

## Technical Data

### COLLETING

#### COLLET LIFE SPAN

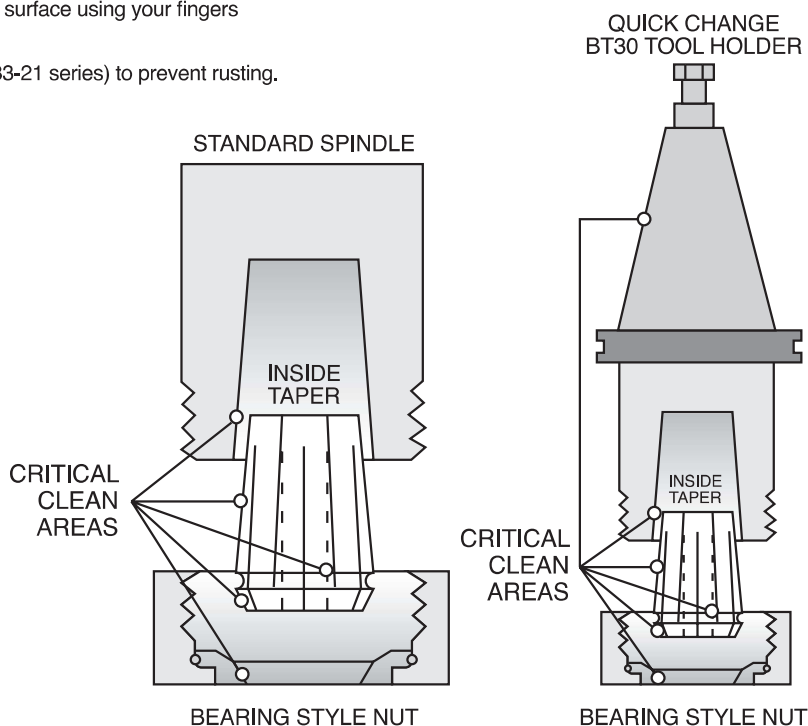
Collets have a life span of 3 months if used 8 hours a day. Replacing the collets will ensure your operation runs consistently and prevents tool breakage. When inserting a tool into the collet make sure the flute fadeout does not enter the collet. This will cause run out and potentially lead to tool breakage. To ensure proper clamping, the tool shank should fill, at the minimum, 80% of the depth of the collet. If this can not be achieved, use a collet life plug (34-50 series) to ensure a proper clamping effect.

#### COLLET MAINTENANCE

Cleaning is an essential part of collet maintenance. As material is cut it causes the collet, tool holder, collet nut and spindle to become dirty. This causes your tool to cut in an elliptical fashion which will decrease tool life and cause inconsistency in your operation. Collets, tool holder, and collet nut should be cleaned daily using the Rust Free solvent and a brass brush (33-21 and 33-10 series). Refer to the critical areas diagram to see which surfaces must be clean.

#### CLEANING INSTRUCTIONS

1. Spray the cleaner on the surface and allow it to soak for a minute.
2. Use a brass brush to clean the surface thoroughly.
3. Rinse off using distilled alcohol. Feel the surface using your fingers to make sure the surface is clean.
4. Apply a small amount of Lubricant T-9 (33-21 series) to prevent rusting.



### TOOL BREAKAGE

If a condition arises where multiple tools should break, follow these steps to solve your problem:

1. Are you using the proper tool for the job?
2. Make sure your collets and tool holders are clean and the tool is colleted properly.
3. Check your speed and feed (is your tool hot?)
4. Is your depth of cut too excessive for the material you are cutting?
5. Do you have any part movement?
6. Do you have ample part hold down?
7. Stop running parts and check with your distributor or LMT Onsrud's Technical Support.

If you have to contact your distributor or Technical Support, have the following information:

1. Machine being used.
2. Material being cut.
3. Part number of tool along with the batch number which is below the part number etched on shank of tool.
4. Speed / Feed / Depth of cut.
5. Where did the tool break (flute, shank, or in the collet)?
6. How long did the tool work before it broke?
7. Have you done this operation in the past using this tool?

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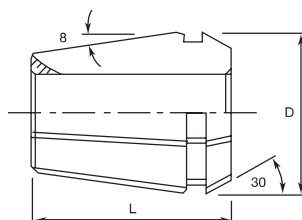
### COLLET MEASURING GUIDE

The best way to tell what type of collet the machine has is to measure the length of the collet.  
Almost all collets have a distinctive length and diameter.

Collet Series	Length	(OD) Diameter	Onsrud Series	Page
ER 11	18mm (0.708")	11.5mm (0.45")	34-60	—
ER 16	27.5mm (1.08")	17mm (0.67")	34-70	—
ER 20	31.5mm (1.24")	21mm (0.83")	34-90/ 34-300	—
ER 25	34mm (1.34")	26mm (1.02")	34-150/34-350	—
ER 32	40mm (1.57")	33mm (1.3")	34-200/34-400	—
ER 40	46mm (1.81")	41mm (1.61")	34-250/34-450	—
ER 50	60mm (2.36")	52mm (2.05")	—	—
EOC 8	26mm (1.026")	14.4mm (0.567")	—	—
SYOZ 20-RDO 20-407E-EOC12	34mm (1.34")	20mm (0.78")	34-550	—
EOC 16-RDO 25	40mm (1.57")	25.5mm (1")	—	—
SYOZ 25-RDO 35-462E	52mm (2.06")	35mm (1.38")	34-550	—
EOC 32	60mm (2.36")	43.7mm (1.72")	—	—
TG 75	47mm (1.85")	27mm (1.06")	—	—
TG 100	60mm (2.36")	35mm (1.38")	—	—
<b>Shoda Collets</b>				
Shoda 20mm	52mm (2.06")	20mm (Back side)	—	—
Shoda Piggyback	52mm (2.06")	16mm (Back side)	—	—
Super Shoda	40mm (1.58")	23.5mm 0.925" (OD)	—	—
Shoda 24mm	52mm (2.06")	24mm (Back side)	—	—
SS-18	30mm (1.18")	19.5mm (.766")	—	—
<b>Heian Collets</b>				
HN-24mm	55mm (2.16")	24mm(1.14")(Back side)	—	—
HN-29mm	55mm (2.16")	24mm(1.14")(Back side)	—	—
HN-Piggyback	36.5mm (1.43")	22mm (.886")	—	—
<b>Pin Router Collets</b>				
A421-69	43.62mm (1.72")	28mm (1.1")	—	—
A450-	41.3mm (1.62")	36mm (1.41")	—	—

### TOOL HOLDER MEASURING GUIDE

Use this guide for measuring your tools to determine what you need to re-order.



ER Series Collet

Toolholder Dimensions	Pull Stud Dimensions	Collet Dimensions
D = _____	P = _____	D = _____
F = _____	A = _____	L = _____
W = _____	L = _____	
A = _____	R = _____	
N = _____		

