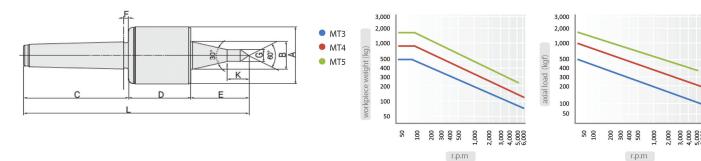
Workholding, Clamping & Fixturing

High Speed Live Centres — Extended A Type Point

- Accuracy guaranteed to 0.002mm TIR (0.0001")
- Excellent for grinders, CNC machines, and high speed light duty machining
- Heat treated point to 60±2HRC
- High RPM (up to 6,000)
- Five Bearing System: A double row angular contact bearing, two single row angular contact bearings, and a rear needle roller bearing combine to provide improved runout, greater stability, longer tool life, and superior performance
- · Anti-friction seal for coolant deflection and high speed
- Heat treated body for extra strength, rigidity, and long life
- Shaft borehole for easy, efficient dismounting
- Drop forged body (50±2HRC) for long life





Dimensions

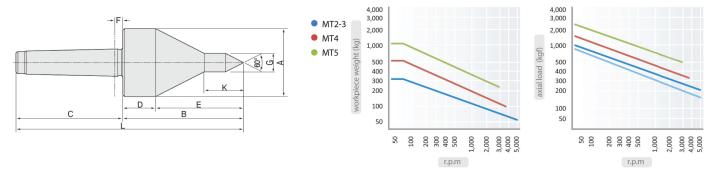
МТ	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	K (mm)	L (mm)	Workpiece Weight	Max RPM	Weight	Max Runout	Code No.	Price \$
3	50	20	85	58	37	4.5	10	15	180	500 kg	6,000	1.9 kg	0.002mm	311028	791.82
4	66	31	107	71	63.5	5.3	12.5	23	241.5	900 kg	6,000	2.4 kg	0.002mm	311029	665.38
5	80	35	136	78	70	6.3	12.5	23.5	284	1,700 kg	5,000	5.3 kg	0.002mm	311030	710.39

60° Bull Head Live Centres — Extended A Type Point

Features

- Accuracy guaranteed to 0.003mm TIR (0.0001")
- Heat treated point to 60±2HRC
- For pipe work, tube work, and parts with extra-large centre holes
- 4-Bearing System: double row angular contact bearing, thrust ball bearing, and a radial ball bearing combine to provide excellent rigidity and high precision point concentricity
- Used both as a centering taper for hollow bodies and as a centre for machining standard workpieces
- Elongated centre point is specially shaped for improved tool clearance





Dimensions

MT	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	K (mm)	L (mm)	Workpiece Weight	Max RPM	Weight	Max Runout	Code No.	Price \$
3	56	86	85	28.9	57.1	6	12	19	171	320 kg	5,000	1.0 kg	0.003mm	311032	422.71
4	78	103.5	108	26.3	77.2	8	16	23.5	211.5	560 kg	3,800	2.3 kg	0.003mm	311023	487.29
5	96	140	136	41.6	98.4	8	19	30	276	1,200 kg	3,000	5.0 kg	0.003mm	311033	661.47