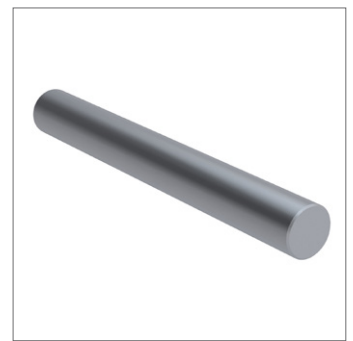
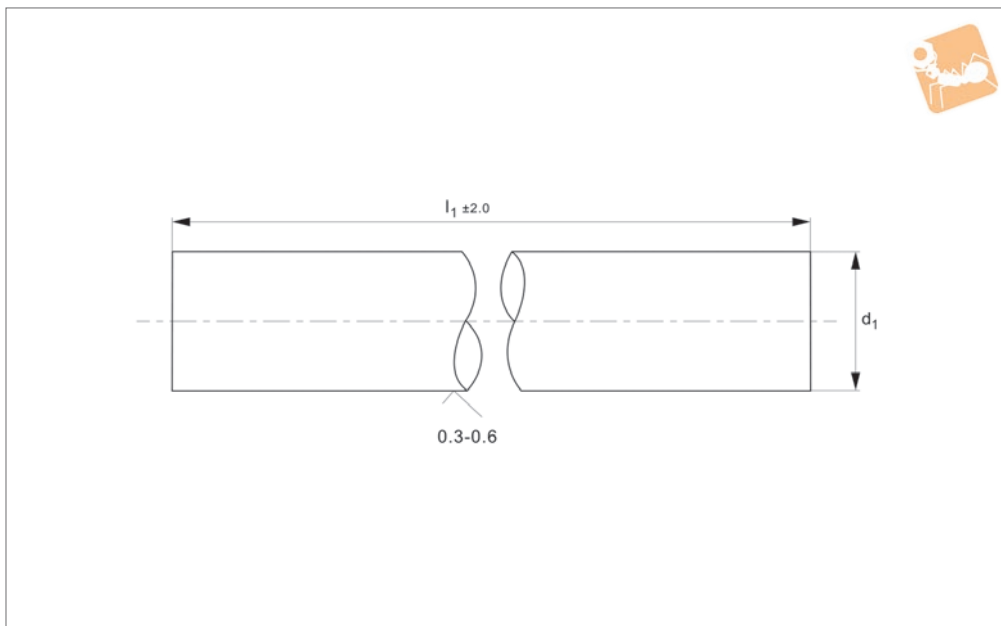




Ø6 Hardened Stainless Shafts for linear bearings

Linear Shaft Bars



L1772.06

LINEAR SHAFT BARS

Material

Corrosion resistant stainless steel (440C, DIN 1.4112, X90 CrMo18) hardened.
Surface hardness 53-56 HRC, Rht 450Hv2.
Surface finish 0.3-0.6µ Ra, ground and polished to 8-12 cla.
Yield stress: >420 N/mm².

Tensile strength: >785 N/mm².

Technical Notes

Suitable for use with linear bearings.
Tolerance, h6 standard, special tolerances on request.
Straightness 0,1mm/m.

Tips

Modifications, drilled and tapped holes, retainer grooves, special coatings etc. are available.
Shaft lengths are cut to typically ± 2mm, ends are not hardened.

Order No.	d ₁ tol. h6	l ₁	Depth of hardness min.	Weight kg
L1772.06-0100	6	100	0.4	0.023
L1772.06-0150	6	150	0.4	0.035
L1772.06-0200	6	200	0.4	0.046
L1772.06-0250	6	250	0.4	0.058
L1772.06-0300	6	300	0.4	0.069
L1772.06-0350	6	350	0.4	0.081
L1772.06-0400	6	400	0.4	0.092
L1772.06-0450	6	450	0.4	0.104
L1772.06-0500	6	500	0.4	0.115
L1772.06-0550	6	550	0.4	0.127
L1772.06-0600	6	600	0.4	0.138
L1772.06-0650	6	650	0.4	0.150
L1772.06-0700	6	700	0.4	0.161
L1772.06-0750	6	750	0.4	0.173
L1772.06-0800	6	800	0.4	0.184
L1772.06-0850	6	850	0.4	0.196
L1772.06-0900	6	900	0.4	0.207
L1772.06-0950	6	950	0.4	0.219
L1772.06-1000	6	1000	0.4	0.230
L1772.06-1050	6	1050	0.4	0.242
L1772.06-1100	6	1100	0.4	0.253
L1772.06-1150	6	1150	0.4	0.265
L1772.06-1200	6	1200	0.4	0.276
L1772.06-1250	6	1250	0.4	0.288
L1772.06-1300	6	1300	0.4	0.299
L1772.06-1350	6	1350	0.4	0.311
L1772.06-1400	6	1400	0.4	0.322
L1772.06-1450	6	1450	0.4	0.334
L1772.06-1500	6	1500	0.4	0.345
L1772.06-1550	6	1550	0.4	0.357
L1772.06-1600	6	1600	0.4	0.368



Order No.	d ₁ tol. h6	l ₁	Depth of hardness min.	Weight kg
L1772.06-1650	6	1650	0.4	0.380
L1772.06-1700	6	1700	0.4	0.391
L1772.06-1750	6	1750	0.4	0.403
L1772.06-1800	6	1800	0.4	0.414
L1772.06-1850	6	1850	0.4	0.426
L1772.06-1900	6	1900	0.4	0.437
L1772.06-1950	6	1950	0.4	0.449
L1772.06-2000	6	2000	0.4	0.460
L1772.06-2050	6	2050	0.4	0.472
L1772.06-2100	6	2100	0.4	0.483
L1772.06-2150	6	2150	0.4	0.495
L1772.06-2200	6	2200	0.4	0.506
L1772.06-2250	6	2250	0.4	0.518
L1772.06-2300	6	2300	0.4	0.529
L1772.06-2350	6	2350	0.4	0.541
L1772.06-2400	6	2400	0.4	0.552
L1772.06-2450	6	2450	0.4	0.564
L1772.06-2500	6	2500	0.4	0.575
L1772.06-2550	6	2550	0.4	0.587
L1772.06-2600	6	2600	0.4	0.598
L1772.06-2650	6	2650	0.4	0.610
L1772.06-2700	6	2700	0.4	0.621
L1772.06-2750	6	2750	0.4	0.633
L1772.06-2800	6	2800	0.4	0.644
L1772.06-2850	6	2850	0.4	0.656
L1772.06-2900	6	2900	0.4	0.667
L1772.06-2950	6	2950	0.4	0.679
L1772.06-3000	6	3000	0.4	0.690
L1772.06-3050	6	3050	0.4	0.702
L1772.06-3100	6	3100	0.4	0.713
L1772.06-3150	6	3150	0.4	0.725
L1772.06-3200	6	3200	0.4	0.736
L1772.06-3250	6	3250	0.4	0.748
L1772.06-3300	6	3300	0.4	0.759
L1772.06-3350	6	3350	0.4	0.771
L1772.06-3400	6	3400	0.4	0.782
L1772.06-3450	6	3450	0.4	0.794
L1772.06-3500	6	3500	0.4	0.805
L1772.06-3550	6	3550	0.4	0.817
L1772.06-3600	6	3600	0.4	0.828
L1772.06-3650	6	3650	0.4	0.840
L1772.06-3700	6	3700	0.4	0.851
L1772.06-3750	6	3750	0.4	0.863
L1772.06-3800	6	3800	0.4	0.874
L1772.06-3850	6	3850	0.4	0.886
L1772.06-3900	6	3900	0.4	0.897
L1772.06-3950	6	3950	0.4	0.909
L1772.06-4000	6	4000	0.4	0.920
L1772.06-4050	6	4050	0.4	0.932
L1772.06-4100	6	4100	0.4	0.943
L1772.06-4150	6	4150	0.4	0.955
L1772.06-4200	6	4200	0.4	0.966
L1772.06-4250	6	4250	0.4	0.978
L1772.06-4300	6	4300	0.4	0.989
L1772.06-4350	6	4350	0.4	1.001
L1772.06-4400	6	4400	0.4	1.012
L1772.06-4450	6	4450	0.4	1.024
L1772.06-4500	6	4500	0.4	1.035
L1772.06-4550	6	4550	0.4	1.047
L1772.06-4600	6	4600	0.4	1.058
L1772.06-4650	6	4650	0.4	1.070
L1772.06-4700	6	4700	0.4	1.081
L1772.06-4750	6	4750	0.4	1.093
L1772.06-4800	6	4800	0.4	1.104
L1772.06-4850	6	4850	0.4	1.116
L1772.06-4900	6	4900	0.4	1.127
L1772.06-4950	6	4950	0.4	1.139
L1772.06-5000	6	5000	0.4	1.150



Ø6 Hardened Stainless Shafts for linear bearings

Linear Shaft Bars

Order No.	d ₁ tol. h6	l ₁	Depth of hardness min.	Weight kg
L1772.06-5050	6	5050	0.4	1.162
L1772.06-5100	6	5100	0.4	1.173
L1772.06-5150	6	5150	0.4	1.185
L1772.06-5200	6	5200	0.4	1.196
L1772.06-5250	6	5250	0.4	1.208
L1772.06-5300	6	5300	0.4	1.219
L1772.06-5350	6	5350	0.4	1.231
L1772.06-5400	6	5400	0.4	1.242
L1772.06-5450	6	5450	0.4	1.254
L1772.06-5500	6	5500	0.4	1.265
L1772.06-5550	6	5550	0.4	1.277
L1772.06-5600	6	5600	0.4	1.288
L1772.06-5650	6	5650	0.4	1.300
L1772.06-5700	6	5700	0.4	1.311
L1772.06-5750	6	5750	0.4	1.323
L1772.06-5800	6	5800	0.4	1.334
L1772.06-5850	6	5850	0.4	1.346
L1772.06-5900	6	5900	0.4	1.357
L1772.06-5950	6	5950	0.4	1.369
L1772.06-6000	6	6000	0.4	1.380

LINEAR SHAFT BARS



Hardened steel linear shafting (L1770 – L1771)

Carbon steel to BS 070M55 hardened to 60-65 HRC. Carbon Steel B.S. 070M55 is a medium carbon steel which is used when greater strength and hardness is desired than in its as rolled condition. Extreme size accuracy, straightness and concentricity are combined to minimise wear in high speed applications. Suitable for use with all types of linear bushings.

Corrosion resistant steel (L1772)

440C is a high carbon chromium martensitic stainless steel, generally supplied in the annealed condition with a maximum hardness of 50-55 HR_C. Characterised by good corrosion resistance in mild domestic and industrial environments, including fresh water, organic materials, mild acids, various petroleum products, coupled with extreme high strength, hardness and wear resistance when in the hardened and tempered condition. Used for parts requiring a combination of excellent wear resistance, plus reasonable corrosion resistance. Typical applications are: ball bearings and races, bushings, cutlery, chisels, knife blades, pump parts, surgical instruments, valve seats etc. Material magnetic in all conditions. Suitable for use with all types of linear bushings.

Stainless steel AISI 303 (L1773)

303 is a free machining chromium-nickel austenitic stainless steel with good strength and good corrosion resistance, as supplied in the annealed condition. Characterised by excellent machinability and non galling properties due to its higher sulphur content, which has the effect of slightly lowering its corrosion resistance. It is however, fairly resistant to general atmospheric corrosion, general foodstuffs, sterilizing solutions, dyestuffs, most organic chemicals, plus some inorganic chemicals. But has very limited resistance to acids. 303 cannot be hardened by thermal treatment, but strength and hardness can be increased substantially by cold working, with subsequent reduction in ductility. It is used primarily for production runs involving extensive machining, or complex parts requiring excellent machinability. Typical uses are: architectural components, food processing equipment, dairy equipment, dyeing industry, hardware and kitchenware manufacturing and allied industries. Commonly used to manufacture bolts and nuts, bushes, gears, shafts, valve bodies and fittings etc. Material is non magnetic in the annealed condition, but can become mildly magnetic following heavy cold working. Annealing is required to rectify if necessary.

Not suitable for use with linear ball bushings, please use ceramic bearings.

Stainless steel AISI 303 (L1774)

316 is a chromium-nickel-molybdenum austenitic stainless steel with good strength and excellent corrosion resistance, as supplied in the annealed condition. Characterised by high corrosion resistance in marine and industrial atmospheres, it exhibits excellent resistance to chloride attack and against complex sulphur compounds employed in the pulp and paper processing industries. The addition of 2% to 3% of molybdenum increases its resistance to pitting corrosion and improves its creep resistance at elevated temperatures. Also it displays good oxidation resistance at elevated temperatures and has excellent weldability. AISI 316 cannot be hardened by thermal treatment, but strength and hardness can be increased substantially by cold working, with subsequent reduction in ductility. It is used extensively by the marine, chemical, petrochemical, pulp and paper, textile, transport, manufacturing and allied industries. Typical uses are: architectural components, textile equipment, pulp and paper processing equipment, marine equipment and fittings, photographic equipment and x-ray equipment etc. Material non magnetic in the annealed condition, but can become mildly magnetic following heavy cold working. Annealing is required to rectify if necessary.

Note: Optimum corrosion resistance is achieved in the annealed condition. Not suitable for use with linear ball bushings; please use ceramic bearings.



Linear Shafts from Automotion Components

<p>L1770 - Hardened steel shafts</p>  <p>For use with linear bearings. Ø6 to Ø60</p>	<p>L1771 - Hardened hollow shafts</p>  <p>For use with linear bearings. Hollowed for lighter weight. Ø12 to Ø50</p>
<p>L1772 - Hardened Stainless shafts</p>  <p>For use with linear bearings Anti-corrosion. Ø6 to Ø60</p>	<p>L1773 - Stainless 303 shafts</p>  <p>Soft stainless, high anti-corrosion. Not for use with ball bush linear bearings. Ø6 to Ø60</p>
<p>L1774 - Stainless 316 shafts</p>  <p>Soft stainless, very high anti-corrosion. Not for use with ball bushing linear bearings. Ø6 to Ø60</p>	<p>L1778 - Aluminium shafts</p>  <p>Light weight, non-magnetic. Ø10 to Ø50</p>