264
		.1299	3.30	
		.1339	3.40	
	29	.1360		3.454
		.1378	3.50	
	28	.1405		3.569
9/64		.1406		3.572
		.1417	3.60	
	27	.1440		3.658
		.1457	3.70	
	26	.1470		3.734
	25	.1495		3.797
		.1496	3.80	
	24	.1520		3.861
		.1535	3.90	
	23	.1540		3.912
5/32		.1562		3.969
	22	.1570		3.988
		.1575	4.00	
	21	.1590		4.039
	20	.1610		4.089
		.1614	4.10	
		.1654	4.20	
	19	.1660		4.216
		.1693	4.30	
	18	.1695		4.305
11/64		.1719		4.366
	17	.1730		4.394
		.1732	4.40	
	16	.1770		4.496
		.1772	4.50	
	15	.1800		4.572
		.1811	4.60	
	14	.1820		4.623
	13	.1850	4.70	
3/16		.1875		4.762
	12	.1890	4.80	
	11	.1910		4.851
		.1929	4.90	
	10	.1935		4.915
	9	.1960		4.978
		.1969	5.00	
	8	.1990		5.005
		.2008	5.10	
	7	.2010		5.105
13/64		.2031		5.159
	6	.2040		5.182
		.2047	5.20	
	5	.2055		5.220
		.2087	5.30	
	4	.2090		5.309
		.2126	5.40	
	3	.2130		5.410
		.2165	5.50	
7/32		.2188		5.556
		.2205	5.60	
	2	.2210		5.613
		.2244	5.70	
	1	.2280		5.791
		.2283	5.80	
		.2323	5.90	
	A	.2340		5.944
15/64		.2344		5.953
		.2362	6.00	
	B	.2380		6.045
		.2402	6.10	
	C	.2420		6.147
		.2441	6.20	
	D	.2460		6.248
		.2480	6.30	
1/4	E	.2500		6.350
		.2520	6.40	
		.2559	6.50	
	F	.2570		6.528
		.2598	6.60	
	G	.2610		6.629
		.2638	6.70	
17/64		.2656		6. 747
	H	.2660		6.756
		.2677	6.80	
		.2717	6.90	
	I	.2720		6.909
		.2756	7.00	
	J	.2770		7.036
		.2795	7.10	
	K	.2810		7.137
9/32		.2812		7.144
		.2835	7.20	
		.2874	7.30	
	L	.2900		7.366
		.2913	7.40	
	M	.2950		7.493
		.2953	7.50	
19/64		.2969		7.541
		.2992	7.60	
	N	.3020		7.671
		.3031	7.70	
		.3071	7.80	
		.3110	7.90	
5/16		.3125		7.938
		.3150	8.00	
	O	.3160		8.026
		.3189	8.10	
		.3228	8.20	
	P	.3230		8.204
		.3268	8.30	
21/64		.3281		8.334
		.3307	8.40	
	Q	.3320		8.433
		.3346	8.50	
		.3386	8.60	
	R	.3390		8.611
		.3425	8.70	
11/32		.3438		8.731
		.3465	8.80	
	S	.3480		8.839
		.3504	8.90	
		.3543	9.00	
	T	.3580		9.093
		.3583	9.10	
23/64		.3594		9.128
		.3622	9.20	
		.3661	9.30	
	U	.3680		9.347
		.3701	9.40	
		.3740	9.50	
3/8		.3750		9.525
	V	.3770		9.576
		.3780	9.60	
		.3819	9.70	
		.3858	9.80	
	W	.3860		9.804
		.3898	9.90	
	25/64	.3906		9.922
		.3937	10.00	
	X	.3970		10.084
	Y	.4040		10.262
13/32		.4062		10.319
	Z	.4130		10.490
		.4134	10.50	
	27/64	.4219		10.716
		.4331	11.00	
7/16		.4375		11.112
		.4528	11.50	
	29/64	.4531		11.509
15/32		.4688		11.906
		.4724	12.00	
	31/64	.4844		12.303
		.4921	12.50	
1/2		.5000		12.700
		.5118	13.00	
	33/64	.5156		13.097
17/32		.5312		13.494
	35/64	.5469		13.891
		.5512	14.00	
9/16		.5625		14.288
	37/64	.5781		14.684
		.5906	15.00	
19/32		.5938		15.081
	39/64	.6094		15.478
5/8		.6250		15.875
		.6299	16.00	
	41/64	.6406		16.272
21/32		.6562		16.669
		.6693	17.00	
	43/64	.6719		17.066
11/16		.6875		17.462
		.6890	17.50	
	45/64	.7031		17.859
		.7087	18.00	
23/32		.7188		18.256
	47/64	.7344		18.653
		.7480	19.00	
3/4		.7500		19.050
	49/64	.7656		19.447
25/32		.7812		19.844
		.7874	20.00	
	51/64	.7969		20.241
13/16		.8125		20.638
		.8268	21.00	
	53/64	.8281		21.034
27/32		.8438		21.431
	55/64	.8594		21.828
7/8		.8750		22.225
	57/64	.8906		22.622
29/32		.9062		23.019
	59/64	.9219		23.416
15/16		.9375		23.812
	61/64	.9531		24.209
31/32		.9688		24.606
		.9843	25.00	
	63/64	.9844		25.003
1		1.0000		25.400

SOUTHWICK & MEISTER INC.

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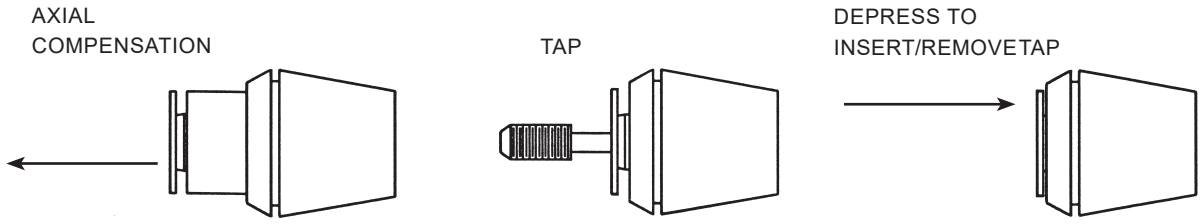
MPC_ _T QUICK CHANGE TAPPING COLLETS



TAPPING COLLETS

TAP SIZE	TAP SHANK DIAMETER	PART NUMBER BY COLLET SERIES				
		MPC16T	MPC20T	MPC25T	MPC32T	MPC40T
#0-6	0.141	#0-6	#0-6	#0-6	#0-6	#0-6
#8	0.168	#8	#8	#8	#8	#8
#10	0.194	#10	#10	#10	#10	#10
#12	0.220		#12	#12	#12	#12
1/4”	0.255		1/4	1/4	1/4	1/4
5/16”	0.318			5/16	5/16	5/16
3/8”	0.381			3/8	3/8	3/8
7/16”	0.323			7/16	7/16	7/16
1/2”	0.367			1/2	1/2	1/2
9/16”	0.429				9/16	9/16
5/8”	0.480					5/8
11/16”	0.542					11/16

Tapping Collets with Axial Compensation

For use with any corresponding CY__ Holder. These tapping collets aid in the prevention of tap breakage on machines requiring axial compensation.

Ordering Notes

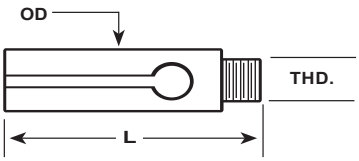
Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

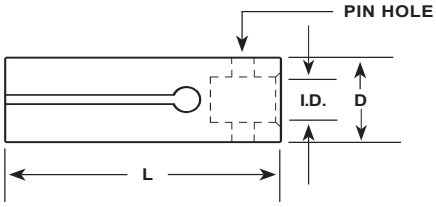
CITIZEN CAV BAR LOADER COLLETS

BAR LOADER COLLETS

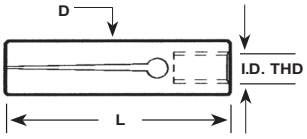


CAT. NO.	BARFEED MODEL	OD MM	L MM	THD MM	INC. IN.	RANGE IN.
FC7D-L	CAV16/20L-IS	7	40	6 x 1 LH	.001	.062 – .231
FC10D-L	CAV12M-IS	10	40	6 x 1 LH	.001	.078 – .334
FC12D-L	CAV12M-IS	12	40	6 x 1 LH	.001	.334 – .413

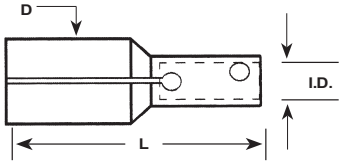
BAR LOADER COLLETS



CAT. NO.	BARFEED MODEL	D MM	L MM	ID MM	INC. IN.	RANGE IN.
CIT15NF	CAV16/20L-IS	15	55	10	.001	.118 – .546
CIT17NF	CAV16/20L-IS	17	55	10	.001	.546 – .629
CIT19NF	CAV20L-IS	19	56.5	10	.001	.629 – .669
CIT21NF	CAV20L-IS	20.1	56.5	10	.001	.669 – .748



CAT. NO.	BARFEED MODEL	D MM	L MM	ID THD.	INC. IN.	RANGE IN.
AL4.5L	–	4.5	27	3 x .5LH (ID)	.001	.030 – .133
AL5.5L	–	5.5	27	3 x .5LH (ID)	.001	.030 – .172
AL7.5L	–	7.5	40	5 x .8LH (ID)	.001	.030 – .250



CAT. NO.	BARFEED MODEL	D MM	L MM	ID	INC. IN.	RANGE IN.
FC25NF	–	25	76	16	.001	.200 – .875
FC32NF	–	32	76	16	.001	.625 – 1.140
FC34NF	–	34	76	16	.001	.750 – 1.215
FC38NF	–	38	76	16	.001	.100 – 1.375

Unless otherwise specified, bar loader collets are set to normal tension.
If an application requires a lighter or heavier tension, please specify when ordering.

SOUTHWICK & MEISTER INC.
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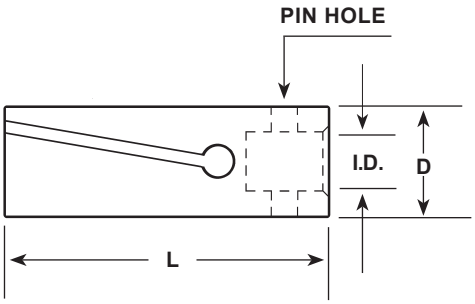
FMB BAR LOADER COLLETS

Unless otherwise specified, bar loader collets are set to normal tension.
If an application requires a **lighter** or **heavier** tension, please specify when ordering.

FMB
BAR LOADER COLLETS
STYLE D



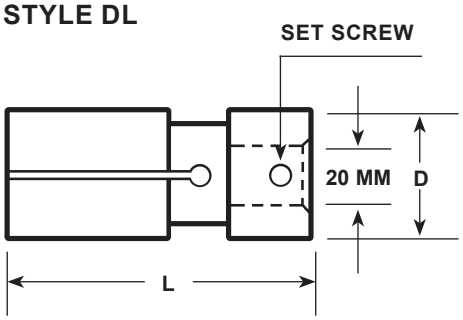
"D" style collets are supplied with a cross hole for pin mounting.

Mini Turbo
2MM – 25MM
($^3/_{32}$ – 1 in.)

Uses "D" style collets

PART NO.	D	ID	L	INC.	RANGE (IN.)
5D	5MM .197	4 X .7MM THD	28MM 1.102	$^1/_{32}$ .001	$^1/_{16}$ – $^5/_{32}$ .050 – .156
7D	7MM .276	5 X .8MM THD	28MM 1.102	$^1/_{32}$ .001	$^1/_{16}$ – $^7/_{32}$ .050 – .231
10D	10MM .393	7MM .276	40MM 1.575	$^1/_{32}$ .001	$^1/_{16}$ – $^5/_{16}$ .050 – .350
12D	12MM .472	8MM .315	40MM 1.575	$^1/_{32}$ .001	$^3/_{32}$ – $^3/_8$ .090 – .428
15D	15MM .590	11MM .433	40MM 1.575	$^1/_{16}$ .001	$^1/_8$ – $^1/_2$ .100 – .546
18D/15	18MM .708	11MM .433	40MM 1.575	– .001	– .200 – .664
18D/NS	18MM .708	11MM .433	65MM 2.560	– .001	– .200 – .664
18D	18MM .708	14MM .551	65MM 2.560	$^1/_{16}$ .001	$^1/_8$ – $^5/_8$ .100 – .664
20D	20MM .787	14MM .551	65MM 2.560	$^1/_{16}$ .001	$^1/_8$ – $^{11}/_{16}$ .100 – .743
22D/20	22MM .866	14MM .551	65MM 2.560	– .001	– .200 – .822
25D	25MM .984	20MM .787	65MM 2.560	$^1/_{16}$ .001	$^1/_4$ – $^{13}/_{16}$ .200 – .940
28D	28MM 1.102	20MM .787	65MM 2.560	$^1/_{16}$ .001	$^1/_2$ – $^{15}/_{16}$ .500 – 1.058
32D	32MM 1.260	20MM .787	95MM 3.740	$^1/_{16}$ .001	$^5/_8$ – $1^1/_8$ .625 – 1.142

FMB
BAR LOADER COLLETS
STYLE DL



"DL" style collets all have a 20MM rear bore for mounting and are secured with two set screws. The common mounting feature allows interchanging the collets between different units.

Mini Turbo S
4MM – 25MM
($^3/_{16}$ – $1^3/_8$ in.)

and

Turbo
6MM – 65MM
($^1/_4$ – $2^1/_2$ in.)

Both use "DL" style collets

PART NO.	D	L	INC.	RANGE (IN.)	SET SCR. MM
25DL	25MM .984	90MM 3.543	$^1/_{16}$ .001	$^1/_4$ – $^{13}/_{16}$ .200 – .875	6 x 1 x 6
30DL	30MM 1.181	90MM 3.543	$^1/_{16}$ .001	$^1/_2$ – 1.000 .500 – 1.023	6 x 1 x 6
32DL	32MM 1.260	90MM 3.543	$^1/_{16}$ .001	$^5/_8$ – $1^1/_8$ .625 – 1.125	6 x 1 x 6
34DL	34MM 1.338	90MM 3.543	$^1/_{16}$ .001	$^3/_4$ – $^{13}/_{16}$ .750 – 1.188	8 x 1.25 x 8
36DL	36MM 1.417	90MM 3.543	$^1/_{16}$ .001	$^7/_8$ – $1^1/_4$ .875 – 1.260	8 x 1.25 x 8
38DL	38MM 1.496	90MM 3.543	$^1/_{16}$ .001	1 – $1^5/_{16}$ 1.000 – 1.360	8 x 1.25 x 8
42DL	42MM 1.653	90MM 3.543	$^1/_{16}$ .001	$1^1/_4$ – $1^1/_2$ 1.250 – 1.510	8 x 1.25 x 10
45DL	45MM 1.771	90MM 3.543	$^1/_{16}$ .001	$1^3/_8$ – $1^5/_8$ 1.375 – 1.625	8 x 1.25 x 10
50DL	50MM 1.968	90MM 3.543	$^1/_{16}$ .001	$1^1/_2$ – $1^{13}/_{16}$ 1.500 – 1.813	8 x 1.25 x 16
60DL	60MM 2.362	90MM 3.543	$^1/_{16}$ .001	$1^3/_4$ – $2^3/_{16}$ 1.750 – 2.190	8 x 1.25 x 20
65DL	65MM 2.559	90MM 3.543	$^1/_{16}$ .001	2 – $2^3/_8$ 2.000 – 2.400	8 x 1.25 x 20
70DL	70MM 2.756	90MM 3.543	$^1/_{16}$ .001	$2^3/_8$ – $2^1/_2$ 2.375 – 2.500	8 x 1.25 x 20

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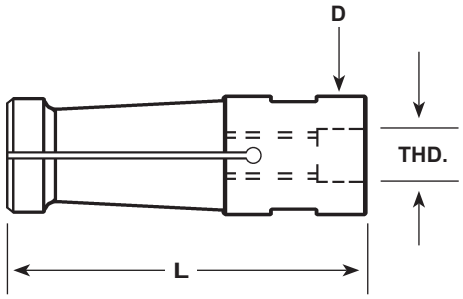
BAR LOADER COLLETS



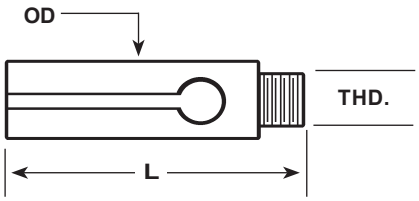
CAT. NO.	OD MM	L MM	MOUNTING END MM THREAD	RECOMMENDED RANGE MM
IEMCA #7.5	7.5	40	5 x .5 ID	3 – 6
IEMCA #10	10	40	6 x .75 ID	3 – 8
IEMCA #12	12	42	7 x .75 ID	4 – 10
IEMCA #15	15	42	8 x 1 ID	5 – 13
IEMCA #18	18	42	8 x 1 ID	7 – 16
IEMCA #20	20	59	10 x 1 ID	7 – 18
IEMCA #22.5	22.5	59	10 x 1 ID	7 – 20.5
IEMCA #25	25	59	10 x 1 ID	8 – 23
IEMCA #27	27	59	10 x 1 ID	8 – 25
IEMCA #27.3	27.3	59	10 x 1 ID	8 – 25.3
IEMCA #32	32	80	25 x 1.5 ID	10 – 30
IEMCA #42	42	80	25 x 1.5 ID	10 – 38
IEMCA #45	45	80	25 x 1.5 ID	10 – 41

Some popular bore sizes are stocked for the Mini-Boss 325, CNC Boss 542, CH112 and CH220.
Other bore sizes are made to order.

Unless otherwise specified, barloader collets are set to normal tension.
If an application requires a lighter or heavier tension, please specify when ordering.

IKURA-FINGER CHUCKS

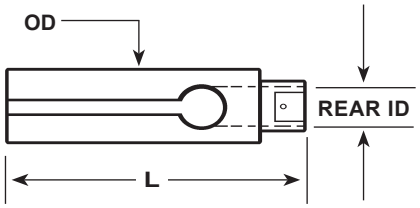
BAR LOADER COLLETS
STYLE D



CAT. NO.	BARFEED MODEL	OD MM	L MM	*THD MM	INC. IN.	RANGE IN.
FC8D	IBF-10NHE IBF-12NHE	8	40	6 x 1 RH/LH	.001	.050 – .270
FC10D	IBF-10NHE	10	40	6 x 1 RH/LH	.001	.078 – .350
FC12D	IBF-12NHE	12	40	6 x 1 RH/LH	.001	.093 – .428
FC14D	IBF-14NHE	14	40	6 x 1 RH/LH	.001	.100 – .507

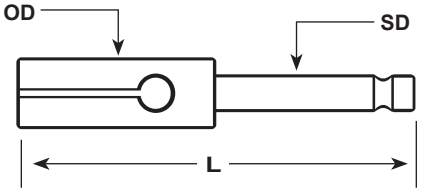
*Right or left hand thread must be specified when ordering.

BAR LOADER COLLETS
STYLE F



CAT. NO.	BARFEED MODEL	OD MM	L MM	REAR ID MM	INC. IN.	RANGE IN.
FC15F	IBF-18N IBF-25RK IBF-32RK	15	55	7	.001	.100 – .546
FC17F	IBF-18N	17	55	9	.001	.100 – .625
FC19F	IBF-18N	19	56.5	10	.001	.100 – .704

BAR LOADER COLLETS
STYLE EH

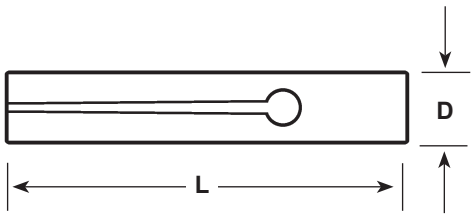


CAT. NO.	BARFEED MODEL	OD MM	L MM	SD MM	INC. IN.	RANGE IN.
FC25EH	IBF-25RK IBF-32RK	25	147	15	.001	.200 – .866
FC30EH	IBF-32RK	30	147	15	.001	.500 – 1 .000
FC32EH	IBF-32RK	32	147	15	.001	.500 – 1.130

NOTE: The EH style collets are also available with multiple shank diameters. These are made to order, consequently, a sample or print must accompany an order

Unless otherwise specified, bar loader collets are set to normal tension. If an application requires a lighter or heavier tension., please specify when ordering.

REMNANT RETRACTION COLLETS



STEEL COLLETS

CAT. NO.	D (INCHES)	L (INCHES)	INC.	RANGE (INCHES)
M-43	.425	2.687	1/32 .001	1/16 – 5/16 .050 – .381
M-56	.545	3.000	1/32 .001	1/8 – 3/8 .100 – .501
M-62	.606	3.125	1/32 .001	1/8 – 1/2 .100 – .562
M-87	.856	4.375	1/16 .001	3/16 – 5/8 .150 – .812

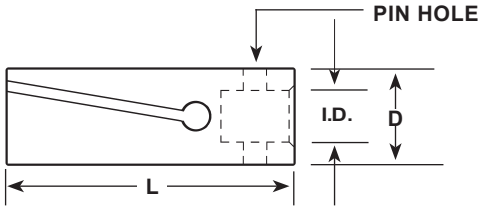
CARBIDE COLLETS

CAT. NO.	D (INCHES)	L (INCHES)	INC.	RANGE (INCHES)
M-43C	.425	2.687	1/32 .001	1/16 – 7/32 .050 – .218
M-56C	.545	3.000	1/32 .001	1/8 – 5/16 .100 – .313
M-62C	.606	3.125	1/32 .001	1/8 – 3/8 .100 – .375
M-87C	.856	4.375	1/16 .001	3/16 – 9/16 .150 – .563

Remnant retraction collets are normally stocked in the increments shown.

Carbide lined collets have wear properties many times that of steel collets and in addition resist “Galling” or “Scratching” on problem materials.

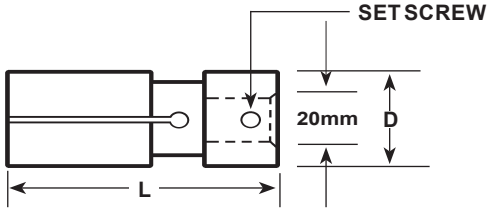
LNS BAR LOADER COLLETS



BAR LOADER COLLETS
STYLE D

"D" style collets are supplied with a cross hole for pin mounting.

CAT. NO. S & M	D MM & IN.	ID MM	L MM	CROSS HOLE MM	*RANGE INCHES
LN6D	6 (.236)	4 x .7	30	——	.078 – .192
LN7D	7 (.276)	5 x .8	37	——	.118 – .231
10D	10 (.394)	7	40	4.2	.197 – .350
12D	12 (.472)	8	40	4.2	.236 – .428
LN14D	14 (.551)	8	40	4.2	.315 – .507
15D	15 (.591)	11	40	6.2	.393 – .546
18D/15	18 (.709)	11	40	6.2	.511 – .664
20D	20 (.787)	14	65	8.2	.511 – .743
LN21D	21 (.827)	14	65	8.2	.551 – .782
22D/20	22 (.866)	14	65	8.2	.630 – .822
25D	25 (.984)	20	65	8.2	.708 – .940
LN27D	27 (1.063)	20	65	8.2	.827 – 1.018
28D	28 (1.102)	20	65	8.2	.886 – 1.058
LN30D	30 (1.181)	20	65	8.2	.984 – 1.083
LN32D	32 (1.260)	20	65	8.2	.984 – 1.142
LN36D	36 (1.417)	20	65	8.2	.984 – 1.375



BAR LOADER COLLETS
STYLE DL

"DL" style collets all have a 20mm rear bore for mounting and are secured with two set screws. The common mounting feature allows interchanging the collets between different units.

CAT. NO. S & M	D MM & IN.	ID MM	L MM	SET SCREW MM	*RANGE INCHES
34DL	34 (1.339)	20	90	8 x 1.25	1.102 – 1.220
36DL	36 (1.417)	20	90	8 x 1.25	1.181 – 1.300
38DL	38 (1.496	20	90	8 x 1.25	1.260 – 1.378
40DL	40 (1.575)	20	90	8 x 1.25	1.339 – 1.467
42DL	42 (1.654)	20	90	8 x 1.25	1.417 – 1.535

* The bore range listed is recommended by LNS as the most desirable to use in their unit. Bores below listed minimum are available in fractional or decimal sizes.

Unless otherwise specified, bar loader collets are set to normal tension.
If an application requires a lighter or heavier tension. please specify when ordering.

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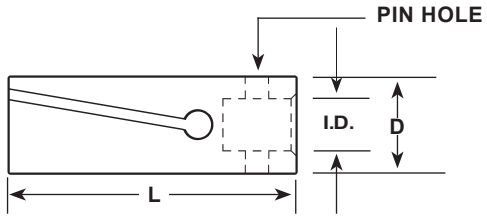
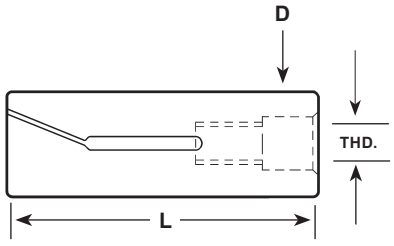


MINI-SWISS AND TRACER COLLETS

PART NO.	D	ID	L	INC.	RANGE (IN.)
12D	12MM .472	8MM .315	40MM 1.575	1/32 .001	3/32 – 3/8 .090 – .428
15D	15MM .590	11MM .433	40MM 1.575	1/16 .001	1/8 – 1/2 .100 – .546
20D	20MM .787	14MM .551	65MM 2.560	1/16 .001	1/8 – 11/16 .100 – .743
25D	25MM .984	20MM .787	65MM 2.560	1/16 .001	1/4 – 13/16 .200 – .940

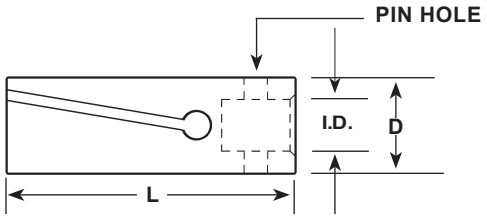
Unless otherwise specified, bar loader collets are set to normal tension.
If an application requires a lighter or heavier tension, please specify when ordering.



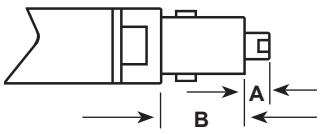
EAGLE/ SUNNY 542 EAGLE 545 TRACER 32 COLLETS V-SERIES

PART NO.	D	L	THREAD	INC.	RANGE
FEDEK 20	.787	2.236	10 x 1MM L.H.	1/16 .001	1/8 – 5/8 .100 – .670
FEDEK 27	1.063	2.236	10 x 1MM L.H.	1/16 .001	1/4 – 15/16 .200 – .937
FEDEK 30	1.182	2.560	17 x 1MM L.H.	1/16 .001	1/4 – 1/1 .200 – 1.062
FEDEK 31.5	1.240	3.156	25 x 1.5MM L.H.	1/16 .001	1/4 – 1 1/8 .200 – 1.125
FEDEK 41.5	1.634	3.156	25 x 1.5MM L.H.	1/16 .001	1/2 – 1 3/8 .500 – 1.500
FEDEK 45	1.772	3.156	25 x 1.5MM L.H.	1/16 .001	1/2 – 1 5/8 .500 – 1.625

ROBOBAR



BAR LOADER COLLETS



For stock over 1/2"
A = 40mm B = 8mm.

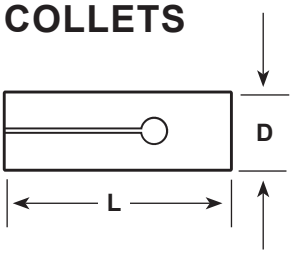
For Stock 1/2" and smaller
A = 44mm B = 12mm.

Alteration for 25D only.

TORNOS CAT. NO.	S-M CAT. NO.	D	ID	L	INC.	RANGE (IN.)
26/5.5	5D	5mm .197	4 x .7mm THD	28mm 1.102	1/32 .001	1/16 – 5/32 .050 – .153
26/7.5	7D	7mm .276	5 x .8mm THD	28mm 1.102	1/32 .001	1/16 – 1/4 .050 – .231
26/10.5	10D	10mm .393	7mm .276	40mm 1.575	1/32 .001	1/16 – 5/16 .050 – .350
26/12.5	12D	12mm .472	8mm .315	40mm 1.575	1/32 .001	3/32 – 3/8 .090 – .428
26/16	15D	15mm .590	11mm .433	40mm 1.575	1/16 .001	1/8 – 1/2 .100 – .546
——	18D	18mm .708	14mm .551	65mm 2.560	1/16 .001	1/8 – 5/8 .100 – .664
26/21	20D	20mm .787	14mm .551	65mm 2.560	1/16 .001	1/8 – 11/16 .100 – .743
26/26	25D	25mm .984	20mm .787	65mm 2.560	1/16 .001	1/4 – 13/16 .200 – .940
——	28D	28mm 1.102	20mm .787	65mm 2.560	1/16 .001	1/2 – 15/16 .500 – 1.058
——	LN32D	32mm 1.260	20mm .787	65mm 2.560	1/16 .001	3/4 – 1 1/8 .750 – 1.142
——	LN36D	36mm 1.417	20mm .787	65mm 2.560	1/16 .001	3/4 – 1 3/8 .750 – 1.375

NOTE: 1. All "D" style collets are supplied with a pin hole for mounting.
2. Collets are supplied with normal tension (Extraction Force) unless otherwise specified.
3. The bar loader collet mounting stud, on the 25D must be altered, as shown, when using 1/2" dia. stock and smaller.

MULTI-BAR COLLETS



CAT. NO.	REFERENCE DIMENSIONS		INC.	RANGE (IN.)
	D	L		
#320	4.5 .177	22 .866	1/64 .001	1/16 – 1/8 .050 – .133
#550	5.5 .216	22 .866	1/64 .001	1/16 – 5/32 .050 – .172
#7	7 .275	22 .866	1/64 .001	1/16 – 7/32 .050 – .231
#10	10 .393	26 1.023	1/64 .001	1/16 – 5/16 .050 – .350
#12.5	12.5 .492	60 2.362	1/16 .001	1/8 – 3/8 .100 – .448
#16L	16 .630	60 2.362	1/16 .001	1/8 – 1/2 .100 – .586
#20L	20 .787	60 2.362	1/16 .001	1/8 – 5/8 .100 – .743

** Formerly #12L and #13.

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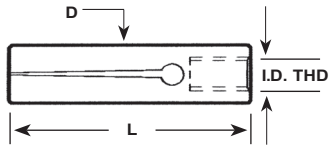
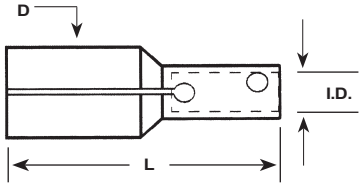
BAR LOADER COLLETS



CAT. NO.	BARFEED MODEL	D MM	L MM	ID THD.	INC. IN.	RANGE IN.
AL10L	–	10	40	6 x 1LH (ID)	.001	.030 – .350
AL16L	–	16	73.66	10 x 1LH (ID)	.001	.030 – .586



CAT. NO.	BARFEED MODEL	D MM	L MM	ID	INC. IN.	RANGE IN.
AL16L-OS	–	21	72	10 x 1LH (ID)	.001	.586 – .783

Unless otherwise specified, bar loader collets are set to normal tension.
If an application requires a lighter or heavier tension, please specify when ordering.

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

RECOMMENDED DRILLS FOR METRIC THREADS

STANDARD THREADS

Nominal DIA mm	Pitch	Approx. threads per inch	Cast Iron or similar	Steel, Cop-per, Alumin or similar
1	0.25	102	0.70mm	0.75mm
1.2	0.25	102	0.90	0.95
1.4	0.30	85	1.05	1.10
1.7	0.35	73	1.25	1.30
2	0.40	63	1.50	1.55
2.3	0.40	63	1.80	1.85
2.6	0.45	56	2.95	2.10
3	0.50	51	2.45	2.55
3.5	0.60	42	2.80	2.90
4	0.70	36	3.20	3.30
4.5	0.75	34	3.60	3.75
5	0.80	32	4.10	4.25
5.5	0.90	28	4.40	4.50
6	1.00	25	4.90	5.10
7	1.00	25	5.90	6.10
8	1.25	20	6.60	6.80
9	1.25	20	7.60	7.80
10	1.50	17	8.30	8.50
11	1.50	17	9.25	9.50
12	1.75	$14\frac{1}{2}$	10.00	10.25
14	2.00	$12\frac{1}{2}$	11.75	12.00
16	2.00	$12\frac{1}{2}$	13.75	14.00
18	2.50	10	15.25	15.50
20	2.50	10	17.25	17.50
22	2.50	10	19.25	19.50
24	3.00	$8\frac{1}{2}$	20.75	21.00

FINE THREADS

Nominal DIA mm	Pitch	Approx. threads per inch	Cast Iron or similar	Steel, Cop-per, Alumin or similar
2	0.25	102	1.70mm	1.75mm
2.3	0.25	102	2.00	2.05
2.6	0.35	73	2.20	2.25
3	0.35	73	2.60	2.65
4	0.50	51	3.40	3.50
5	0.50	51	4.40	4.50
6	0.50	51	5.40	5.50
7	0.50	51	6.40	6.50
8	1.00	25	6.90	7.10
10	1.25	20	8.60	8.80
10	1.00	25	8.80	9.00
12	1.50	17	10.25	10.50
12	1.25	20	10.50	10.75
12	1.00	25	10.75	11.00
14	1.50	17	12.25	12.50
14	1.25	20	12.50	12.75
16	1.50	17	14.25	14.50
16	1.25	20	14.50	14.75
18	2.00	$12\frac{1}{2}$	15.75	16.00
18	1.50	17	16.25	16.50
20	2.00	$12\frac{1}{2}$	17.75	18.00
20	1.50	17	18.25	18.50
22	2.00	$12\frac{1}{2}$	19.75	20.00
22	1.50	17	20.25	20.50
24	2.00	$12\frac{1}{2}$	21.75	22.00
24	1.50	17	22.25	22.50

DRILL SIZE DEPENDS ALSO ON TOLERANCE OF THE THREAD

SOUTHWICK & MEISTER INC.
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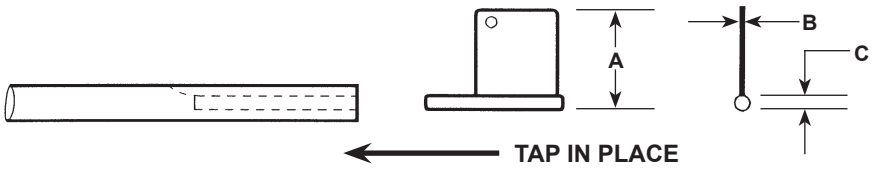
PUSH RODS AND METAL FLAGS



METAL FLAG
REPLACEABLE

While Supplies Last

CAT. NO	REFERENCE DIMENSIONS			FOR PUSH ROD
	A	B	C	
MF-1	$1\frac{3}{4}$"	.026	.100	Up to $\frac{3}{8}$"
MF-1S	$3\frac{9}{16}$"	.026	.100	Up to $\frac{3}{8}$"
MF-2	$2\frac{7}{16}$"	.032	.138	$\frac{3}{8}$" and Up

Total machine down time to replace a worn flag is a matter of minutes. Tap the worn flag out and tap a new one in its place. No soldering and no riveting. No more tool room labor to repair flags. Three flag sizes cover all push rod sizes. Keep a few spare metal replaceable flags at each machine.

Alter you own push rods to use our replaceable flags or purchase the assembly.

(ALL PUSH RODS ARE SUPPLIED WITH ONE REPLACEABLE METAL FLAG.)

PUSH RODS

While Supplies Last

STATIONARY TIP		
CATALOG NO.	**DIA.**	**LENGTH "L" (INCHES)**
156ST x L	$\frac{5}{32}$	18, 24, 28, 32
250ST x L	$\frac{1}{4}$	24, 28, 32

REVOLVING TIP		
CATALOG NO.	**DIA.**	**LENGTH "L" (INCHES)**
187RT x L	$\frac{3}{16}$	18, 32
218RT x L	$\frac{7}{32}$	24
250RT x L	$\frac{1}{4}$	20, 24, 28, 32
312RT x L	$\frac{5}{16}$	32

REPLACEABLE REVOLVING TIP		
CATALOG NO.	**DIA.**	**LENGTH "L" (INCHES)**
312RRT	$\frac{5}{16}$	32
375RRT	$\frac{3}{8}$	28, 32, 48

REPLACEABLE REVOLVING TIPS ONLY	
CATALOG NO.	**DIA.**
312RRT	$\frac{5}{16}$
375RRT	$\frac{3}{8}$

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Ordering Notes

Phone Number 203-237-0000

Fax Number 203-634-4509

Your Account Number_____

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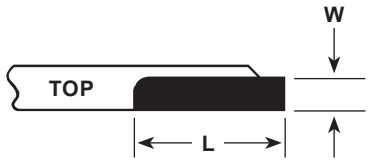
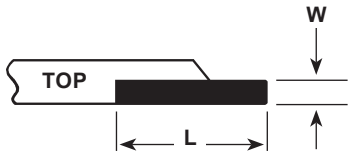
BRAZED CARBIDE TOOLS FOR SWISS AUTOMATICS

SERIES R STYLE SM-T TURNING



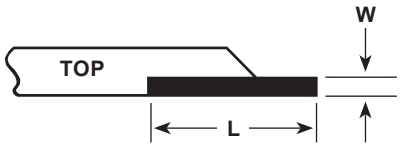
CAT. NO.	SHANK		CARBIDE	
	FRAC.	MM	W	L
SM7T	9/32	7	11/64	7/8
SM8T	5/16	8	11/64	7/8
SM10T	3/8	10	11/64	7/8
SM11T	7/16	11	11/64	1 1/8
SM12T	1/2	12	7/32	1 1/8

SERIES R STYLE SM-F FORMING



CAT. NO.	SHANK		CARBIDE	
	FRAC.	MM	W	L
SM7F	9/32	7	3/32	7/8
SM8F	5/16	8	3/32	7/8
SM10F	3/8	10	3/32	7/8
SM11F	7/16	11	1/8	1 1/8
SM12F	1/2	12	5/32	1 1/8

SERIES R STYLE SM-C CUT-OFF



CAT. NO.	SHANK		CARBIDE	
	FRAC.	MM	W	L
SM7C	9/32	7	1/16	7/8
SM8C	5/16	8	1/16	7/8
SM10C	3/8	10	1/16	7/8
SM11C	7/16	11	3/32	1 1/8
SM12C	1/2	12	1/8	1 1/8

Series “R” tools have unground carbide tips with pre-formed side and end clearances.
Shanks are of high carbon steel, six inches long and ground on four sides.
Shanks are supplied in inch sizes. Millimeter dimensions are for reference only.
Tools are available in carbide grade C-2 (firth-sterling HA) or in micrograin.. When ordering micrograin, use suffix “M”. Example: for 8mm turning, SM8TM would be specified.
All tools are stocked in left hand style, as shown, for immediate deliver.

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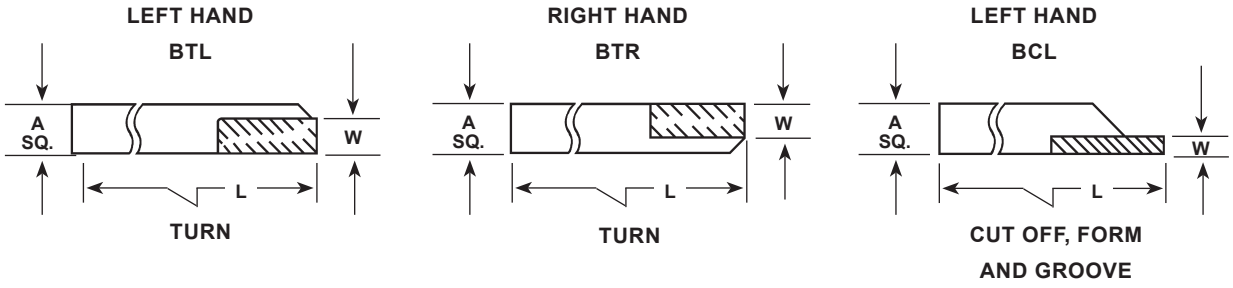
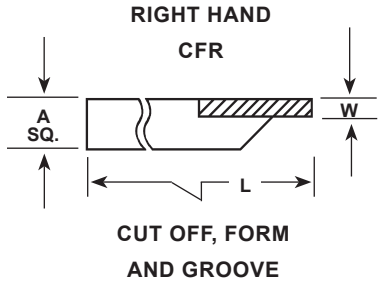
BRAZED CARBIDE TOOLS FOR SWISS AUTOMATICS



SERIES I

CATALOG. NUMBER	SHANK MM	TIP WIDTH (W)	
		MM	INCH
BTL-08	8 x 8	3.0	.118
BTL-10	10 x 10	4.0	.157
BTL-12	12 x 12	4.0	.157
BTL-14	14 x 14	5.0	.197
BTR-08	8 x 8	3.0	.118
BTR-10	10 x 10	4.0	.157
BTR-12	12 x 12	4.0	.157
BTR-14	14 x 14	5.0	.197
BCL-08-1.5	8 x 8	1.5	.060
BCL-08-2.0	8 x 8	2.0	.078
BCL-10-2.0	10 x 10	2.0	.078
BCL-10-2.5	10 x 10	2.5	.098
BCL-12-2.0	12 x 12	2.0	.078
BCL-12-3.0	12 x 12	3.0	.118
BCL-14-3.0	14 x 14	3.0	.118
BCL-14-4.0	14 x 14	4.0	.157
CFR-10-1.5	10 x 10	1.5	.060
CFR-10-2.5	10 x 10	2.5	.098
CFR-10-3.0	10 x 10	3.0	.118
CFR-12-2.0	12 x 12	2.0	.078
CFR-12-3.0	12 x 12	3.0	.118
CFR-12-4.0	12 x 12	4.0	.158



Series “I” tools have pre-ground carbide tips with normal clearance angles.

Carbide grade C3-2 (Iscar IC20) with a hardness of RA 92.5 (the same as C-6) and a transverse rupture strength of 333,000 PSI is supplied as standard. It is an excellent grade for a wide variety of alloys.

Shanks are normal swiss length and supplied in millimeter sizes.

Turning tools are stocked in both right hand and left hand styles. All other tools are stocked in left hand style only.

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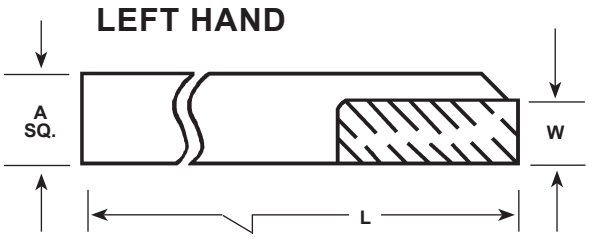
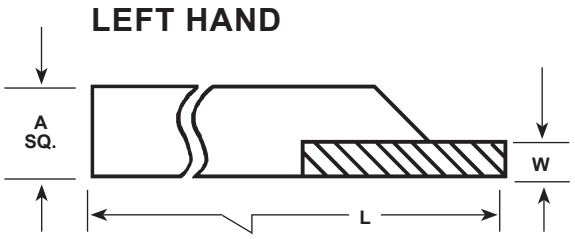
BRAZED CARBIDE TOOLS FOR SWISS AUTOMATICS





SERIES X

CATALOG. NUMBER	SHANK MM	TIP WIDTH (W)	
		MM	INCH
SM6TX	6 x 6	3	.118
SM7TX	7 x 7	3	.118
SM8TX	8 x 8	3	.118
SM12TX	12 x 12	4	.158
SM14TX	14 x 14	5	.196
SM6X-1.2	6 x 6	1.2	.047
SM6X-1.5	6 x 6	1.5	.060
SM6X-2.5	6 x 6	2.5	.098
SM7X-1.2	7 x 7	1.2	.047
SM7X-1.5	7 x 7	1.5	.060
SM7X-2	7 x 7	2.0	.078
SM7X-2.5	7 x 7	2.5	.098

CATALOG. NUMBER	SHANK MM	TIP WIDTH (W)	
		MM	INCH
SM8X-1.2	8 x 8	1.2	.047
SM8X-1.5	8 x 8	1.5	.060
SM8X-2	8 x 8	2.0	.078
SM8X-2.5	8 x 8	2.5	.098
SM12X-2	12 x 12	2.0	.078
SM12X-2.5	12 x 12	2.5	.098
SM12X-4	12 x 12	4.0	.158
SM14X-3	14 x 14	3.0	.118
SM14X-4	14 x 14	4.0	.158

Grade 895 is extremely hard with excellent wear properties, but must be handled with discretion to avoid cracking or chipping. All grinding must be with diamond wheels and a copious flow of coolant. Overheating or intermittent cooling must be avoided.

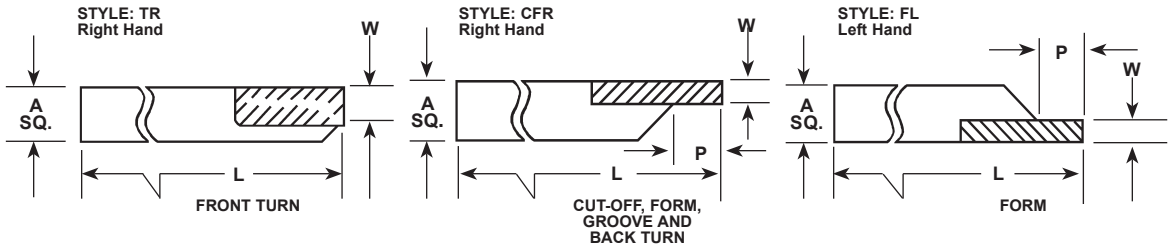
Series “X” tools have pre-ground carbide tips with normal clearance angles.

Carbide grade C-3 (carboloy 895) is supplied as standard. This grade has excellent wear properties and is used on a wide variety of materials.

Shanks are normal swiss length and supplied in millimeter sizes.

All tools shown are left handed.

BRAZED CARBIDE TOOLS FOR SWISS AUTOMATICS



SERIES Z SHORT SHANK TOOLS

CATALOG NUMBER	SHANK DIMENSION		TIP DIMENSION
	A	L	W
ZTR-10	3/8	2 1/2	—
ZCFR-10-1.5	3/8	2 1/2	.062
ZCFR-10-2.5	3/8	2 1/2	.093
ZCFR-10-3.2	3/8	2 1/2	.125
ZFL-10-2.5	3/8	2 1/2	.093
ZTR-12	1/2	2 1/2	—
ZCFR-12-1.5	1/2	2 1/2	.062
ZCFR-12-2.5	1/2	2 1/2	.093
ZCFR-12-3.2	1/2	2 1/2	.125
ZCFR-12-4.2	1/2	2 1/2	.165
ZFL-12-2.5	1/2	2 1/2	.093
ZTR-16	5/8	3 1/2	—
ZCFR-16-3.2	5/8	3 1/2	.125
ZCFR-16-4	5/8	3 1/2	.157
ZBTR-16-3.2	5/8	3 1/2	.125
ZBTR-16-6.4	5/8	3 1/2	.250
ZTR-19	3/4	3 1/2	—
ZCFR-19-3.2	3/4	3 1/2	.125
ZCFR-19-4	3/4	3 1/2	.157
ZBTR-19-3.2	3/4	3 1/2	.125
ZBTR-19-6.4	3/4	3 1/2	.250

[1] Grade C-2 is supplied as standard.

NOTE: All dimensions in inches.

HIGHSPEED TOOL BITS

CATALOG NUMBER	DIMENSIONS	CATALOG NUMBER	DIMENSIONS
SMHS10	10mm sq. x 200mm	CPM76-11	11mm sq. x 153mm
SMHS11	11mm sq. x 200mm	CPM76-12	12mm sq. x 153mm
SMHS12	12mm sq. x 200mm		

Premium grade high speed tools are ground on four sides. Crucible CPM REX 76 tools have a hardness near RC70.

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DECIMAL EQUIVALENTS

FRACTIONS	DECIMALS
1/64	.015625
1/32	.03125
3/64	.046875
1/16	.0625
5/64	.078125
3/32	.09375
7/64	.109375
1/8	.1250
9/64	.140625
5/32	.15625
11/64	.171875
3/16	.1875
13/64	.203125
7/32	.21875
15/64	.234375
1/4	.2500
17/64	.265625
9/32	.28125
19/64	.296875
5/16	.3125
21/64	.328125
11/32	.34375
23/64	.359375
3/8	.3750
25/64	.390625
13/32	.40625
27/64	.421875
7/16	.4375
29/64	.453125
15/32	.46875
31/64	.484375
1/2	.5000

FRACTIONS	DECIMALS
33/64	.515625
17/32	.53125
35/64	.546875
9/16	.5625
37/64	.578125
19/32	.59375
39/64	.609375
5/8	.6250
41/64	.640625
21/32	.65625
43/64	.671875
11/16	.6875
45/64	.703125
23/32	.71875
47/64	.734375
3/4	.7500
49/64	.765625
25/32	.78125
51/64	.796875
13/16	.8125
53/64	.828125
27/32	.84375
55/64	.859375
7/8	.8750
57/64	.890625
29/32	.90625
59/64	.921875
15/16	.9375
61/64	.953125
31/32	.96875
63/64	.984375
1	1.0000

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