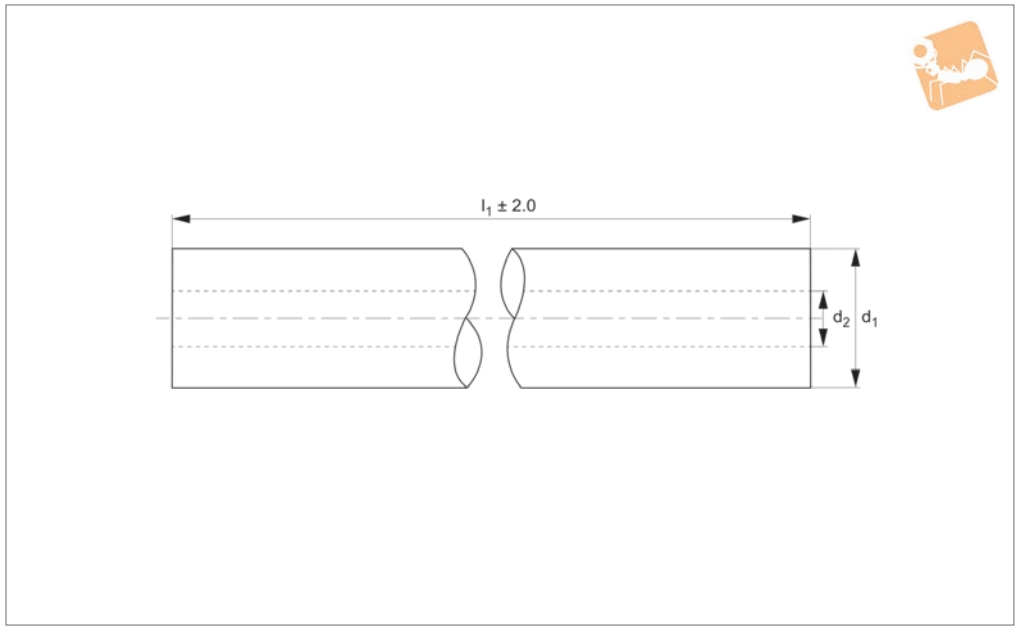
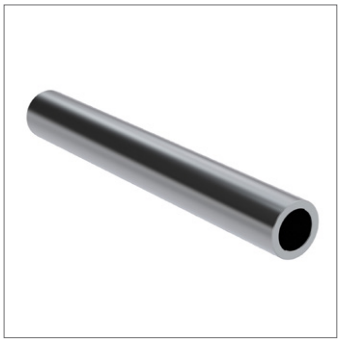




L1771.25

Material
Carbon steel (C60), surface hardness 60-65 HRC. Surface finish 0.3-0.6µ Ra, ground and polished to 8-12 cla.

Technical Notes
Used in linear bearing and guideway systems where weight reduction is important.
Tolerance, h6 standard, special tolerances upon request.
Suitable for use with linear bearings.
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	d_2	Depth of hardness min.
L1771.25-0100	25	100	15	0.4
L1771.25-0150	25	150	15	0.4
L1771.25-0200	25	200	15	0.4
L1771.25-0250	25	250	15	0.4
L1771.25-0300	25	300	15	0.4
L1771.25-0350	25	350	15	0.4
L1771.25-0400	25	400	15	0.4
L1771.25-0450	25	450	15	0.4
L1771.25-0500	25	500	15	0.4
L1771.25-0550	25	550	15	0.4
L1771.25-0600	25	600	15	0.4
L1771.25-0650	25	650	15	0.4
L1771.25-0700	25	700	15	0.4
L1771.25-0750	25	750	15	0.4
L1771.25-0800	25	800	15	0.4
L1771.25-0850	25	850	15	0.4
L1771.25-0900	25	900	15	0.4
L1771.25-0950	25	950	15	0.4
L1771.25-1000	25	1000	15	0.4
L1771.25-1050	25	1050	15	0.4
L1771.25-1100	25	1100	15	0.4
L1771.25-1150	25	1150	15	0.4
L1771.25-1200	25	1200	15	0.4
L1771.25-1250	25	1250	15	0.4
L1771.25-1300	25	1300	15	0.4
L1771.25-1350	25	1350	15	0.4
L1771.25-1400	25	1400	15	0.4
L1771.25-1450	25	1450	15	0.4
L1771.25-1500	25	1500	15	0.4
L1771.25-1550	25	1550	15	0.4
L1771.25-1600	25	1600	15	0.4

25Ø Hardened Hollow Shafts
for linear bearings

Order No.	d_1 tol. h6	l_1	d_2	Depth of hardness min.
L1771.25-1650	25	1650	15	0.4
L1771.25-1700	25	1700	15	0.4
L1771.25-1750	25	1750	15	0.4
L1771.25-1800	25	1800	15	0.4
L1771.25-1850	25	1850	15	0.4
L1771.25-1900	25	1900	15	0.4
L1771.25-1950	25	1950	15	0.4
L1771.25-2000	25	2000	15	0.4
L1771.25-2050	25	2050	15	0.4
L1771.25-2100	25	2100	15	0.4
L1771.25-2150	25	2150	15	0.4
L1771.25-2200	25	2200	15	0.4
L1771.25-2250	25	2250	15	0.4
L1771.25-2300	25	2300	15	0.4
L1771.25-2350	25	2350	15	0.4
L1771.25-2400	25	2400	15	0.4
L1771.25-2450	25	2450	15	0.4
L1771.25-2500	25	2500	15	0.4
L1771.25-2550	25	2550	15	0.4
L1771.25-2600	25	2600	15	0.4
L1771.25-2650	25	2650	15	0.4
L1771.25-2700	25	2700	15	0.4
L1771.25-2750	25	2750	15	0.4
L1771.25-2800	25	2800	15	0.4
L1771.25-2850	25	2850	15	0.4
L1771.25-2900	25	2900	15	0.4
L1771.25-2950	25	2950	15	0.4
L1771.25-3000	25	3000	15	0.4
L1771.25-3050	25	3050	15	0.4
L1771.25-3100	25	3100	15	0.4
L1771.25-3150	25	3150	15	0.4
L1771.25-3200	25	3200	15	0.4
L1771.25-3250	25	3250	15	0.4
L1771.25-3300	25	3300	15	0.4
L1771.25-3350	25	3350	15	0.4
L1771.25-3400	25	3400	15	0.4
L1771.25-3450	25	3450	15	0.4
L1771.25-3500	25	3500	15	0.4
L1771.25-3550	25	3550	15	0.4
L1771.25-3600	25	3600	15	0.4
L1771.25-3650	25	3650	15	0.4
L1771.25-3700	25	3700	15	0.4
L1771.25-3750	25	3750	15	0.4
L1771.25-3800	25	3800	15	0.4
L1771.25-3850	25	3850	15	0.4
L1771.25-3900	25	3900	15	0.4
L1771.25-3950	25	3950	15	0.4
L1771.25-4000	25	4000	15	0.4
L1771.25-4050	25	4050	15	0.4
L1771.25-4100	25	4100	15	0.4
L1771.25-4150	25	4150	15	0.4
L1771.25-4200	25	4200	15	0.4
L1771.25-4250	25	4250	15	0.4
L1771.25-4300	25	4300	15	0.4
L1771.25-4350	25	4350	15	0.4
L1771.25-4400	25	4400	15	0.4
L1771.25-4450	25	4450	15	0.4
L1771.25-4500	25	4500	15	0.4
L1771.25-4550	25	4550	15	0.4
L1771.25-4600	25	4600	15	0.4
L1771.25-4650	25	4650	15	0.4
L1771.25-4700	25	4700	15	0.4
L1771.25-4750	25	4750	15	0.4
L1771.25-4800	25	4800	15	0.4
L1771.25-4850	25	4850	15	0.4
L1771.25-4900	25	4900	15	0.4
L1771.25-4950	25	4950	15	0.4
L1771.25-5000	25	5000	15	0.4

Order No.	d_1 tol. h6	l_1	d_2	Depth of hardness min.
L1771.25-5050	25	5050	15	0.4
L1771.25-5100	25	5100	15	0.4
L1771.25-5150	25	5150	15	0.4
L1771.25-5200	25	5200	15	0.4
L1771.25-5250	25	5250	15	0.4
L1771.25-5300	25	5300	15	0.4
L1771.25-5350	25	5350	15	0.4
L1771.25-5400	25	5400	15	0.4
L1771.25-5450	25	5450	15	0.4
L1771.25-5500	25	5500	15	0.4
L1771.25-5550	25	5550	15	0.4
L1771.25-5600	25	5600	15	0.4
L1771.25-5650	25	5650	15	0.4
L1771.25-5700	25	5700	15	0.4
L1771.25-5750	25	5750	15	0.4
L1771.25-5800	25	5800	15	0.4
L1771.25-5850	25	5850	15	0.4
L1771.25-5900	25	5900	15	0.4
L1771.25-5950	25	5950	15	0.4
L1771.25-6000	25	6000	15	0.4

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

Automotion AN ESSENTRA COMPANY
0333 207 4498
sales@automotioncomponents.co.uk

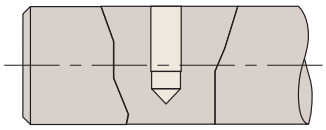
Technical Information

Shaft bar machining

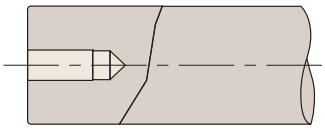
As well as standard cut to length shafting, Automotion can offer many specials including imperial shafts, different tolerances and non-standard diameters.

We can also machine shafts to your requirements so if you have a specific requirement, please contact our Sales team. Below are examples of just some of the machining we can do to shafting on a quick turnaround.

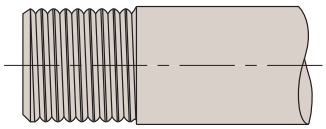
Drilled and tapped radial hole



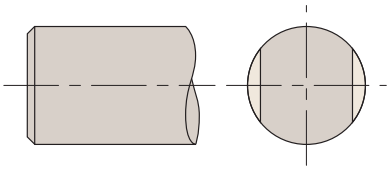
Drilled and tapped coaxial hole



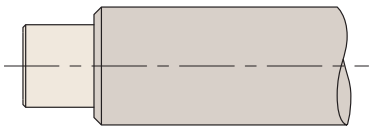
Threaded diameters



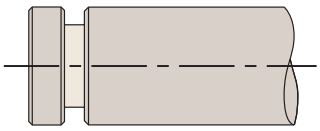
Flats



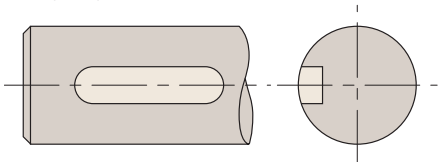
Reduced diameter



Circlip groove



Keyways



Linear Shafts from Automotion Components

ov-linear-shafts-machining-lnh - Updated - 28-02-2023