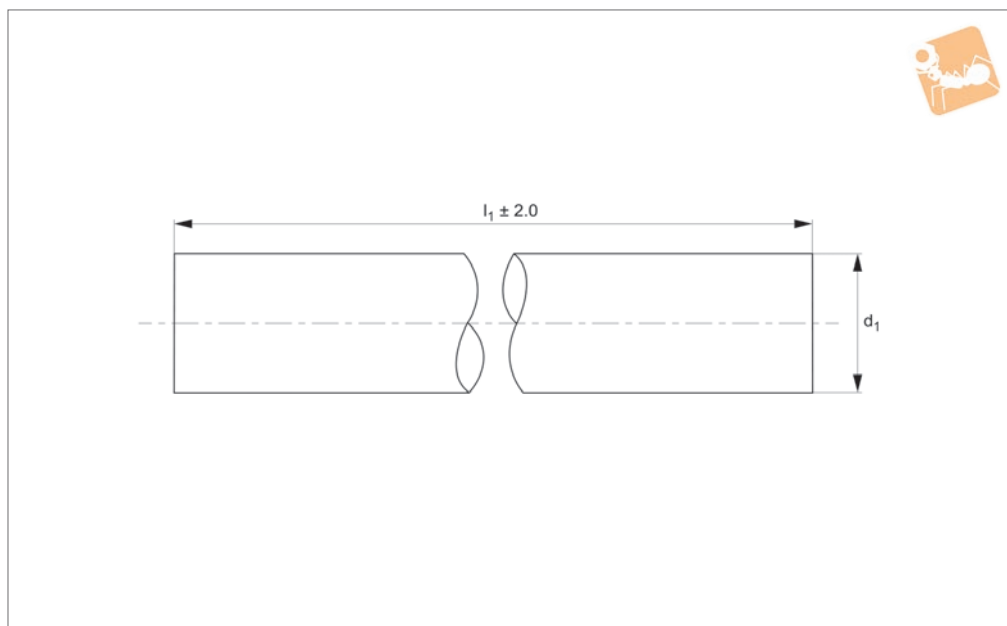




# 40Ø Stainless AISI 316 Shafts

soft

## Linear Shaft Bars



**L1774.40**

LINEAR SHAFT BARS

### Material

Stainless steel (AISI 316, A4). Surface finish 0.3-0.6µ Ra, ground and polished to 8-12 cla.

Yield stress: >205 N/mm<sup>2</sup>, tensile strength: >515 N/mm<sup>2</sup>.

### Technical Notes

Tolerance, h6 standard, other tolerances

on request.

Straightness 0,1mm/m.

### Tips

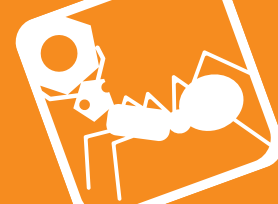
Modifications, drilled and tapped holes, circlip grooves, special coatings etc. available.

Shafts lengths are cut to typically ± 2mm.

To be used with ceramic or other bearings

not containing hardened ball bearings.

Order No.	d <sub>1</sub> tol. h6	l <sub>1</sub>	Tolerance µ tol. h6	Depth of hardness
L1774.40-0100	40	100	+0,-16	3.5
L1774.40-0150	40	150	+0,-16	3.5
L1774.40-0200	40	200	+0,-16	3.5
L1774.40-0250	40	250	+0,-16	3.5
L1774.40-0300	40	300	+0,-16	3.5
L1774.40-0350	40	350	+0,-16	3.5
L1774.40-0400	40	400	+0,-16	3.5
L1774.40-0450	40	450	+0,-16	3.5
L1774.40-0500	40	500	+0,-16	3.5
L1774.40-0550	40	550	+0,-16	3.5
L1774.40-0600	40	600	+0,-16	3.5
L1774.40-0650	40	650	+0,-16	3.5
L1774.40-0700	40	700	+0,-16	3.5
L1774.40-0750	40	750	+0,-16	3.5
L1774.40-0800	40	800	+0,-16	3.5
L1774.40-0850	40	850	+0,-16	3.5
L1774.40-0900	40	900	+0,-16	3.5
L1774.40-0950	40	950	+0,-16	3.5
L1774.40-1000	40	1000	+0,-16	3.5
L1774.40-1050	40	1050	+0,-16	3.5
L1774.40-1100	40	1100	+0,-16	3.5
L1774.40-1150	40	1150	+0,-16	3.5
L1774.40-1200	40	1200	+0,-16	3.5
L1774.40-1250	40	1250	+0,-16	3.5
L1774.40-1300	40	1300	+0,-16	3.5
L1774.40-1350	40	1350	+0,-16	3.5
L1774.40-1400	40	1400	+0,-16	3.5
L1774.40-1450	40	1450	+0,-16	3.5
L1774.40-1500	40	1500	+0,-16	3.5



Order No.	d <sub>1</sub> tol. h6	l <sub>1</sub>	Tolerance μ tol. h6	Depth of hardness
L1774.40-1550	40	1550	+0,-16	3.5
L1774.40-1600	40	1600	+0,-16	3.5
L1774.40-1650	40	1650	+0,-16	3.5
L1774.40-1700	40	1700	+0,-16	3.5
L1774.40-1750	40	1750	+0,-16	3.5
L1774.40-1800	40	1800	+0,-16	3.5
L1774.40-1850	40	1850	+0,-16	3.5
L1774.40-1900	40	1900	+0,-16	3.5
L1774.40-1950	40	1950	+0,-16	3.5
L1774.40-2000	40	2000	+0,-16	3.5
L1774.40-2050	40	2050	+0,-16	3.5
L1774.40-2100	40	2100	+0,-16	3.5
L1774.40-2150	40	2150	+0,-16	3.5
L1774.40-2200	40	2200	+0,-16	3.5
L1774.40-2250	40	2250	+0,-16	3.5
L1774.40-2300	40	2300	+0,-16	3.5
L1774.40-2350	40	2350	+0,-16	3.5
L1774.40-2400	40	2400	+0,-16	3.5
L1774.40-2450	40	2450	+0,-16	3.5
L1774.40-2500	40	2500	+0,-16	3.5
L1774.40-2550	40	2550	+0,-16	3.5
L1774.40-2600	40	2600	+0,-16	3.5
L1774.40-2650	40	2650	+0,-16	3.5
L1774.40-2700	40	2700	+0,-16	3.5
L1774.40-2750	40	2750	+0,-16	3.5
L1774.40-2800	40	2800	+0,-16	3.5
L1774.40-2850	40	2850	+0,-16	3.5
L1774.40-2900	40	2900	+0,-16	3.5
L1774.40-2950	40	2950	+0,-16	3.5
L1774.40-3000	40	3000	+0,-16	3.5
L1774.40-3050	40	3050	+0,-16	3.5
L1774.40-3100	40	3100	+0,-16	3.5
L1774.40-3150	40	3150	+0,-16	3.5
L1774.40-3200	40	3200	+0,-16	3.5
L1774.40-3250	40	3250	+0,-16	3.5
L1774.40-3300	40	3300	+0,-16	3.5
L1774.40-3350	40	3350	+0,-16	3.5
L1774.40-3400	40	3400	+0,-16	3.5
L1774.40-3450	40	3450	+0,-16	3.5
L1774.40-3500	40	3500	+0,-16	3.5
L1774.40-3550	40	3550	+0,-16	3.5
L1774.40-3600	40	3600	+0,-16	3.5
L1774.40-3650	40	3650	+0,-16	3.5
L1774.40-3700	40	3700	+0,-16	3.5
L1774.40-3750	40	3750	+0,-16	3.5
L1774.40-3800	40	3800	+0,-16	3.5
L1774.40-3850	40	3850	+0,-16	3.5
L1774.40-3900	40	3900	+0,-16	3.5
L1774.40-3950	40	3950	+0,-16	3.5
L1774.40-4000	40	4000	+0,-16	3.5
L1774.40-4050	40	4050	+0,-16	3.5
L1774.40-4100	40	4100	+0,-16	3.5
L1774.40-4150	40	4150	+0,-16	3.5
L1774.40-4200	40	4200	+0,-16	3.5
L1774.40-4250	40	4250	+0,-16	3.5
L1774.40-4300	40	4300	+0,-16	3.5
L1774.40-4350	40	4350	+0,-16	3.5
L1774.40-4400	40	4400	+0,-16	3.5
L1774.40-4450	40	4450	+0,-16	3.5
L1774.40-4500	40	4500	+0,-16	3.5
L1774.40-4550	40	4550	+0,-16	3.5
L1774.40-4600	40	4600	+0,-16	3.5
L1774.40-4650	40	4650	+0,-16	3.5
L1774.40-4700	40	4700	+0,-16	3.5
L1774.40-4750	40	4750	+0,-16	3.5
L1774.40-4800	40	4800	+0,-16	3.5
L1774.40-4850	40	4850	+0,-16	3.5
L1774.40-4900	40	4900	+0,-16	3.5



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## Linear Shaft Bars

Order No.	d <sub>1</sub> tol. h6	l <sub>1</sub>	Tolerance μ tol. h6	Depth of hardness
L1774.40-4950	40	4950	+0,-16	3.5
L1774.40-5000	40	5000	+0,-16	3.5
L1774.40-5050	40	5050	+0,-16	3.5
L1774.40-5100	40	5100	+0,-16	3.5
L1774.40-5150	40	5150	+0,-16	3.5
L1774.40-5200	40	5200	+0,-16	3.5
L1774.40-5250	40	5250	+0,-16	3.5
L1774.40-5300	40	5300	+0,-16	3.5
L1774.40-5350	40	5350	+0,-16	3.5
L1774.40-5400	40	5400	+0,-16	3.5
L1774.40-5450	40	5450	+0,-16	3.5
L1774.40-5500	40	5500	+0,-16	3.5
L1774.40-5550	40	5550	+0,-16	3.5
L1774.40-5600	40	5600	+0,-16	3.5
L1774.40-5650	40	5650	+0,-16	3.5
L1774.40-5700	40	5700	+0,-16	3.5
L1774.40-5750	40	5750	+0,-16	3.5
L1774.40-5800	40	5800	+0,-16	3.5
L1774.40-5850	40	5850	+0,-16	3.5
L1774.40-5900	40	5900	+0,-16	3.5
L1774.40-5950	40	5950	+0,-16	3.5
L1774.40-6000	40	6000	+0,-16	3.5

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<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, 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 Automation Components

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