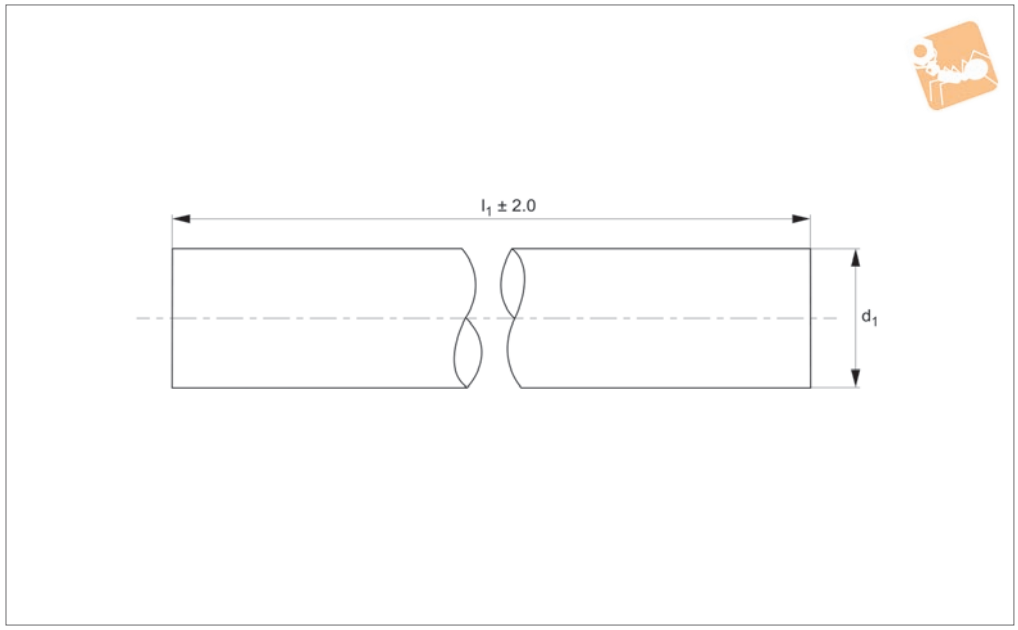

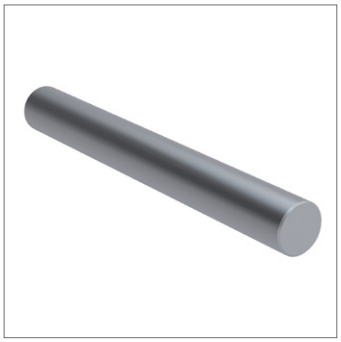

L1772.30

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
L1772.30-0100	30	100	1.5	0.555
L1772.30-0150	30	150	1.5	0.833
L1772.30-0200	30	200	1.5	1.110
L1772.30-0250	30	250	1.5	1.388
L1772.30-0300	30	300	1.5	1.665
L1772.30-0350	30	350	1.5	1.943
L1772.30-0400	30	400	1.5	2.220
L1772.30-0450	30	450	1.5	2.498
L1772.30-0500	30	500	1.5	2.775
L1772.30-0550	30	550	1.5	3.053
L1772.30-0600	30	600	1.5	3.330
L1772.30-0650	30	650	1.5	3.608
L1772.30-0700	30	700	1.5	3.885
L1772.30-0750	30	750	1.5	4.163
L1772.30-0800	30	800	1.5	4.440
L1772.30-0850	30	850	1.5	4.718
L1772.30-0900	30	900	1.5	4.995
L1772.30-0950	30	950	1.5	5.273
L1772.30-1000	30	1000	1.5	5.550
L1772.30-1050	30	1050	1.5	5.828
L1772.30-1100	30	1100	1.5	6.105
L1772.30-1150	30	1150	1.5	6.383
L1772.30-1200	30	1200	1.5	6.660
L1772.30-1250	30	1250	1.5	6.938
L1772.30-1300	30	1300	1.5	7.215
L1772.30-1350	30	1350	1.5	7.493
L1772.30-1400	30	1400	1.5	7.770
L1772.30-1450	30	1450	1.5	8.048
L1772.30-1500	30	1500	1.5	8.325
L1772.30-1550	30	1550	1.5	8.603
L1772.30-1600	30	1600	1.5	8.880

Ø30 Hardened Stainless Shafts
for linear bearings

Order No.	d_1 tol. h6	l_1	Depth of hardness min.	Weight kg
L1772.30-1650	30	1650	1.5	9.158
L1772.30-1700	30	1700	1.5	9.435
L1772.30-1750	30	1750	1.5	9.713
L1772.30-1800	30	1800	1.5	9.990
L1772.30-1850	30	1850	1.5	10.268
L1772.30-1900	30	1900	1.5	10.545
L1772.30-1950	30	1950	1.5	10.823
L1772.30-2000	30	2000	1.5	11.100
L1772.30-2050	30	2050	1.5	11.378
L1772.30-2100	30	2100	1.5	11.655
L1772.30-2150	30	2150	1.5	11.933
L1772.30-2200	30	2200	1.5	12.210
L1772.30-2250	30	2250	1.5	12.488
L1772.30-2300	30	2300	1.5	12.765
L1772.30-2350	30	2350	1.5	13.043
L1772.30-2400	30	2400	1.5	13.320
L1772.30-2450	30	2450	1.5	13.598
L1772.30-2500	30	2500	1.5	13.875
L1772.30-2550	30	2550	1.5	14.153
L1772.30-2600	30	2600	1.5	14.430
L1772.30-2650	30	2650	1.5	14.708
L1772.30-2700	30	2700	1.5	14.985
L1772.30-2750	30	2750	1.5	15.263
L1772.30-2800	30	2800	1.5	15.540
L1772.30-2850	30	2850	1.5	15.818
L1772.30-2900	30	2900	1.5	16.095
L1772.30-2950	30	2950	1.5	16.373
L1772.30-3000	30	3000	1.5	16.650
L1772.30-3050	30	3050	1.5	16.928
L1772.30-3100	30	3100	1.5	17.205
L1772.30-3150	30	3150	1.5	17.483
L1772.30-3200	30	3200	1.5	17.760
L1772.30-3250	30	3250	1.5	18.038
L1772.30-3300	30	3300	1.5	18.315
L1772.30-3350	30	3350	1.5	18.593
L1772.30-3400	30	3400	1.5	18.870
L1772.30-3450	30	3450	1.5	19.148
L1772.30-3500	30	3500	1.5	19.425
L1772.30-3550	30	3550	1.5	19.703
L1772.30-3600	30	3600	1.5	19.980
L1772.30-3650	30	3650	1.5	20.258
L1772.30-3700	30	3700	1.5	20.535
L1772.30-3750	30	3750	1.5	20.813
L1772.30-3800	30	3800	1.5	21.090
L1772.30-3850	30	3850	1.5	21.368
L1772.30-3900	30	3900	1.5	21.645
L1772.30-3950	30	3950	1.5	21.923
L1772.30-4000	30	4000	1.5	22.200
L1772.30-4050	30	4050	1.5	22.478
L1772.30-4100	30	4100	1.5	22.755
L1772.30-4150	30	4150	1.5	23.033
L1772.30-4200	30	4200	1.5	23.310
L1772.30-4250	30	4250	1.5	23.588
L1772.30-4300	30	4300	1.5	23.865
L1772.30-4350	30	4350	1.5	24.143
L1772.30-4400	30	4400	1.5	24.420
L1772.30-4450	30	4450	1.5	24.698
L1772.30-4500	30	4500	1.5	24.975
L1772.30-4550	30	4550	1.5	25.253
L1772.30-4600	30	4600	1.5	25.530
L1772.30-4650	30	4650	1.5	25.808
L1772.30-4700	30	4700	1.5	26.085
L1772.30-4750	30	4750	1.5	26.363
L1772.30-4800	30	4800	1.5	26.640
L1772.30-4850	30	4850	1.5	26.918
L1772.30-4900	30	4900	1.5	27.195
L1772.30-4950	30	4950	1.5	27.473
L1772.30-5000	30	5000	1.5	27.750

Order No.	d_1 tol. h6	l_1	Depth of hardness min.	Weight kg
L1772.30-5050	30	5050	1.5	28.028
L1772.30-5100	30	5100	1.5	28.305
L1772.30-5150	30	5150	1.5	28.583
L1772.30-5200	30	5200	1.5	28.860
L1772.30-5250	30	5250	1.5	29.138
L1772.30-5300	30	5300	1.5	29.415
L1772.30-5350	30	5350	1.5	29.693
L1772.30-5400	30	5400	1.5	29.970
L1772.30-5450	30	5450	1.5	30.248
L1772.30-5500	30	5500	1.5	30.525
L1772.30-5550	30	5550	1.5	30.803
L1772.30-5600	30	5600	1.5	31.080
L1772.30-5650	30	5650	1.5	31.358
L1772.30-5700	30	5700	1.5	31.635
L1772.30-5750	30	5750	1.5	31.913
L1772.30-5800	30	5800	1.5	32.190
L1772.30-5850	30	5850	1.5	32.468
L1772.30-5900	30	5900	1.5	32.745
L1772.30-5950	30	5950	1.5	33.023
L1772.30-6000	30	6000	1.5	33.300

Technical Information

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 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.

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

Linear Shafts from Automotion Components

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