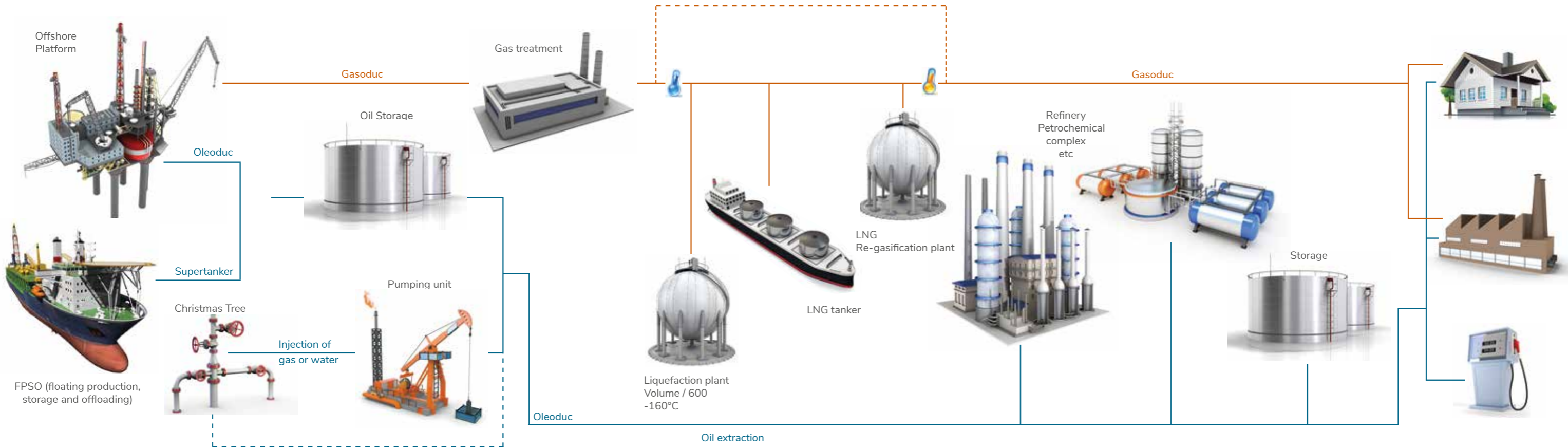




**Oil & Gas Industry
Solutions**

For Welding **Professionals**

Oil and gas application solutions



Drilling - Exploration



Drilling
HARDFACE NICARBW

Exploitation - Production



Pipe joining
ROBOFIL M Ni1 & ROBOFIL M 700

Transportation - Regulation



Wing valve
STELLOY 625-G

Lng - Storage



Orbital welding
GAMMA V 625

Processing - Cladding & Corrosion



Restoration of longitudinal cladding
GAMMA 400

Processing - Temperature & Erosion



OD cladding - 321H
STELLOY 6-G

Processing - Joining



Stainless steel air cooled
Bismuth free 310



Hardbanding
HARDFACE TIC-O



CRA cladded pipes
316L - 317L - 904L - N06625



Ball valve
STELLOY 21-G



304L cryogenic piping
TETRA V 308XL-G



SAW cladding
TUBE S 309L-S + 308L-S



Air injector
STELLOY 6-G or 21-G



Floating head: SAW joining
TUBE S 347H-S



Chord to rack welding
ROBOFIL R 690 +



Small ID pipe cladding
STELLOY 625-G (TIG)



Grit trap
STELLOY 6 TIG



9%Ni steel inner tank (3Gup)
GAMMA V CRYO



Restoration of cladding
TETRA S 309L-G + 347L-G



Hexmetal
TRI S 347-O (No gas)



Furnace cracker
TETRA V 309HT-G

**Success
Through
Innovation**

Nickel Base Alloys

GAMMA / STELLOY Ni

Nickel base consumables have a very wide range of applications.

- Alloy 625 ENiCrFe3
- Alloy C276 ENiCrFe2
- Alloy 59 ENiCrMo3
- Alloy 182 ENiCu7
- Alloy 400 ENiCr3
- Alloy 617 ENiCrMo4

Low alloy steels

ROBOFIL

Coppered tubular cored wires Rutile, Metal cored and Basic.

- Mild steels No moisture pick up
- Cold tough steels Extra low H_{DM}
- High strength steels Good wire feeding
- Creep resistant steels Copper coating

Cobalt Base Alloys

STELLOY Co

STELLOY grade products dedicated to GTAW and GMAW processes

- STELLOY 1 53 HRC
 - STELLOY 6 42 HRC
 - STELLOY 12 45 HRC
 - STELLOY 21 33 HRC
 - STELLOY 25 21 HRC
- c↓ - 38HRC
 c↑ - 44HRC
- ERCCoCr-E
 ERCCoCr-A
 ERCCoCr-B
 ERCCoCr-C

The real value of Welding Alloys Cored Wires: ISO 9001 certified quality system.



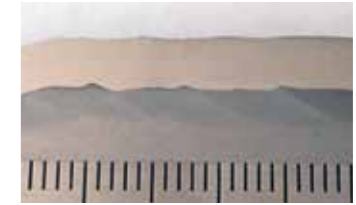
Smart cladding

GAMMA 400

AWS A5.34: ENiCu7T0-4
(classification pending)
EN ISO 12153: T ZNi4060 B M21 3

First basic cored wires with an Alloy 400 chemical analysis.

- Protective slag gives good bead appearance
- High deposition rate
- Low dilution rate
- No risk of cracks (low %Fe)
- Ease of use (DC+ and mixt gas shielding)
- No specific buffer layer needed for cladding applications



Cladding on Carbon steel
GAMMA 400 – low dilution



ID bore cladding in 347H
TUBE S 743-G (one layer)

MONOLAYER REFRACTORY STAINLESS STEEL

- 347H analysis monolayer with controlled dilution → TUBE S 743 - G
- 347H analysis 3mm below the top surface in only one layer
- High quality deposit combined with high productivity



Air nozzle materials – 1.4828 & 1.4893
TETRA V 309HT-G bismuth free

High temperature solutions

BISMUTH FREE

For high temperature processes, it is necessary to control the bismuth contents to <20ppm in order to avoid sensitization and cracking. Welding Alloys has developed cored wires that meet this requirement.

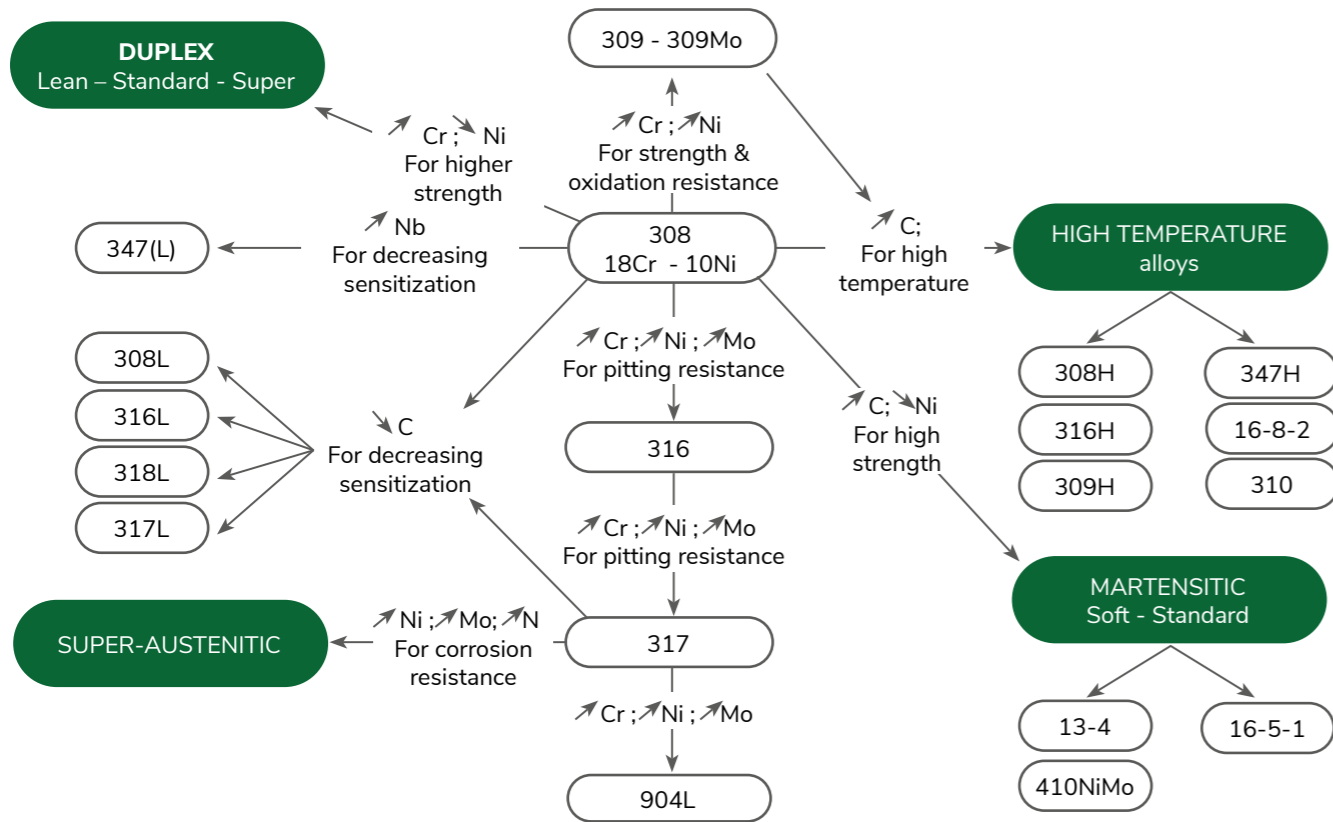
→ 309H ; 308H ; 347H ; 16-8-2 ; 310

EXTREME RESISTANCE TO HOT CRACKING

A full range of high alloyed cored wires dedicated to refractory applications with extreme resistance to cracking.

- GAMMA 4648 ENiCr3 (nearest)
- GAMMA 182 ENiCrFe-3
- TETRA S/V/SB 16-8-2 E16-8-2
- TETRA S/V/SB 310 E310
- TETRA S/V/SB 309HT "253MA"

Stainless Steels TETRA / TUBE S



Sub-arc applications TUBE S

Cored wires, named TUBE S, are used for several processes: GTAW auto, FCAW and SAW. TUBE S wires are dedicated to high alloy steels such as austenitic, super-austenitic, lean duplex, duplex and super-duplex stainless steels.

Can be used for SAW joining and cladding applications.

SAW Joining process	SAW Cladding process
	<ul style="list-style-type: none"> Ease & flexibility of use High deposition rate Easy slag removal Low flux consumption
<ul style="list-style-type: none"> No excessive reinforcement Fewer passes Less risk of defects Less heat input Less distortion 	<ul style="list-style-type: none"> Controlled dilution Perfectly flat bead surface
	<ul style="list-style-type: none"> TUBE S 309TD-S Specific buffer layer High tolerance to dilution (>40%) No risk of cracks
Boost your quality and productivity	



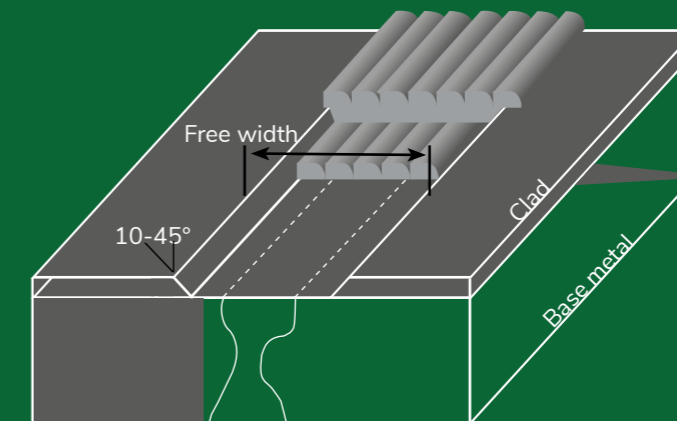
Narrow gap 304L (Thk 80mm)
TUBE S 308L-S



Two-run SAW 316L (Thk 15mm)
TUBE S 316L-S



SAW cladding on 1.25%Cr-0.5%Mo
TUBE S 309L-S + 308L-S



www.welding-alloys.com
contactus@welding-alloys.com



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