

CARBON STEEL · WELDED PIPES · 03

ERW / HFW Welded Steel Pipes

High-frequency induction & electric-resistance welded (HFI / ERW / EFW) precision line pipe for oil, natural gas, water, HVAC and structural service — supplied to API 5L & EN ISO 3183.

ERW

EFW

HFW

HFI

60.3–406.4 mm

OUTSIDE Ø · 2"–16"

2.1–12.7 mm

WALL THICKNESS

≤ 16 m

PIPE LENGTH

X80 max

API 5L / PSL2 GRADE

ERW / HFW Welded Steel Pipes

— 01 / OVERVIEW

Electric-resistance / high-frequency welded pipe is formed from steel strip and joined by a longitudinal **HFI/ERW seam** — no filler metal — then the internal and external weld bead is trimmed flush. The process gives **precise dimensional tolerances** and high-capacity output, making it the economical choice for medium-diameter transmission, distribution and structural applications.

FIELDS OF APPLICATION

- Oil, natural gas & water transmission / distribution lines
- Flammable & non-flammable fluid conveyance
- Liquid hydrocarbon & pressured-air lines
- Heating, cooling & ventilation (HVAC) piping
- Steel structures & construction elements
- High-temperature water & energy plants
- General engineering & industrial use

PRODUCT RANGE

Outside diameter	60.3 – 406.4 mm · 2"–16"
Wall thickness	2.1 – 12.7 mm · 0.083"–0.500"
Unit length	up to 16 m
Weld type	HFI / ERW longitudinal
Intermediate Ø	76.1 · 139.7 · 159.0 · 165.1 mm
GOST sizes	325 · 377 · 426 mm

MATERIAL GRADES

Standard	Grades supplied
API 5L PSL1	Gr B · X42 · X46 · X52 · X56 · X60 · X65 · X70
API 5L PSL2	X42 · X46 · X52 · X56 · X60 · X65 · X70 · X80
ASTM A53	Grade A · Grade B
EN 10217-1	P235TR1 · P235TR2 · P265TR2
EN 10224	L235 · L275 · L360
ISO 3183	L245NB · L290NB · L360NB
EN 10219-1	S235JRH · S275J0H · S275J2H · S355J0H · S355J2H · S355K2H · S275MH · S355MH · S420MH
GOST 20295	K34 · K38 · K42 · K50 · K52 · K55

HEADLINE CAPABILITY

16"	±0.5%	100%
MAX DIAMETER	TIGHT Ø TOLERANCE	ONLINE WELD NDT

PRODUCTION STANDARDS

EN ISO 3183:2019	API 5L	EN 10217-1	EN 10219-1
EN 10224	ISO 3183	DIN 1626	AWWA C200
			GOST 20295
TS EN 10217-1			

General-purpose / galvanized & threaded ERW water pipe also to TS EN 10255+A1, EN 10224, ASTM A53 / DIN 2440, DIN 2441, BS 1387, ISO 65.

QUALITY SYSTEM & APPROVALS

ISO 9001:2015	API Spec Q1	API 5L Monogram	EN ISO 3834-2
AD 2000 W0/W4 · PED	CE · EN 10219-1		

Coating, Ends & Testing

— 02 / TECHNICAL

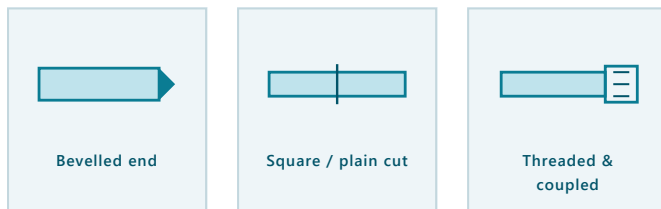
SURFACE PREPARATION & FINISH

Finish	Standard
Hot-dip galvanized	EN 10240 · DIN 2444 · ASTM A53/A90
Primer coated / protective oil	on request
Blast cleaning grade	ISO 8501-1 · 8502-3 · 8503-1
Threading & coupling	TS 10255 · DIN 2999 · ISO 7-1 · BS 21

EXTERNAL COATING & INTERNAL LINING

System	Standard
3-layer PE / PP	EN ISO 21809-1 · DIN 30670/30678
Fusion Bonded Epoxy (FBE)	AWWA C213
Liquid epoxy (ext / int)	AWWA C210 · EN 10289
Flow-coat epoxy (int)	EN 10301
Cement mortar lining	AWWA C205 · EN 10298
Bitumen / coal-tar	DIN 30673 · BS 534

PIPE END PREPARATION



Also: welded-joint and spigot & socket ends. Internal and external weld flash removed for a smooth bore.

NON-DESTRUCTIVE TESTS

- ◆ Eddy-current test
- ◆ Ultrasonic weld-seam test
- ◆ AUT online weld inspection
- ◆ First visual inspection
- ◆ Hydrostatic testing
- ◆ Digital X-ray weld inspection
- ◆ Pipe-end magnetic examination
- ◆ MPI + final visual & dimensional

Ultrasonic weld-seam test on 60.3–406.4 mm (2 $\frac{3}{8}$ "–13 $\frac{3}{8}$ ").

DESTRUCTIVE & LABORATORY TESTS

- ◆ Flattening test
- ◆ Guided bend test
- ◆ Expanding test
- ◆ Tensile test
- ◆ Charpy V-notch impact
- ◆ Hardness test
- ◆ Macro & micro metallography
- ◆ DWTT & CTOD

INSPECTION CERTIFICATES

MTC · EN 10204 3.1

ISO 9712

ISO 11484

ISO/IEC 17025 lab

WHY HFI / ERW

- ◆ Precise, repeatable dimensional tolerances
- ◆ Smooth flush weld — low flow resistance
- ◆ High-capacity, cost-efficient production
- ◆ Full-body & 100% online weld NDT

Dimensional Availability

— 03 / SIZE CHART

— HFW / ERW MANUFACTURING RANGE — OUTSIDE DIAMETER × WALL THICKNESS

HFW / ERW — manufacturing range																		
mm	inch	Wall thickness (mm)																
		2.1	2.6	3.2	3.6	4	4.5	5	5.6	6.4	7.1	7.9	8.7	9.5	10.3	11.1	12.7	
60.3	2"																	
76.1	2½"																	
88.9	3"																	
114.3	4"																	
139.7	5"																	
165.1	6"																	
219.1	8"																	
273.1	10"																	
323.9	12"																	
355.6	14"																	
406.4	16"																	

Standard availability On request — consult mill Intermediate & GOST diameters and other grades produced to order.

HOW TO ORDER

Specify the following when raising an enquiry or purchase order:

1 · Product	HFW / ERW welded pipe
2 · Outside Ø × wall	e.g. 219.1 × 6.4 mm
3 · Grade / standard	e.g. API 5L X52 PSL1
4 · Length	e.g. 12 m · SRL/DRL
5 · Ends	bevel / plain / threaded
6 · Finish / coating	e.g. HDG or 3LPE ext
7 · Certification	EN 10204 3.1

WORKED EXAMPLE

HFW · 219.1 × 6.4 mm

API 5L X52 PSL1 · 12 m

Bevelled ends

3LPE external coating

MTC EN 10204 3.1

Reads as: a high-frequency welded line pipe, 8" outside diameter, 6.4 mm wall, in API 5L grade X52 PSL1, 12 m random length, bevelled ends, 3-layer polyethylene external coating, supplied with a 3.1 mill test certificate.



GET A QUOTATION

HEAD OFFICE

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WHATSAPP

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PRODUCT REFERENCE

YTM-WP-03 · ERW / HFW Welded

CERTIFICATIONS & APPROVALS

ISO 9001:2015	ISO 14001:2015	ISO 45001:2018	API Spec Q1	API 5L Monogram	EN ISO 3834-2	AD 2000 W0/W4 · PED
CE · EN 10219-1	EN 10204 3.1					