

Shrink-Fit Toolholders Extend Tool Life up to 700 %

Should I Use Shrink-Fit?

If you do high speed, or high torque machining you should seriously consider the benefits of shrink-fit technology. Your investment will pay for itself many times over.

Performance

With shrink-fit toolholders vibration is reduced and cutting is noticeably faster and smoother. Manufacturing cycle times can be reduced while maintaining the quality and accuracy demanded by today's competitive markets.

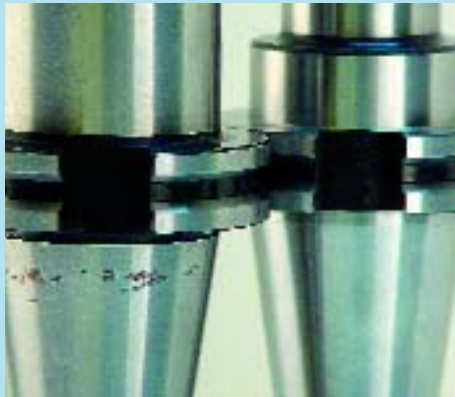
Cutting Comparison ER Collet Chucks v.s. Shrink-Fit Toolholders

Carbide Tool Wear – ER Collet Chuck (top)



Carbide Tool Wear – Shrink Fit (bottom)

Fretting Damage – ER Collet Chuck (left)



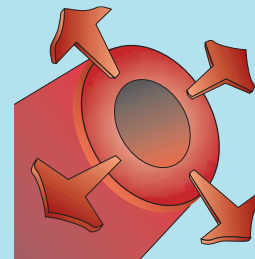
No Fretting Damage – Shrink Fit (right)

Call for full report faxed to you!

Features and Benefits

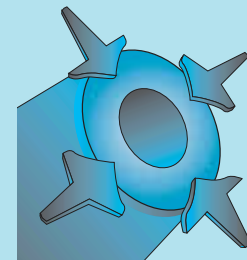
Feature	Benefits
HIGHEST RIGIDITY	Reduced carbide tool wear up to 700%!
	Permits increased chip load
	Improved accuracy / repeatability
	Reduced carbide tool wear up to 700%!
	Increase spindle bearing life
10,000 LBS CLAMPING FORCE MINIMUM	T.I.R. from 0.0" to 0.0002" max.
	Permits increased feeds & speeds
	All but eliminates the chance of slippage
SHRINK-FIT TOOL CHANGING	Change tool in only 6 seconds
	Pre-set tools off-line
	Never buy collets and nuts again
	No need to use torque wrenches or vises
	Works with carbide and HSS tools
ONE-PIECE CONSTRUCTION	Best possible balance
	Thin profile for machining hard to reach areas
	Allows short gage lengths for increased rigidity
	Never purchase collets, nuts, or wrenches again.

Shrink-fit uses the expansion and contraction properties of metal to provide extremely powerful tool holding. The bore is slightly smaller than the tool shank, and when heated it expands just enough to allow the tool to be inserted.



Heat expands the inside diameter (bore).

When it cools, the contraction holds the tool with 10,000 lbs of force.



Cooling contracts the bore to hold the tool.

Shrink-Fit Tool Changing Machines



G5 Induction Machine
(optional cooling tower shown)



G2 – Induction Machine

Each shrink-fit machine comes with one induction ring and one spindle taper adapter.

Shrink-fit machine mobile workstation.

Shrink-Fit Machines

Part No.	Description	Shrink Time	Cooling of Inductor	Z-axis	Power Rating	PSI Req.	Machine Dimensions	Shipping Weight
200.001.002	G2 Induction	15 seconds	pressure air	manual	220V 1 phase	90 PSI	16" x 19" x 28"	75 lbs
200.001.005	G5 Induction	6-9 seconds	self-cooling	manual	400V 3 phase	none	16" x 16" x 32"	138 lbs
200.000.000	Mobile Workstation includes: Rolling cabinet, cooling tower (shown), and transformer.							

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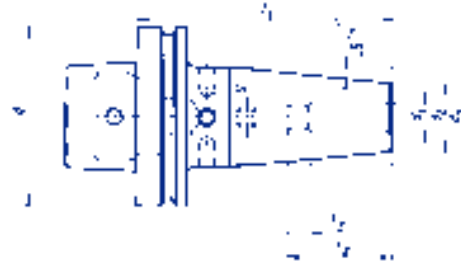
Please indicate which style you need when ordering. We also carry a refrigerated cooling station.

HSK 63F, ISO 30 Shrink-Fit Toolholders



Shrink-fit toolholders provide concentric clamping force of 10,000 lbs or more directly on the tool shank. This translates to a T.I.R. as low as 0.0" to 0.0002". Ideal for high speed or high torque machining applications.

With shrink-fit tooling machinists report an increase in tool life of up to 50%, and are able to increase feed rate 25% faster.

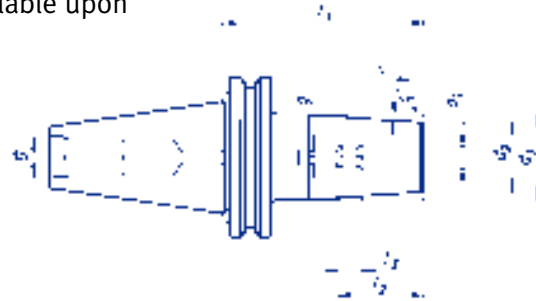


HSK 63F Shrink-Fit Toolholders

Part No.	Description	d1	d2	d3	l1	l2	l3
171.05.071.010	HSK 63F x 20 x 100	20mm	33mm	42mm	100mm	52mm	10mm
171.05.071.011	HSK 63F x 25 x 115	25mm	44mm	53mm	115mm	63mm	10mm
171.05.071.250	HSK 63F x 1/4"	1/4"	21mm	27mm	80mm	36mm	10mm
171.05.071.375	HSK 63F x 3/8"	3/8"	24mm	32mm	95mm	42mm	10mm
171.05.071.500	HSK 63F x 1/2"	1/2"	24mm	32mm	95mm	47mm	10mm
171.05.071.750	HSK 63F x 3/4"	3/4"	33mm	42mm	100mm	52mm	10mm
171.05.072.1	HSK 63F x 1"	1"	44mm	53mm	115mm	53mm	10mm



Shrink-fit toolholders are balanced to 18,000 RPM at G2.5 for high speed performance. Balancing to higher speed is available upon request.



ISO 30 Shrink-Fit Toolholders

Part No.	Description	d1	d2	d3	l1
64.05.071.250	ISO 30 x SF 1/4" - 80mm	1/4"	18mm	27mm	80mm
64.05.071.375	ISO 30 x SF 3/8" - 80mm	3/8"	24mm	32mm	80mm
64.05.071.500	ISO 30 x SF 1/2" - 80mm	1/2"	28mm	32mm	80mm
64.05.071.750	ISO 30 x SF 3/4" - 80mm	3/4"	36mm	41mm	80mm