

# OIL & GAS INDUSTRY



**INTERNAL  
EPOXY  
COATING**



**3LPE**  
Three Layer  
Polyethylene

**3LPP**  
Three Layer  
Polypropylene

**FBE**  
Fusion Bond  
Epoxy Coating

**EXTERNAL  
EPOXY  
COATING**

**GALVANIZED**

For custom coating pipe, SPINDO can fabricate according to your request specification.

# WATER PIPES



**INTERNAL  
COATING**

**INTERNAL  
EPOXY  
COATING**

**CEMENT  
MORTAR  
LINING**



**EXTERNAL  
COATING**

**3LPE**  
Three Layer  
Polyethylene

**3LPP**  
Three Layer  
Polypropylene

**FBE**  
Fusion Bond  
Epoxy Coating

**EXTERNAL  
EPOXY  
COATING**

**GALVANIZED**

For custom coating pipe, SPINDO can fabricate according to your request specification.

WATER PIPES  
ERW  
HFW



CARBON STEEL PIPES FOR GENERAL APPLICATIONS | **ASTM A53 : 2012 | GRADE A / GRADE B**

NOMINAL DIAMETER		SPECIFIED OUTSIDE DIAMETER	SPECIFIED WALL THICKNESS	NOMINAL WEIGHT PLAIN END	SCHEDULE No
mm	inch				
15	½	21.3	2.77	1.27	40
20	¾	26.7	2.87	1.69	40
25	1	33.4	3.38	2.50	40
32	1¼	42.2	3.56	3.39	40
40	1½	48.3	3.68	4.05	40
50	2	60.3	3.91	5.44	40
65	2½	73.0	5.16	8.63	40
80	3	88.9	5.49	11.29	40
90	3½	101.6	5.74	13.57	40
100	4	114.3	6.02	16.07	40
125	5	141.3	6.55	21.77	40
150	6	168.3	7.11	28.26	40
200	8	219.1	6.35	33.31	20
		219.1	7.04	36.31	30
		219.1	8.18	42.55	40
250	10	273.0	6.35	41.75	20
		273.0	9.27	60.29	40
300	12	323.8	6.35	49.71	20
		323.8	9.52	73.78	STD
		323.8	10.31	79.70	40

CARBON STEEL PIPES FOR PRESSURE SERVICES | **JIS G 3454 : 2012 (STPG)**

SYMBOL OF GRADE	TENSILE STRENGTH kgf/mm <sup>2</sup> (N/mm <sup>2</sup> )	YIELD STRENGTH kgf/mm <sup>2</sup> (N/mm <sup>2</sup> )
STPG 38	38 Min (373 Min)	22 Min (216 Min)
STPG 42	42 Min (412 Min)	25 Min (245 Min)

NOMINAL DIAMETER		SPECIFIED OUTSIDE DIAMETER	SCHEDULE 20		SCHEDULE 40	
			WALL THICKNESS	UNIT MASS	WALL THICKNESS	UNIT MASS
mm	inch	mm	mm	kg/m	mm	kg/m
15	½	21.7	-	-	2.8	1.31
20	¾	27.2	-	-	2.9	1.74
25	1	34.0	-	-	3.4	2.57
32	1¼	42.7	-	-	3.6	3.47
40	1½	48.6	-	-	3.7	4.10
50	2	60.5	3.2	4.52	3.9	5.44
65	2½	76.3	4.5	7.97	5.2	9.12
80	3	89.1	4.5	9.39	5.5	11.3
90	3½	101.6	4.5	10.8	5.7	13.5
100	4	114.3	4.9	13.2	6.0	16.0
125	5	139.8	5.1	16.9	6.6	21.7
150	6	165.2	5.5	21.7	7.1	27.7
200	8	216.3	6.4	33.1	8.2	42.1
250	10	267.4	6.4	41.2	9.3	59.2
300	12	318.5	6.4	49.3	10.3	78.3

Electric Resistance Welded (ERW) or High Frequency Welding (HFW) steel pipes is based on welding in flat sheet rolled into a tube. Through its proven coating process, SPINDO® steel water pipe fulfill various industrial standard.

Pengelasan elektrik (ERW) atau pengelasan elektrik frekwensi tinggi (HFW) untuk pipa baja mengacu pada pengelasan pada lembaran yang digulung menjadi bentuk tabung. Melalui proses pelapisan yang telah teruji, pipa baja SPINDO® memenuhi berbagai standar kelayakan penggunaannya sebagai pipa air.

WATER PIPES  
ERW  
HFW



PIPA BAJA SALURAN AIR DENGAN /  
TANPA LAPISAN SENG | **SNI 0039 : 2013**

Hydrostatic Test	: 50 kgf / cm <sup>2</sup>
Tolerance on Wall Thickness	: +10% & -8% (TIPIS*) : +15% & -10% (MEDIUM*) : +15% & -12.5% (TEBAL*)
Standard Length	: 6 m / pc or 12 m / pc

UKURAN	DIAMETER DALAM NOMINAL		DIAMETER LUAR	TEBAL	BERAT NOMINAL PIPA TANPA LAPIS SENG SEBELUM DIULIR
	mm	inch			
TIPIS*	15	½	21.4	2.0	0.947
	20	¾	26.8	2.3	1.38
	25	1	33.6	2.6	1.98
	32	1¼	42.3	2.6	2.54
	40	1½	48.2	2.9	3.23
	50	2	60.2	2.9	4.08
	65	2½	76.0	3.2	5.71
	80	3	88.8	3.2	6.72
	100	4	114.1	3.6	9.75
	125	5	139.7	3.6	12.08
	150	6	165.1	3.6	14.34
	200	8	219.1	5.0	26.40
MEDIUM*	15	½	21.3	2.6	1.21
	20	¾	26.9	2.6	1.56
	25	1	33.7	3.2	2.41
	32	1¼	42.4	3.2	3.10
	40	1½	48.3	3.2	3.56
	50	2	60.3	3.6	5.03
	65	2½	76.1	3.6	6.42
	80	3	88.9	4.0	8.36
	100	4	114.3	4.5	12.2
	125	5	139.7	5.0	16.6
	150	6	165.1	5.0	19.8
	200	8	219.1	6.4	33.32
TEBAL*	15	½	21.3	3.2	1.44
	20	¾	26.8	3.2	1.87
	25	1	33.8	4.0	2.94
	32	1¼	42.5	4.0	3.80
	40	1½	48.4	4.0	4.38
	50	2	60.3	4.5	6.19
	65	2½	76.0	4.5	7.93
	80	3	88.8	5.0	10.30
	100	4	114.1	6.0	15.99
	125	5	139.7	6.6	21.92
	150	6	168.3	7.1	28.22
	200	8	219.1	8.2	42.65

\*These terms refers to "Standar Nasional Indonesia (SNI)"



# MALLEABLE IRON PIPE FITTINGS





## MALLEABLE IRON PIPE FITTINGS



**FIG NO. 3**  
(Elbows 90)  
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**FIG NO. 4**  
(Red Elbows 90)  
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**FIG NO. 6**  
(Elbows 45)  
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**FIG NO. 7B**  
(Street Elbows 90)  
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**FIG NO. -**  
(Street Elbows 45)  
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**FIG NO. 13**  
(Tees)  
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**FIG NO. 14**  
(Red Tees)  
Page. 11-13



**FIG NO. 19A**  
(Crosses)  
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**FIG NO. 21A**  
(Caps)  
Page. 14 -15



**FIG NO. 24B**  
(Couplings)  
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**FIG NO. 26**  
(Red Couplings)  
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**FIG NO. 29**  
(Locknuts)  
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**FIG NO. 32**  
(Nipples)  
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**FIG NO. 30**  
(Bushings)  
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**FIG NO. 31A**  
(Square Head Plugs)  
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**FIG NO. 31B**  
(Slotted Head Plugs)  
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**FIG NO. 35B**  
(Union Brass)  
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**FIG NO. 35C**  
(Union Non Brass)  
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**FLOOR FLANGE**