





L1773.30

#### **Material**

Stainless steel AISI 303 (1.4305, X10CrNiS18-19), surface finish 0.3-0.6µ Ra, ground and polished to 8-12 cla. Yield stress: >510 N/mm², tensile strength: >720 N/mm².

#### **Technical Notes**

Tolerance, h6 standard, other tolerances

on request.
Straightness 0,1mm/m.

#### **Tips**

Modifications, drilled and tapped holes, circlip grooves, special coatings etc. available.

Shafts lengths are cut to typically ± 2mm. To be used with ceramic or other bearings

not containing hardened ball bearings.

Order No.	$d_1$	$I_1$	Tolerance μ tol. h6
L1773.30-0100	30	100	+0,-13
L1773.30-0100 L1773.30-0150			
	30	150	+0,-13
L1773.30-0200	30	200	+0,-13
L1773.30-0250	30	250	+0,-13
L1773.30-0300	30	300	+0,-13
L1773.30-0350	30	350	+0,-13
L1773.30-0400	30	400	+0,-13
L1773.30-0450	30	450	+0,-13
L1773.30-0500	30	500	+0,-13
L1773.30-0550	30	550	+0,-13
L1773.30-0600	30	600	+0,-13
L1773.30-0650	30	650	+0,-13
L1773.30-0700	30	700	+0,-13
L1773.30-0750	30	750	+0,-13
L1773.30-0800	30	800	+0,-13
L1773.30-0850	30	850	+0,-13
L1773.30-0900	30	900	+0,-13
L1773.30-0950	30	950	+0,-13
L1773.30-1000	30	1000	+0,-13
L1773.30-1050	30	1050	+0,-13
L1773.30-1100	30	1100	+0,-13
L1773.30-1150	30	1150	+0,-13
L1773.30-1200	30	1200	+0,-13
L1773.30-1250	30	1250	+0,-13
L1773.30-1300	30	1300	+0,-13
L1773.30-1350	30	1350	+0,-13
L1773.30-1400	30	1400	+0,-13
L1773.30-1450	30	1450	+0,-13
L1773.30-1500	30	1500	+0,-13



### Linear Shaft Bars

# **300 Stainless AISI 303 Shafts**



Order No.	$d_1$	$I_1$	Tolerance μ tol. h6
L1773.30-1550	30	1550	+0,-13
L1773.30-1530	30	1600	+0,-13
L1773.30-1650	30	1650	+0,-13
L1773.30-1700	30	1700	+0,-13
L1773.30-1750	30	1750	+0,-13
L1773.30-1800	30	1800	+0,-13
L1773.30-1850	30	1850	+0,-13
L1773.30-1900	30	1900	+0,-13
L1773.30-1950	30	1950 2000	+0,-13
L1773.30-2000 L1773.30-2050	30 30	2000	+0,-13 +0,-13
L1773.30-2030 L1773.30-2100	30	2100	+0,-13
L1773.30-2150	30	2150	+0,-13
L1773.30-2200	30	2200	+0,-13
L1773.30-2250	30	2250	+0,-13
L1773.30-2300	30	2300	+0,-13
L1773.30-2350	30	2350	+0,-13
L1773.30-2400	30	2400	+0,-13
L1773.30-2450	30	2450	+0,-13
L1773.30-2500 L1773.30-2550	30 30	2500 2550	+0,-13 +0,-13
L1773.30-2600	30	2600	+0,-13
L1773.30-2650	30	2650	+0,-13
L1773.30-2700	30	2700	+0,-13
L1773.30-2750	30	2750	+0,-13
L1773.30-2800	30	2800	+0,-13
L1773.30-2850	30	2850	+0,-13
L1773.30-2900	30	2900	+0,-13
L1773.30-2950	30	2950	+0,-13
L1773.30-3000 L1773.30-3050	30 30	3000 3050	+0,-13
L1773.30-3050 L1773.30-3100	30	3100	+0,-13 +0,-13
L1773.30-3150	30	3150	+0,-13
L1773.30-3200	30	3200	+0,-13
L1773.30-3250	30	3250	+0,-13
L1773.30-3300	30	3300	+0,-13
L1773.30-3350	30	3350	+0,-13
L1773.30-3400	30	3400	+0,-13
L1773.30-3450 L1773.30-3500	30 30	3450 3500	+0,-13 +0,-13
L1773.30-3550	30	3550	+0,-13
L1773.30-3550	30	3600	+0,-13
L1773.30-3650	30	3650	+0,-13
L1773.30-3700	30	3700	+0,-13
L1773.30-3750	30	3750	+0,-13
L1773.30-3800	30	3800	+0,-13
L1773.30-3850	30	3850	+0,-13
L1773.30-3900	30	3900	+0,-13
L1773.30-3950 L1773.30-4000	30 30	3950 4000	+0,-13 +0,-13
L1773.30-4000 L1773.30-4050	30	4000	+0,-13
L1773.30-4030	30	4100	+0,-13
L1773.30-4150	30	4150	+0,-13
L1773.30-4200	30	4200	+0,-13
L1773.30-4250	30	4250	+0,-13
L1773.30-4300	30	4300	+0,-13
L1773.30-4350	30	4350	+0,-13
L1773.30-4400 L1773.30-4450	30 30	4400 4450	+0,-13 +0, 13
L1773.30-4450 L1773.30-4500	30	4450 4500	+0,-13 +0,-13
L1773.30-4550	30	4550	+0,-13
L1773.30-4600	30	4600	+0,-13
L1773.30-4650	30	4650	+0,-13
L1773.30-4700	30	4700	+0,-13
L1773.30-4750	30	4750	+0,-13
L1773.30-4800	30	4800	+0,-13
L1773.30-4850	30	4850	+0,-13
L1773.30-4900	30	4900	+0,-13



## 30Ø Stainless AISI 303 Shafts

# **Linear Shaft**

Order No.	$d_1$	$I_1$	Tolerance µ tol. h6
L1773.30-4950	30	4950	+0,-13
L1773.30-5000	30	5000	+0,-13
L1773.30-5050	30	5050	+0,-13
L1773.30-5100	30	5100	+0,-13
L1773.30-5150	30	5150	+0,-13
L1773.30-5200	30	5200	+0,-13
L1773.30-5250	30	5250	+0,-13
L1773.30-5300	30	5300	+0,-13
L1773.30-5350	30	5350	+0,-13
L1773.30-5400	30	5400	+0,-13
L1773.30-5450	30	5450	+0,-13
L1773.30-5500	30	5500	+0,-13
L1773.30-5550	30	5550	+0,-13
L1773.30-5600	30	5600	+0,-13
L1773.30-5650	30	5650	+0,-13
L1773.30-5700	30	5700	+0,-13
L1773.30-5750	30	5750	+0,-13
L1773.30-5800	30	5800	+0,-13
L1773.30-5850	30	5850	+0,-13
L1773.30-5900	30	5900	+0,-13
L1773.30-5950	30	5950	+0,-13
L1773.30-6000	30	6000	+0,-13



#### **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<sub>c</sub>. 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**

**Overview** 

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



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