

SPECIFICATIONS

TCC LTP

Widely used in production, process measurement and photovoltaic in particular for Asia-Pacific and US markets



1. SURFACES QUALITIES

Tubes and fittings:	Inner surface	Outer surface
■ TCC ltp	Ra _{avg.} ≤ 20 µin (0,50 µm)	Ra _{avg.} ≤ 40 µin (1.0 µm)

Pipe and pipe fittings:	Inner surface	Outer surface
■ TCC ltp	Ra _{avg.} ≤ 32 µin (0,80 µm)	Ra _{avg.} ≤ 40 µin (1.0 µm)

Additional notes:

- The Ra value in the cold worked area of fittings (inner and outer surface) and on the surface of circumferential welds is not defined. For dimensions OD ≤ 3/8" (5.00 mm) roughness is not measured.
- TCC (bf): Cleaning and test procedure ASTM A 632, S3 and ASTM G93 – level D.

2. MATERIALS

■ TCC ltp	SUS 316LTP acc. to JIS G3459, SEMI F 20 and ASTM A 269 / A 632 for OD tubing and A-Size
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Hardness equivalent to:

- max. 180 HV* according to DIN EN ISO 6507-1
- max. 90 HRB* according to DIN EN ISO 6508-1
- * comparable to ASTM E-384 (HV) and ASTM E 18-22 (HRB)

3. DIMENSIONS

Tubes and fittings:	Imperial according to ASTM A269 / A270 / A632	
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OD x WT:	1/8" x 0.022" to 6" x 0.109"	3.18 mm x 0.56 mm to 152.4 mm x 2.77 mm
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Tubes and fittings:	A-Size according to JIS G 3459	
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Schedule Number 5S 6A – 300A (10.50 x 1.00mm – 318.00 x 4.00mm)
Schedule Number 10S 6A – 300A (10.50 x 1.20mm – 318.00 x 4.50mm)

Manufacturing process:	Seamless Tubes ≤ 1" OD (25.40 mm)	Welded tubes ≥ 1 1/2" OD (38.10 mm)
	Seamless Tubes ≤ 15A OD (21.70 mm)	Welded tubes ≥ 20A OD (27.20 mm)

Pipes:	Straight pipes as per ASTM A312 Schedule 10S	
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Dimensions:	NPS 8 to NPS 24 Schedule 10S	219.08 x 3.76 mm to 609.60 mm x 6.35 mm
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Manufacturing process:	Welded Tubes	
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4. QUALITY AND TEST PROCEDURES



Verification of basic test certificate



Visual inspection



Endoscopic inspection of bright finished tubes



Verification of dimensions



Roughness measurements

5. TECHNICAL TERMS OF DELIVERY

Tubes and fittings are prepared for orbital welding. Different end preparations may be agreed on.

Tubes

acc. to ASTM A 269 / A 632 / A 312 (Pipes), DIN EN 10217-7/ 10216-5 / JIS G 3459 with a length of 19.35 ft - 19.98 ft (5900 - 6090 mm), max. 10% short lengths of min. 9.84 ft (3000 mm)

Tube fitting components

Manufacturing and tolerances according to DIN11865, JIS G 3459, ASTM A 403 (Pipes) and ASME B16.9 (Pipes).

Machined components

Prematerial according to JIS G 4303 and ASTM A 479

Marking always with

DOCKWEILER / DW-Number / Dimension / Material / Heat number

Tubes, pipes and fittings are permanently marked. The marking provides all necessary information to trace back the heat number and the material grade.

6. DOCUMENTATION, PACKAGING AND SHIPPING

Documentation

The documentation result by the Dockweiler Inspection Certificate 3.1 according to DIN EN 10204. Optional online documentation WebCert.

Packaging

Bright finished tubes and fittings are sealed with white/transparent PE caps and packaged in PE foil. The batch label contains the information TCC ltp.

Shipping

Delivery in tubular container or wooden crate, fittings in strong cardboard box with shock absorbing filler.