

TOOL POST TURRETS

SERIES 300:



- 4 Tools can be mounted and quickly indexed into any of 12 different positions.
- Indexing stations are spaced 30° apart.
- All essential parts are hardened for long life and made to highest accuracy standards for utmost precision.
- All models furnished with a machineable base to fit your machine.

Model No.	Size	Swing of Lathe	Tool Range	Order No.	Price
TP2	2-1/2	6-12	1/4-3/8	7250002	
TP3	3-1/2	10-13	3/8-1/2	7250003	
TP4	4-1/2	13-16	1/2-3/4	7250004	
TP6	6	14-21	7/8-1-1/4 or No.2 Tool Holder	7250006	

TAILSTOCK TURRETS

SERIES 300:



- Have 6 holes for holding 6 tools.
- Precision made for highest accuracy.
- Available in 2 sizes with different shanks.
- Conveniently located lever provides instant change-over from one tool to another.

Model No.	Dia. of Head	Hole Size	Shank	Order No.	Price
TTA	2-1/2	5/8	M.T.1	7301001	
TTA	2-1/2	5/8	M.T.2	7301002	
TTB	5	1	M.T.2	7302002	
TTB	5	1	M.T.3	7302003	
TTB	5	1	M.T.4	7302004	
TTB	5	1	1" S.S.	7302010	

SOLID LATHE CENTERS

SERIES 316:



Hardened and ground to closest tolerances.

Morse Taper	Carbon		H.S.S.		Carbide Tipped	
	Order No.	Price	Order No.	Price	Order No.	Price
1	1945001		1950001		1955001	
2	1945002		1950002		1955002	
3	1945003		1950003		1955003	
4	1945004		1950004		1955004	
5	1945005		1950005		1955005	
6	1945006		1950006		1955006	

DEAD CENTERS WITH NUT

SERIES 647:



+/-0.0001" T.I.R.

- Centers are provided with the Nut.
- Run out between shank and points is accurate to +/-0.0002" T.I.R.
- These dead centers are designed for use wherever high accuracies are required.
- Case hardened to 61-63 HRC.
- Carbide tipped centers give longer tool life and require less regrinding.
- Center 8725 is threaded and provided with the nut to remove the center from a tailstock.

MT No.	Alloy Steel		Carbide Tipped	
	8725 Order No.	Price	8726 Order No.	Price
2	7545002		7546002	
3	7545003		7546003	
4	7545004		7546004	
5	7545005		7546005	
6	7545006		7546006	

FULL DEAD CENTERS

SERIES 647:

+/-0.0002" T.I.R.



8712



8711

HALF DEAD CENTERS

SERIES 647:



8730



8731

MT No.	Carbide Tipped		Ball Bearing Steel		1/2 Ball Bearing Steel		Half Carbide Tipped	
	8711 Order No.	Price	8712 Order No.	Price	8730 Order No.	Price	8731 Order No.	Price
1	7550005		7555005		7540001		7541001	
2	7550010		7555010		7540002		7541002	
3	7550015		7555015		7540003		7541003	
4	7550020		7555020		7540004		7541004	
5	7550025		7555025		7540005		7541005	
6	7550030		7555030		7540006*		7541006	

*LIMITED QUANTITY

LIVE CENTERS SERIES 312:



These precision tools are made of the finest materials, to highest accuracy. Bodies are made of forgings, and a combination of amply proportioned thrust bearings, needle bearings and anti-friction bearings absorb the radial and axial pressures separately.

Morse Taper	Order No.	Price
1	1930001	
2	1930002	
3	1930003	
4	1930004	
5	1930005	
6	1930006	

LIVE CENTER SETS WITH SEVEN INSERTS SERIES 313:



The body of these sets are constructed similar to Series 312 Live Centers, however, for versatility, the bodies are provided with the following seven interchangeable inserts:

- 2 large Male centers
- 1 Female center
- 3 smaller, different sized Male centers
- 1 Bullnose center

Model No.	Morse Taper	Order No.	Price
LCS2	2	1935002	
LCS3	3	1935003	
LCS4	4	1935004	
LCS5	5*	1935005	

*Supplied with three inserts only.

J & S HP919 CENTER POINT LUBRICANT

SERIES 312:



A versatile, multi-purpose grease that is specially formulated for use with dead centers, live centers, and work holding clamps. Also protects dead center noses, centerholes, live center bearings, clamp screws and dovetails, against wear due to excessive pressure, heat, and moisture in both high and low speed operations. This solid lubricant film will withstand pressures up to 500,000 PSI, giving metal surfaces the protection they need during periods of high speed, high shock loads, and extreme pressure.



Order No. 3120000	Price \$141.25
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LIVE CENTERS WITH INTERCHANGEABLE INSERTS

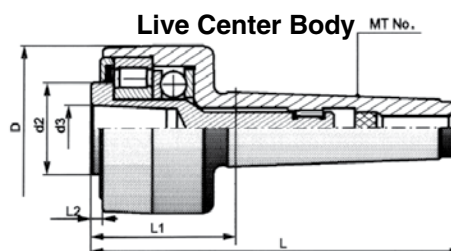
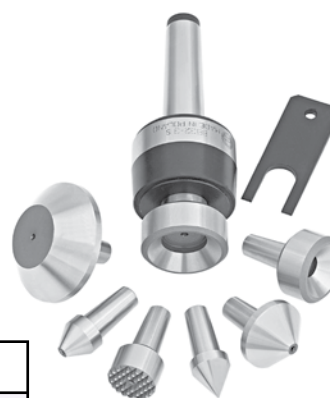
SERIES 647:

Set is provided with the main body and seven different style inserts in a wooden case.

Body of the live center and inserts are made from forgings, hardened and precisely ground. Precision high quality bearings. Special sealing ring protects the bearings from coolant and dust. Inserts are easily interchangeable.

(8832)

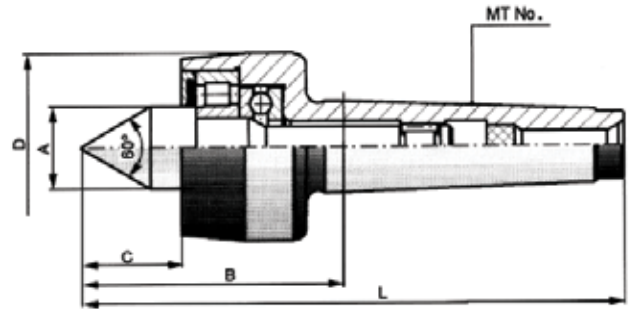
Morse Taper No.	#2	#3	#4	#5	#6
Set Order No.	7570002	7570003	7570004	7570005	7570006
Price	\$25.95	\$28.00	\$33.05	\$42.95	\$63.60
Max R.P.M.	5000	4000	3000	2500	2000
Weight without insert approx. lbs.	0.98	2.02	3.71	8.00	25.40
Accuracy (inch)	0.0008	0.0008	0.0008	0.0012	0.0012
Workpiece weight max. lbs.	220	440	880	1770	3550
L	4.055	5.217	6.220	7.815	10.846
L ₁	1.54	2.03	2.19	2.72	3.70
L ₂	0.177	0.197	0.217	0.256	0.256
D	1.57	2.20	2.52	3.35	5.12
d ₂	0.71	0.98	1.10	1.61	2.48
d ₃	0.28	0.47	0.59	0.87	1.89



SUPER PRECISION AND PRECISION LIVE CENTERS

SERIES 647:

Machined from one piece of forging, hardened and precisely ground. Three precision, high quality bearings are protected by a special steel shield and neoprene seal. Live centers are lubricated with special grease and do not require any additional lubrication.



(8811)

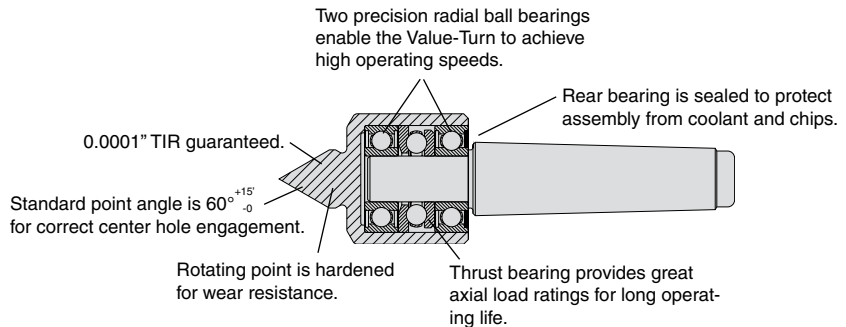
Morse Taper No.	1	2	3	4	5	6
Max. Weight of workpiece (lbs.)	220	460	925	1850	4400	7700
D	1.50	1.57	2.20	2.52	3.35	5.12
A	.59	.70	.98	1.10	1.61	2.48
L	4.07	4.74	6.14	7.24	9.33	13.13
C	.70	.87	1.12	1.24	1.77	2.52
B	1.97	2.22	2.95	3.21	4.23	5.96
Max. RPM	5000	5000	4000	3000	2500	2000
Weight Lbs.	.64	1.00	2.13	3.85	8.37	26.43
"P" Precision Accuracy	.0003	.0003	.0003	.0003	.0004	.0004
Order No.	7565001	7565002	7565003	7565004	7565005	7565006
Price						
"S" SuperPrecisionAccuracy	.0002	.0001	.0001	.0001	.0002	.0002
Order No.	7565101	7565102	7565103	7565104	7565105	7565106
Price						

ROYAL VALUE-TURN LIVE CENTERS

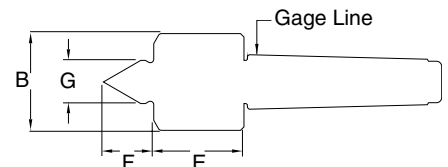
SERIES 450:



- A sturdy low-cost center designed for light/medium-duty turning applications.
- Precision three-bearing design enables the Royal Value-Turn to achieve both high RPM's and good load ratings
- A great American-made alternative to low quality imports.



Taper	B	E	F	G	Max Suggested RPM*	Weight of Workpiece (lbs.)	Thrust Load (lbs.)	Order No.	Price
1MT	1-11/16"	1-9/16"	7/8"	3/4"	5,000	390	3,730	10851	
2MT	1-11/16"	1-9/16"	7/8"	3/4"	5,000	390	3,730	10852	
3MT	1-11/16"	1-9/16"	7/8"	3/5"	5,000	390	3,730	10853	
4MT	2-7/16"	2-1/32"	1-3/16"	1-1/8"	4,500	750	4,990	10854	
5MT	2-7/16"	2-1/32"	1-3/16"	1-1/8"	4,500	750	4,990	10855	



*Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.



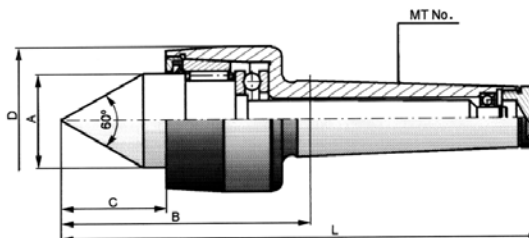
ULTRA PRECISION ADJUSTABLE LIVE CENTERS

SERIES 647:

HEAVY DUTY, TRIPLE BEARING DESIGN

Accuracy +/-0.00012" T.I.R.

Machined from one piece of forging, hardened and precisely ground. Three precision, high quality bearings are protected by a special steel shield and neoprene seal. Adjustable, ultra precision radial bearing reduces run out to minimum after much use.



(8823)

Morse Taper	Max. Weight of Workpiece lbs.	Thrust/ lbs. at 1000 R.P.M.	L	B	C	D	A	Max R.P.M.	Weight lbs.	Order No.	Price
2	660	400	5.41	2.87	1.02	1.73	0.91	8000	1.33	7567002	
3	1320	530	6.53	3.37	1.26	1.89	1.10	6000	1.95	7567003	
4	2860	770	7.89	3.88	1.69	2.36	1.53	4500	3.62	7567004	
5	4400	990	9.80	4.70	2.01	2.76	1.77	4000	7.17	7567005	
6	8800	1580	12.64	5.47	2.44	3.70	2.40	3000	17.20	7567006	

SPINDLE TYPE LIVE CENTERS

SERIES 450:



Accuracy:

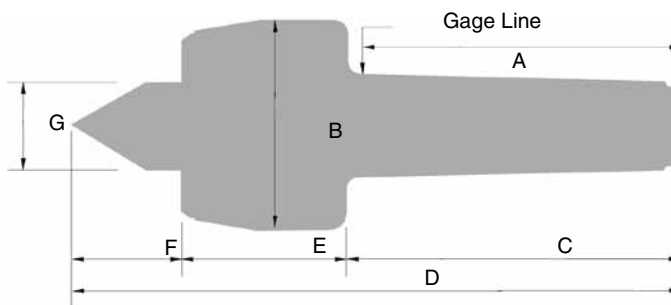
- ± 0.0001" TIR Guaranteed

Construction:

- The special spindle-like point extends into the shank where it is supported by a needle roller bearing. This design increases rigidity, reduces point deflection and dampens vibration.
- Double-row angular contact bearing in front (single row on 1,2, and 3 Morse Tapers).
- Thrust ball bearing to maximize axial load capacity.
- Bearings are protected by a combination steel shield and neoprene seal.
- Point is heat treated high carbon alloy steel.
- Point has a 60° included point angle.

Application:

- Excellent for manual lathes and CNC lathes.
- Designed for long life, heavy use, heavy loads, high thrust.



Taper	A	B	C	D	E	F	G	Max Suggested RPM*	Weight of Workpiece (lbs.)	Thrust Load (lbs.)	Comparative Load Rating (lbs.)	Order No.	Price
2MT	2-9/16"	1-3/4"	2-13/16"	5-9/32"	1-7/16"	1-1/32"	7/8"	6,000	725	2,360	3,085	10102	
3MT	3-3/16"	2-3/8"	3-7/16"	6-13/32"	1-3/4"	1-1/4"	1"	5,000	970	3,900	4,870	10103	
4MT	4-1/16"	2-3/4"	4-7/16"	7-7/8"	1-31/32"	1-1/2"	1-1/4"	4,500	1,720	4,050	5,770	9910104	
5MT	5-3/16"	3-1/2"	5-9/16"	10-1/4"	2-13/16"	1-7/8"	1-1/2"	3,500	3,260	5,700	8,960	9910105	
6MT	7-1/4"	4-5/32"	7-3/4"	13-7/32"	3-5/32"	2-5/32"	2"	3,500	4,080	6,000	10,080	10106	

*Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.

HEAVY DUTY CNC SPINDLE TYPE LIVE CENTERS

SERIES 450:

Accuracy:

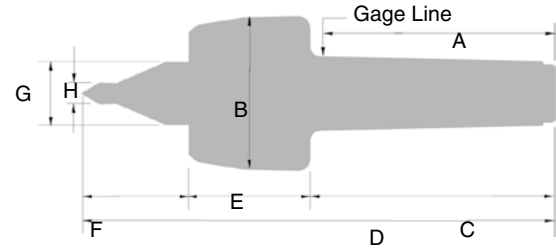
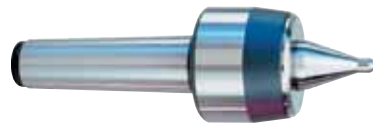
- ± 0.0001" TIR Guaranteed

Construction:

- The special spindle-like point extends into the shank where it is supported by a needle roller bearing. This design increases rigidity, reduces point deflection and dampens vibration.
- Double-row angular contact bearing (single row on 1, 2 and 3 Morse Tapers).
- Thrust ball bearing to maximize axial load capacity. Bearings are protected by a combination steel shield and neoprene seal.
- Point is high-carbon alloy steel heat treated to RC 61-63 and specially designed to provide tool clearance.
- Point has a 60° included angle.
- Body is hardened for extra strength, extra rigidity and long life.

Application:

- Designed for long life, heavy use, heavy loads and high thrust.
- Excellent for manual lathes and CNC lathes.
- Extended point provides additional tool clearance often needed on CNC lathes.



Taper	A	B	C	D	E	F	G	H	Max Suggested RPM*	Weight of Workpiece (lbs.)	Thrust Load (lbs.)	Comparative Load Rating (lbs.)	Order No.	Price
2MT	2-9/16"	1-3/4"	2-13/16"	5-5/8"	1-7/16"	1-3/8"	7/8"	3/8"	6,000	375	2,360	2,735	10212	
3MT	3-3/16"	2-3/8"	3-7/16"	7-1/16"	1-3/4"	1-7/8"	1"	3/8"	5,000	740	3,900	4,640	910213	
4MT	4-1/16"	2-3/4"	4-7/16"	8-5/8"	1-31/32"	2-7/32"	1-1/4"	1/2"	4,500	1,120	4,050	5,170	9910214	
5MT	5-3/16"	3-1/2"	5-9/16"	11"	2-13/16"	2-5/8"	1-1/2"	1/2"	3,500	1,930	5,700	7,630	10215	
6MT	7-1/4"	4-5/32"	7-3/4"	13-29/32"	3-5/32"	3"	2"	3/4"	3,500	2,420	6,000	8,420	10216	

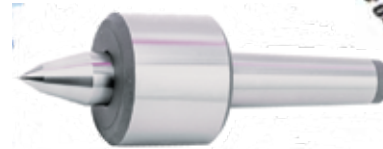
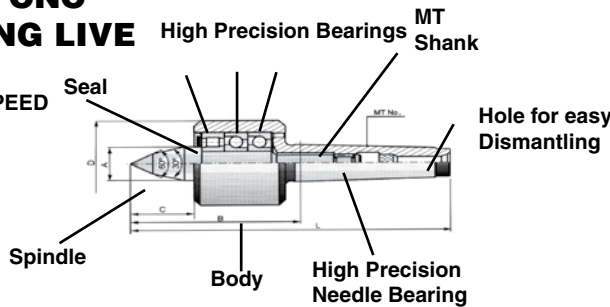
*Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.

HEAVY DUTY CNC

QUAD-BEARING LIVE CENTERS

HEAVY DUTY, HIGH SPEED

SERIES 647:



(8814NC)

Morse Taper	Max. Weight of Workpiece lbs.	Max R.P.M.	Max Run out	A	B	C	D	L	Weight lbs.	Order No.	Price
4	2200	7000	.0002"	1.10	4.58	1.91	2.76	8.62	5.50	7566004	
5	4400	6000	.0002"	1.57	5.87	2.64	3.47	11.00	11.00	7566005	

VERSA-TURN LIVE CENTERS

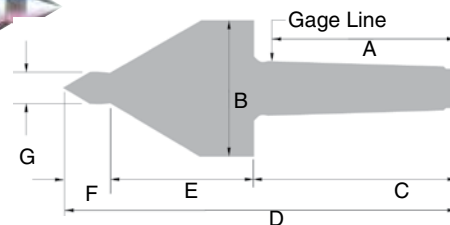
SERIES 450:

Construction:

- Two radial ball bearings.
- 60° included point angle.
- ±.0001" TIR guaranteed.
- Thrust bearings provide a very high axial load capacity.

Application:

- Excellent for manual lathes and general shop use.
- Combination extended point for clearance and bull head for small tubes and hollow work.
- Close fitting head eliminates seal, resulting in extremely free-turning center.



Taper	A	B	C	D	E	F	G	Max Suggested RPM*	Weight of Workpiece (lbs.)	Thrust Load (lbs.)	Comparative Load Rating (lbs.)	Order No.	Price
2MT	2-9/16"	2-1/8"	2-13/16"	5-3/4"	2-3/16"	3/4"	1/2"	5,000	330	2,160	2,490	10831	
3MT	3-3/16"	2-1/8"	3-7/16"	6-3/8"	2-3/16"	3/4"	1/2"	5,000	330	2,160	2,490	10832	
3MT	3-3/16"	2-1/2"	3-7/16"	6-15/16"	2-9/16"	15/16"	5/8"	4,000	685	5,000	5,685	10833	
4MT	4-1/16"	2-1/2"	4-7/16"	7-15/16"	2-9/16"	15/16"	5/8"	4,000	685	5,000	5,685	10834	
4MT	4-1/16"	3-3/8"	4-7/16"	8-11/16"	3-1/8"	1-1/8"	3/4"	3,500	1,165	5,700	6,685	10835	
5MT	5-3/16"	3-3/8"	5-9/16"	9-13/16"	3-1/8"	1-1/8"	3/4"	3,500	1,165	5,700	6,685	910836	

*Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.

BULLNOSE LIVE CENTERS SERIES 314:



J & S HP919 CENTER POINT LUBRICANT SERIES 312:



- Designed to hold pipe and hollow work.
- Preloaded bearings to achieve good thrust and radial capacities.
- Head made from heat treated hardened high carbon alloy steel.



3.5 FLUID OZ.



A versatile, multi-purpose grease that is specially formulated for use with dead centers, live centers, and work holding clamps. Also protects dead center noses, centerholes, live center bearings, damp screws and dovetails, against wear due to excessive pressure, heat and moisture in both high and low speed operations. This solid lubricant film will withstand pressures up to 500,000 PSI, giving metal surfaces the protection they need during periods of high speed, high shock loads, and extreme pressure.

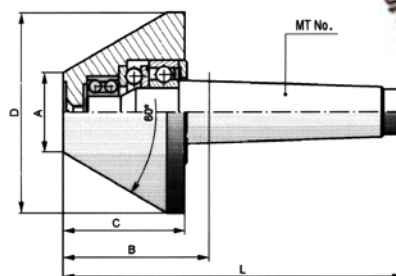
Order No. 3120000
Price:

Model No.	Morse Taper	Small End Dia.	Large End Dia.	Order No.	Price
BLC22	2	1/2	2-7/16	1940022	
BLC33	3	3/4	3	1940033	
BLC34	3	1-1/4	4	1940034	
BLC35	3	1-1/2	5	1940035	
BLC45	4	1-3/8	5	1940045	
BLC46	4	2	6	1940046	
BLC56	5	1-3/8	6	1940056	
BLC58	5	2-1/8	8	1940058	

BULL HEAD LIVE CENTERS SERIES 647:

TRIPLE BEARING DESIGN

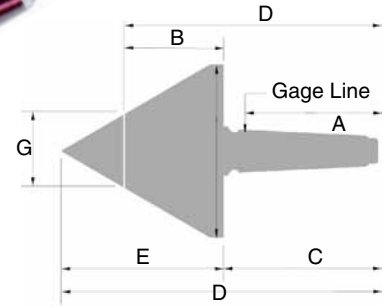
- Three matched bearings are preloaded at the factory providing good thrust and radial capabilities.
- Bearing are protected by a special seal.
- Head is made of high carbon alloy steel, heat treated to RC 61-63.
- 60° head angle.
- Designed to hold pipe and hollow work.



(8825)

MT No.	1	2	2	3	3	4	4	5	6
D	1.97	2.36	3.15	3.15	3.93	3.93	5.51	6.69	11.50
A	0.79	1.18	1.18	1.18	1.57	1.57	2.76	3.94	7.09
B	1.56	1.60	2.32	2.32	2.64	2.70	3.05	3.05	4.57
C	1.38	1.38	2.09	2.09	2.40	2.40	2.76	2.76	4.21
L	3.66	4.11	4.84	5.51	5.83	6.73	7.09	8.15	11.73
R.P.M.	5000	5000	4500	4500	3000	3000	3000	2000	1000
Max. weight of workpiece lbs.	220	400	660	770	1210	1320	1540	1653	4400
Weight lbs.	.77	1.32	2.76	2.98	5.07	5.62	11.00	17.60	75
Max. run out	.0003	.0003	.0003	.0003	.0003	.0003	.0004	.0008	.002
Order No.	7575010	7575020	7575021	7575030	7575031	7575040	7575042	7575051	7575060
Price									

BULL HEAD LIVE CENTERS
SERIES 450:



Accuracy:

- ± 0.0001" TIR Guaranteed

Construction:

- Two matched angular Contact bearings provides good thrust and radial capacities.
- Bearings are protected by a combination steel shield and neoprene seal.
- Point has a 60° included angle.
- Oversized head diameter, 1/8" larger then normal size.
- Reduced knockout diameter prevents taper from mushrooming.

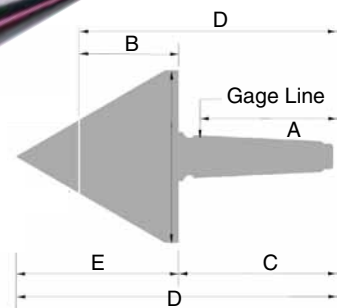
Application:

Designed for pipe work, tube work, parts with extra large center holes.

Taper	A	B	C	D	E	G	Max Suggested RPM*	Weight of Workpiece (lbs.)	Thrust Load (lbs.)	Comparative Load Rating (lbs.)	Order No.	Price
3MT	3-3/16"	3-1/8"	3-9/16"	6-1/16"	2-1/2"	1"	5,000	615	1,780	2,395	9910902	
3MT	3-3/16"	4-1/8"	3-9/16"	6-9/16"	3"	1-1/4"	4,500	860	2,550	3,410	9910903	
4MT	4-1/16"	4-1/8"	4-9/16"	7-9/16"	3"	1-1/4"	4,500	860	2,550	3,410	9910904	
5MT	5-3/16"	4-1/8"	5-11/16"	8-11/16"	3"	1-1/4"	4,500	860	2,550	3,410	910905	
4MT	4-1/16"	5-1/8"	4-9/16"	7-3/4"	3-3/16"	2"	4,000	1,145	3,450	4,595	9910906	
5MT	5-3/16"	5-1/8"	5-11/16"	8-7/8"	3-3/16"	2"	4,000	1,450	3,450	4,595	9910907	
5MT	5-3/16"	6-1/8"	5-11/16"	9-5/16"	3-5/8"	2-1/2"	3,500	1,450	4,500	5,950	9910909	
6MT	7-1/4"	6-1/8"	7-7/8"	11-1/2"	3-5/8"	2-1/2"	3,500	1,450	4,500	5,950	9990910	

*Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.

PIPE HEAD LIVE CENTER
SERIES 450:



Accuracy:

- ± 0.0001" TIR Guaranteed

Construction:

- Two matched angular Contact bearings provides good thrust and radial cap.
- Bearings are protected by a combination steel shield and neoprene seal.
- Point has a 60° included angle.
- Oversized head diameter, 1/8" larger then normal size.
- Reduced knockout diameter prevents taper from mushrooming.

Application:

Designed for pipe work, tube work, parts with extra large center holes.

Taper	A	B	C	D	E	Max Suggested RPM*	Weight of Workpiece (lbs.)	Thrust Load (lbs.)	Comparative Load Rating (lbs.)	Order No.	Price
2MT	2-9/16"	3-1/8"	2-15/16"	6-5/16"	3-3/8"	5,000	475	1,780	2,255	9910701	
3MT	3-3/16"	3-1/8"	3-9/16"	6-15/16"	3-3/8"	5,000	475	1,780	2,255	9910702	
4MT	4-1/16"	4-1/8"	4-9/16"	8-11/16"	4-1/8"	4,500	630	2,550	3,180	910704	
5MT	5-3/16"	4-1/8"	5-11/16"	9-13/16"	4-1/8"	4,500	630	2,550	3,180	910705	
4MT	4-1/16"	5-1/8"	4-9/16"	9-7/16"	4-7/8"	4,000	845	3,450	4,295	910706	
5MT	5-3/16"	5-1/8"	5-11/16"	10-9/16"	4-7/8"	4,000	845	3,450	4,295	910707	

*Maximum recommended operating limit. Operating above this speed could result in heat build-up and accelerated bearing wear.

MACHINE TOOL ACCESSORIES