



# SAW and ERW pipes

## Pipes for water and oil&gas application

The welded pipes are made of Carbon-Manganese unalloyed or low alloyed steels. The tubular shape is obtained by bending a flat product (plate or strip) in the direction of the width and subsequent welding in the longitudinal direction.

Welding can be performed by **submerged arc welding** process (SAW), with filler metal, or by **high frequency electric resistance welding** process (HFW-ERW), without filler metal.

SAW pipes have diameter from 18" to 56", thickness between 0.248" and 1.5" and length up to 57 feet.

HFW-ERW pipes have diameter from 8" to 20", thickness between 0.157" and 0.5" and length up to 46 feet.

Main applications are **pipelines for oil and gas**

**transmission** (onshore and offshore), **gas distribution systems, water pipelines, circular hollow sections for piling** and other **structural** applications.

Steel grades have yield strength from 245 MPa to 555 MPa and tensile strength from 415 MPa to 625 MPa sometimes even with impact tests at temperatures between -40 °C and +20 °C.

For all uses subject to internal pressure, the pipes are subjected to hydrostatic test with a pressure from 70% to 95% of the yield strength.

The pipes can be supplied both **bare** and **coated**. Coating may be **internal** (using epoxy resins), **external** (3LPE, 3LPP, FBE) or both.

## Facilities

	SAW Pipes	ERW Pipes
Production lines (nr.):	2	1
Production site:	Taranto	Taranto
Production capability (mt/year):	1.200.000	200.000

## Dimensional ranges

	SAW Pipe Mill	SAW Pipe Mill	ERW Pipe Mill
Diameter	18" (450 mm) ÷ 42" (1050 mm)	30" (750 mm) ÷ 56" (1420 mm)	8" (219 mm) ÷ 20" (500 mm)
Thickness	6.3 mm ÷ 25.4 mm	9.0 mm ÷ 38.1 mm	4.0 mm ÷ 12.7 mm
Max length	12.450 mm	17.500 mm	14.000 mm

## Main reference quality standard

Product description	Standard	Grade
Welded steel tubes for pressure purpose	EN 10217-2 (only HFW) (3) EN 10217-3 (3) EN 10217-5 (only SAW) (3) ASTM A671 Class 10 o 13 (only SAW) ASTM A714 Type E Class 2 (only HFW)	up to P265GH P355N; P355NH P265GH CC 55; 60; 65; 70 Grade I; II; III
Steel pipes for gas pipelines	EN 10208-1 (4) API 5L 46th Edition PSL1 (1) ISO 3183:2018 PSL1	up to L360 GA up to X70 up to L485
Steel pipes for gas and oil long distance transportation	API 5L 46th Edition PSL2 (1) ISO 3183:2018 PSL2 ISO 3183:2018 PSL2E (4) EN 10208-2 (4) CAN CSA Z245.1	up to X80 up to L555 up to L555 up to L555 MB up to Grade 550
Water pipelines	EN 10224 (2) ISO 9330 ASTM A53/ASME SA53 Type E (only HFW) ASTM A134 (only SAW) ASTM A135 (only HFW) ASTM A139 (only SAW)	up to L355 up to TW 500 Grade A; B A36; A283; A285 Grade A; B Grade A; B; C; D; E
Offshore pipelines	DNV OS-F101:2012 Section 7 ISO 3183:2018 PSL 2 + Annex J API 5L 46th Edition PSL2 + Annex J (1)	up to L485 up to L555 up to X80
Hollow sections for structural applications and piling	EN 10219 (2) ASTM A252	up to S460 Grade 1; 2; 3

- On request, different qualities from above can be supplied or in accordance with the customer's technical specifications.

### Supply conditions:

- (1) It is possible to provide the application of the "API Monogram" (American Petroleum Institute);
- (2) It is possible to provide the application of the "CE Mark" and relevant Declaration of Performance (DoP);
- (3) Pipes suitable for operating in pressure equipment in accordance with the European Pressure Equipment Directive (PED);
- (4) It is possible to issue a declaration on suitability for gas transportation, pursuant to Ministerial Decree 17/04/2008 (mandatory for such use in Italy).