

HYDRAULIC CYLINDER TUBE – ST 52 & ST 52.3

Hydraulic Cylinder Tube ST52 and ST52.3 with excellent machinability and weldability. Supplied seamless or welded, cold drawn & stress relieved (BK+S), with yield strength over 520 MPa. The inside diameter is honed and oiled with the tube ends capped for protection.

Typical Applications:

Hydraulic and pneumatic cylinders for mining, agricultural and farm machinery, hoists, automotive and transport lifting equipment, waste disposal transport, food processing equipment, mechanical tools and equipment, compressors and earth moving equipment etc.

Machinability:

Excellent machinability in the BK+S (as supplied) condition

Welding: by any of the standard welding processes.

Welding procedure:

Low carbon electrodes similar to material spec are recommended. Pre-heat or post-heat not required.

Welding details for guidance only

Typical Chemical Analysis

Carbon	0.20%
Silicon	0.50%
Manganese	1.50%
Phosphorus	0.050% max
Sulphur	0.050% max

Related specifications:

DIN 2391-2	1.0580	ST 52
DIN 2393 & 2394	1.0570	ST 52-3
EN10025-1994	1.0570	S355

Mechanical Requirements: BK+S

Yield Strength	520 Mpa Min
Tensile Strength	600 Mpa Min
Elongation	14% min

Tolerance O/D: Seamless

Under 40mm	+/- 0.2mm
40mm to 100mm	+/- 0.3mm
Over 100mm	+/- 0.5mm

Tolerance O/D: Welded

To Din 2393 and 2394

Straightness: 1 / 1000

Tolerance I/D: Honed.

Calculated by dividing I/D by W/T

If under 20	ISO H8
From 20 to under 25	ISO H9
From 25 to 28	ISO H10
Over 28	ISO H11
Roughness: 0.30 micron RA max	