

Material	Welded or seamless austenitic stainless steel tubes, depending on outer diameter (see dimensions). 1.4435 BN2 / UNS S31603 (316L), δ -Ferrite content of the basic material and longitudinal weld $\leq 0.5\%$. 1.4404 / UNS S31603 (316L), 316L / UNS S31603
Dimensions	Stock dimensions: Imperial: 1/4" (6.35 x 0.89 mm) to 6" (152.40 x 2.77 mm) ISO: 13.50 x 1.60 mm to 219.10 x 2.60 mm Metric: 6.00 x 1.00 mm to 154.00 x 2.00 mm Further dimensions on demand
Technical terms of delivery Tubes Length Fittings Tube components: Machined components: Tolerances Ends	Acc. to DIN 11865 / 11866, ASTM A 269 / A 270, DIN EN 10217-7 / 10216-5 5900 - 6090 mm (max. 10% short lengths possible) Prematerial acc. to ASTM A 269 / A 270, DIN EN 10217-7 / 10216-5 Prematerial acc. to ASTM A 479, DIN EN 10088-3, DIN 17440 Acc. to ASTM A 269 / A 270 (pharmaceutical Tubes) or DIN EN ISO 1127 - D4/T3 Tubes and fittings are prepared for orbital welding
Surface options Tubes and Fittings Fittings	bright finish (H3)* anodic clean (H3)* electropolished (HE3)* Inner surface : Ra $\leq 0.80 \mu\text{m}$ (32 μin) Ra $\leq 0.80 \mu\text{m}$ (32 μin) Ra $\leq 0.60 \mu\text{m}$ (24 μin) Outer surface: Ra $\leq 0.80 \mu\text{m}$ (32 μin) Ra value in the cold worked area of fittings (inner and outer surface) as well as on the longitudinal weld seam of electropolished tubes and fittings is not defined Specified roughness of total surface available on request
Inner surface treatment Tubes bf Tubes ac Tubes ep Fittings bf Fittings ac Fittings ep	Cleaning and test procedure ASTM A 632, S3 Anodic cleaning procedure Spec. HE 175 3VNS Electropolishing procedure Spec. HE 175 3VN Cleaning and test procedure ASTM A 632, S3 Anodic cleaning procedure Spec. HE 111 3VNS Electropolishing procedure Spec. HE 111 3VN
Hardness	Max. 180 HV / 90 HRB
Test procedures	<ul style="list-style-type: none"> • Verification of basic test certificate • Visual control • Endoscopic inspection of bright finished tubes • Verification of dimensions • Roughness measurements
Marking Tubes Fittings	Permanently marked Needle marking
Information	<ul style="list-style-type: none"> • DOCKWEILER • DW number • Dimensions • Material • Heat number
Documentation	Inspection certificate 3.1 according to DIN EN 10204 for the prematerial
Packing and delivery	Bright finished tubes and fittings are closed with transparent PE caps (anodically cleaned and electropolished tubes and fittings with PE/PA squares), sleeved and sealed in PE and marked with a white sticker „weldtron“. Electropolished parts with yellow caps and with a white sticker „weldtron ep“. Delivery of tubes in tubular container or wooden crate, fittings in strong cardboard box with shock-absorbing filler.

* Hygienic class acc. to DIN 11866 / 11865 / 11864