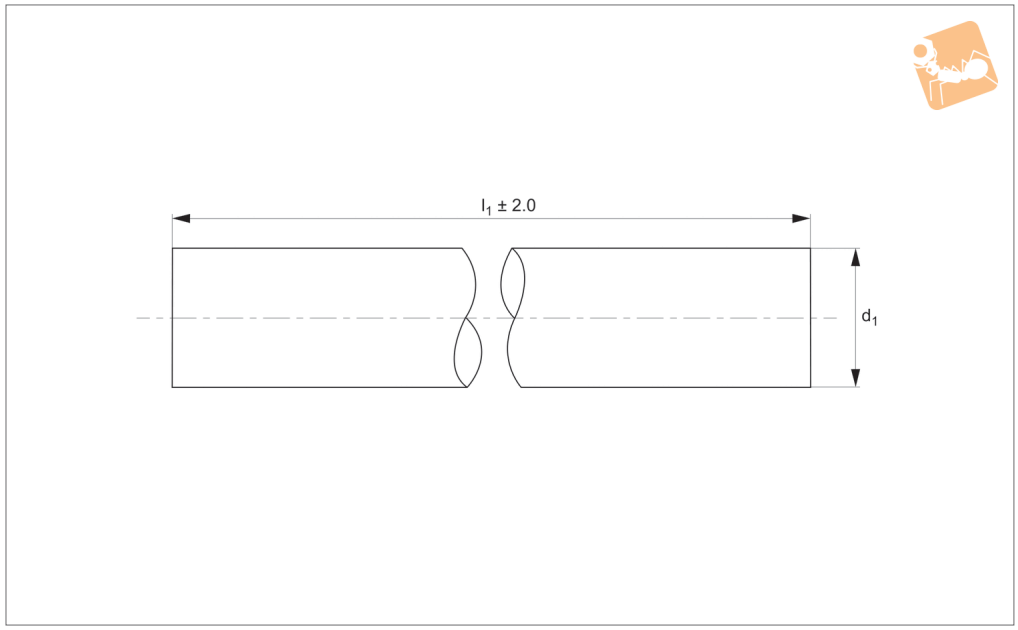

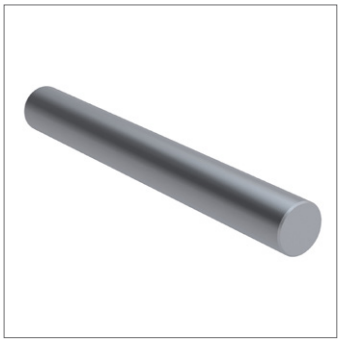

L1772.08

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/mm^2.
Tensile strength: >785 N/mm^2.

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
L1772.08-0100	8	100	0.4	0.040
L1772.08-0150	8	150	0.4	0.060
L1772.08-0200	8	200	0.4	0.080
L1772.08-0250	8	250	0.4	0.100
L1772.08-0300	8	300	0.4	0.120
L1772.08-0350	8	350	0.4	0.140
L1772.08-0400	8	400	0.4	0.160
L1772.08-0450	8	450	0.4	0.180
L1772.08-0500	8	500	0.4	0.200
L1772.08-0550	8	550	0.4	0.220
L1772.08-0600	8	600	0.4	0.240
L1772.08-0650	8	650	0.4	0.260
L1772.08-0700	8	700	0.4	0.280
L1772.08-0750	8	750	0.4	0.300
L1772.08-0800	8	800	0.4	0.320
L1772.08-0850	8	850	0.4	0.340
L1772.08-0900	8	900	0.4	0.360
L1772.08-0950	8	950	0.4	0.380
L1772.08-1000	8	1000	0.4	0.400
L1772.08-1050	8	1050	0.4	0.420
L1772.08-1100	8	1100	0.4	0.440
L1772.08-1150	8	1150	0.4	0.460
L1772.08-1200	8	1200	0.4	0.480
L1772.08-1250	8	1250	0.4	0.500
L1772.08-1300	8	1300	0.4	0.520
L1772.08-1350	8	1350	0.4	0.540
L1772.08-1400	8	1400	0.4	0.560
L1772.08-1450	8	1450	0.4	0.580
L1772.08-1500	8	1500	0.4	0.600
L1772.08-1550	8	1550	0.4	0.620
L1772.08-1600	8	1600	0.4	0.640

Ø8 Hardened Stainless Shafts
for linear bearings

Order No.	d_1 tol. h6	l_1	Depth of hardness min.	Weight kg
L1772.08-1650	8	1650	0.4	0.660
L1772.08-1700	8	1700	0.4	0.680
L1772.08-1750	8	1750	0.4	0.700
L1772.08-1800	8	1800	0.4	0.720
L1772.08-1850	8	1850	0.4	0.740
L1772.08-1900	8	1900	0.4	0.760
L1772.08-1950	8	1950	0.4	0.780
L1772.08-2000	8	2000	0.4	0.800
L1772.08-2050	8	2050	0.4	0.820
L1772.08-2100	8	2100	0.4	0.840
L1772.08-2150	8	2150	0.4	0.860
L1772.08-2200	8	2200	0.4	0.880
L1772.08-2250	8	2250	0.4	0.900
L1772.08-2300	8	2300	0.4	0.920
L1772.08-2350	8	2350	0.4	0.940
L1772.08-2400	8	2400	0.4	0.960
L1772.08-2450	8	2450	0.4	0.980
L1772.08-2500	8	2500	0.4	1.000
L1772.08-2550	8	2550	0.4	1.020
L1772.08-2600	8	2600	0.4	1.040
L1772.08-2650	8	2650	0.4	1.060
L1772.08-2700	8	2700	0.4	1.080
L1772.08-2750	8	2750	0.4	1.100
L1772.08-2800	8	2800	0.4	1.120
L1772.08-2850	8	2850	0.4	1.140
L1772.08-2900	8	2900	0.4	1.160
L1772.08-2950	8	2950	0.4	1.180
L1772.08-3000	8	3000	0.4	1.200
L1772.08-3050	8	3050	0.4	1.220
L1772.08-3100	8	3100	0.4	1.240
L1772.08-3150	8	3150	0.4	1.260
L1772.08-3200	8	3200	0.4	1.280
L1772.08-3250	8	3250	0.4	1.300
L1772.08-3300	8	3300	0.4	1.320
L1772.08-3350	8	3350	0.4	1.340
L1772.08-3400	8	3400	0.4	1.360
L1772.08-3450	8	3450	0.4	1.380
L1772.08-3500	8	3500	0.4	1.400
L1772.08-3550	8	3550	0.4	1.420
L1772.08-3600	8	3600	0.4	1.440
L1772.08-3650	8	3650	0.4	1.460
L1772.08-3700	8	3700	0.4	1.480
L1772.08-3750	8	3750	0.4	1.500
L1772.08-3800	8	3800	0.4	1.520
L1772.08-3850	8	3850	0.4	1.540
L1772.08-3900	8	3900	0.4	1.560
L1772.08-3950	8	3950	0.4	1.580
L1772.08-4000	8	4000	0.4	1.600
L1772.08-4050	8	4050	0.4	1.620
L1772.08-4100	8	4100	0.4	1.640
L1772.08-4150	8	4150	0.4	1.660
L1772.08-4200	8	4200	0.4	1.680
L1772.08-4250	8	4250	0.4	1.700
L1772.08-4300	8	4300	0.4	1.720
L1772.08-4350	8	4350	0.4	1.740
L1772.08-4400	8	4400	0.4	1.760
L1772.08-4450	8	4450	0.4	1.780
L1772.08-4500	8	4500	0.4	1.800
L1772.08-4550	8	4550	0.4	1.820
L1772.08-4600	8	4600	0.4	1.840
L1772.08-4650	8	4650	0.4	1.860
L1772.08-4700	8	4700	0.4	1.880
L1772.08-4750	8	4750	0.4	1.900
L1772.08-4800	8	4800	0.4	1.920
L1772.08-4850	8	4850	0.4	1.940
L1772.08-4900	8	4900	0.4	1.960
L1772.08-4950	8	4950	0.4	1.980
L1772.08-5000	8	5000	0.4	2.000

Order No.	d_1 tol. h6	l_1	Depth of hardness min.	Weight kg
L1772.08-5050	8	5050	0.4	2.020
L1772.08-5100	8	5100	0.4	2.040
L1772.08-5150	8	5150	0.4	2.060
L1772.08-5200	8	5200	0.4	2.080
L1772.08-5250	8	5250	0.4	2.100
L1772.08-5300	8	5300	0.4	2.120
L1772.08-5350	8	5350	0.4	2.140
L1772.08-5400	8	5400	0.4	2.160
L1772.08-5450	8	5450	0.4	2.180
L1772.08-5500	8	5500	0.4	2.200
L1772.08-5550	8	5550	0.4	2.220
L1772.08-5600	8	5600	0.4	2.240
L1772.08-5650	8	5650	0.4	2.260
L1772.08-5700	8	5700	0.4	2.280
L1772.08-5750	8	5750	0.4	2.300
L1772.08-5800	8	5800	0.4	2.320
L1772.08-5850	8	5850	0.4	2.340
L1772.08-5900	8	5900	0.4	2.360
L1772.08-5950	8	5950	0.4	2.380
L1772.08-6000	8	6000	0.4	2.400

Linear Shafts from Automotion Components

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 it's 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, dying 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

L1770 - Hardened steel shafts

For use with linear bearings.

Ø6 to Ø60

L1771 - Hardened hollow shafts

For use with linear bearings. Hollowed for lighter weight.

Ø12 to Ø50

L1772 - Hardened Stainless shafts

For use with linear bearings

Anti-corrosion.

Ø6 to Ø60

L1773 - Stainless 303 shafts

Soft stainless, high anti-corrosion.

Not for use with ball bush linear bearings.

Ø6 to Ø60

L1774 - Stainless 316 shafts

Soft stainless, very high anti-corrosion.

Not for use with ball bushing linear bearings.

Ø6 to Ø60

L1778 - Aluminium shafts

Light weight, non-magnetic.

Ø10 to Ø50