

Stainless Steels

Product Name Classification AWS Classification EN Classification DIN	Mechanical Properties Typical Values	Size (mm)	Approvals	Characteristics and Applications
LOTUS-32	UTS: 700 - 800 MPa El: 20 - 25%	2.50 x 350 3.15 x 350 4.0 x 350 5.0 x 350	-	Weld deposit contains 40-50 % ferrite. Controlled grain structure. Superior crack resistance and ductile. Excellent weldability with all stainless steels with known & unknown composition. Good resistance to corrosion, friction, heat and impact. Applications: Tools, dies, gears, pinions, shafts, joining dissimilar steels, machinable build up and overlay.
LOTUS-39	UTS: 550 - 650 MPa El: 30 - 42%	2.50 x 350 3.15 x 350 4.0 x 350 5.0 x 350	-	Ideal for oxidation and heat resistance up to 1200°C. Suitable for welding of unknown composition steel and AISI 309. Dissimilar welding of mild steel, low alloy steel and stainless steel possible. Applications: Heat exchangers, valves, furnace parts, heat treatment plants, tanks and baskets.

Nickel Alloys

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UTP 68H AWS A5.4: E 310-16 EN ISO 3581-A: E 25 20 R 32	UTS: > 550 MPa YS: >350 MPa El: >30% CVN Impact: >47J	2.50 x 350 3.25 x 350 4.00 x 400	-	The rutile coated stick electrode UTP 68 H is suitable for joining and surfacing of heat resistant Cr-, CrSi-, CrAl-, CrNi-steels/cast steels. It is used for operating temperatures up to 1100° C in low sulphur combustion gas. Application fields are in the engineering of furnaces, pipework and fittings. UTP 68 H is weldable in all positions except vertical down. Fine droplet. The surface of the seams is smooth and finely rippled. Easy slag removal free from residues.
UTP 068 HH AWS A5.11: E NiCrFe-3 (mod.) EN ISO 14172: E Ni 6082 (NiCr20Mn3Nb)	UTS: >620 MPa YS: >390 MPa El: >35% CVN Impact: >80J	2.5 x 300 3.2 x 300 4.0 x 350	TÜV	UTP 068 HH is predominantly used for joining identical or similar heat-resistant Ni-base alloys, heat-resistant austenites, such as 2.4817 (LC NiCr15Fe), 1.4876 (X10 NiCrTiAl 32 20), 1.4941 (X8 CrNTi 18 10). Specially used for joining of high carbon containing 25/35 CrNi cast steel to 1.4859 or 1.4876 for petrochemical installations with working temperatures up to 900°C. Furthermore UTP 068 HH can be used for repair welding of hardly weldable steels such as heat-treatable steels or tool steels. Additionally mixed joints of austenitic and ferritic materials with elevated service temperatures can be welded. The welding deposit of UTP 068 HH is hot-cracking-resistant, does not tend to embrittlement and is scale-resistant at high temperatures.
UTP 6222 Mo AWS A5.11: ENiCrMo-3 EN ISO 14172: E Ni 6625 (NiCr22Mo9Nb)	UTS : >760 MPa YS: >450 MPa El: >30% CVN Impact: >75J	2.5 x 300 3.2 x 300 3.2 x 350 4.0 x 350 5.0 x 400	TÜV (No. 03610), DNV, ABS, BV	UTP 6222 Mo is particularly suited for joining and surfacing on nickel alloys, austenitic steels, low temperature nickel steels, austenitic-ferritic-joints and claddings of the same or similar nature, like 2.4856 (NiCr22Mo 9 Nb), 1.4876 (X30 NiCrAlTi 32 20), 1.4529 (X2 NiCrMoCu 25 20 5). The weld metal is heat resistant and suitable for operating temperatures up to 1000 °C. It must be noted that a slight decrease in ductility will occur if prolonged heat treatment is given within the temperature range 600 – 800 °C. Scale-resisting in low-sulphur atmosphere up to 1100 °C. High creep strength.

