

SPINDO is a prime steel pipe manufacturer in Indonesia with wide range of products



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FORTHEN
indonesia

72

The longest pipe up to 72 meters without connection

37

Production lines producing a wide range of products

3.2

The largest pipe diameter up to 3.2 meters



OIL & GAS INDUSTRY



FORTHEN
Indonesia



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.

OIL & GAS PIPES

SAWH

SSAW

SPINDO® produce high quality large diameter SSAW pipe primarily for the Indonesian oil and gas industry. Our manufacture utilizes an advanced and automated two step process for making spiral pipe.

Our broad-size range, robust capacity, pipe-coating capabilities, and strategic location makes our pipe a strong presence in the rapidly growing Indonesia's line pipe market. Our superior resources enable us to meet our customer's demands for pipe precision and integrity.

SIZE & WEIGHT OF WELDED STEEL PIPES | API 5L

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT							
inch	mm	inch	mm	lb/ft	kg/m	A		B		X42	
						MPa	Psi	MPa	Psi	MPa	Psi
6%	168.3	0.25	6.35	43.12	64.17	9.51	1379	11.09	1609	16.41	2380
		0.28	7.11	48.07	71.53	10.65	1545	12.42	1802	18038	2666
		0.31	7.92	53.29	79.31	11.87	1721	13.84	2008	20.48	2971
		0.34	8.74	58.46	87.00	13.08	1898	15.26	2214	22.58	3276
		0.38	9.53	63.41	94.37	14.26	2069	16.64	2413	24.62	3571
8%	219.1	0.25	6.35	56.65	84.30	7.30	1059	8.52	1236	12.61	1829
		0.28	7.04	62.56	93.10	8.09	1174	9.44	1369	13.97	2026
		0.31	7.92	70.17	104.43	9.11	1322	10.63	1542	15.73	2282
		0.32	8.18	72.33	107.65	9.41	1364	10.97	1592	16.24	2355
		0.34	8.74	77.07	114.70	10.05	1458	11.72	1701	17.35	2516
10%		0.38	9.53	83.70	124.56	10.96	1589	12.78	1854	18.91	2743
	273.1	0.25	6.35	71.03	105.70	5.86	850	6.84	991	11.46	1663
		0.28	7.09	79.05	117.63	6.54	948	7.63	1106	12.79	1855
		0.31	7.80	86.75	129.09	7.20	1044	8.39	1218	14.08	2042
		0.34	8.74	96.86	144.14	8.06	1169	9.41	1364	15.77	2288
12%		0.37	9.27	102.56	152.63	8.55	1241	9.98	1448	16.74	2427
	323.8	0.41	10.31	135.55	201.73	8.03	1164	9.36	1358	15.70	2277
		0.44	11.31	122.21	181.87	10.27	1489	11.98	1737	20.08	2913
		0.25	6.35	84.52	125.79	4.94	717	5.77	836	9.67	1402
		0.28	7.14	94.77	141.03	5.55	806	6.48	940	10.87	1576
14		0.31	7.92	104.96	156.20	6.17	895	7.20	1044	12.07	1750
		0.33	8.38	110.86	164.98	6.52	946	7.61	1104	12.76	1851
		0.34	8.74	115.43	171.78	6.80	986	7.93	1151	13.30	1929
		0.38	9.53	125.52	186.79	7.41	1075	8.65	1254	14.50	2103
		0.41	10.31	135.55	201.73	8.03	1164	9.36	1358	15.70	2277
16		0.44	11.31	145.86	217.06	8.66	1256	10.10	1465	16.94	2457
	355.6	0.25	6.35	92.99	138.39	4.50	653	5.25	761	8.80	1277
		0.28	7.14	104.29	155.20	5.06	734	5.90	856	9.90	1435
		0.31	7.92	115.53	171.93	5.62	815	6.55	950	10.99	1594
		0.34	8.74	127.08	189.12	6.19	898	7.22	1048	12.11	1757
18		0.38	9.53	138.22	205.69	6.75	979	7.88	1142	13.21	1915
	406.4	0.41	10.31	149.31	222.19	7.31	1060	8.53	1237	14.30	2074
		0.44	11.31	160.69	239.14	7.88	1143	9.20	1334	15.42	2237
		0.47	11.91	171.67	255.48	8.44	1224	9.85	1428	16.52	2395
		0.25	6.35	106.52	158.52	3.94	571	4.59	666	7.70	1117
20		0.28	7.14	119.49	177.82	4.43	642	5.16	749	8.66	1256
	457.2	0.31	7.92	132.41	197.05	4.91	713	5.73	832	9.61	1394
		0.34	8.74	145.69	216.82	5.42	786	6.32	917	10.60	1537
		0.38	9.53	158.51	235.89	5.91	857	6.89	999	11.55	1676
		0.41	10.31	171.27	254.88	6.39	927	7.46	1082	12.51	1814
22		0.44	11.13	184.39	274.40	6.90	1001	8.05	1167	13.50	1957
	457.2	0.47	11.91	197.05	293.24	7.39	1071	8.62	1250	14.45	2096
		0.50	12.70	209.65	312.00	7.88	1142	9.19	1333	15.41	2234
		0.25	6.35	120.04	178.64	3.50	508	4.08	592	6.85	993
		0.28	7.14	134.69	200.45	3.93	571	4.59	666	7.70	1116
24		0.31	7.92	149.29	222.17	4.37	634	5.10	739	8.55	1239
	457.2	0.34	8.74	164.31	244.51	4.82	699	5.62	815	9.42	1367
		0.38	9.53	178.80	266.08	5.25	761	6.13	888	10.27	1490
		0.41	10.31	193.24	287.57	5.68	842	6.63	962	11.12	1613
		0.44	11.13	208.09	309.67	6.13	889	7.15	1038	12.00	1740
26		0.47	11.91	222.42	331.00	6.57	952	7.66	1111	12.85	1863

SPINDO® memproduksi pipa SSAW berkualitas tinggi berdiameter besar untuk industri minyak dan gas Indonesia. Manufaktur kami menggunakan proses produksi berteknologi terkini dan otomatisasi sebagai langkah maju terdepan.

Beragam ukuran, kapasitas yang kokoh, kemampuan proses pelapisan pipa, dan lokasi strategis menjadi keunggulan kita dalam meraih pasar Indonesia yang sangat pesat. Untuk berbagai kebutuhan pelanggan dibutuhkan sumber daya yang unggul serta integritas.

OIL & GAS PIPES

SAWH

SSAW

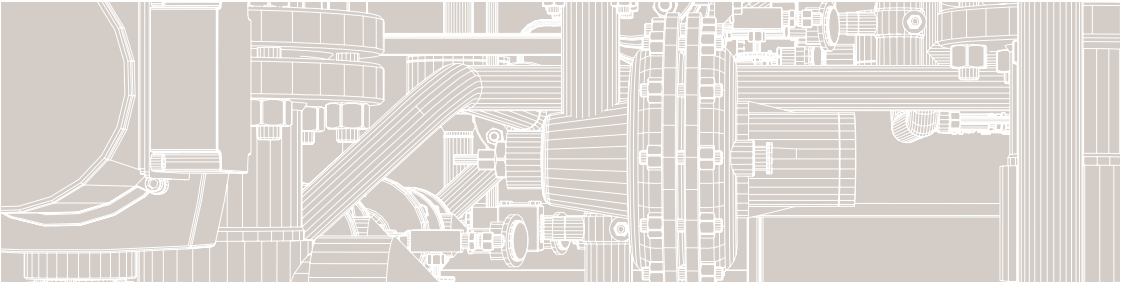
Test Pressure (Minimum)													
GRADE													
X46		X52		X56		X60		X65		X70		X80	
MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi
18.11	2627	20.37	2955	22.07	3201	23.49	3407	25.47	3694	27.45	3981	89.58	12993
2028	2942	22.82	3310	24.72	3585	26.31	3815	28.52	4137	30.74	4459	100.33	14552
22.60	3278	25.43	3688	27.55	3995	29.31	4251	31.78	4610	34.26	4968	111.80	16215
24.92	3614	28.04	4066	30.37	4405	32.32	4687	35.04	5083	37.77	5478	123.27	17878
27.17	3940	30.56	4433	33.11	4802	35.23	5110	38.20	5541	41.17	5972	134.38	19490
13.91	2018	15.65	2270	16.95	2459	18.04	2617	19.56	2837	21.08	3058	52.86	7666
15.41	2236	17.34	2515	18.79	2725	19.99	2899	21.68	3144	23.36	3388	58.57	8494
17.36	2518	19.53	2833	21.16	3069	22.52	3266	24.41	3541	26.31	3816	65.97	9568
17.92	2599	20.16	2924	21.84	3167	23.24	3370	25.20	3655	27.16	3939	68.08	9874
19.14	2776	21.53	3123	23.33	3384	24.82	3601	26.92	3904	29.01	4208	72.73	10549
20.87	3027	23.48	3405	25.43	3689	27.06	3925	29.34	4256	31.63	4587	79.29	11500
12.65	1835	14.23	2064	15.42	2236	16.40	2379	17.79	2580	19.17	2781	43.70	6338
14.12	2047	15.88	2303	17.20	2495	16.31	2655	19.85	2879	21.39	3103	48.77	7073
15.53	2253	17.47	2534	18.93	2746	20.14	2922	21.84	3168	23.54	3414	53.66	7783
17.40	2524	19.58	2840	21.21	3077	22.57	3274	24.48	3550	26.38	3826	60.13	8721
18.47	2678	20.78	3013	22.51	3264	23.95	3474	25.97	3767	27.99	4060	63.80	9253
17.33	2513	19.49	2827	21.12	3063	22.47	3259	24.36	3534	26.26	3809	50.48	7322
22.16	3214	24.93	3616	27.01	3917	28.74	4168	31.16	4520	33.59	4871	76.56	11104
10.67	1547	12.00	1741	13.00	1886	13.84	2007	15.00	2176	16.17	2345	31.09	4509
11.99	1739	13.49	1957	14.61	2120	15.55	2255	16.86	2446	18.17	2636	34.94	5068
13.31	1931	14.98	2172	16.23	2353	17.27	2504	18.72	2716	20.18	2927	38.79	5627
14.08	2042	15.84	2298	17.16	2489	18.26	2649	19.80	2872	21.34	3096	41.03	5951
14.68	2129	16.51	2395	17.89	2595	19.04	2761	20.64	2994	22.25	3227	42.77	6204
16.00	2321	18.00	2611	19.50	2829	20.75	3010	22.50	3264	24.25	3518	46.63	6763
17.33	2513	19.49	2827	21.12	3063	22.47	3259	24.36	3534	26.26	3809	50.48	7322
18.69	2711	21.03	3050	22.78	3304	24.24	3516	26.28	3812	28.33	4109	54.46	7899
9.71	1409	10.93	1585	11.84	1717	12.60	1827	13.66	1981	14.72	2135	25.77	3738
10.92	1584	12.28	1782	13.31	1930	14.16	2054	15.35	2227	16.55	2400	28.97	4202
12.12	1758	13.64	1978	14.78	2143	15.72	2280	17.05	2473	18.37	2665	32.17	4665
13.37	1939	15.04	2181	16.29	2363	17.34	2514	18.80	2726	20.26	2938	35.47	5144
14.57	2113	16.39	2378	17.76	2576	18.90	2741	20.49	2972	22.08	3203	38.66	5607
15.78	2288	17.75	2574	19.23	2789	20.46	2967	22.19	3218	23.91	3468	41.86	6071
17.02	2468	19.15	2777	20.74	3008	22.07	3201	23.93	3471	25.80	3741	45.16	6549
18.22	2643	20.50	2974	22.21	3221	23.63	3428	25.63	3717	27.62	4006	48.35	7013
8.50	1233	9.56	1387	10.36	1502	11.02	1599	11.95	1734	12.88	1868	19.73	2862
9.55	1386	10.75	1559	11.64	1689	12.39	1797	13.44	1949	14.48	2100	22.18	3217
10.61	1539	11.93	1731	12.93	1875	13.76	1995	14.92	2164	16.08	2332	24.63	3572
11.70	1696	13.16	1908	14.25	2067	15.17	2200	16.45	2386	17.73	2571	27.15	3938
12.75	1849	14.34	2080	15.54	2254	16.54	2398	17.93	2600	19.32	2830	29.60	4293
13.80	2002	15.53	2252	16.82	2440	17.90	2596	19.41	2815	20.92	3034	32.05	4648
14.89	2160	16.75	2430	18.15	2632	19.31	2801	20.94	3037	22.57	3274	34.57	5014
15.95	2313	17.94	2602	19.43	2819	20.68	2999	22.42	3252	24.17	3505	37.02	5369
17.00	2466	19.13	2774	20.72	3005	22.05	3198	23.91	3467	25.77	3737	39.47	5724
7.56	1096	8.50	1233	9.21	1336	9.80	1421	10.63	1541	11.45	1661	15.59	2261
8.49	1232	9.55	1386	10.35	1501	11.01	1597	11.94	1732	12.87	1867	17.53	2542
9.43	1368	10.61	1539	11.49	1667	12.23	1774	13.26	1923	14.29	2073	19.46	2822
10.40	1508	11.70	1696	12.67	1838	13.48	1956	14.62	2120	15.76	2285	21.45	3112
11.33	1644	12.75	1849	13.81	2003	14.70	2132	15.94	2312	17.18	2491	23.39	3392
12.27	1780	13.80	2002	14.95	2169	15.91	2308	17.26	2503	18.60	2697	25.32	3673
12.34	1920	14.89	2160	16.13	2340	17.17	2490	18.62	2700	20.06	2910	27.32	3962
14.17	2056	15.95	2313	17.27	2506	18.38	2666	19.93	2891	21.48	3116	29.25	4242

OIL & GAS PIPES
SAWH
SSAW



SIZE & WEIGHT OF WELDED STEEL PIPES | API 5L

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT							
inch	mm	inch	mm	lb/ft	kg/m	A		B		X42	
						MPa	Psi	MPa	Psi	MPa	Psi
18	457.2	0.50	12.70	236.71	352.25	7.00	1015	8.17	1184	13.69	1986
20	508.00	0.31	7.92	166.17	247.29	3.93	570	4.59	665	8.14	1181
		0.34	8.74	182.92	272.21	4.33	629	5.06	733	8.98	1302
		0.38	9.53	199.09	296.27	4.73	685	5.51	800	9.79	1420
		0.41	10.31	215.20	320.26	5.12	742	5.97	866	10.60	1537
		0.44	11.13	231.79	344.94	5.52	800	6.44	934	11.43	1658
		0.47	11.91	247.80	368.76	5.91	857	6.89	1000	12.24	1775
		0.50	12.70	263.76	392.52	6.30	914	7.35	1066	13.05	1893
		0.56	14.27	295.52	439.78	7.08	1027	8.26	1198	14.67	2127
22	558.80	0.31	7.92	183.05	272.41	3.57	518	4.17	605	7.40	1074
		0.34	8.74	201.53	299.91	3.94	572	4.60	667	8.16	1184
		0.38	9.53	219.38	326.47	4.30	623	5.01	727	8.90	1291
		0.41	10.31	237.17	352.95	4.65	675	5.43	787	9.63	1397
		0.44	11.31	255.48	380.20	5.02	728	5.85	849	10.39	1507
		0.47	11.91	273.17	406.53	5.37	779	6.27	909	11.13	1614
		0.50	12.70	290.81	432.77	5.73	831	6.68	969	11.86	1721
		0.56	14.27	325.93	485.03	6.44	934	7.51	1089	13.33	1934
24	609.60	0.38	9.53	239.66	356.66	3.94	571	4.59	666	8.16	1183
		0.41	10.31	259.14	385.64	4.26	618	4.97	721	8.83	1281
		0.44	11.31	279.18	415.47	4.60	667	5.37	778	9.53	1382
		0.47	11.91	298.55	444.29	4.92	714	5.75	833	10.20	1479
		0.50	12.70	317.86	473.03	5.25	761	6.13	888	10.88	1577
		0.56	14.27	356.33	530.28	5.90	856	6.88	999	12.22	1773
26	660.40	0.38	9.53	259.95	386.85	3.63	527	4.24	615	7.53	1092
		0.41	10.31	281.10	418.33	3.94	571	4.59	666	8.15	1182
		0.44	11.13	302.88	450.76	4.25	616	4.95	718	8.79	1275
		0.47	11.91	323.92	482.05	4.55	659	5.30	769	9.42	1366
		0.50	12.70	344.91	513.29	4.85	703	5.65	820	10.04	1456
		0.56	14.27	386.74	575.53	5.45	790	6.35	922	11.28	1636
28	711.20	0.38	9.53	280.24	417.05	3.38	490	3.94	571	6.99	1014
		0.41	10.30	303.07	451.02	3.65	530	4.26	618	7.57	1098
		0.44	11.13	326.58	486.00	3.94	572	4.60	667	8.17	1184
		0.47	11.91	349.30	519.81	4.22	612	4.92	714	8.74	1268
		0.50	12.70	371.97	553.55	4.50	653	5.25	761	9.32	1352
		0.56	14.27	417.15	620.78	5.06	734	5.90	856	10.48	1520
		0.63	15.88	462.84	688.79	5.63	816	6.56	952	11.65	1690
30	762.00	0.38	9.53	300.53	447.24	3.15	457	3.68	533	6.53	946
		0.41	10.31	325.04	483.71	3.41	495	3.98	577	7.06	1025
		0.44	11.13	350.28	521.27	3.68	534	4.29	623	7.62	1105
		0.47	11.91	374.67	557.57	3.94	571	4.60	667	8.16	1184
		0.50	12.70	399.02	593.81	4.20	609	4.90	711	8.70	1262
		0.56	14.27	447.55	666.03	4.72	685	5.51	799	9.78	1418
		0.63	15.88	496.66	739.11	5.25	761	6.13	888	10.88	1577
32	812.80	0.41	10.31	347.00	516.40	3.20	464	3.73	541	6.62	961
		0.44	11.13	373.00	556.53	3.45	500	4.02	584	7.14	1036
		0.47	11.91	400.05	595.34	3.69	536	4.31	625	7.65	1110
		0.50	12.70	426.07	634.06	3.94	571	4.59	666	8.16	1183
		0.56	14.27	477.96	711.28	4.43	642	5.16	749	9.17	1330
		0.63	15.88	530.48	789.43	4.92	714	5.74	833	10.20	1479
		0.69	17.48	582.77	867.26	5.42	786	6.32	917	11.22	1628
		0.75	19.05	634.03	943.55	5.91	857	6.89	999	12.23	1774



OIL & GAS PIPES

SAWH

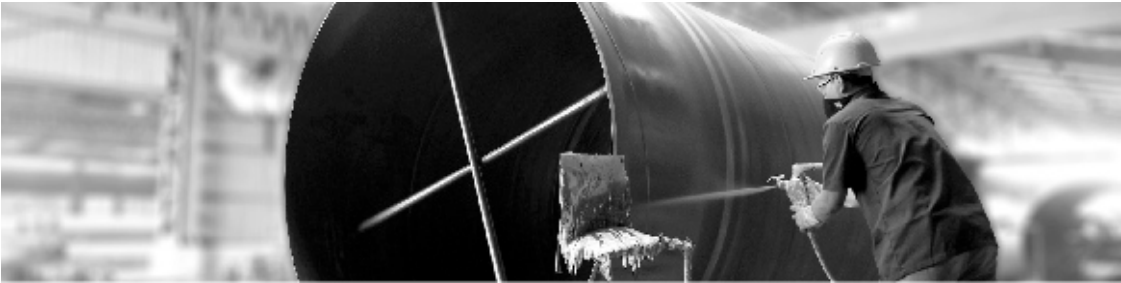
SSAW

Test Pressure (Minimum)													
GRADE													
X46		X52		X56		X60		X65		X70		X80	
MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi
15.11	2192	17.00	2466	18.42	2671	19.60	2842	21.25	3082	22.90	3322	31.18	4523
8.99	1303	10.11	1466	10.95	1588	11.65	1690	12.64	1833	13.62	1975	17.67	2563
9.91	1437	11.15	1617	12.07	1751	12.85	1864	13.93	2021	15.02	2178	19.48	2826
10.80	1566	12.15	1762	13.16	1909	14.01	2031	15.19	2203	16.37	2374	21.24	3080
11.69	1696	13.15	1908	14.25	2067	15.16	2199	16.44	2385	17.72	2570	22.99	3335
12.61	1830	14.19	2058	15.37	2230	16.36	2373	17.74	2573	19.12	2773	24.81	3598
13.51	1959	15.20	2204	16.46	2388	17.52	2541	18.99	2755	20.47	2969	26.56	3853
14.40	2089	16.20	2350	17.55	2545	18.68	2709	20.25	2937	21.83	3165	28.32	4107
16.19	2348	18.21	2641	19.73	2861	20.99	3044	22.76	3301	24.53	3558	31.83	4616
8.17	1185	9.19	1333	9.96	1444	10.59	1537	11.49	1666	12.38	1796	14.60	2118
9.01	1306	10.13	1470	10.98	1592	11.68	1694	12.67	1837	13.65	1980	16.10	2335
9.82	1424	11.05	1620	11.97	1736	12.73	1847	13.81	2003	14.88	2158	17.55	2546
10.63	1542	11.96	1734	12.96	1879	13.79	1999	14.95	2168	16.11	2337	19.00	2756
11.47	1663	12.90	1871	13.98	2027	14.87	2157	16.13	2339	17.38	2521	20.50	2973
12.28	1781	13.81	2004	14.97	2171	15.93	2310	17.27	2504	18.61	2699	21.95	3184
13.09	1899	14.73	2136	15.95	2314	16.98	2462	18.41	2670	19.84	2878	23.40	3394
14.71	2134	16.55	2401	17.93	2601	19.08	2768	20.69	3001	22.30	3235	26.31	3815
9.00	1305	10.13	1469	10.97	1591	11.67	1693	12.66	1836	13.64	1978	14.75	2139
9.74	1413	10.96	1590	11.88	1722	13.64	1833	13.70	1987	14.77	2142	15.97	2316
10.51	1525	11.83	1715	12.81	1858	13.63	1977	14.78	2144	15.93	2311	17.23	2499
11.26	1633	12.66	1837	13.72	1990	14.60	2117	15.83	2296	17.06	2474	18.45	2675
12.00	1740	16.50	1958	14.63	2121	15.56	2257	16.88	2448	18.19	2638	19.67	2852
13.49	1956	15.17	2201	16.44	2384	17.49	2537	18.97	2751	20.44	2965	22.10	3206
8.31	1205	9.35	1356	10.13	1469	10.77	1563	11.68	1694	12.59	1826	12.57	1823
8.99	1305	10.12	1468	10.96	1590	11.66	1692	12.65	1835	13.63	1977	13.61	1973
9.70	1407	10.92	1583	11.83	1715	12.58	1825	13.65	1979	14.71	2133	14.68	2129
10.39	1507	11.69	1695	12.66	1837	13.47	1954	14.61	2119	15.75	2284	15.72	2280
11.08	1607	12.46	1807	13.50	1958	14.37	2084	15.58	2259	16.79	2435	16.76	2430
12.45	1806	14.01	2032	15.17	2201	16.15	2342	17.51	2539	18.87	2737	18.83	2732
7.71	1119	8.68	1259	9.40	1364	10.00	1451	10.85	1573	11.69	1696	10.84	1572
8.35	1211	9.40	1363	10.18	1476	10.83	1571	11.75	1703	12.66	1836	11.73	1702
9.01	1307	10.14	1470	10.98	1593	11.69	1695	12.67	1838	13.66	1981	12.66	1836
9.65	1399	10.85	1574	11.76	1705	12.51	1815	13.57	1968	14.62	2121	13.55	1966
10.29	1492	11.57	1678	12.54	1818	13.34	1935	14.46	2098	15.59	2261	14.45	2096
11.56	1677	13.01	1886	14.09	2044	14.99	2175	16.26	2358	17.52	2541	16.24	2355
12.86	1865	14.46	2098	15.67	2273	16.67	2418	18.08	2622	19.49	2826	18.06	2619
7.20	1044	8.10	1175	8.78	1273	9.34	1354	10.13	1469	10.91	1583	9.44	1369
7.80	1131	8.77	1272	9.50	1378	10.11	1466	10.96	1590	11.81	1714	10.22	1482
8.41	1220	9.46	1372	10.25	1487	10.91	1582	11.83	1715	12.75	1849	11.03	1599
9.00	1306	10.13	1469	10.97	1592	11.68	1694	12.66	1837	13.65	1979	11.81	1712
9.60	1392	10.80	1566	11.70	1697	12.45	1806	13.50	1958	14.55	2110	12.59	1825
10.79	1565	12.14	1761	13.15	1907	13.99	2030	15.17	2201	16.35	2372	14.15	2052
12.00	1740	13.50	1958	14.63	2121	15.56	2257	16.88	2448	18.19	2638	15.73	2282
7.31	1060	8.22	1132	8.91	1292	9.48	1375	10.28	1491	11.08	1606	8.98	1303
7.88	1143	8.87	1286	9.61	1394	10.22	1483	11.09	1608	11.95	1733	9.69	1405
8.44	1224	9.50	1377	10.29	1492	10.95	1588	11.87	1722	12.79	1856	10.38	1505
9.00	1305	10.13	1469	10.97	1591	11.67	1693	12.66	1836	13.64	1978	11.06	1604
10.12	1467	11.38	1651	12.33	1788	13.12	1903	14.23	2063	15.33	2224	12.43	1803
11.25	1632	13.66	1836	13.71	1989	14.59	2116	15.82	2295	17.05	2473	13.83	2005
12.38	1796	13.93	2021	15.09	2189	16.06	2329	17.42	2526	18.77	2722	15.22	2208
13.50	1958	15.19	2203	16.45	2386	17.51	2539	18.98	2753	20.46	2968	16.59	2407



SIZE & WEIGHT OF WELDED STEEL PIPES | API 5L

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT							
inch	mm	inch	mm	lb/ft	kg/m	A		B		X42	
						MPa	Psi	MPa	Psi	MPa	Psi
32	812.80	0.81	20.62	685.09	1019.52	6.39	927	7.46	1082	13.25	1921
34	863.60	0.41	10.31	368.97	549.09	3.01	436	3.51	509	6.23	904
		0.44	11.31	397.67	591.80	3.25	471	3.79	549	6.72	975
		0.47	11.91	425.42	633.10	3.48	504	4.06	588	7.20	1044
		0.50	12.70	453.12	674.32	3.71	537	4.32	627	7.68	1113
		0.56	14.27	508.37	756.53	4.17	604	4.86	705	8.63	1251
		0.63	15.88	564.29	839.76	4.63	672	5.40	784	9.60	1392
		0.69	17.48	620.00	922.66	5.10	740	5.95	863	10.56	1532
		0.75	19.05	674.61	1003.93	5.56	806	6.49	941	11.51	1670
36	914.40	0.81	20.62	729.02	1084.90	6.02	873	7.02	1018	12.47	1808
		0.44	11.13	421.37	627.06	3.07	445	3.58	519	6.35	921
		0.47	11.91	450.80	670.86	3.28	476	3.83	556	6.80	986
		0.50	12.70	480.18	714.58	3.50	508	4.08	592	7.25	1052
		0.56	14.27	538.77	801.78	3.93	571	4.59	666	8.15	1182
		0.63	15.88	598.11	890.08	4.38	635	5.10	740	9.06	1314
		0.69	17.48	657.22	978.05	4.82	699	5.62	815	9.98	1447
		0.75	19.05	715.19	1064.32	5.25	761	6.13	888	10.88	1577
38	965.20	0.81	20.62	772.95	1150.28	5.68	824	6.63	926	11.77	1708
		0.88	22.23	831.43	1237.30	6.13	888	7.15	1036	12.69	1840
		0.44	11.13	445.07	662.33	2.90	421	3.39	491	6.02	873
		0.47	11.91	476.17	708.62	3.11	451	3.63	526	6.44	934
		0.50	12.70	507.23	754.84	3.32	481	3.87	561	6.87	996
		0.56	14.27	569.18	847.03	3.73	541	4.35	631	7.72	1120
		0.63	15.88	631.92	940.40	4.14	601	4.84	701	8.59	1245
		0.69	17.48	694.45	1033.45	4.56	662	5.32	772	9.45	1371
40	1016.00	0.75	19.05	755.77	1124.71	4.97	721	5.80	842	10.30	1494
		0.81	20.62	816.88	1215.66	5.38	781	6.28	911	11.15	1618
		0.88	22.23	878.77	1307.76	5.80	842	6.77	982	12.02	1742
		0.44	11.13	468.76	697.60	2.76	400	3.22	467	5.72	829
		0.47	11.91	501.55	746.38	2.95	429	3.45	500	6.12	888
		0.50	12.70	534.28	795.10	3.15	457	3.68	533	6.53	946
		0.56	14.27	599.59	892.28	3.54	514	4.13	599	7.33	1064
		0.63	15.88	665.74	990.72	3.94	571	4.59	666	8.16	1183
42	1066.80	0.69	17.48	731.67	1088.84	4.33	629	5.06	733	8.98	1302
		0.75	19.05	796.35	1185.09	4.73	685	5.51	800	9.79	1420
		0.81	20.62	860.82	1281.04	5.12	742	5.97	866	10.60	1537
		0.88	22.23	926.11	1378.21	5.51	800	6.43	933	11.42	1656
		0.44	11.13	492.46	732.86	2.63	381	3.07	445	5.44	790
		0.47	11.91	526.92	784.15	2.81	408	3.28	476	5.83	845
		0.50	12.70	561.33	835.35	3.00	435	3.50	508	6.21	901
		0.56	14.27	629.99	937.53	3.37	489	3.93	571	6.98	1013
44	1117.60	0.63	15.88	699.55	1041.05	3.75	544	4.38	635	7.77	1127
		0.69	17.48	768.89	1144.24	4.13	599	4.82	699	8.55	1240
		0.75	19.05	836.92	1245.48	4.50	653	5.25	761	9.32	1352
		0.81	20.62	904.75	1346.41	4.87	707	5.68	824	10.09	1464
		0.88	22.23	973.45	1448.66	5.25	761	6.13	888	10.88	1577
		0.44	11.13	516.16	768.13	2.51	364	2.93	424	5.20	754
		0.47	11.91	552.30	821.91	2.69	390	3.13	455	5.56	807
		0.50	12.70	588.38	875.61	2.87	415	3.34	485	5.93	860
		0.56	14.27	660.40	982.78	3.22	467	3.76	545	6.67	967
		0.63	15.88	733.37	1091.37	3.58	519	4.18	606	7.41	1075



OIL & GAS PIPES

SAWH

SSAW

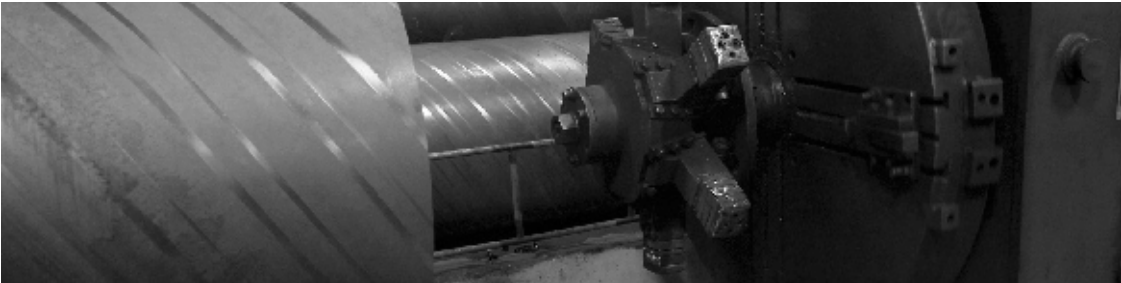
Test Pressure (Minimum)													
GRADE													
X46		X52		X56		X60		X65		X70		X80	
MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi
14.62	2120	16.44	2385	17.81	2584	18.96	2749	20.55	2981	22.15	3213	17.96	2606
6.88	998	7.74	1122	8.38	1216	8.92	1294	9.67	1403	10.42	1512	7.96	1154
7.42	1076	8.35	1211	9.04	1312	9.62	1396	10.43	1513	11.25	1631	8.58	1245
7.95	1152	8.94	1296	9.68	1404	10.30	1494	11.17	1621	12.04	1747	9.19	1333
8.47	1229	9.53	1382	10.32	1497	10.99	1593	11.91	1728	12.84	1862	9.80	1421
9.52	1381	10.71	1554	11.60	1683	12.35	1791	13.39	1942	14.43	2093	11.10	1597
10.59	1536	11.91	1728	12.90	1872	13.37	1992	14.89	2160	16.05	2328	12.25	1776
11.66	1690	13.11	1902	14.21	2060	15.12	2192	16.39	2377	17.67	2562	13.48	1956
12.71	1843	14.29	2073	15.49	2246	16.48	2390	17.87	2591	19.26	2793	14.70	2132
13.76	1995	15.48	2245	16.77	2432	17.84	2587	19.34	2806	20.85	3024	15.91	2308
7.01	1016	7.88	1143	8.54	1239	9.09	1318	9.86	1429	10.62	1541	7.66	1110
7.50	1088	8.44	1224	9.15	1326	9.73	1411	10.55	1531	11.37	1650	8.20	1189
8.00	1160	9.00	1305	9.75	1414	10.38	1505	11.25	1632	12.13	1759	8.74	1268
8.99	1304	10.12	1467	10.96	1589	10.66	1691	12.65	1834	13.63	1977	9.82	1425
10.00	1450	11.25	1632	12.19	1768	12.97	1881	14.06	2040	15.16	3198	10.93	1585
11.01	1597	12.38	1796	13.42	1946	14.28	2071	15.48	2245	16.68	2420	12.03	1744
12.00	1740	13.50	1958	14.63	2121	15.56	2257	16.88	2448	18.19	2638	13.11	1901
12.99	1884	14.62	2120	15.83	2297	16.85	2444	18.27	2650	19.69	2856	14.19	2059
14.00	2031	15.75	2284	17.06	2475	18.16	2633	19.69	2855	21.22	3078	15.30	2218
6.64	963	7.47	1083	8.09	1174	8.61	1249	9.34	1354	10.06	1459	6.87	997
7.11	1031	8.00	1160	8.66	1257	9.22	1337	10.00	1450	10.77	1563	7.36	1067
7.58	1099	8.53	1237	9.24	1340	9.83	1426	10.66	1546	11.49	1666	7.84	1138
8.52	1236	9.58	1390	10.38	1506	11.05	1602	11.98	1737	12.91	1873	8.82	1279
9.47	1374	10.66	1546	11.55	1675	12.29	1782	13.32	1932	14.36	2083	9.81	1422
10.43	1513	11.73	1702	12.71	1843	13.52	1962	14.67	2127	15.81	2292	10.79	1566
11.37	1649	12.79	1855	13.86	2010	14.74	2138	15.99	2319	17.23	2499	11.77	1707
12.31	1785	13.85	2008	15.00	2176	15.96	2315	17.31	2510	18.65	2706	12.74	1848
13.26	1924	14.92	2164	16.16	2344	17.20	2495	18.65	2705	20.10	2916	13.73	1991
6.31	915	7.10	1029	7.69	1115	8.18	1186	8.87	1286	9.56	1386	6.20	899
6.75	980	7.60	1102	8.23	1194	8.76	1270	9.50	1377	10.24	1485	6.64	963
7.20	1044	8.10	1175	8.78	1273	9.34	1354	10.13	1469	10.91	1583	7.08	1027
8.09	1174	9.10	1320	9.86	1431	10.50	1522	11.38	1651	12.27	1779	7.96	1154
9.00	1305	10.13	1469	10.97	1591	11.67	1693	12.66	1836	13.64	1978	8.85	1283
9.91	1437	11.15	1617	12.07	1751	12.85	1864	13.93	2021	15.02	2178	9.74	1413
10.80	1566	12.15	1762	13.16	1909	14.01	2031	15.19	2203	16.37	2374	10.62	1540
11.69	1696	13.15	1908	14.25	2067	15.16	2199	16.44	2385	17.72	2570	11.50	1668
12.60	1827	14.18	2056	15.36	2227	16.34	2370	17.72	2570	19.10	2770	12.39	1797
6.01	871	6.76	980	7.32	1062	7.79	1130	8.45	1225	9.10	1320	5.63	816
6.43	933	7.24	1049	7.84	1137	8.34	1210	9.05	1312	9.75	1414	6.02	874
6.87	995	7.71	1119	8.36	1212	8.89	1290	9.64	1399	10.39	1507	6.42	931
7.71	1118	8.67	1258	9.39	1362	10.00	1450	10.84	1572	11.68	1694	7.22	1047
8.57	1243	9.64	1399	10.45	1515	11.12	1612	12.05	1748	12.99	1884	8.03	1164
9.44	1368	10.61	1540	11.50	1668	12.24	1775	13.27	1924	14.30	2074	8.84	1282
10.29	1492	11.57	1678	12.54	1818	13.34	1935	14.46	2098	15.59	2261	9.63	1397
11.14	1615	12.53	1817	13.57	1968	14.44	2095	15.66	2271	16.88	2448	10.43	1512
12.00	1740	13.50	1958	14.63	2121	15.56	2257	16.88	2448	18.19	2638	11.24	1630
5.73	832	6.45	936	6.99	1014	7.44	1079	8.06	1169	8.69	1260	5.13	743
6.14	890	6.91	1002	7.48	1085	7.96	1155	8.63	1252	9.31	1350	5.49	796
6.55	949	7.36	1068	7.98	1157	8.49	1231	9.20	1335	9.92	1439	5.85	849
7.36	1067	8.28	1200	8.97	1300	9.54	1384	10.35	1501	11.15	1617	6.58	954
8.18	1187	9.20	1335	9.97	1446	10.61	1539	11.51	1669	12.40	1799	7.31	1061

OIL & GAS PIPES
SAWH
SSAW



SIZE & WEIGHT OF WELDED STEEL PIPES | API 5L

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT							
inch	mm	inch	mm	lb/ft	kg/m	A		B		X42	
						MPa	Psi	MPa	Psi	MPa	Psi
44	1117.60	0.69	17.48	806.12	1199.63	3.94	572	4.60	667	8.16	1184
		0.75	19.05	877.50	1305.87	4.30	623	5.01	727	8.90	1291
		0.81	20.62	948.68	1411.79	4.65	675	5.43	787	9.63	1397
		0.88	22.23	1020.79	1519.11	5.01	727	5.85	848	10.38	1506
46	1168.40	0.44	11.13	539.86	803.39	2.40	348	2.80	406	4.97	721
		0.47	11.91	577.67	859.67	2.57	373	3.00	435	5.32	772
		0.50	12.70	615.44	915.87	2.74	397	3.20	463	5.67	823
		0.56	14.27	690.81	1028.03	3.08	447	3.59	521	6.38	925
		0.63	15.88	767.18	1141.69	3.42	497	3.99	579	7.09	1029
		0.69	17.48	843.34	1255.03	3.77	547	4.40	638	7.81	1132
		0.75	19.05	918.08	1366.26	4.11	596	4.79	695	8.51	1234
		0.81	20.62	992.61	1477.17	4.45	645	5.19	753	9.21	1336
		0.88	22.23	1068.14	1589.56	4.79	695	5.59	811	9.93	1440
48	1219.20	0.44	11.13	563.55	838.66	2.30	334	2.68	389	4.76	691
		0.47	11.91	603.05	897.43	2.46	357	2.87	417	5.10	740
		0.50	12.70	642.49	956.13	2.63	381	3.06	444	5.44	789
		0.56	14.27	721.21	1073.28	2.95	428	3.44	499	6.11	886
		0.63	15.88	801.00	1192.01	3.28	476	3.83	555	6.80	986
		0.69	17.48	880.56	1310.42	3.61	524	4.21	611	7.48	1085
		0.75	19.05	958.66	1426.64	3.94	571	4.59	666	8.16	1183
		0.81	20.62	1036.55	1542.55	4.26	618	4.97	721	8.83	1281
		0.88	22.23	1115.48	1660.01	4.59	666	5.36	777	9.52	1380
		0.94	23.83	1194.19	1777.15	4.92	714	5.75	833	10.20	1479
52	1320.80	0.44	11.13	610.95	909.19	2.12	308	248	359	4.40	638
		0.47	11.91	653.80	972.96	2.27	330	2.65	385	4.71	683
		0.50	12.70	696.59	1036.64	2.42	350	2.83	410	5.02	728
		0.56	14.27	782.03	1163.78	2.72	395	3.18	461	5.64	818
		0.63	15.88	868.63	1292.66	3.03	439	3.53	513	6.27	910
		0.69	17.48	955.01	1421.21	3.33	484	3.89	564	6.91	1002
		0.75	19.05	1039.82	1547.42	3.63	527	4.24	615	7.53	1092
		0.81	20.62	1124.41	1673.31	3.94	571	4.59	666	8.15	1182
		0.88	22.23	1210.16	1800.92	4.24	615	4.95	718	8.78	1274
		0.94	23.83	1295.69	1928.20	4.55	659	5.30	769	9.42	1366
56	1422.40	0.44	11.13	658.34	979.72	1.97	286	2.30	334	4.08	592
		0.47	11.91	704.55	1048.48	2.11	306	2.46	357	4.37	634
		0.50	12.70	750.70	1117.16	2.25	326	2.63	381	4.66	676
		0.56	14.27	842.84	1254.28	2.53	367	2.95	428	5.24	760
		0.63	15.88	936.26	1393.30	2.81	408	3.28	476	5.83	845
		0.69	17.48	1029.46	1532.00	3.10	449	3.61	524	6.41	930
		0.75	19.05	1120.97	1668.19	3.38	490	3.94	571	6.99	1014
		0.81	20.62	1212.28	1804.07	3.65	530	4.26	618	7.57	1098
		0.88	22.23	1304.84	1941.82	3.94	571	4.59	666	8.16	1183
		0.94	23.83	1397.19	2079.25	4.22	612	4.92	714	8.74	1268
60	1524.00	0.44	11.13	705.74	1050.26	1.84	267	2.15	311	3.81	553
		0.47	11.91	755.30	1124.00	1.97	286	2.30	333	4.08	592
		0.50	12.70	804.80	1197.68	2.10	305	2.45	355	4.35	631
		0.56	14.27	903.65	1344.78	2.36	342	2.75	399	4.89	709
		0.63	15.88	1003.89	1493.95	2.63	381	3.06	444	5.44	789
		0.69	17.48	1103.91	1642.79	2.89	419	3.37	489	5.99	868
		0.75	19.05	1202.13	1788.96	3.15	457	3.68	533	6.53	946
		0.81	20.62	1300.14	1934.83	3.41	495	3.98	577	7.06	1025



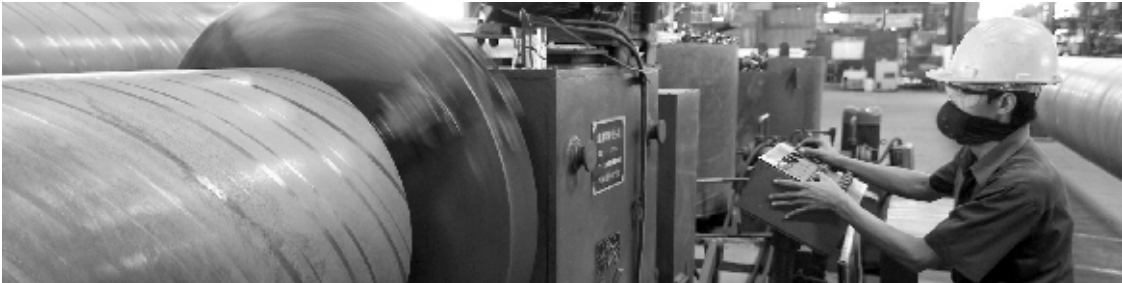
OIL & GAS PIPES

SAWH

SSAW

Test Pressure (Minimum)													
GRADE													
X46		X52		X56		X60		X65		X70		X80	
MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi
9.01	1306	10.31	1470	10.98	1592	11.68	1694	12.67	1837	13.65	1980	8.05	1168
9.82	1424	11.05	1602	11.97	1736	12.73	1847	13.81	2003	14.88	2158	8.78	1273
10.63	1542	11.96	1734	12.96	1879	13.79	1999	14.95	2168	16.11	2337	9.50	1378
11.45	1661	12.89	1869	13.96	2025	14.86	2155	16.11	2336	17.36	2518	10.24	1485
5.48	795	6.17	895	6.68	969	7.11	1032	7.71	1119	8.31	1206	4.69	680
5.87	852	6.61	958	7.16	1038	7.62	1105	8.26	1198	8.90	1291	5.02	728
6.26	908	7.04	1022	7.63	1107	8.12	1178	8.80	1277	9.49	1376	5.35	776
7.04	1021	7.92	1148	8.58	1244	9.13	1324	9.90	1435	10.67	1547	6.02	873
7.83	1135	8.80	1277	9.54	1383	10.15	1472	11.01	1596	11.86	1720	6.69	971
8.61	1249	9.69	1406	10.50	1523	11.17	1620	12.11	1757	13.06	1894	7.37	1068
9.39	1362	10.57	1532	11.45	1660	12.18	1766	13.21	1915	14.23	2064	8.03	1165
10.17	1475	11.44	1659	12.39	1797	13.19	1912	14.30	2074	15.41	2235	8.69	1261
10.96	1589	12.33	1788	13.35	1937	14.21	2061	15.41	2235	16.61	2408	9.37	1359
5.26	762	5.91	858	6.41	929	6.82	989	7.39	1072	7.97	1155	4.31	625
5.63	816	6.33	918	6.86	995	7.30	1059	7.91	1148	8.53	1237	4.61	669
6.00	870	6.75	979	7.31	1061	7.78	1129	8.44	1224	9.09	1319	4.92	713
6.74	978	7.59	1100	8.22	1192	8.75	1269	9.48	1376	10.22	1482	5.53	801
7.50	1088	8.44	1224	9.14	1326	9.73	1411	10.55	1530	11.37	1649	6.15	891
8.26	1197	9.29	1347	10.06	1459	10.71	1553	11.61	1684	12.51	1815	6.76	981
9.00	1305	10.13	1469	10.97	1591	11.67	1693	12.66	1836	13.64	1978	7.37	1070
9.74	1413	10.96	1590	11.88	1722	12.64	1833	13.70	1987	14.77	2142	7.98	1158
10.50	1523	11.81	1713	12.80	1856	13.62	1975	14.77	2142	15.91	2308	8.60	1248
11.26	1633	12.66	1837	13.72	1990	14.60	2117	15.83	2296	17.06	2474	9.22	1338
4.85	704	5.46	792	5.91	858	6.29	913	6.82	990	7.35	1067	3.67	532
5.20	753	5.84	848	6.33	918	6.74	977	7.31	1060	7.87	1142	3.93	570
5.54	803	6.23	904	6.75	979	7.18	1042	7.79	1130	8.39	1217	4.19	608
6.23	903	7.00	1016	7.59	1100	8.07	1171	8.75	1270	9.44	1368	4.71	683
6.92	1004	7.79	1130	8.44	1224	8.98	1302	9.74	1412	10.49	1522	5.24	759
7.62	1105	8.57	1243	9.29	1347	9.88	1433	10.72	1554	11.55	1675	5.76	836
8.31	1205	9.35	1356	10.13	1469	10.77	1563	11.68	1694	12.59	1826	6.28	911
8.99	1305	10.12	1468	10.96	1590	11.66	1692	12.65	1835	13.63	1977	6.80	987
9.69	1406	10.90	1581	11.81	1713	12.57	1823	13.63	1977	14.69	2131	7.33	1063
10.39	1507	11.69	1695	12.66	1837	13.47	1954	14.61	2119	15.75	2284	7.86	1140
4.51	653	5.07	735	5.49	796	5.84	847	6.34	919	6.83	990	3.16	459
4.82	700	5.43	787	5.88	853	6.26	907	6.78	984	7.31	1060	3.39	491
5.14	746	5.79	839	6.27	909	6.67	967	7.23	1049	7.79	1131	3.61	524
5.78	838	6.50	943	7.05	1022	7.50	1087	8.13	1179	8.76	1271	4.06	589
6.43	932	7.23	1049	7.83	1136	8.34	1209	9.04	1311	9.74	1413	4.52	655
7.08	1026	7.96	1155	8.62	1251	9.18	1331	9.95	1443	10.73	1556	4.97	721
7.71	1119	8.68	1259	9.40	1364	10.00	1451	10.85	1573	11.69	1696	5.42	786
8.35	1211	9.40	1363	10.18	1476	10.83	1571	11.75	1703	12.66	1836	5.87	851
9.00	1305	10.13	1469	10.97	1591	11.67	1693	12.66	1836	13.64	1978	6.32	917
9.65	1399	10.85	1574	11.76	1705	12.51	1815	13.57	1968	14.62	2121	6.78	983
4.20	610	4.73	686	5.12	743	5.45	791	5.91	858	6.37	924	2.76	400
4.50	653	5.07	735	5.49	796	5.84	847	6.33	918	6.82	990	2.95	428
4.80	696	5.40	783	5.85	848	6.23	903	6.75	979	7.28	1055	3.15	456
5.40	786	6.07	880	6.58	954	7.00	1015	7.59	1100	8.18	1186	3.54	513
6.00	870	6.75	979	7.31	1061	7.78	1129	8.44	1224	9.09	1319	3.93	570
6.60	958	7.43	1078	8.05	1167	8.57	1242	9.29	1347	10.01	1452	4.33	628
7.20	1044	8.10	1175	8.78	1273	9.34	1354	10.13	1469	10.91	1583	4.72	685
7.80	1131	8.77	1272	9.50	1378	10.11	1466	10.96	1590	11.81	1714	5.11	741

OIL & GAS PIPES
SAWH
SSAW



SIZE & WEIGHT OF WELDED STEEL PIPES | API 5L

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT							
inch	mm	inch	mm	lb/ft	kg/m	A		B		X42	
						MPa	Psi	MPa	Psi	MPa	Psi
60	1524.00	0.88	22.23	1399.52	2082.72	3.68	533	4.29	622	7.61	1104
		0.94	23.83	1498.69	2230.30	3.94	571	4.60	667	8.16	1184
64	1625.60	0.44	11.13	753.14	1120.79	1.72	250	2.01	292	3.57	518
		0.47	11.91	806.05	1199.53	1.85	268	2.15	312	3.83	555
		0.50	12.70	858.90	1278.19	1.97	286	2.30	333	4.08	591
		0.56	14.27	964.47	1435.28	2.21	321	2.58	374	4.58	665
		0.63	15.88	1071.52	1594.59	2.46	357	2.87	416	5.10	739
		0.69	17.48	1178.35	1753.58	2.71	393	3.16	458	5.61	814
		0.75	19.05	1283.28	1909.74	2.95	428	3.45	500	6.12	887
		0.81	20.62	1388.01	2065.58	3.20	464	3.73	541	6.62	961
		0.88	22.23	1494.21	2223.62	3.45	500	4.02	583	7.14	1035
		0.94	23.83	1600.19	2381.35	3.69	536	4.31	625	7.65	1110
68	1727.20	0.47	11.91	856.80	1275.05	1.74	252	2.03	294	3.60	522
		0.50	12.70	913.01	1358.71	1.85	269	2.16	314	3.84	557
		0.56	14.27	1025.28	1525.78	2.08	302	2.43	352	4.31	626
		0.63	15.88	1139.15	1695.24	2.32	336	2.70	392	4.80	696
		0.69	17.48	1252.80	1864.37	2.55	370	2.97	431	5.28	766
		0.75	19.05	1364.44	2030.51	2.78	403	3.24	470	5.76	835
		0.81	20.62	1475.87	2196.34	3.01	436	3.51	509	6.23	904
		0.88	22.23	1588.89	2364.53	3.24	470	3.78	549	6.72	974
		0.94	23.83	1701.69	2532.39	3.48	504	4.06	588	7.20	1044
72	1828.80	0.50	12.70	967.11	1439.22	1.75	254	2.04	296	3.63	526
		0.56	14.27	1086.09	1616.28	1.97	285	2.29	333	4.07	591
		0.63	15.88	1206.78	1795.88	2.19	317	2.55	370	4.53	657
		0.69	17.48	1327.25	1975.16	2.41	349	2.81	407	4.99	723
		0.75	19.05	1445.60	2151.29	2.63	381	3.06	444	5.44	789
		0.81	20.62	1563.74	2327.10	2.84	412	3.32	481	5.89	854
		0.88	22.23	1683.57	2505.43	3.06	444	3.57	518	6.34	920
		0.94	23.83	1803.19	2683.44	3.28	476	3.83	556	6.80	986
76	1930.40	0.50	12.70	1021.22	1519.74	1.66	240	1.93	281	3.43	498
		0.56	14.27	1146.91	1706.78	1.86	270	2.17	315	3.86	560
		0.63	15.88	1274.41	1896.53	2.07	301	2.42	351	4.29	623
		0.69	17.48	1401.70	2085.95	2.28	331	2.66	386	4.73	685
		0.75	19.05	1526.75	2272.06	2.49	361	2.90	421	5.15	747
		0.81	20.62	1651.60	2457.86	2.69	391	3.14	456	5.58	809
		0.88	22.23	1778.25	2646.33	2.90	421	3.38	491	6.01	872
		0.94	23.83	1904.69	2834.49	3.11	451	3.63	526	6.44	934
80	2032.00	0.56	14.27	1207.72	1797.28	1.77	257	2.07	300	3.67	532
		0.63	15.88	1342.04	1997.17	1.97	286	2.30	333	4.08	591
		0.69	17.48	1476.14	2196.74	2.17	314	2.53	367	4.49	651
		0.75	19.05	1607.91	2392.83	2.36	343	2.76	400	4.89	710
		0.81	20.62	1739.47	2588.61	2.56	371	2.98	433	5.30	768
		0.88	22.23	1872.94	2787.24	2.76	400	3.22	466	5.71	828
		0.94	23.83	2006.19	2985.54	2.95	429	3.45	500	6.12	888



OIL & GAS PIPES

SAWH

SSAW

Test Pressure (Minimum)													
GRADE													
X46		X52		X56		X60		X65		X70		X80	
MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi
8.40	1218	9.45	1371	10.24	1485	10.89	1580	11.81	1713	12.73	1847	5.51	799
9.00	1306	10.13	1469	10.97	1592	11.68	1694	12.66	1837	13.65	1979	5.90	856
3.94	572	4.43	643	4.80	697	5.11	741	5.54	804	5.97	867	2.42	351
4.22	612	4.75	689	5.14	746	5.47	794	5.94	861	6.40	928	2.59	376
4.50	653	5.06	734	5.48	795	5.84	846	6.33	918	6.82	989	2.77	401
5.06	734	5.69	825	6.16	894	6.56	951	7.11	1032	7.67	1112	3.11	451
5.63	816	6.33	918	6.86	994	7.29	1058	7.91	1147	8.53	1237	3.46	501
6.19	898	6.97	1010	7.55	1095	8.03	1165	8.71	1263	9.38	1361	3.81	552
6.75	979	7.59	1101	8.23	1193	8.75	1270	9.49	1377	10.23	1484	4.15	602
7.31	1060	8.22	1192	8.91	1292	9.48	1375	10.28	1491	11.08	1606	4.49	651
7.88	1142	8.86	1285	9.60	1392	10.21	1481	11.07	1606	11.94	1731	4.84	702
8.44	1224	9.50	1377	10.29	1492	10.95	1588	11.87	1722	12.79	1856	5.19	752
3.97	576	4.47	648	4.84	702	5.15	747	5.59	810	6.02	873	2.30	333
4.24	614	4.76	691	5.16	749	5.49	797	5.96	864	6.42	931	2.45	355
4.76	690	5.36	777	5.80	841	6.17	895	6.69	971	7.22	1046	2.75	399
5.29	768	5.96	864	6.45	936	6.87	996	7.44	1080	8.02	1164	3.06	444
5.83	845	6.56	951	7.10	1030	7.56	1096	8.20	1189	8.83	1281	3.37	489
6.35	921	7.15	1037	7.74	1123	8.24	1195	8.93	1296	9.63	1397	3.67	533
6.88	998	7.74	1122	8.38	1216	8.92	1294	9.67	1403	10.42	1512	3.98	577
7.41	1075	8.34	1209	9.03	1310	9.61	1394	10.42	1512	11.23	1629	4.29	622
7.95	1152	8.94	1296	9.68	1404	10.30	1494	11.17	1621	12.04	1747	4.60	667
4.00	580	4.50	653	4.88	707	5.19	752	5.63	816	6.06	879	2.19	317
4.50	652	5.06	734	5.48	795	5.83	846	6.32	917	6.81	988	2.46	356
5.00	725	5.63	816	6.09	884	6.48	940	7.03	1020	7.58	1099	2.73	396
5.50	798	6.19	898	6.71	973	7.14	1035	7.74	1123	8.34	1210	3.01	436
6.00	870	6.75	979	7.31	1061	7.78	1129	8.44	1224	9.09	1319	3.28	475
6.50	942	7.31	1060	7.92	1148	8.42	1222	9.14	1325	9.85	1428	3.55	515
7.00	1015	7.88	1142	8.53	1237	9.08	1317	9.84	1428	10.61	1539	3.82	555
7.50	1088	8.44	1224	9.15	1326	9.73	1411	10.55	1531	11.37	1650	4.10	595
3.79	550	4.26	618	4.62	670	4.91	713	5.33	773	5.74	833	1.96	284
4.26	618	4.79	695	5.19	753	5.52	801	5.99	869	6.46	936	2.20	320
4.74	687	5.33	773	5.77	837	6.14	891	6.66	966	7.18	1041	2.45	356
5.21	756	5.87	851	6.35	922	6.76	981	7.33	1064	7.90	1146	2.70	391
5.68	824	6.39	927	6.93	1005	7.37	1069	7.99	1159	8.62	1250	2.94	427
6.15	893	6.92	1004	7.50	1088	7.98	1158	8.65	1255	9.33	1353	3.18	462
6.63	962	7.46	1082	8.08	1172	8.60	1247	9.33	1353	10.05	1458	3.43	498
7.11	1031	8.00	1160	8.66	1257	9.22	1337	10.00	1450	10.77	1563	3.68	534
4.05	587	4.55	660	4.93	715	5.25	761	5.69	825	6.13	889	1.99	289
4.50	653	5.06	734	5.48	795	5.84	846	6.33	918	6.82	989	2.21	321
4.95	718	5.57	808	6.04	876	6.42	932	6.97	1010	7.51	1089	2.44	353
5.40	783	6.08	881	6.58	955	7.00	1016	7.59	1101	8.18	1187	2.65	385
5.85	848	6.58	954	7.13	1033	7.58	1100	8.22	1192	8.86	1285	2.87	417
6.30	914	7.09	1028	7.68	1114	8.17	1185	8.86	1285	9.55	1385	3.10	449
6.75	980	7.60	1102	8.23	1194	8.76	1270	9.50	1377	10.24	1485	3.32	482

OIL & GAS PIPES

SAWH

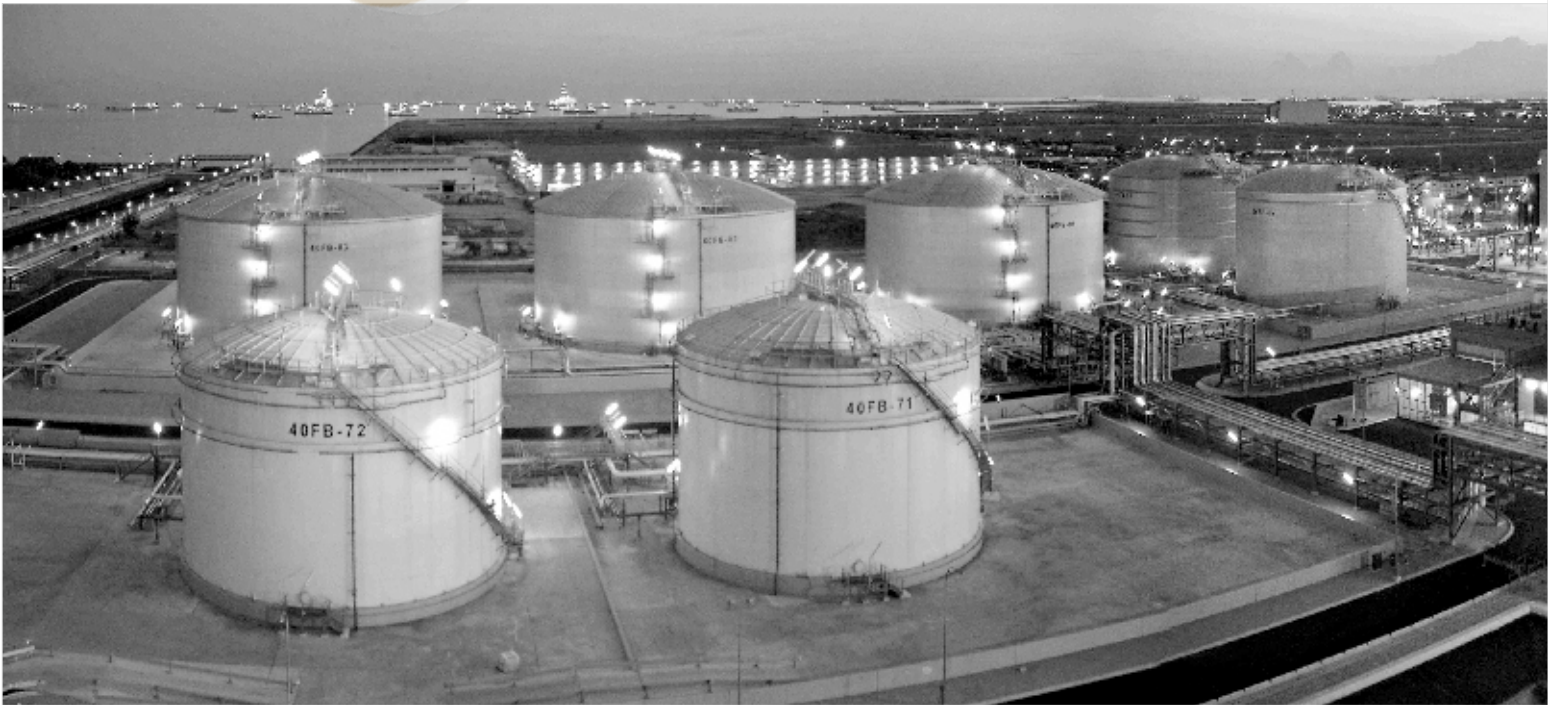
SSAW

SPINDO® produce high quality large diameter SSAW pipe primarily for the Indonesian oil and gas industry. Our manufacture utilizes an advanced and automated two step process for making spiral pipe.

Our broad-size range, robust capacity, pipe-coating capabilities, and strategic location makes our pipe a strong presence in the rapidly growing Indonesia's line pipe market. Our superior resources enable us to meet our customer's demands for pipe precision and integrity.

API 5L MECHANICAL PROPERTIES & CHEMICAL COMPOSITION

GRADE		CHEMICAL COMPOSITIONS (%)											
		C	Si	Mn	P	S	V	Nb	Ti	Cu	Ni	Cr	Mo
PSL 1	A	0.22	-	0.9	0.03	0.03	-	-	-	-	-	-	-
	B	0.26	-	1.2	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X42	0.26	-	1.3	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X46	0.26	-	1.4	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X52	0.26	-	1.4	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X56	0.26	-	1.4	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X60	0.26	-	1.4	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X65	0.26	-	1.45	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
	X70	0.26	-	1.65	0.03	0.03	V + Nb + Ti ≤ 0.15%			-	-	-	-
PSL 2	BM	0.22	0.45	1.2	0.25	0.015	0.05	0.05	0.04	0.5	0.3	0.3	0.15
	X42M	0.22	0.45	1.3	0.25	0.015	0.05	0.05	0.04	0.5	0.3	0.3	0.15
	X46M	0.22	0.45	1.3	0.25	0.015	0.05	0.05	0.04	0.5	0.3	0.3	0.15
	X52M	0.22	0.45	1.4	0.25	0.015	V + Nb + Ti ≤ 0.15%			0.5	0.3	0.3	0.15
	X56M	0.22	0.45	1.4	0.25	0.015	V + Nb + Ti ≤ 0.15%			0.5	0.3	0.3	0.15
	X60M	0.12	0.45	1.6	0.25	0.015	V + Nb + Ti ≤ 0.15%			0.5	0.5	0.5	0.5
	X65M	0.12	0.45	1.6	0.25	0.015	V + Nb + Ti ≤ 0.15%			0.5	0.5	0.5	0.5
	X70M	0.12	0.45	1.7	0.25	0.015	V + Nb + Ti ≤ 0.15%			0.5	0.5	0.5	0.5
	X80M	0.12	0.45	1.85	0.25	0.015	V + Nb + Ti ≤ 0.15%			0.5	0.5	0.5	0.5



SPINDO® memproduksi pipa SSAW berkualitas tinggi berdiameter besar untuk industri minyak dan gas Indonesia. Manufaktur kami menggunakan proses produksi berteknologi terkini dan otomatisasi sebagai langkah maju terdepan.

Beragam ukuran, kapasitas yang kokoh, kemampuan proses pelapisan pipa, dan lokasi strategis menjadi keunggulan kita dalam meraih pasar Indonesia yang sangat pesat. Untuk berbagai kebutuhan pelanggan dibutuhkan sumber daya yang unggul serta integritas.

OIL & GAS PIPES

SAWH

SSAW

		MECHANICAL PROPERTIES							
		PIPE BODY						WELD SEAM	
CE IIW	CE Pcm	YIELD STRENGTH		TENSILE STRENGTH		RATIO (YIELD/TENSILE)	ELONGATION (%) MIN.	TENSILE STRENGTH	
		MPa	Psi	MPa	Psi			MPa	Psi
-	-	210 (Min)	30500 (Min)	335 (Min)	48600 (Min)	-	$A_f = C \frac{A_{xc}^{0.2}}{U^{0.9}}$ Af is the specified minimum elongation C is 1940 (SI), 625000 (USC) Axc is the applicable tensile test piece cross-sectional area (mm²) U is the specified minimum tensile strength (Mpa).	335 (Min)	48600 (Min)
-	-	245 (Min)	35500 (Min)	415 (Min)	60200 (Min)	-		415 (Min)	60200 (Min)
-	-	290 (Min)	42100 (Min)	415 (Min)	60200 (Min)	-		415 (Min)	60200 (Min)
-	-	320 (Min)	46400 (Min)	435 (Min)	63100 (Min)	-		435 (Min)	63100 (Min)
-	-	360 (Min)	52200 (Min)	460 (Min)	66700 (Min)	-		460 (Min)	66700 (Min)
-	-	390 (Min)	56600 (Min)	490 (Min)	71100 (Min)	-		490 (Min)	71100 (Min)
-	-	415 (Min)	60200 (Min)	520 (Min)	75400 (Min)	-		520 (Min)	75400 (Min)
-	-	450 (Min)	65300 (Min)	535 (Min)	77600 (Min)	-		535 (Min)	77600 (Min)
-	-	485 (Min)	70300 (Min)	570 (Min)	82700 (Min)	-		570 (Min)	82700 (Min)
0.43	0.25	245 - 450	35500 - 65300	415 - 655	60200 - 95000	0.93		415 (Min)	415 (Min)
0.43	0.25	290 - 495	42100 - 71800	415 - 655	60200 - 95000	0.93		415 (Min)	415 (Min)
0.43	0.25	320 - 525	46400 - 76100	435 - 655	63100 - 95000	0.93		435 (Min)	435 (Min)
0.43	0.25	360 - 530	52200 - 76900	460 - 760	66700 - 110200	0.93		460 (Min)	460 (Min)
0.43	0.25	390 - 545	56600 - 79000	490 - 760	71100 - 110200	0.93		490 (Min)	490 (Min)
0.43	0.25	415 - 565	60200 - 81900	520 - 760	75400 - 110200	0.93		520 (Min)	520 (Min)
0.43	0.25	450 - 600	65300 - 87000	535 - 760	77600 - 110200	0.93		535 (Min)	535 (Min)
0.43	0.25	485 - 635	70300 - 92100	570 - 760	82700 - 110200	0.93		570 (Min)	570 (Min)
0.43	0.25	555 - 705	80500 - 102300	625 - 825	90600 - 119700	0.93		625 (Min)	625 (Min)



OIL & GAS PIPES

ERW

HFW

SPINDO® is a leading supplier of HFW line pipe for oil and gas, API 5L grade. Based on the end user customer's requirement, HFW steel pipes & tube are available in various qualities, wall thicknesses, and diameters of the finished pipes. While manufacturing HFW steel pipes, only high-quality, continuous-cast, control-rolled, fine-grain, low-carbon steel is used.

SPINDO® merupakan suplier utama pipa HFW untuk minyak dan gas, dengan sertifikasi API 5L. Pipa HFW kami tersedia dalam berbagai kualitas, ketebalan dan diameter pipa sesuai kebutuhan pelanggan. Proses produksi pipa HFW menggunakan material berkualitas tinggi, pengecoran terus menerus, proses kontrol rol, fine-grain, serta baja karbon rendah yang digunakan.

SIZE & WEIGHT OF WELDED STEEL PIPES | API 5L

OUTSIDE DIAMETER		WALL THICKNESS	PLAIN END WEIGHT per UNIT LENGTH	CALCULATED INSIDE DIAMETER	Minimum Test Pressure ^b (KpA x 100) ^c							
						GRADE						
inch	mm	mm	kg/m	mm		A	B	X42	X46	X52	X56	X60
3½	88.90	4.00	8.37	80.90	Std	112	130	157	171	194	207	207
					Alt	140	163	196	214	242	261	279
		4.40	9.17	80.10	Std	123	143	172	188	207	207	207
					Alt	154	172	215	235	267	287	307
		4.80	9.95	79.30	Std	134	156	188	205	207	207	207
4½	114.30				Alt	168	172	235	257	291	313	335
		5.50	11.31	77.90	Std	154	172	207	207	207	207	207
					Alt	172	172	269	294	333	358	384
		4.40	11.92	105.50	Std	96	111	134	146	166	178	191
					Alt	120	139	167	183	207	223	239
6%	168.30	4.80	12.96	104.70	Std	104	121	146	160	181	195	207
					Alt	130	152	183	200	226	243	261
		5.20	13.99	103.90	Std	113	132	158	173	196	207	207
					Alt	141	164	198	216	245	263	283
		5.60	15.01	103.10	Std	122	142	170	286	207	207	207
8%	219.10				Alt	152	177	213	233	264	284	304
		6.00	16.02	102.30	Std	130	152	183	200	207	207	207
					Alt	163	190	228	250	283	304	326
		4.40	159.50	17.78	Std	65	76	114	124	141	151	162
					Alt	81	95	114	124	141	151	162
6%	168.30	4.80	158.70	19.35	Std	71	82	124	136	154	165	177
					Alt	89	103	124	136	154	165	177
		5.20	157.90	20.91	Std	77	89	134	147	166	179	192
					Alt	96	112	134	147	166	179	192
		5.60	157.10	22.47	Std	83	96	145	158	179	193	207
8%	219.10				Alt	103	120	145	158	179	193	207
		6.40	155.50	25.55	Std	94	110	165	181	205	207	207
					Alt	118	137	165	181	205	220	236
		7.10	154.10	28.22	Std	105	122	184	201	207	207	207
					Alt	-	-	-	-	-	-	-
8%	219.10	4.80	209.50	25.37	Std	54	63	95	104	118	127	136
					Alt	68	79	95	104	118	127	136
		5.20	208.70	27.43	Std	59	69	103	113	128	137	147
					Alt	74	86	103	113	128	137	147
		5.60	207.90	29.48	Std	63	74	111	122	138	148	159
8%	219.10				Alt	79	92	111	122	138	148	159
		6.40	206.30	33.57	Std	73	84	127	139	157	169	181
					Alt	91	106	127	139	157	169	181
		7.00	205.10	36.61	Std	79	92	139	152	172	185	198
					Alt	99	115	139	152	172	185	198
8%	219.10	7.90	203.30	41.14	Std	90	104	157	171	194	207	207
					Alt	112	130	157	171	194	209	224
		8.20	202.70	42.65	Std	95	108	163	178	202	207	207
					Alt	116	135	163	178	202	217	232

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.



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	mm	mm	kg/m	
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 ² (N/mm ²)	YIELD STRENGTH kgf/mm ² (N/mm ²)
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 ²
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			kg/m
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)"

WATER PIPES
SAWH
SSAW



STEEL WATER PIPE 6 in. (150 mm) AND LARGER
AWWA C 200 - 12

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT		HYDROSTATIC TEST PRESSURE *	
inch	mm	inch	mm	lb/ft	kg/m	lb/inch ²	kgf/cm ²
6.625	168.3	0.250	6.35	17.04	25.36	2011	141
		0.280	7.11	18.99	28.26	2252	158
		0.312	7.92	21.06	31.32	2508	176
		0.344	8.74	23.10	34.39	2768	195
		0.375	9.52	25.05	37.28	3015	212
8.625	219.1	0.250	6.35	22.38	33.31	1545	109
		0.277	7.04	24.72	36.31	1713	120
		0.312	7.92	27.73	41.24	1927	135
		0.322	8.18	28.58	42.55	1990	140
		0.344	8.74	30.45	45.34	2126	149
		0.375	9.52	33.07	49.20	2316	163
10.750	273.0	0.250	6.35	28.06	41.75	1240	87
		0.279	7.09	31.23	46.49	1384	97
		0.307	7.80	34.27	51.01	1523	107
		0.344	8.74	38.27	56.96	1706	120
		0.365	9.27	40.52	60.29	1810	127
		0.438	11.13	48.28	71.87	2173	153
12.750	323.8	0.250	6.35	33.41	49.71	1045	73
		0.281	7.14	37.46	55.75	1175	83
		0.312	7.92	41.48	61.69	1304	92
		0.330	8.38	43.81	65.18	1379	97
		0.344	8.74	45.62	67.90	1439	101
		0.375	9.52	49.61	73.78	1567	110
		0.406	10.31	53.57	79.70	1697	119
		0.438	11.13	57.65	85.82	1832	129
14.000	355.6	0.250	6.35	36.75	54.69	952	67
		0.281	7.14	41.21	61.35	1070	75
		0.312	7.92	45.65	67.90	1187	83
		0.344	8.74	50.22	74.76	1310	92
		0.375	9.52	54.62	81.25	1427	100
		0.438	11.13	63.50	94.55	1668	117
		0.469	11.91	67.84	100.94	1785	126
16.000	406.4	0.250	6.35	42.09	62.64	833	59
		0.281	7.14	47.22	70.30	936	66
		0.312	7.92	52.32	77.83	1039	73
		0.344	8.74	57.57	85.71	1146	81
		0.375	9.52	62.64	93.17	1249	88
		0.438	11.13	72.86	108.49	1460	103
		0.469	11.91	77.87	115.86	1562	110
		0.500	12.70	82.85	123.30	1666	117
18.000	457.0	0.250	6.35	47.44	70.60	741	52
		0.281	7.14	53.23	79.24	833	59
		0.312	7.92	58.99	87.75	924	65
		0.344	8.74	64.93	96.66	1019	72
		0.375	9.52	70.65	105.10	1110	78
		0.406	10.31	76.36	113.62	1202	85
		0.438	11.13	82.23	122.43	1298	91
		0.469	11.91	87.89	130.78	1389	98
		0.500	12.70	93.54	139.20	1481	104

Spiral Submerged Arc Welding (SSAW) steel pipes is a forming tube process of rolled steel sheet with centerline hose reel molding angle (adjustable), side molding edge welding and weld them into a spiral.

These steel pipes are used for large diameter of water distribution, such as water tunnel, water treatment plants, wastewater treatment plants, etc

Pengelasan spiral pada pipa baja (SSAW) adalah pembentukan tabung dengan proses menggulung lembaran baja dengan sudut tertentu mengacu pada garis pusat, sisi tepi lembaran dilas mengikuti alur spiral yang telah ditentukan.

Pipa baja ini digunakan untuk distribusi air dengan diameter besar, seperti pada terowongan air, pabrik pengolahan air, pabrik pengolahan air limbah, dan sebagainya.



STEEL WATER PIPE 6 in. (150 mm) AND LARGER

AWWA C 200 - 12

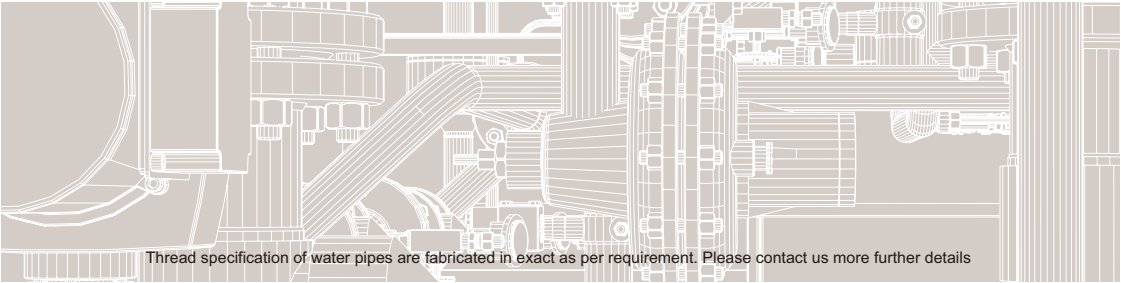
OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT		HYDROSTATIC TEST PRESSURE *	
inch	mm	inch	mm	lb/ft	kg/m	lbf/inch ²	kgf/cm ²
20.000	508.0	0.312	7.92	65.66	97.67	831	58
		0.344	8.74	72.28	107.60	917	64
		0.375	9.52	78.67	117.02	999	70
		0.406	10.31	84.04	126.53	1082	76
		0.438	11.13	91.59	136.37	1168	82
		0.469	11.91	97.92	145.70	1250	88
		0.500	12.70	104.23	155.12	1333	94
		0.562	14.27	104.23	173.80	1498	105
24.000	610.0	0.375	9.52	94.71	140.88	832	58
		0.406	10.31	102.40	152.37	901	63
		0.438	11.13	110.32	164.26	973	68
		0.465	11.91	117.98	175.54	1041	73
		0.500	12.70	125.61	186.94	1110	78
		0.562	14.27	104.23	-5.02	1247	88
26.000	660.0	0.375	9.52	102.72	152.80	769	54
		0.406	10.31	111.08	165.28	833	59
		0.438	11.13	119.69	178.20	899	63
		0.469	11.91	128.00	190.46	962	68
		0.500	12.70	136.30	202.85	1026	72
		0.562	14.27	152.83	227.37	1152	81
28.000	711.2	0.375	9.53	110.75	164.81	714	50
		0.406	10.31	119.77	178.24	773	54
		0.438	11.13	129.06	132.06	834	59
		0.469	11.91	138.04	205.43	893	63
		0.500	12.70	147.00	218.76	952	67
		0.562	14.27	164.85	245.33	1070	75
		0.625	15.88	182.91	272.20	1190	84
30.000	762.0	0.375	9.53	118.77	176.75	666	47
		0.406	10.31	128.45	191.16	721	51
		0.438	11.31	138.43	206.00	778	55
		0.469	11.91	148.07	220.35	833	59
		0.500	12.70	157.69	234.67	888	62
		0.562	14.27	176.87	263.21	999	70
		0.625	15.88	196.28	292.09	1110	78
32.000	812.8	0.406	10.31	137.13	204.08	676	48
		0.438	11.13	147.79	219.94	730	51
		0.469	11.91	158.10	235.27	781	55
		0.500	12.70	168.38	250.58	833	59
		0.562	14.27	188.89	281.09	936	66
		0.625	15.88	209.64	311.98	1041	73
		0.688	17.48	230.31	342.74	1146	81
		0.750	19.05	250.57	372.88	1249	88
34.000	863.6	0.812	20.62	270.74	402.91	1353	95
		0.406	10.31	145.81	216.99	636	45
		0.438	11.13	157.16	233.87	687	48
		0.469	11.91	168.12	250.20	735	52
		0.500	12.70	179.07	266.49	784	55
		0.562	14.27	200.90	298.98	881	62
		0.625	15.88	223.00	331.87	980	69

WATER PIPES
SAWH
SSAW



STEEL WATER PIPE 6 in. (150 mm) AND LARGER
AWWA C 200 - 12

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT		HYDROSTATIC TEST PRESSURE *	
inch	mm	inch	mm	lb/ft	kg/m	lb/inch ²	kgf/cm ²
34.000	863.6	0.688	17.48	245.02	364.63	1079	76
		0.750	19.05	266.60	396.75	1176	83
		0.812	20.62	288.10	428.74	1273	89
36.000	914.4	0.438	11.13	166.52	247.81	649	46
		0.469	11.91	178.15	265.12	694	49
		0.500	12.70	189.76	282.40	740	52
		0.562	14.27	212.92	316.86	832	59
		0.625	15.88	236.37	351.75	925	65
		0.688	17.48	259.73	386.52	1019	72
		0.750	19.05	282.64	420.61	1110	78
		0.812	20.62	305.46	454.58	1202	85
		0.875	22.23	328.57	488.97	1296	91
38.000	965.2	0.438	11.13	175.89	261.75	614	43
		0.469	11.91	188.18	280.04	658	46
		0.500	12.70	200.45	298.31	701	49
		0.562	14.27	224.94	334.74	788	55
		0.625	15.88	249.73	371.64	877	62
		0.688	17.48	274.44	408.41	965	68
		0.750	19.05	298.67	444.48	1052	74
		0.812	20.62	322.83	480.42	1139	80
		0.875	22.23	347.28	516.81	1227	86
40.000	1016.0	0.438	11.13	185.25	275.68	584	41
		0.469	11.91	198.21	294.97	625	44
		0.500	12.70	211.14	314.22	666	47
		0.562	14.27	236.95	352.62	749	53
		0.625	15.88	263.09	391.53	833	59
		0.688	17.48	289.15	430.30	917	64
		0.750	19.05	314.71	468.34	999	70
		0.812	20.62	340.19	506.26	1082	76
		0.875	22.23	365.99	544.66	1166	82
42.000	1066.8	0.438	11.13	194.62	289.62	556	39
		0.469	11.91	208.24	309.89	595	42
		0.500	12.70	221.83	330.13	635	45
		0.562	14.27	248.97	370.51	712	50
		0.625	15.88	276.46	411.41	793	56
		0.688	17.48	303.86	452.19	873	61
		0.750	19.05	330.75	492.20	952	67
		0.812	20.62	357.55	532.09	1030	72
		0.875	22.23	384.70	572.50	1110	78
44.000	1117.6	0.438	11.13	203.98	303.56	531	37
		0.469	11.91	218.26	324.81	568	40
		0.500	12.70	232.52	346.03	606	43
		0.562	14.27	260.99	388.39	681	48
		0.625	15.88	289.82	431.30	757	53
		0.688	17.48	318.57	474.09	833	59
		0.750	19.05	346.78	516.07	909	64
		0.812	20.62	374.91	557.93	984	69
		0.875	22.23	403.41	600.34	1060	75



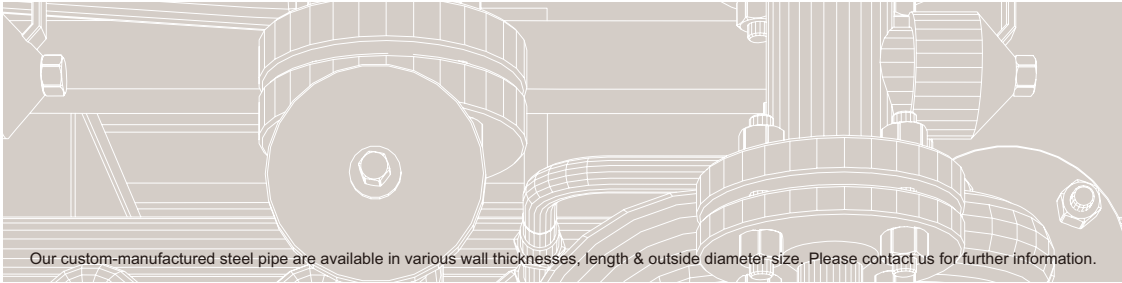
Thread specification of water pipes are fabricated in exact as per requirement. Please contact us more further details

WATER PIPES
SAWH
SSAW

STEEL WATER PIPE 6 in. (150 mm) AND LARGER
AWWA C 200 - 12

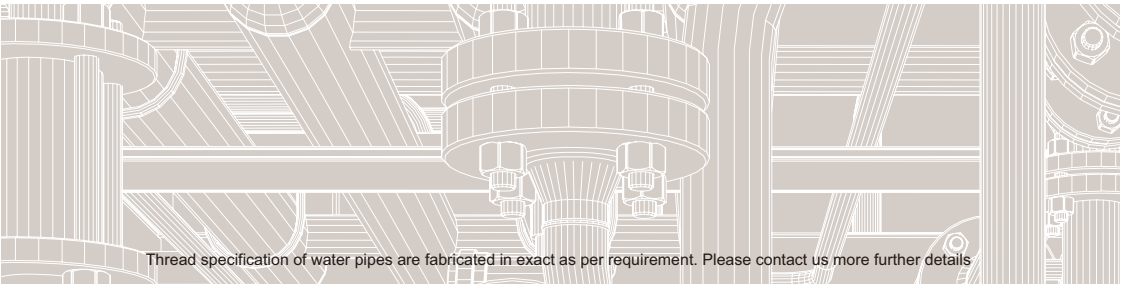
OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT		HYDROSTATIC TEST PRESSURE *	
inch	mm	inch	mm	lb/ft	kg/m	lbf/inch²	kgf/cm²
46.000	1168.4	0.438	11.13	213.35	317.50	508	36
		0.469	11.91	228.29	339.74	543	38
		0.500	12.70	243.22	361.94	579	41
		0.562	14.27	273.00	406.27	651	46
		0.625	15.88	303.18	451.19	724	51
		0.688	17.48	333.28	495.98	797	56
		0.750	19.05	362.82	539.93	869	61
		0.812	20.62	392.27	583.77	941	66
		0.875	22.23	422.12	628.18	1014	71
48.000	1219.2	0.438	11.13	222.71	331.43	486	34
		0.469	11.91	238.32	354.66	521	37
		0.500	12.70	253.91	377.85	555	39
		0.562	14.27	285.02	424.15	624	44
		0.625	15.88	316.55	471.07	694	49
		0.688	17.48	347.99	517.87	764	54
		0.750	19.05	378.85	563.80	833	59
		0.812	20.62	409.64	609.60	902	63
		0.875	22.23	440.83	656.02	972	68
52.000	1320.8	0.938	23.83	471.94	702.32	1042	73
		0.438	11.13	241.44	359.31	449	32
		0.469	11.91	258.38	384.50	481	34
		0.500	12.70	275.29	409.67	513	36
		0.562	14.27	309.05	459.92	576	41
		0.625	15.88	343.27	510.85	641	45
		0.688	17.48	377.41	561.65	705	50
		0.750	19.05	410.93	611.53	769	54
		0.812	20.62	444.36	661.28	832	59
56.000	1422.4	0.875	22.23	478.25	711.71	897	63
		0.938	23.83	512.05	762.01	961	68
		0.438	11.13	260.17	387.18	417	29
		0.469	11.91	278.43	414.35	446	31
		0.500	12.70	296.67	441.49	476	33
		0.562	14.27	333.08	495.68	535	38
		0.625	15.88	370.00	550.62	595	42
		0.688	17.48	406.83	605.44	655	46
		0.750	19.05	443.00	659.26	714	50
60.000	1524.0	0.812	20.62	479.08	712.95	773	54
		0.875	22.23	515.66	767.39	833	59
		0.938	23.83	552.16	821.70	893	63
		0.438	11.13	278.90	415.05	389	27
		0.469	11.91	298.49	444.20	417	29
		0.500	12.70	318.05	473.31	444	31
		0.562	14.27	357.12	531.45	499	35
		0.625	15.88	396.73	590.40	555	39
		0.688	17.48	436.26	649.22	611	43
		0.750	19.05	475.07	706.98	666	47
		0.812	20.62	513.81	764.63	721	51
		0.875	22.23	553.08	823.08	777	55
		0.938	23.83	592.27	881.40	833	59

WATER PIPES
SAWH
SSAW



STEEL WATER PIPE 6 in. (150 mm) AND LARGER
AWWA C 200 - 12

OUTSIDE DIAMETER		WALL THICKNESS		WEIGHT		HYDROSTATIC TEST PRESSURE *	
inch	mm	inch	mm	lb/ft	kg/m	lbf/inch²	kgf/cm²
64.000	1625.6	0.438	11.13	297.63	442.93	365	26
		0.469	11.91	318.54	474.04	391	27
		0.500	12.70	339.43	505.13	416	29
		0.562	14.27	381.15	567.21	468	33
		0.625	15.88	423.46	630.17	521	37
		0.688	17.48	465.68	693.00	573	40
		0.750	19.05	507.14	754.71	625	44
		0.812	20.62	548.53	816.30	676	48
		0.875	22.23	590.50	878.76	729	51
		0.938	23.83	632.38	941.09	781	55
68.000	1727.2	0.469	11.91	338.60	503.89	368	26
		0.500	12.70	360.81	536.95	392	28
		0.562	14.27	405.18	602.98	441	31
		0.625	15.88	450.18	669.95	490	34
		0.688	17.48	495.10	736.79	539	38
		0.750	19.05	539.22	802.44	588	41
		0.812	20.62	583.25	867.98	636	45
		0.875	22.23	627.92	934.44	686	48
		0.938	23.83	672.50	1000.78	735	52
72.000	1828.8	0.500	12.70	382.20	568.77	370	26
		0.562	14.27	429.22	638.74	416	29
		0.625	15.88	476.91	709.72	463	33
		0.688	17.48	524.52	780.57	509	36
		0.750	19.05	571.29	850.17	555	39
		0.812	20.62	617.98	919.65	601	42
		0.875	22.23	665.33	990.13	648	46
		0.938	23.83	712.61	1060.48	694	49
76.000	1930.4	0.500	12.70	403.58	600.59	351	25
		0.562	14.27	453.25	674.51	394	28
		0.625	15.88	503.64	749.49	438	31
		0.688	17.48	553.94	824.35	483	34
		0.750	19.05	603.36	897.90	526	37
		0.812	20.62	625.70	971.33	569	40
		0.875	22.23	702.75	1045.81	614	43
		0.938	23.83	752.72	1120.17	658	46
80.000	2032.0	0.562	14.27	477.28	710.27	374	26
		0.625	15.88	530.36	789.27	416	29
		0.688	17.48	583.36	868.14	458	32
		0.750	19.05	635.43	945.63	500	35
		0.812	20.62	687.42	1023.00	541	38
		0.875	22.23	740.17	1101.49	583	41
		0.938	23.83	792.83	1179.86	625	44



Thread specification of water pipes are fabricated in exact as per requirement. Please contact us more further details

WATER PIPES
SAWH
SSAW



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

Hydrostatic Test	: 50 kgf / cm ²
Tolerance on Wall Thickness	: -8% & +10% (TIPIS*)
	: -10% & +15% (MEDIUM*)
	: -12.5% & +15% (TEBAL*)
Standard Length	: 6 m / pc or 12 m / pc
	(with tolerance -0 mm & +100mm)

UKURAN	DIAMETER DALAM NOMINAL		DIAMETER LUAR			TEBAL	BERAT NOMINAL PIPA TANPA LAPIS SENG SEBELUM DIULIR
	mm	inch	Nominal	Maks.	Min.	mm	
TIPIS	200	8	219.1	221.3	216.9	5.0	26.40
	250	10	273.0	275.7	270.3	5.0	33.04
	300	12	323.8	327.0	320.6	5.0	39.31
	350	14	355.6	359.2	352.0	5.6	48.33
	400	16	406.4	410.5	402.3	5.6	55.35
	450	18	457.0	461.6	452.4	6.4	71.12
	500	20	508.0	513.1	502.9	6.4	79.16
MEDIUM	600	24	610.0	616.1	603.9	6.4	95.26
	200	8	219.1	221.3	216.9	6.4	33.32
	250	10	273.0	275.7	270.3	6.4	41.75
	300	12	323.8	327.0	320.6	6.4	49.71
	350	14	355.6	359.2	352.0	6.4	54.69
	400	16	406.4	410.5	402.3	6.4	62.64
	450	18	457.0	461.6	452.4	9.5	105.10
	500	20	508.0	513.1	502.9	9.5	117.02
	600	24	610.0	616.1	603.9	9.5	140.88
	650	26	660.0	666.6	653.4	9.5	152.80
	700	28	711.0	718.1	703.9	9.5	164.34
	800	32	813.0	821.1	804.9	9.5	188.23
	900	36	914.0	923.1	904.9	9.5	211.90
	1000	40	1016.0	1026.2	1005.8	12.7	314.22
TEBAL	1050	42	1067.0	1077.7	1056.3	12.7	330.19
	1150	46	1168.0	1179.7	1156.3	12.7	361.82
	1200	48	1219.0	1231.2	1206.8	12.7	377.79
	200	8	219.1	221.3	216.9	8.2	42.65
	250	10	273.0	275.7	270.3	9.3	60.48
	300	12	323.8	327.0	320.6	10.3	79.63
	350	14	355.6	359.2	352.0	11.1	94.30
	400	16	406.4	410.5	402.3	12.7	123.30
	450	18	457.0	461.6	452.4	12.7	139.15
	500	20	508.0	513.1	502.9	12.7	155.12
	600	24	610.0	616.1	603.9	12.7	187.06
	650	26	660.0	666.6	653.4	12.7	202.72
	700	28	711.0	718.1	703.9	12.7	218.69
	800	32	813.0	812.1	804.9	12.7	250.64
	900	36	914.0	923.1	904.9	12.7	282.27
	1000	40	1016.0	1026.2	1005.8	14.3	353.24
	1050	42	1067.0	1077.7	1056.3	14.3	371.22
	1150	46	1168.0	1179.7	1156.3	14.3	406.84
	1200	48	1219.0	1231.2	1206.8	14.3	424.82

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

KOMPOSISI KIMIA				SIFAT MEKANIS PIPA		
C (%) Max.	Mn (%) Max.	P (%) Max.	S (%) Max.	YIELD STRENGTH (Mpa)	TENSILE STRENGTH (Mpa)	ELONGATION (%) Min.
0.2	1.4	0.035	0.03	195 min.	320 - 460	20

WATER PIPES SAWH SSAW

SPINDO®'s high quality pipe is used in a wide variety of applications including water and sewage transmission. Greater strength in proportion to wall thickness of any competitive product means the pipe performs safely at higher pressures and its strength provides distinct handling and laying advantages in difficult locations.

Pipa SPINDO® dengan kualitas tinggi banyak digunakan dalam berbagai aplikasi seperti transmisi air dan limbah. Proporsi ketebalan dinding pipa mempunyai kekuatan lebih besar dibandingkan produk pipa lain sehingga lebih aman pada tekanan yang lebih tinggi serta kekuatan yang memberikan keunggulan untuk peletakan di lokasi yang sulit sekalipun.



Water Treatment
Plant



Water Transmission
Building



STRUCTURAL PIPES



**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.

STRUCTURAL PIPES

ERW

HFW

SPINDO® High Frequency Welded (HFW) steel pipe can be found in bridges, construction projects especially for wide-spans building : airport, stadium, hall, etc also structural casing applications. We have been serving various projects, from giant construction state-owned and overseas to local private projects with general contractors.

Pipa baja HFW SPINDO® telah digunakan pada beberapa proyek jembatan, proyek konstruksi terutama untuk bangunan bentang lebar: bandara, stadion, aula, dll serta aplikasi struktural selubung bangunan. Kami telah melayani ragam proyek, mulai dari proyek konstruksi raksasa milik pemerintah dan proyek luar negeri hingga proyek-proyek swasta lokal dengan kontraktor umum.

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

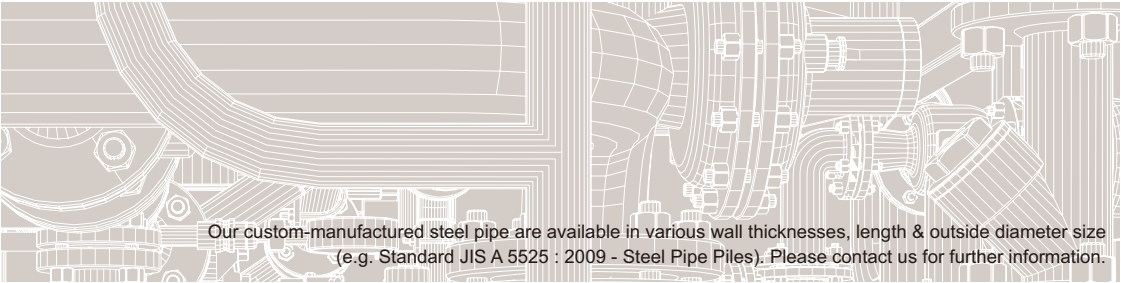
NOMINAL DIAMETER		SPECIFIED OUTSIDE DIAMETER	SPECIFIED WALL THICKNESS	NOMINAL WEIGHT PLAIN END	SCHEDULE No
mm	inch	mm	mm	kg/m	
15	½	21.3	2.77	1.27	40
20	¾	26.7	2.87	1.69	40
25	1	33.4	3.38	2.50	40
32	1¼	42.2	3.56	3.39	40
40	1½	48.3	3.68	4.05	40
50	2	60.3	3.91	5.44	40
65	2½	73.0	5.16	8.63	40
80	3	88.9	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

WELDED STEEL PIPE PILES | **ASTM A 252 : 2010**

GRADE	TENSILE STRENGTH	YIELD STRENGTH
	psi (Mpa)	psi (Mpa)
1	50 000 (345)	30 000 (205)
2	60 000 (415)	35 000 (240)
3	66 000 (455)	45 000 (310)

OUTSIDE DIAMETER	NOMINAL WALL THICKNESS	WEIGHT per UNIT LENGTHS
inch	in. ^B	lb/ft ^C
6	0.134	8.40
	0.141	8.83
	0.156	9.75
	0.164	10.23
	0.172	10.72
8	0.141	11.85
	0.172	14.39

OUTSIDE DIAMETER	NOMINAL WALL THICKNESS	WEIGHT per UNIT LENGTHS
inch	in. ^B	lb/ft ^C
8 ½	0.109	9.92
	0.141	12.79
	0.172	15.54
	0.188	16.96
	0.203	18.28
	0.219	19.68
	0.250	22.38
	0.277	24.72
	0.312	27.73
	0.322	28.58
	0.344	30.45
	0.375	33.07
	0.438	38.33
	0.500	43.43



Our custom-manufactured steel pipe are available in various wall thicknesses, length & outside diameter size (e.g. Standard JIS A 5525 : 2009 - Steel Pipe Piles). Please contact us for further information.

STRUCTURAL PIPES
ERW
HFW



PIPA BAJA UNTUK PANCANG | SNI 8052 : 2014

SIFAT MEKANIK PIPA BAJA UNTUK PANCANG

		Kelas 1	Kelas 2	Kelas 3
Kuat Tarik	Mpa psi	345 (50000)	415 (60000)	455 (66000)
Kuat Luluh	Mpa psi	205 (30000)	240 (35000)	310 (45000)
Nilai regangan (elongasi) minimum untuk tebal nominal pipa 7,9 mm (5/16 inch) atau lebih: - Nilai regangan pada panjang ukur 50,8 mm (2 inch), % - Nilai regangan pada panjang ukur 203,2 mm (8 inch),%		30 18	25 14	20 -
Untuk tebal nominal pipa kurang dari 7,9 mm (5/16 inch), dasar pengurangan nilai regangan minimum pada panjang ukur 50,8 mm (2 inch) untuk setiap 0,8 mm (1/32 inch),%		1,50 ^A	1,25 ^A	1,0 ^A

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch		
2	60.3	2 ³ / ₈	3.90	5.44
2½	73.0	2 ⁷ / ₈	3.90	6.65
3	88.9	3½	5.49	11.29
4	114.3	4½	6.02	16.07
6	168.3	6 ³ / ₈	3.40	13.83
			3.58	14.54
			3.96	16.05
			4.17	16.88
			4.37	17.67
			4.55	18.37
			4.78	19.27
			5.16	20.76
			5.56	22.31
			5.84	23.40
			6.35	25.36
			7.11	28.26
			8.18	32.30
			9.00	35.36
			9.27	36.35
			9.53	37.31

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
8	219.1	8	4.78	25.26
			5.16	27.22
			5.56	29.28
			6.35	33.31
			7.11	37.17
			7.92	41.24
			8.18	42.55
			8.74	45.34
			9.00	46.63
			9.27	47.97
			9.53	49.25
			10.11	52.10
			11.13	57.08
			12.70	64.64

STRUCTURAL PIPES

ERW

HFW



CARBON STEEL TUBES FOR GENERAL STRUCTURE | JIS G 3444 (STK) : 2010 / SNI 0068 (PKB) : 2013

SYMBOL OF GRADE		TENSILE STRENGTH (N/mm ²)		YIELD STRENGTH (N/mm ²)
SNI 0068	JIS G 3444	SNI 0068	JIS G 3444	
PKB 30	STK 290	294 Min	290 Min	-
PKB 41	STK 400	402 Min	400 Min	235 Min

NOMINAL DIAMETER		SPECIFIED OUTSIDE DIAMETER	WALL THICKNESS	UNIT MASS
mm	inch	mm	mm	kg/m
15	½	21.7	2.0	0.972
20	¾	27.2	2.0	1.24
			2.3	1.41
25	1	34.0	2.3	1.80
32	1¼	42.7	2.3	2.29
			2.5	2.48
40	1½	48.6	2.3	2.63
			2.5	2.84
			2.8	3.16
			3.2	3.58
50	2	60.5	2.3	3.30
			3.2	4.52
			4.0	5.57
65	2½	76.3	2.8	5.08
			3.2	5.77
			4.0	7.13
80	3	89.1	2.8	5.96
			3.2	6.78
90	3½	101.6	3.2	7.76
			4.0	9.63
			5.0	11.9
100	4	114.3	3.2	8.77
			3.5	9.56
			4.5	12.2
125	5	139.8	3.6	12.1
			4.0	13.4
			4.5	15.0
			6.0	19.8
150	6	165.2	4.5	17.8
			5.0	19.8
			6.0	23.6
			7.1	27.7
175	7	190.7	4.5	20.7
			5.3	24.2
			6.0	27.3
			7.0	31.7
			8.2	36.9
200	8	216.3	4.5	23.5
			5.8	30.1
			6.0	31.1
			7.0	36.1
			8.0	41.1
			8.2	42.1
250	10	267.4	6.0	38.7
			7.0	45.0
			8.0	51.2
			9.0	57.3
300	12	318.5	6.0	46.2
			6.9	53.0
			8.0	61.3
			9.0	68.7

GRADE TABLE | **ASTM A 252-10**

GRADE	TENSILE STRENGTH psi (Mpa)	YIELD STRENGTH psi (Mpa)
1	50,000 (345)	30,000 (205)
2	60,000 (415)	35,000 (240)
3	66,000 (455)	45,000 (310)

STRUCTURAL PIPES
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STANDARD SPECIFICATION FOR WELDED AND SEAMLESS STEEL PIPE PILES | **ASTM A 252-10**

OUTSIDE DIAMETER		NOMINAL THICKNESS		MINIMUM THICKNESS		WEIGHT	
inch	mm	inch	mm	inch	mm	lb/ft	kg/m
6.625	168.28	0.250	6.35	0.219	5.56	17.038	25.356
		0.280	7.11	0.245	6.22	18.993	28.265
		0.312	7.92	0.273	6.93	21.057	31.337
		0.344	8.74	0.301	7.65	23.099	34.375
		0.375	9.53	0.328	8.33	25.057	37.288
8.00	203.20	0.250	6.35	0.219	5.56	20.713	30.825
		0.280	7.11	0.245	6.22	23.109	34.390
		0.312	7.92	0.273	6.93	25.644	38.162
		0.344	8.74	0.310	7.65	28.156	41.901
		0.375	9.53	0.328	8.33	30.569	45.492
8.625	219.08	0.250	6.35	0.219	5.56	22.384	33.311
		0.277	7.04	0.242	6.16	24.721	36.789
		0.312	7.92	0.273	6.93	27.728	41.264
		0.322	8.18	0.282	7.16	28.583	42.535
		0.344	8.74	0.301	7.65	30.454	45.321
		0.375	9.53	0.328	8.33	33.075	49.220
10.00	254.00	0.250	6.35	0.219	5.56	26.059	38.780
		0.279	7.09	0.244	6.20	28.995	43.149
		0.307	7.80	0.269	6.82	31.813	47.343
		0.344	8.74	0.301	7.65	35.511	52.846
		0.365	9.27	0.319	8.11	37.597	55.951
		0.438	11.13	0.383	9.73	44.775	66.632
10.75	273.05	0.250	6.35	0.219	5.56	28.063	41.763
		0.279	7.09	0.244	6.20	31.232	46.479
		0.307	7.80	0.269	6.82	34.275	51.006
		0.344	8.74	0.301	7.65	38.269	56.951
		0.365	9.27	0.319	8.11	40.524	60.306
		0.438	11.13	0.383	9.73	48.287	71.858
12.00	304.80	0.250	6.35	0.219	5.56	31.404	46.735
		0.281	7.14	0.246	6.25	35.205	52.391
		0.312	7.92	0.273	6.93	38.986	58.017
		0.330	8.38	0.289	7.33	41.171	61.270
		0.344	8.74	0.301	7.65	42.866	63.792
		0.375	9.53	0.328	8.33	46.605	69.356
		0.406	10.31	0.355	9.02	50.323	74.889
		0.438	11.31	0.383	9.73	54.140	80.569
12.75	323.85	0.250	6.35	0.219	5.56	33.409	49.718
		0.281	7.14	0.246	6.25	37.458	55.744
		0.312	7.92	0.273	6.93	41.487	61.740
		0.330	8.38	0.289	7.33	43.817	65.207
		0.344	8.74	0.301	7.65	45.625	67.897
		0.375	9.53	0.328	8.33	49.612	73.831
		0.438	11.31	0.383	9.73	57.652	85.795
14.00	355.60	0.250	6.35	0.219	5.56	36.750	54.689
		0.281	7.14	0.246	6.25	41.213	61.332
		0.312	7.92	0.273	6.93	45.657	67.945
		0.344	8.74	0.301	7.65	50.222	74.738
		0.375	9.53	0.328	8.33	54.623	81.288
		0.438	11.31	0.383	9.73	63.505	94.506
		0.469	11.91	0.410	10.42	67.844	100.963
16.00	406.40	0.250	6.35	0.219	5.56	42.095	62.644
		0.281	7.14	0.246	6.25	47.222	70.274
		0.312	7.92	0.273	6.93	52.328	77.872
		0.344	8.74	0.301	7.65	57.577	85.684
		0.375	9.53	0.328	8.33	62.641	93.221
		0.438	11.31	0.383	9.73	72.870	108.443
		0.469	11.91	0.410	10.42	77.872	115.886
		0.500	12.70	0.438	11.11	82.854	123.300

STRUCTURAL PIPES

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SPINDO® Spiral Submerged Arc Welded (SSAW) steel pipe is ideal for use in structural applications, such as foundation work (piling SNI 8052 : 2014, ASTM A 252) and in wharf, bridge and building construction projects. It offers major advantages over alternative materials as the spiral forming process produces accurately manufactured pipe that makes the product easy to use and, combined with high quality welding and testing, ensures enduring dependability.

STANDARD SPECIFICATION FOR WELDED AND SEAMLESS STEEL PIPE PILES | **ASTM A 252-10**

OUTSIDE DIAMETER		NOMINAL THICKNESS		MINIMUM THICKNESS		WEIGHT	
inch	mm	inch	mm	inch	mm	lb/ft	kg/m
18.00	457.20	0.250	6.35	0.219	5.56	47.440	70.599
		0.281	7.14	0.246	6.25	53.230	79.215
		0.312	7.92	0.273	6.93	58.999	87.800
		0.344	8.74	0.301	7.65	64.932	96.630
		0.375	9.53	0.328	8.33	70.659	105.153
		0.406	10.31	0.355	9.02	76366	113.645
		0.438	11.31	0.383	9.73	82.235	122.379
		0.469	11.91	0.410	10.42	87.900	130.810
20.00	508.00	0.500	12.70	0.438	11.11	93.544	139.209
		0.312	7.92	0.273	6.93	65.670	97.727
		0.344	8.74	0.301	7.65	72.288	107.576
		0.375	9.53	0.328	8.33	78.678	117.085
		0.438	11.13	0.383	9.73	91.600	136.316
		0.469	11.91	0.410	10.42	97.928	145.733
		0.500	12.70	0.438	11.11	104.235	155.119
22.00	558.80	0.562	14.27	0.492	12.49	116.788	173.799
		0.312	7.92	0.273	6.93	72.341	107.655
		0.375	9.53	0.328	8.33	86.696	129.017
		0.438	11.13	0.383	9.73	100.965	150.253
		0.469	11.91	0.410	10.42	107.956	160.656
		0.500	12.70	0.438	11.11	114.926	171.029
24.00	609.60	0.562	14.27	0.492	12.49	128.804	191.682
		0.375	9.53	0.328	8.33	94.714	140.950
		0.438	11.13	0.383	9.73	110.331	164.190
		0.469	11.91	0.410	10.42	117.984	175.579
		0.500	12.70	0.483	11.11	125.617	186.938
26.00	660.40	0.562	14.27	0.492	12.49	140.821	209.564
		0.375	9.53	0.328	8.33	102.732	152.882
		0.406	10.31	0.355	9.02	111.090	165.320
		0.438	11.13	0.383	9.73	119.696	178.127
		0.469	11.91	0.410	10.42	128.012	190.503
		0.500	12.70	0.438	11.11	136.308	202.848
28.00	711.20	0.562	14.27	0.492	12.49	152.837	227.447
		0.375	9.53	0.328	8.33	110.750	164.814
		0.406	10.31	0.355	9.02	119.771	178.238
		0.438	11.13	0.383	9.73	129.061	192.064
		0.469	11.91	0.410	10.42	138.040	205.426
		0.500	12.70	0.438	11.11	146.998	218.756
		0.562	14.27	0.492	12.49	164.854	245.329
30.00	762.00	0.625	15.88	0.547	13.89	182.913	272.204
		0.375	9.53	0.328	8.33	118.768	176.746
		0.406	10.31	0.355	9.02	128.452	191.157
		0.438	11.31	0.383	9.73	138.426	206.001
		0.469	11.91	0.410	10.42	148.068	220.349
		0.500	12.70	0.438	11.11	157.689	234.667
		0.562	14.27	0.492	12.49	176.870	263.212
32.00	812.80	0.625	15.88	0.547	13.89	196.276	292.091
		0.406	10.31	0.355	9.02	137.133	204.076
		0.438	11.13	0.383	9.73	147.791	219.937
		0.469	11.91	0.410	10.42	158.096	235.272
		0.500	12.70	0.438	11.11	168.380	250.577
		0.562	14.27	0.492	12.49	188.887	281.094
		0.625	15.88	0.547	13.89	209.640	311.978
		0.688	17.48	0.602	15.29	230.308	344.736
34	863.60	0.750	19.05	0.656	16.67	250.565	372.882
		0.812	20.62	0.711	18.05	270.741	402.906
		0.406	10.31	0.355	9.02	145.813	216.994
		0.438	11.13	0.383	9.73	157.156	233.874

Pipa baja SSAW SPINDO® sangat ideal untuk digunakan pada berbagai aplikasi struktural, seperti pekerjaan pondasi (tiang pancang SNI 8052 : 2014, ASTM A252) dan di dermaga, jembatan dan konstruksi bangunan proyek. Pipa baja SPINDO® sangat bermanfaat sebagai bahan alternatif konstruksi karena proses manufaktur pembentukan pipa spiral yang akurat membuat produk yang mudah digunakan, serta dikombinasikan dengan pengelasan berkualitas tinggi dan uji produk untuk memastikan kehandalan.



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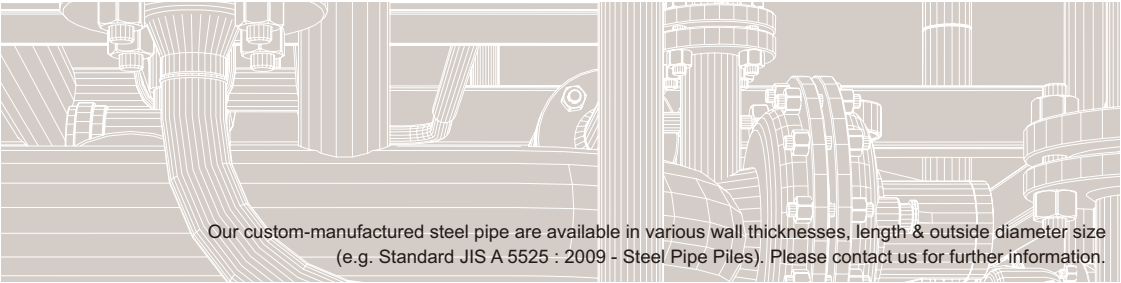
OUTSIDE DIAMETER		NOMINAL THICKNESS		MINIMUM THICKNESS		WEIGHT	
inch	mm	inch	mm	inch	mm	lb/ft	kg/m
34.00	863.60	0.469	11.91	0.410	10.42	168.124	250.196
		0.500	12.70	0.438	11.11	179.071	266.487
		0.562	14.27	0.492	12.49	200.903	298.977
		0.625	15.88	0.547	13.89	223.003	331.865
		0.688	17.48	0.602	15.29	245.019	364.628
		0.750	19.05	0.656	16.67	266.602	396.747
		0.812	20.62	0.711	18.09	288.102	428.744
36.00	914.40	0.438	11.13	0.383	9.73	166.521	247.811
		0.469	11.91	0.410	10.42	178.152	265.119
		0.500	12.70	0.438	11.11	189.762	282.396
		0.562	14.27	0.492	12.49	212.919	316.859
		0.625	15.88	0.547	13.89	236.367	351.752
		0.688	17.48	0.602	15.29	259.729	386.519
		0.750	19.05	0.656	16.67	282.638	420.611
38.00	965.20	0.812	20.62	0.711	18.05	305.464	454.581
		0.875	22.23	0.766	19.45	328.575	488.973
		0.438	11.13	0.383	9.73	175.887	261.748
		0.469	11.91	0.410	10.42	188.180	280.042
		0.500	12.70	0.438	11.11	200.452	298.306
		0.562	14.27	0.492	12.49	224.936	334.741
		0.625	15.88	0.547	13.89	249.730	371.639
40.00	1016.00	0.688	17.48	0.602	15.29	274.440	408.411
		0.750	19.05	0.656	16.67	298.674	444.476
		0.812	20.62	0.711	18.05	322.826	480.418
		0.875	22.23	0.766	19.45	347.284	516.815
		0.438	11.13	0.383	9.73	185.252	275.685
		0.469	11.91	0.410	10.42	198.208	294.965
		0.500	12.70	0.438	11.11	211.143	314.216
42.00	1066.80	0.562	14.27	0.492	12.49	236.952	352.624
		0.625	15.88	0.547	13.89	263.094	391.526
		0.688	17.48	0.602	15.29	289.150	430.303
		0.750	19.05	0.656	16.67	314.710	468.340
		0.812	20.62	0.711	18.05	340.188	506.255
		0.875	22.23	0.766	19.45	365.993	544.657
		0.438	11.13	0.383	9.73	194.617	289.622
44.00	1117.60	0.469	11.91	0.410	10.42	208.236	309.889
		0.500	12.70	0.438	11.11	221.834	330.125
		0.562	14.27	0.492	12.49	248.969	370.506
		0.625	15.88	0.547	13.89	276.457	411.413
		0.688	17.48	0.602	15.29	303.861	452.194
		0.750	19.05	0.656	16.67	330.746	492.205
		0.812	20.62	0.711	18.05	357.550	532.093
46.00	1168.40	0.875	22.23	0.766	19.45	384.701	572.499
		0.438	11.13	0.383	9.73	203.982	303.559
		0.469	11.91	0.410	10.42	218.264	324.812
		0.500	12.70	0.438	11.11	232.525	346.035
		0.562	14.27	0.492	12.49	260.985	388.389
		0.625	15.88	0.547	13.89	289.821	431.301
		0.688	17.48	0.602	15.29	318.571	474.086
48.00	1219.20	0.750	19.05	0.656	16.67	346.782	516.069
		0.812	20.62	0.711	18.05	374.912	577.930
		0.875	22.23	0.766	19.45	403.410	600.341
		0.438	11.13	0.383	9.73	213.347	317.495
		0.469	11.91	0.410	10.42	228.292	339.735
		0.500	12.70	0.438	11.11	243.215	361.944
		0.562	14.27	0.492	12.49	273.002	406.271
50.00	1270.00	0.625	15.88	0.547	13.89	303.184	451.188
		0.688	17.48	0.602	15.29	333.282	495.978

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OUTSIDE DIAMETER		NOMINAL THICKNESS		MINIMUM THICKNESS		WEIGHT	
inch	mm	inch	mm	inch	mm	lb/ft	kg/m
46	1168.40	0.750	19.05	0.656	16.67	362.819	539.934
		0.812	20.62	0.711	18.05	392.273	583.767
		0.875	22.23	0.766	19.45	422.119	628.182
48	1219.20	0.438	11.13	0.383	9.73	222.712	331.432
		0.469	11.91	0.410	10.42	238.320	354.658
		0.500	12.70	0.438	11.11	253.906	377.854
		0.562	14.27	0.492	12.49	285.018	424.154
		0.625	15.88	0.547	13.89	316.548	471.075
		0.688	17.48	0.602	15.29	347.992	517.869
		0.750	19.05	0.656	16.67	378.855	563.798
		0.812	20.62	0.711	18.05	409.635	609.604
		0.875	22.23	0.766	19.45	440.828	656.024
		0.938	23.83	0.821	20.85	471.936	702.318
52	1320.80	0.438	11.13	0.383	9.73	241.442	359.306
		0.469	11.91	0.410	10.42	258.375	384.505
		0.500	12.70	0.438	11.11	275.288	409.673
		0.562	14.27	0.492	12.49	309.051	459.919
		0.625	15.88	0.547	13.89	343.275	510.849
		0.688	17.48	0.602	15.29	377.412	561.653
		0.750	19.05	0.656	16.67	410.927	611.527
		0.812	20.62	0.711	18.05	444.359	661.279
		0.875	22.23	0.766	19.45	478.246	711.708
		0.938	23.83	0.821	20.85	512.048	762.011
56	1422.40	0.438	11.13	0.383	9.73	260.173	387.180
		0.469	11.91	0.410	10.42	278.431	414.351
		0.500	12.70	0.438	11.11	296.669	441.493
		0.562	14.27	0.492	12.49	333.084	495.683
		0.625	15.88	0.547	13.89	370.002	550.623
		0.688	17.48	0.602	15.29	406.834	605.436
		0.750	19.05	0.656	16.67	443.000	659.256
		0.812	20.62	0.711	18.05	479.083	712.953
		0.875	22.23	0.766	19.45	515.664	767.392
		0.938	23.83	0.821	20.85	552.160	821.704
60	1524.00	0.438	11.13	0.383	9.73	278.903	415.053
		0.469	11.91	0.410	10.42	298.487	444.198
		0.500	12.70	0.438	11.11	318.051	473.312
		0.562	14.27	0.492	12.49	357.117	531.448
		0.625	15.88	0.547	13.89	396.729	590.397
		0.688	17.48	0.602	15.29	436.255	649.219
		0.750	19.05	0.656	16.67	475.072	706.985
		0.812	20.62	0.711	18.05	513.806	764.628
		0.875	22.23	0.766	19.45	553.081	823.076
		0.938	23.83	0.821	20.85	592.271	881.397
64	1625.60	0.438	11.13	0.383	9.73	297.633	442.927
		0.469	11.91	0.410	10.42	318.543	474.044
		0.500	12.70	0.438	11.11	339.433	505.131
		0.562	14.27	0.492	12.49	381.150	567.213
		0.625	15.88	0.547	13.89	423.455	630.171
		0.688	17.48	0.602	15.29	465.676	693.003
		0.750	19.05	0.656	16.67	507.144	754.714
		0.812	20.62	0.711	18.05	548.530	816.303
		0.875	22.23	0.766	19.45	590.499	878.759
		0.938	23.83	0.821	20.85	632.383	941.090
68	1727.20	0.469	11.91	0.410	10.42	338.599	503.891
		0.500	12.70	0.438	11.11	360.814	536.951
		0.562	14.27	0.492	12.49	405.183	602.978
		0.625	15.88	0.547	13.89	450.182	669.945
		0.688	17.48	0.602	15.29	495.097	736.786



Our custom-manufactured steel pipe are available in various wall thicknesses, length & outside diameter size (e.g. Standard JIS A 5525 : 2009 - Steel Pipe Piles). Please contact us for further information.

STRUCTURAL PIPES

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STANDARD SPECIFICATION FOR WELDED AND SEAMLESS STEEL PIPE PILES | **ASTM A 252-10**

OUTSIDE DIAMETER		NOMINAL THICKNESS		MINIMUM THICKNESS		WEIGHT	
inch	mm	inch	mm	inch	mm	lb/ft	kg/m
68	1727.20	0.750	19.05	0.656	16.67	539.217	802.443
		0.812	20.62	0.711	18.05	583.254	867.977
		0.875	22.23	0.766	19.45	627.917	934.443
		0.938	23.83	0.821	20.85	672.495	1000.783
72	1828.80	0.500	12.70	0.438	11.11	382.196	586.770
		0.562	14.27	0.492	12.49	429.215	638.743
		0.625	15.88	0.547	13.89	476.909	709.719
		0.688	17.48	0.602	15.29	524.519	780.569
		0.750	19.05	0.656	16.67	571.289	850.172
		0.812	20.62	0.711	18.05	617.977	919.652
		0.875	22.23	0.766	19.45	655.335	990.127
		0.938	23.83	0.821	20.85	712.607	1060.476
76	1930.40	0.500	12.70	0.438	11.11	403.577	600.589
		0.562	14.27	0.492	12.49	453.248	674.508
		0.625	15.88	0.547	13.89	503.636	749.493
		0.688	17.48	0.602	15.29	553.940	824.353
		0.750	19.05	0.656	16.67	603.361	897.901
		0.812	20.62	0.711	18.05	625.701	971.326
		0.875	22.23	0.766	19.45	702.752	1045.811
		0.938	23.83	0.821	20.85	752.719	1120.169
80	2032.00	0.562	14.27	0.492	12.49	477.281	710.273
		0.625	15.88	0.547	13.89	530.363	789.268
		0.688	17.48	0.602	15.29	583.361	868.136
		0.750	19.05	0.656	16.67	635.434	945.630
		0.812	20.62	0.711	18.05	687.425	1023.001
		0.875	22.23	0.766	19.45	740.170	1101.494
		0.938	23.83	0.821	20.85	792.831	1179.862
118	3000.00	0.562	14.27	0.492	12.49	477.281	710.273
		0.625	15.88	0.547	13.89	530.363	789.268
		0.688	17.48	0.602	15.29	583.361	868.136
		0.750	19.05	0.656	16.67	635.434	945.630
		0.812	20.62	0.711	18.05	687.425	1023.001
		0.875	22.23	0.766	19.45	740.170	1101.494
		0.938	23.83	0.821	20.85	792.831	1179.862

STRUCTURAL PIPES
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Our custom-manufactured steel pipe are available in various wall thicknesses, length & outside diameter size (e.g. Standard JIS A 5525 : 2009 - Steel Pipe Piles). Please contact us for further information.

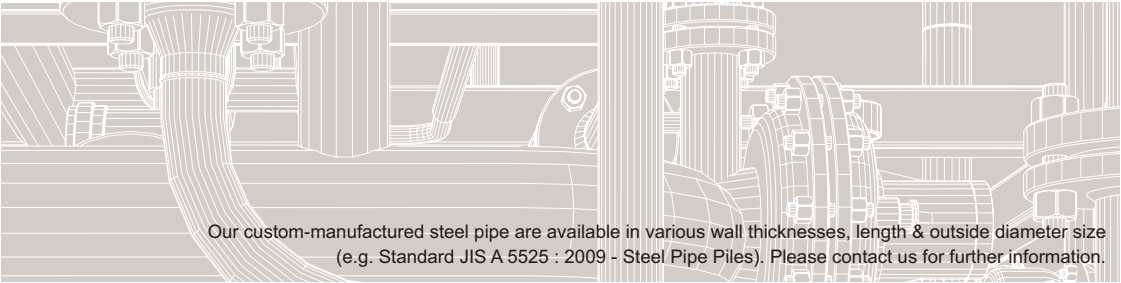


PIPA BAJA UNTUK PANCANG | SNI 8052 : 2014

SIFAT MEKANIK PIPA BAJA UNTUK PANCANG		Kelas 1	Kelas 2	Kelas 3
Kuat Tarik	Mpa psl	345 (50000)	415 (60000)	455 (66000)
Kuat Luluh	Mpa psl	205 (30000)	240 (35000)	310 (45000)
Nilai regangan (elongasi) minimum untuk tebal nominal pipa 7,9 mm (5/16 inch) atau lebih: - Nilai regangan pada panjang ukur 50,8 mm (2 inch), % - Nilai regangan pada panjang ukur 203,2 mm (8 inch),%		30 18	25 14	20 -
Untuk tebal nominal pipa kurang dari 7,9 mm (5/16 inch), dasar pengurangan nilai regangan minimum pada panjang ukur 50,8 mm (2 inch) untuk setiap 0,8 mm (1/32 inch),%		1,50 [^]	1,25 [^]	1,0 [^]

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
6	168.3	6%	6.35	25.36
			7.11	28.26
			8.18	32.30
			9.00	35.36
			9.53	37.31
8	219.1	8%	6.35	33.31
			7.11	37.17
			7.92	41.24
			8.18	42.55
			8.74	45.34
			9.00	46.63
			9.27	47.97
			9.53	49.25

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
10	273.05	10%	6.35	41.76
			7.11	46.63
			7.80	51.02
			7.92	51.78
			8.18	53.43
			8.38	54.69
			8.74	56.97
			9.00	58.60
			9.27	60.30
			9.53	61.93
			10.11	65.55
			10.31	66.80
			11.13	71.89



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UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
12	323.9	12¾	6.35	49.73
			7.11	55.54
			7.80	60.80
			7.92	61.71
			8.18	63.69
			8.38	65.20
			8.74	67.93
			9.00	69.89
			9.27	71.92
			9.53	73.88
			10.11	78.23
			10.31	79.73
14	355.6	14	11.13	85.84
			6.35	54.69
			7.11	61.10
			7.80	66.90
			7.92	67.90
			8.18	70.08
			8.38	71.75
			8.74	74.76
			9.00	76.92
			9.27	79.17
			9.53	81.33
			10.11	86.14
16	406.4	16	10.31	87.79
			11.13	94.55
			6.35	62.64
			7.11	70.01
			7.80	76.67
			7.92	77.83
			8.18	80.33
			8.38	82.25
			8.74	85.71
			9.00	88.20
			9.27	90.78
			9.53	93.27
			10.11	98.80
			10.31	100.70
			11.31	108.49
			12.00	116.71
			12.70	123.30

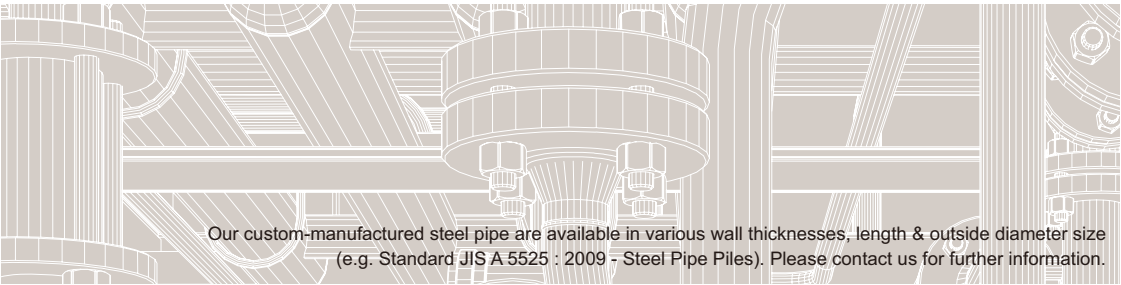
UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
18	457.2	18	6.35	70.60
			7.11	78.92
			7.80	86.44
			7.92	87.75
			8.18	90.58
			8.38	92.75
			8.74	96.66
			9.00	99.47
			9.27	102.40
			9.53	105.21
			10.11	111.47
			10.31	113.62
20	508	20	11.31	122.43
			12.00	131.74
			12.70	139.21
			6.35	78.55
			7.11	87.82
			7.80	96.21
			7.92	97.67
			8.18	100.82
			8.38	103.25
			8.74	107.60
			9.00	110.75
			9.27	114.01
22	558.8	22	9.53	117.15
			10.11	124.13
			10.31	126.53
			11.13	136.37
			12.00	146.78
			12.70	155.12
			13.00	158.69
			14.13	172.09
			14.27	173.74
			6.35	86.51
			7.11	96.73
			7.80	105.98
			7.92	107.59
			8.18	111.07
			8.38	113.74
			8.74	118.55
			9.00	122.02

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UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
22	558.8	22	9.27	125.62
			9.53	129.08
			10.11	136.80
			10.31	139.45
			11.13	150.32
			12.00	161.81
			12.70	171.03
			13.00	174.97
			14.13	189.79
			14.27	191.62
24	609.6	24	9.50	140.59
			10.30	152.22
			11.10	163.83
			11.90	175.40
			12.70	186.94
			14.30	209.93
			15.90	232.79
			17.50	255.52
			19.10	278.13
			20.60	299.21
			22.20	321.57
			23.80	343.81
26	660.4	26	9.50	152.49
			10.30	165.12
			11.10	177.73
			11.90	190.30
			12.70	202.85
			14.30	227.84
			15.90	252.70
			17.50	277.44
			19.10	302.06
			20.60	325.02
			22.20	349.38
			23.80	373.63
28	711.2	28	9.50	164.39
			10.30	178.03
			11.10	191.64
			10.90	205.21
			12.70	218.76
			14.30	245.75
			15.90	272.62

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
30	762	30	9.50	176.29
			10.30	190.93
			11.10	205.54
			11.90	220.12
			12.70	234.67
			14.30	263.67
			15.90	292.54
32	812.8	32	10.30	203.83
			11.10	219.45
			11.90	235.03
			12.70	250.58
			14.30	281.58
			15.90	312.46
			17.50	343.21
34	863.6	34	19.10	373.84
			20.60	402.43
			10.30	216.74
			11.10	233.35
			11.90	249.93
			12.70	266.49
			14.30	299.50
36	914.4	36	15.90	332.38
			17.50	365.13
			19.10	397.76
			20.60	428.24
			11.10	247.26
			11.90	264.84
			12.70	282.40
38	965.2	38	14.30	317.41
			15.90	352.30
			17.50	387.06
			19.10	421.69
			20.60	454.05
			22.20	488.44
			11.10	261.16
			11.90	279.75
			12.70	298.31
			14.30	335.32
			15.90	372.21
			17.50	408.98
			19.10	445.62



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UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
38	965.2	38	20.60	479.85
			22.20	516.25
40	1016	40	11.10	275.07
			11.90	294.66
			12.70	314.22
			14.30	353.24
			15.90	392.13
			17.50	430.90
			19.10	469.55
			20.60	505.66
			22.20	544.06
42	1067	42	11.10	289.03
			11.90	309.62
			12.70	330.19
			14.30	371.22
			15.90	412.13
			17.50	452.91
			19.10	493.57
			20.60	531.57
			22.20	571.98
44	1118	44	11.10	302.99
			11.90	324.59
			12.70	346.16
			14.30	389.21
			15.90	432.13
			17.50	474.92
			19.10	517.59
			20.60	557.47
			22.20	599.90
46	1168	46	7.90	226.00
			8.70	248.72
			9.50	271.40
			10.30	294.05
			11.10	316.67
			11.90	339.26
			12.70	361.82
			14.30	406.84
			15.90	451.73
			17.50	496.50
			19.10	541.14
			20.60	582.87

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
46	1168	46	22.20	627.27
48	1219	48	11.10	330.63
			11.90	354.23
			12.70	337.79
			14.30	424.82
			15.90	471.73
			17.50	518.51
			19.10	565.16
			20.60	608.78
			22.20	655.19
			23.80	701.47
50	1270	50	12.00	372.27
			14.00	433.62
			16.00	494.78
			19.00	586.14
			20.00	616.50
			22.00	677.06
			25.00	767.54
52	1320.8	52	12.00	387.30
			14.00	451.16
			16.00	514.82
			19.00	609.95
			20.00	641.55
			22.00	704.62
			25.00	798.86
53	1346.2	53	12.00	394.82
			14.00	459.93
			16.00	524.84
			19.00	621.85
			20.00	654.08
			22.00	718.40
			25.00	814.52
54	1371.6	54	12.00	402.33
			14.00	468.70
			16.00	534.87
			19.00	633.75
			20.00	666.61
			22.00	732.18
			25.00	830.18
56	1422.4	56	12.00	417.37
			14.00	486.24

STRUCTURAL PIPES
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UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
56	1422.4	56	16.00	554.91
			19.00	657.55
			20.00	691.66
			22.00	759.75
			25.00	861.50
58	1473.2	58	12.00	432.40
			14.00	503.77
			16.00	574.95
			19.00	681.35
			20.00	716.72
			22.00	787.31
			25.00	892.82
59	1498.6	59	12.00	439.91
			14.00	512.54
			16.00	584.97
			19.00	693.25
			20.00	729.25
			22.00	801.09
			25.00	908.47

UKURAN	DIAMETER LUAR NOMINAL		TEBAL DINDING PIPA NOMINAL	BERAT PER SATUAN PANJANG
	mm	inch	mm	kg/m
62	1574.8	62	12.00	462.46
			14.00	538.85
			16.00	615.04
			19.00	728.95
			20.00	766.83
			22.00	842.43
64	1625.6	64	25.00	955.45
			12.00	477.50
			14.00	556.39
			16.00	635.08
			19.00	752.76
			20.00	791.88
			22.00	869.99
			25.00	986.77

For other standard pipe: custom thicknesses, length, and diameter size are also available. Please contact us for more information.



STEEL POLES

FORTHEN
indonesia

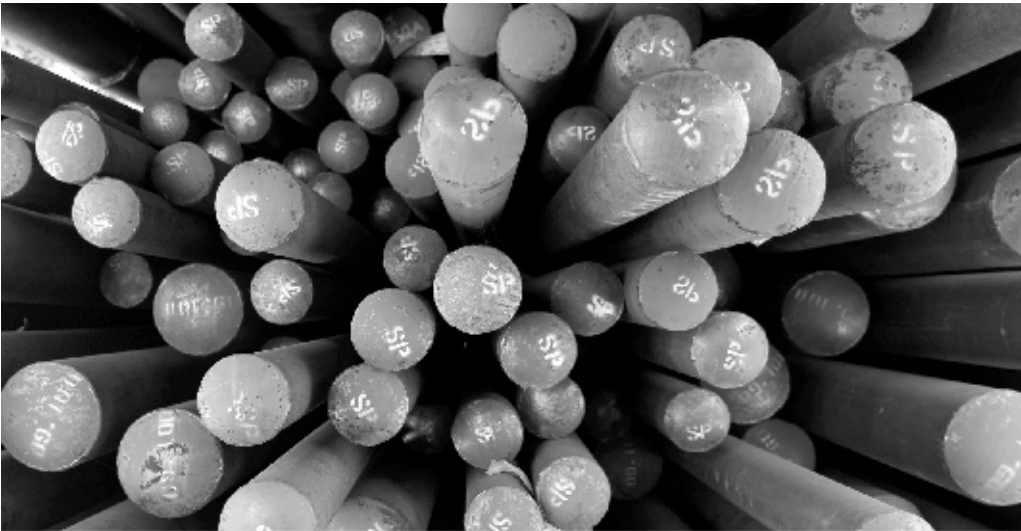
TELEPHONE POLES

SPINDO® telephone poles are designed to meet requirements. Steel poles are lighter than concrete poles, our light duty standard class poles are easy to erect and maintain.

Tiang telepon SPINDO® dirancang untuk memenuhi berbagai permintaan pelanggan. Tiang baja memiliki keunggulan lebih ringan dibandingkan tiang beton, serta mudah untuk pemeliharaan.

Telephone Poles Dimension | STANDARD : STEL - L 003 - 2004

No.	Description	Notation	Type of Pole			
			T.6	T.7	T.8	T.9
1	Total Length	L	(6000 ± 15)mm	(7000 ± 15)mm	(8000 ± 15)mm	(9000 ± 15)mm
2	Length of Pole upper portion	L1	(2200 ± 5.5)mm	(1570 ± 3.4)mm	(1570 ± 3.0)mm	(2200 ± 3.8)mm
3	Length of Pole middle portion	L2		(1570 ± 3.4)mm	(1570 ± 3.0)mm	(2200 ± 3.8)mm
4	Length of Pole lower portion	L3	(4000 ± 10.5)mm	(4260 ± 8.2)mm	(5260 ± 9.0)mm	(5000 ± 7.4)mm
5	Length of Pole upper portion	I1	(2000 ± 40)mm	(1370 ± 40)mm	(1370 ± 40)mm	(2000 ± 40)mm
6	Length of Pole middle portion	I2		(1370 ± 40)mm	(1370 ± 40)mm	(2000 ± 40)mm
7	Length of Pole lower portion	I3	(4000 ± 10.5)mm	(4260 ± 8.2)mm	(5260 ± 9)mm	(5000 ± 7.4)mm
8	Outer Pole Diameter upper portion	D1	(76.3 ± 2) mm	(76.3 ± 2)mm	(76.3 ± 2)mm	(76.3 ± 2)mm
9	Outer Pole Diameter middle portion	D2		(114.3 ± 2.9)mm	(114.3 ± 2.9)mm	(114.3 ± 2.9)mm
10	Outer Pole Diameter lower portion	D3	(114.3 ± 2.9)mm	(139.8 ± 3.5)mm	(139.8 ± 3.5)mm	(139.8 ± 3.5)mm
11	Thickness of Pole upper portion	t1	(4.5 ± 0.25)mm	(2.9 ± 0.22)mm	(2.9 ± 0.22)mm	(4.5 ± 0.25)mm
12	Thickness of Pole middle portion	t2		(2.9 ± 0.22)mm	(2.9 ± 0.22)mm	(4.5 ± 0.25)mm
13	Thickness of Pole lower portion	t3	(7.5 ± 0.25)mm	(3.6 ± 0.24)mm	(4.1 ± 0.25)mm	(4.7 ± 0.25)mm
14	Minimum weight of Pole (including caps)	-	68 kg	71,4 kg	91,0 kg	120,0 kg
	Nominal weight of Pole (including caps)	-	72 kg	77,0 kg	97,6 kg	127,3 kg
15	Load bearing capacity equivalent horizontal load factor tolerance of 2,5 on a point of 10-cm from the top end, with the pole planted to the depth of 1/5 the pole length	-	140 kgf	140 kgf	140 kgf	140 kgf



SPINDO® offers electric poles with various heights & classes available for all distribution voltages. As an distribution equipment, steel pole is more cost-effective alternative to other materials.

Tiang listrik SPINDO® tersedia dalam berbagai macam ukuran dan tipe untuk berbagai kebutuhan tegangan. Sebagai peralatan untuk mendistribusikan listrik, tiang baja menawarkan alternatif hemat biaya dibanding material yang lain.

ELECTRIC POLES

Electric Poles Dimension | SPLN D3.019-1 : 2012

TYPE	DIMENSION			STANDARD WEIGHT
	A	B	C	
9.100 daN	5" x 6.0 x 5.0 M	4" x 3.6 x 2.0 M	3" x 3.2 x 2.0 M	152.0 kg
9.200 daN	7" x 6.0 x 5.0 M	5" x 6.0 x 2.0 M	4" x 4.5 x 2.0 M	233.0 kg
9.350 daN	8" x 7.0 x 5.0 M	7" x 5.0 x 2.0 M	6" x 4.5 x 2.0 M	304.0 kg
11.100 daN	5" x 6.0 x 6.0 M	4" x 5.6 x 2.5 M	3" x 4.0 x 2.5 M	201.0 kg
11.200 daN	7" x 6.0 x 6.0 M	6" x 4.5 x 2.5 M	4" x 4.5 x 2.5 M	270.0 kg
11.350 daN	10" x 6.0 x 6.0 M	8" x 4.5 x 2.5 M	6" x 4.5 x 2.5 M	379.0 kg
12.200 daN	8" x 6.0 x 6.0 M	7" x 5.0 x 4.0 M	5" x 4.0 x 2.0 M	342.0 kg
12.350 daN	10" x 6.0 x 6.0 M	8" x 6.0 x 4.0 M	6" x 4.5 x 2.0 M	440.0 kg
12.500 daN	12" x 6.0 x 6.0 M	10" x 6.0 x 4.0 M	8" x 4.5 x 2.0 M	538.0 kg
13.200 daN	8" x 6.0 x 6.0 M	7" x 6.0 x 5.0 M	5" x 4.0 x 2.0 M	389.0 kg
13.350 daN	10" x 8.0 x 6.0 M	8" x 7.0 x 5.0 M	6" x 4.5 x 2.0 M	581.0 kg
13.500 daN	12" x 7.0 x 6.0 M	10" x 6.0 x 5.0 M	8" x 4.5 x 2.0 M	627.0 kg
14.200 daN	10" x 6.0 x 6.0 M	7" x 6.0 x 5.0 M	6" x 4.5 x 3.0 M	468.0 kg
14.350 daN	12" x 6.0 x 6.0 M	10" x 6.0 x 5.0 M	8" x 4.5 x 3.0 M	600.0 kg
14.500 daN	14" x 6.3 x 6.0 M	12" x 6.0 x 5.0 M	10" x 6.0 x 3.0 M	814.0 kg
15.200 daN	10" x 6.0 x 6.0 M	8" x 6.0 x 5.0 M	6" x 4.5 x 4.0 M	507.0 kg
15.350 daN	12" x 6.0 x 6.0 M	10" x 6.0 x 5.0 M	8" x 4.5 x 4.0 M	624.0 kg
15.500 daN	14" x 6.3 x 6.0 M	12" x 6.0 x 5.0 M	10" x 6.0 x 4.0 M	853.0 kg
16.200 daN	10" x 8.0 x 6.0 M	8" x 6.0 x 5.0 M	6" x 6.0 x 5.0 M	639.0 kg
16.350 daN	12" x 7.0 x 6.0 M	10" x 6.0 x 5.0 M	8" x 6.0 x 5.0 M	739.0 kg
16.500 daN	14" x 8.0 x 6.0 M	12" x 6.0 x 5.0 M	10" x 6.0 x 5.0 M	920.0 kg

Electric Poles for Medium Voltage

			12/200	12/350	12/500	13/200	13/350	13/500	14/200	14/350	14/500	15/200	15/350	15/500	16/200	16/350	16/500	
	C	DIAMETER [inch]	5	6	8	5	6	8	6	8	10	6	8	10	6	8	10	
		THICKNESS [mm]	4.0	4.5	4.5	4.0	4.5	4.5	4.5	4.5	4.5	6.0	4.5	4.5	6.0	6.0	6.0	6.0
		LENGTH [m]	2.0	2.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	3.0	4.0	4.0	4.0	5.0	5.0	5.0
	B	DIAMETER [inch]	7	8	10	7	8	10	7	10	12	8	10	12	8	10	12	12
		THICKNESS [mm]	5.0	6.0	6.0	6.0	7.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
		LENGTH [m]	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
	A	DIAMETER [inch]	8	10	12	8	10	12	10	12	14	10	12	14	10	12	14	14
		THICKNESS [mm]	6.0	6.0	6.0	6.0	8.0	7.0	6.0	6.0	6.3	6.0	6.0	6.3	8.0	7.0	8.0	8.0
		LENGTH [m]	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
		MAX ELONGATION ON WEIGHT [mm]	202	189	152	260	207	187	237	197	180	277	265	238	320	319	274	274
		WEIGHT [kg]	342	440	538	389	581	627	468	600	814	507	624	853	639	739	920	920

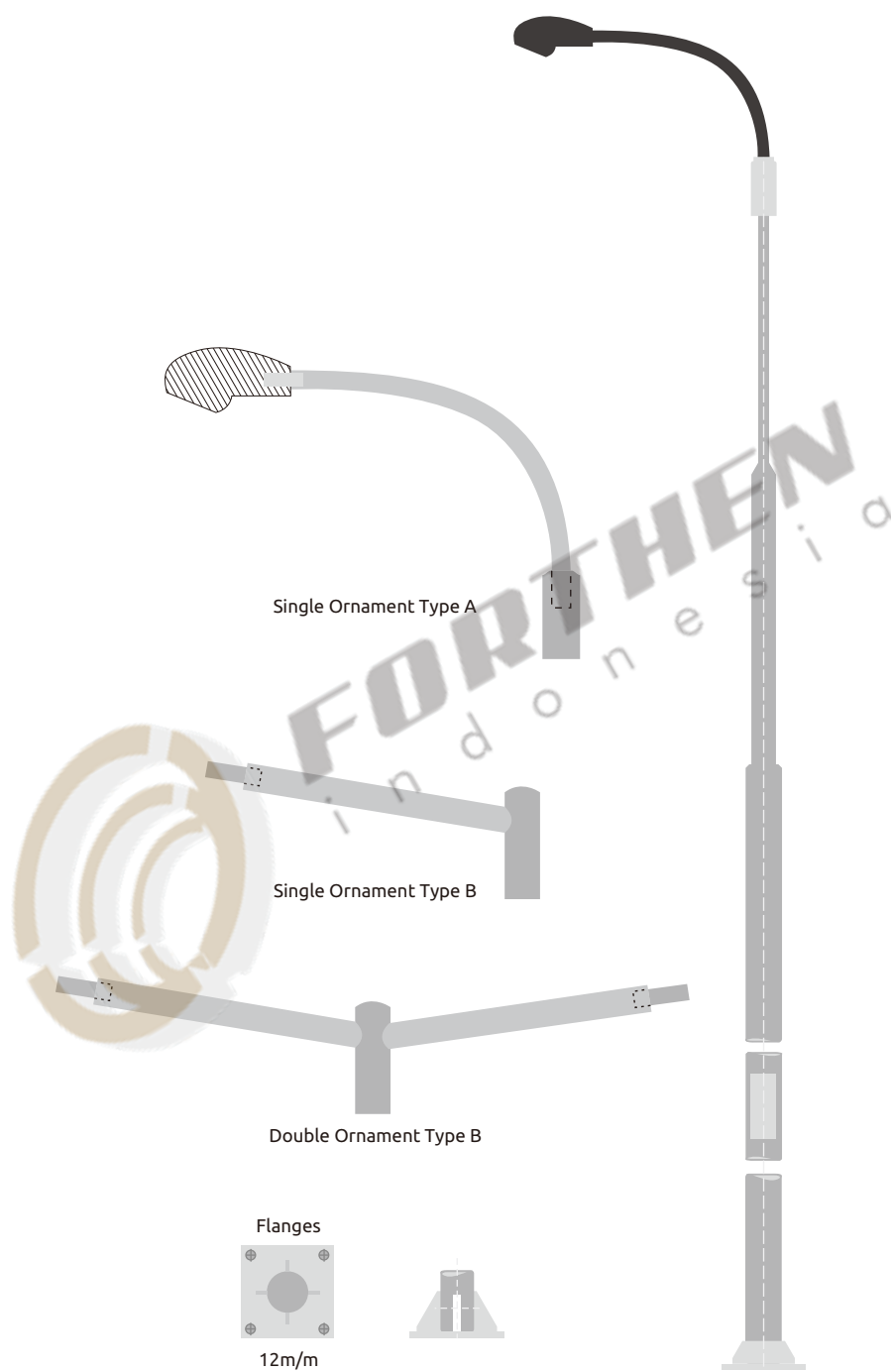
Electric Poles for Low Voltage

			9/100	9/200	9/350	11/100	11/200	11/350
	C	DIAMETER [inch]	3	4	6	3	4	6
		THICKNESS [mm]	3.2	4.5	4.5	4.0	4.5	4.5
		LENGTH [m]	2.0	2.0	2.0	2.5	2.5	2.5
	B	DIAMETER [inch]	4	5	7	4	6	8
		THICKNESS [mm]	3.6	6.0	5.0	5.6	4.5	4.5
		LENGTH [m]	2.0	2.0	2.0	2.5	2.5	2.5
	A	DIAMETER [inch]	5	7	8	5	7	10
		THICKNESS [mm]	6.0	6.0	7.0	6.0	6.0	6.0
		LENGTH [m]	5.0	5.0	5.0	6.0	6.0	6.0
		MAX ELONGATION ON WEIGHT [mm]		180	131	123	304	233
WEIGHT [kg]		152	233	304	201	270	379	

LIGHTING POLES

Efficient roadway lighting requires that it be safe, economical & low-maintenance. SPINDO® supplies poles that meet requirements in a variety of designs to match existing structures, or have more contemporary designs available.

Penerangan jalan raya yang efisien membutuhkan aspek keamanan, ekonomis dan perawatan yang mudah. Tiang SPINDO® memenuhi persyaratan desain sesuai dengan struktur yang ada, serta desain yang kontemporer.



Steel Lighting Poles [Size : 6.00 m - 18.00 m]

The Lighting Pole Construction can be made according to the drawing plan/construction of customer's demand or according to the standard construction design of PT SPINDO Tbk.

Finishing : *Galvanizing steel Lighting Pole
 *Red Primer painted Lighting Pole

STAINLESS STEEL



FORTHEW
Indonesia

STAINLESS STEEL

ORNAMENTAL TUBES

Widely used for a variety of everyday appliances because it is extremely durable and able to withstand corrosion. These tubes will not rust, even if exposed to the elements, heat, and other extreme conditions.

Banyak digunakan untuk berbagai peralatan sehari-hari karena sangat awet dan mampu menahan korosi. Pipa ini tahan karat, bahkan apabila elemennya tak terlindungi, tahan panas, dan kondisi ekstrim lainnya.

Stainless Steel Ornamental Tubes Applications

- 1 Wheel Chair

4 Pool Handrails

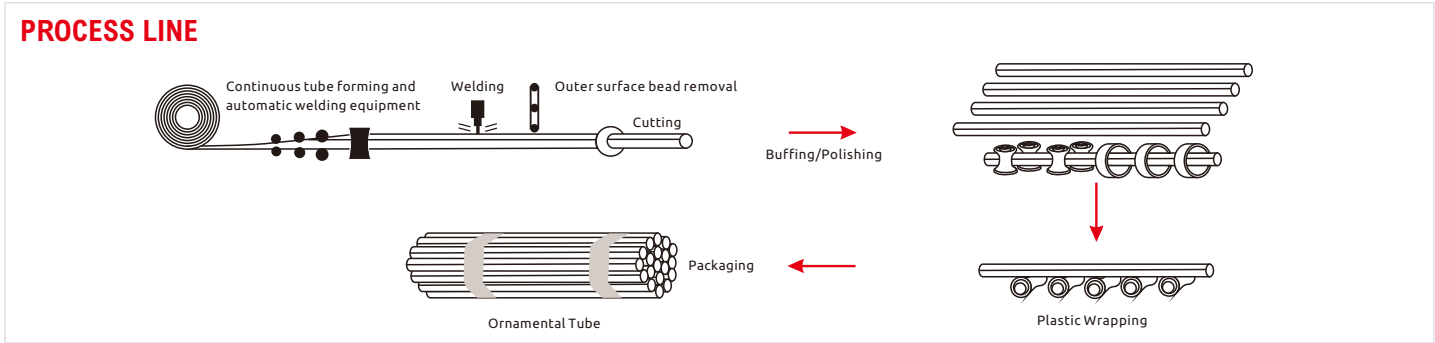
7 Turnstile Entrance
- 2 Decorative Lamp

5 Office Chair

8 Medical Equipment
- 3 Accessories

6 Handrail

9 Awning





STAINLESS STEEL

ORNAMENTAL TUBES

Stainless Steel Square Tubes | JIS G3459

12.5 X 12.5 mm	17.5 X 17.5 mm	25 X 25 mm	35 X 35 mm
15 X 15 mm	20 X 20 mm	30 X 30 mm	40 X 40 mm

Finish : Hairline

Stainless Steel Rectangular Tubes | JIS G3459

15 X 25 mm	20 X 30 mm	20 X 50 mm	25 X 55 mm
15 X 35 mm	20 X 40 mm	25 X 50 mm	30 X 50 mm

Finish : Hairline

RANGE OF SIZE | STAINLESS STEEL ORNAMENTAL TUBES

NOMINAL DIAMETER (Inch)	OUTSIDE DIAMETER (mm)	WALL THICKNESS (mm)					
		0.8	1.0	1.2	1.5	1.8	2.0
1/2	12.7						
5/8	15.9						
3/4	19.0						
7/8	22.2						
1	25.4						
1 1/4	31.8						
1 1/2	38.1						
2	50.8						
2 1/2	63.5						
3	76.2						
3 1/2	88.9						
4	101.6						

AVAILABLE FINISH SURFACE : - MILL FINISH 400 GRIT

STAINLESS STEEL ORNAMENTAL TUBE (Weight on kg / 6 m) | JIS G3459

NOMINAL DIAMETER (Inch)	OUTSIDE DIAMETER (mm)	WALL THICKNESS				
		0.8 mm	1.0 mm	1.2 mm	1.5 mm	2.0 mm
1/2	12.7	1.42	1.74	2.06	-	-
5/8	15.9	1.81	2.22	2.64	3.24	-
3/4	19.1	2.19	2.70	3.21	3.96	-
7/8	22.2	2.56	3.18	3.78	4.68	-
1	25.4	2.91	3.66	4.32	5.34	6.99
1 1/4	31.8	3.71	4.62	5.46	6.78	8.91
1 1/2	38.1	4.46	5.52	6.60	8.22	10.79
2	50.8	6.00	7.44	8.88	11.04	14.58
2 1/2	63.5	-	9.34	11.16	13.92	18.36
3	76.2	-	-	13.45	16.74	22.20
3 1/2	88.9	-	-	15.72	19.62	25.98
4	101.6	-	-	18.00	22.44	29.76

CHEMICAL COMPOSITION

SYMBOL	CHEMICAL COMPOSITION (%)										
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	N	OTHER
TP 304	≤0.08	1.0	2.00	≤0.040	≤0.030	8.00~11.00	18.00~20.00	-	-	-	-
SUS 304	≤0.08	≤1.00	2.00	≤0.045	≤0.030	8.00~11.00	18.00~20.00	-	-	-	-
J4	0.100 max	0.75 max	8.50 10.00	0.080 max	0.010 max	1.00 2.00	15.00 16.00	-	1.50 2.00	0.20 max	-
JSL U	0.130 max	0.75 max	9.00 10.50	0.100 max	0.010 max	0.50 0.70	15.00 16.00	-	1.90 2.20	0.20 max	-

STAINLESS STEEL



INDUSTRIAL PIPES

Stainless steel pipes have superior corrosion resistance, heat resistance, and low-temperature properties, and have been used as raw materials that can withstand harsh environments such as chemical industries (sugar industries).

Pipa stainless steel memiliki ketahanan superior terhadap korosi, tahan panas, dan memiliki sifat suhu rendah, serta telah digunakan sebagai bahan baku yang dapat menahan lingkungan yang keras seperti industri kimia (industri gula).

RANGE OF SIZE | **STAINLESS STEEL PIPES FOR SUGAR INDUSTRY**

OUTSIDE DIAMETER (OD)															
27.2 mm	35.0 mm	36.0 mm	38.0 mm	42.7 mm	44.5 mm	50.0 mm	50.8 mm	76.2 mm	76.3 mm	89.1 mm	100.3 mm	101.0 mm	101.4 mm	101.6 mm	

*The Length for pipes can be made according to the customer's demand

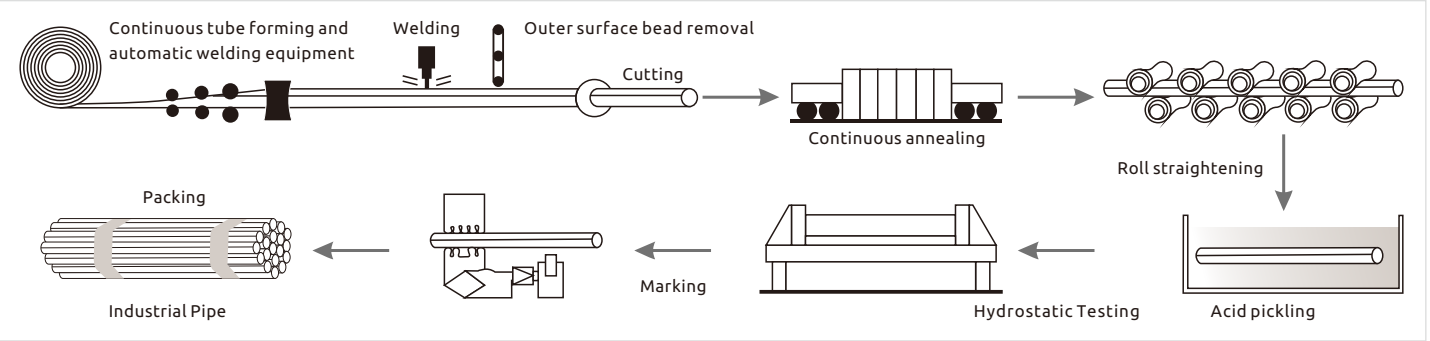
STAINLESS STEEL PIPES FOR GENERAL INDUSTRY | **ASTM A 312 | JIS G3459 | SNI 07 - 2658**

NOMINAL DIAMETER	OUTSIDE DIAMETER		SCH10				SCH20		SCH40			
	ASTM	JIS SNI	ASTM		JIS SNI		JIS SNI		ASTM		JIS SNI	
	Inch	mm	mm	WALL THICKNESS (mm)	WEIGHT (kg/pc)	WALL THICKNESS (mm)	WEIGHT (kg/pc)	WALL THICKNESS (mm)	WEIGHT (kg/pc)	WALL THICKNESS (mm)	WEIGHT (kg/pc)	WALL THICKNESS (mm)
¼	-	13.80	-	-	1.65	3.00	2.00	3.54	-	-	2.20	3.84
⅜	17.15	17.30	1.65	3.82	1.65	3.86	2.00	4.57	2.31	5.12	2.30	5.15
½	21.34	21.70	2.11	6.06	2.10	6.15	2.50	7.17	2.77	7.69	2.80	7.91
¾	26.67	27.20	2.11	7.75	2.10	7.88	2.50	9.23	2.87	10.21	2.90	10.53
1	33.40	34.00	2.77	12.68	2.80	13.06	3.00	13.90	3.38	15.17	3.40	15.55
1 ¼	42.16	42.70	2.77	16.31	2.80	16.70	3.00	17.80	3.56	20.54	3.60	21.04
1 ½	48.26	48.60	2.77	18.83	2.80	19.16	3.00	20.45	3.68	24.52	3.70	24.83
2	60.33	60.50	2.77	23.83	2.80	24.14	3.50	29.82	3.91	33.00	3.90	33.00
2 ½	73.03	76.30	3.05	31.90	3.00	32.87	3.50	38.10	-	-	-	-
3	88.90	89.10	3.05	39.13	3.00	38.60	4.00	50.87	-	-	-	-
3 ½	101.60	101.60	3.05	44.92	3.00	44.21	4.00	58.35	-	-	-	-
4	114.30	114.30	3.05	50.71	3.00	49.90	4.00	66.00	-	-	-	-

CHEMICAL COMPOSITION

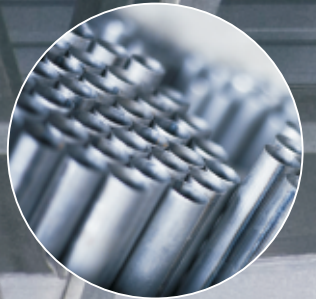
SYMBOL	CHEMICAL COMPOSITION (%)										
	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	N	OTHER
TP 304	≤0.08	1.00	2.00	≤0.040	≤0.030	8.00~11.00	18.00~20.00	-	-	-	-
SUS 304	≤0.08	≤1.00	2.00	0.045	≤0.030	8.00~11.00	18.00~20.00	-	-	-	-
J4	0.100 max	0.75 max	8.50 10.00	0.080 max	0.010 max	1.00 2.00	15.00 16.00	-	1.50 2.00	0.20 max	-

PROCESS LINE

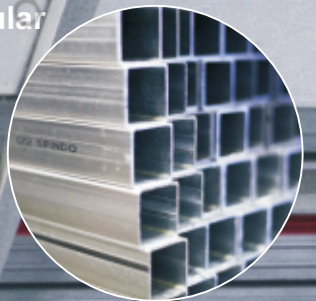


GI PIPES

Round
Pipes



Rectangular
Pipes





Galvanized Iron Pipes / GI Pipes are mostly applied for ceiling frame, wall partition frame, canopy, fence, gate, electric and telecom cable duct. Our pipes are flexibelly manufactured in standard and customized specifications.

Pipa besi galvanis / pipa GI sebagian besar diaplikasikan sebagai rangka langit-langit / plafond, rangka partisi dinding, kanopi, pagar, gerbang, saluran kabel listrik dan telekomunikasi. Pipa kami secara fleksibel diproduksi sesuai spesifikasi standar atau kustom

Rectangular Pipes

DIMENSION	THICKNESS (mm)										
	0.50	0.60	0.70	0.80	0.90	1.00	1.20	1.35	1.50	1.70	1.70 - 3.00
12.5 x 12.5	●	●									
12.5 x 15		●	●	●	●	●	●	●			
15 x 15		●	●	●	●	●	●	●			
17 x 17	●	●	●	●	●	●	●	●			
17.5 x 17.5	●	●									
12.7 x 25.4			●	●	●	●	●	●			
19 x 19	●	●									
20 x 20			●	●	●	●	●	●	●	●	
15 x 30		●	●	●	●	●	●	●	●	●	
15 x 35	●	●	●	●	●	●	●	●	●	●	
20 x 30		●	●	●	●	●	●	●	●	●	
25 x 25	●	●	●	●	●	●	●	●	●	●	
17 x 37		●	●	●	●	●	●	●	●	●	
28 x 28		●	●	●	●	●	●	●	●	●	
20 x 40	●	●	●	●	●	●	●	●	●	●	
30 x 30	●	●	●	●	●	●	●	●	●	●	
35 x 35	●	●	●	●	●	●	●	●	●	●	
30 x 40		●	●	●	●	●	●	●	●	●	
37 x 37		●	●	●	●	●	●	●	●	●	
25 x 50			●	●	●	●	●	●	●	●	
40 x 40			●	●	●	●	●	●	●	●	
30 x 60			●	●	●	●	●	●	●	●	
45 x 45			●	●	●	●	●	●	●	●	
25 x 55			●	●	●	●	●	●	●	●	
47 x 47			●	●	●	●	●	●	●	●	
40 x 60			●	●	●	●	●	●	●	●	
60 x 60							●	●	●	●	●
50 x 50				●	●	●	●	●	●	●	
40 x 80					●	●	●	●	●	●	●
50 x 100									●	●	●

Advantages of GI PIPES

- **High Performance...**
with low maintenance.
- **Extra Protection...**
in most corrosive and industrial atmospheres.
- **Reduced Cost..** ease of installation & reduced maintenance costs.

Keunggulan PIPA GI

- **Performa Tinggi...**
minim perawatan.
- **Proteksi Ekstra...**
dalam lingkungan paling korosif dan lingkungan industri.
- **Reduced Cost...**
instalasi yang mudah dan biaya perawatan yang hemat.

Round Pipes

DIMENSION		THICKNESS (mm)	NOTES
inch	mm		
1/2	19.1	0.90	-
1/2	19.3	1.00	SCREW THREAD
1/2	19.3	1.20	SCREW THREAD
1/2	19.3	1.35	SCREW THREAD
1/2	19.3	1.50	SCREW THREAD
1/2	19.3	1.70	SCREW THREAD
3/4	24.0	0.90	-
3/4	24.2	1.00	SCREW THREAD
3/4	24.2	1.20	SCREW THREAD
3/4	24.2	1.35	SCREW THREAD
3/4	24.2	1.50	SCREW THREAD
3/4	24.2	1.70	SCREW THREAD
1	31.0	0.90	-
1	31.2	1.00	SCREW THREAD
1	31.2	1.20	SCREW THREAD
1	31.2	1.35	SCREW THREAD
1	31.2	1.50	SCREW THREAD

DIMENSION		THICKNESS (mm)	NOTES
inch	mm		
1	31.2	1.70	SCREW THREAD
1 1/4	38.1	1.00	-
1 1/4	39.0	1.20	SCREW THREAD
1 1/4	39.0	1.35	SCREW THREAD
1 1/4	39.0	1.50	SCREW THREAD
1 1/4	39.0	1.70	SCREW THREAD
1 1/2	44.5	1.00	-
1 1/2	45.9	1.20	SCREW THREAD
1 1/2	46.7	1.35	SCREW THREAD
1 1/2	46.7	1.50	SCREW THREAD
1 1/2	46.7	1.70	SCREW THREAD
2	57.0	1.00	-
2	57.0	1.20	-
2	58.5	1.35	SCREW THREAD
2	58.5	1.50	SCREW THREAD
2	58.5	1.70	SCREW THREAD

Coating & Protection

As an integrated pipe mill, We provide coating application service to protect your product against corrosion.

Coating Capabilities

1. Internal Coating

- Epoxy Coating
 - Diameter : 6 - 80 inch
 - Capacity : 1.450.000 sqm / year
- Internal Cement Lining
 - Diameter : 4 - 80 inch
 - Capacity : 250.000 sqm / year

2. External Coating

- Epoxy Coating
 - Diameter : 4 - 84 inch
 - Capacity : 500.000 sqm / year
- Fusion Bonded Epoxy
 - Diameter : 2 - 64 inch
 - Capacity : 900.000 sqm / year
- 3LPE / 3LPP
 - Diameter : 2 - 64 inch
 - Capacity : 900.000 sqm / year

Our coating & protection refers to the international standards

Internal Coating

- AWWA & British Standard
- ASTM A-569-Adhesion Test
- API RP 5L2 - Internal Coating at Pipeline for Non Corrosive Gas Transmission
- SSPC-SP10/NACE No.2 - Joint Surface Preparation Standard
 - Steel Structures Painting Council / National Association Engineer : Near White Blast Cleaning
- SSPC-PA-2- Measuring Dry Film Thickness
- SSPC-SP 1 Steel Structural Painting Council - Surface Preparation Specification No.1 : Solvent Cleaning
- NACE-TMO3-84-Holiday Detection of Internal Tubular Coating

External Coating

- AWWA Standard
- CAN / CSA - Z245.20/2245.21 - External Fusion Bonded Epoxy Coating for Steel Pipe / External Polyethylene Coating for Pipe
- SSPC - SP10 - Surface Preparation Standards for Painting Steel Surface
- SIS Standard 05 - 59 - 00 - 1088 - Swedish Standard Institute for Blast Cleaning
- ASTM D4417 - Field Measurement of Surface Profile of Blast Cleaned Pipe



12

Basic inspections and tests to ensure the standard quality of the products



Inspections & Tests

Various inspections and tests have been carried out on our products in step by step process to final products control, to ensure the quality and standard specification of our products.

Non - Destructive Inspection for Spiral Welded Pipe

- UST (Ultrasonic Test)
- UST on weld seam immediately after welding

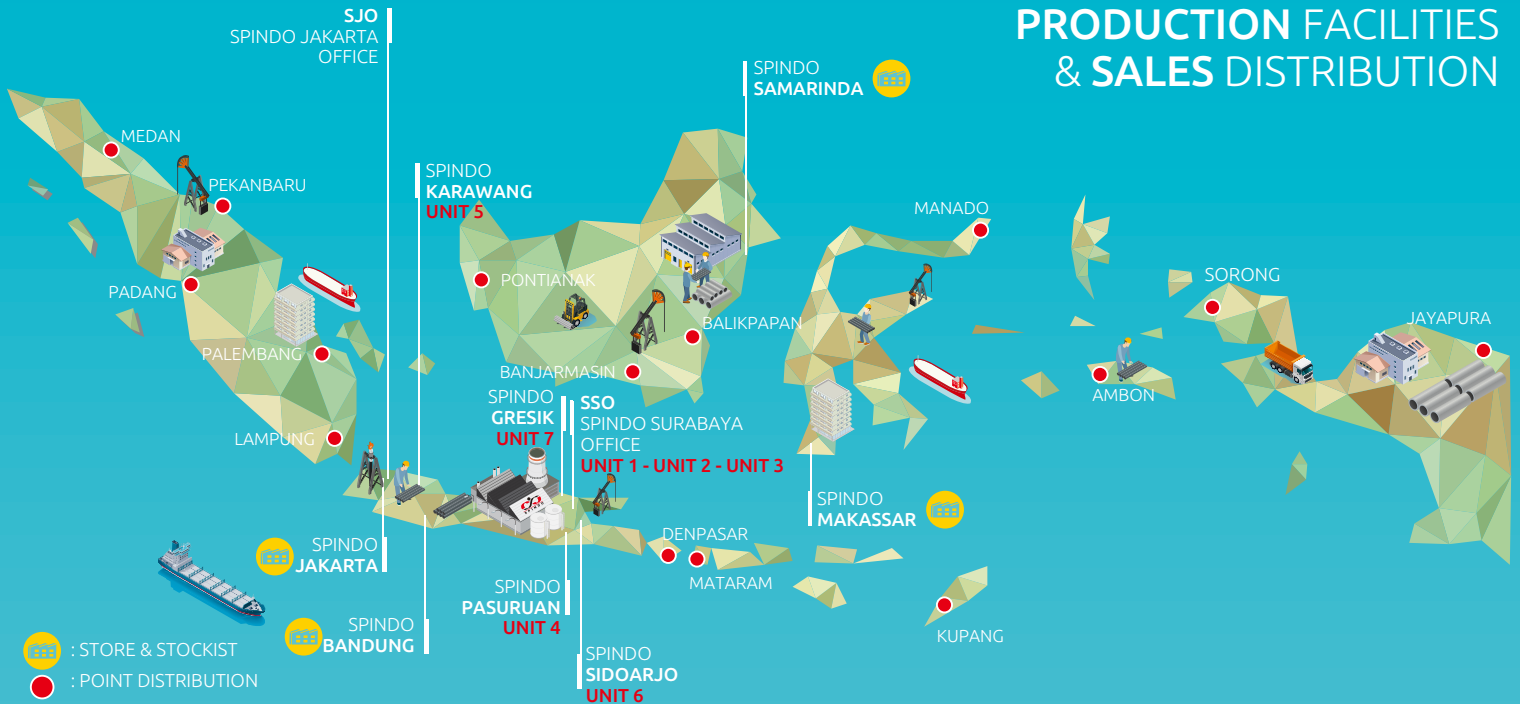
Principal Testing Equipments:

- Hydrostatic Testing Machine
 - Ultrasonic Test (off line & on line)
 - Holiday Detector
 - Thickness Gauge
 - Universal Testing Machine
- Charpy Testing Machine
 - Hardness Testing Machine
 - Metallography Testing Equipment
 - Dead Weight Gauge Testing Equipment
 - Drop Weight Tear Testing Equipment

BASIC TEST & INSPECTION	ERW	SPIRAL			STAINLESS STEEL
		A	B	C	
Chemical Analysis	*	√	√	√	*
Mechanical Test Including :					
Tensile Test	*	√	√	√	*
Charpy Test	*	—	—	√	*
Drop Weight Tear Test	—	—	—	√	—
Flattening Test	√	—	—	—	√
Guided Bend Test	—	√		√	—
Bend Test	*√	—	—	—	—
Hydrostatic Test	√	√	—	√	√
Radiological Inspection Including :					
Radiographic Film	—	—	—	√	—
Fluorescent Screen	—	—	—	√	—
Ultrasonic Inspection	—	—	—	√	—
Electromagnetic Inspection including:					
Eddy Current	*√	—	—	—	—
Magnetic Particle Inspection	—	—	—	√	—
Coating Thickness Test on GI Pipe	√	—	—	—	—
Dye Penetrant Test	—	—	—	√	—

* depend on customer requirement

PRODUCTION FACILITIES
& SALES DISTRIBUTION



API License No. :
5L-0313 (SSAW)
5L-0475 (HFW)



Head Office

SPINDO SURABAYA OFFICE (SSO)

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+6231 532 0320, 535 3290,
f : +6231 531 0712, 532 0290,
e : marketing@spindo.co.id

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Surabaya 60292, East Java, Indonesia

Unit II - Surabaya

Jl. Rungkut Industri II No. 10,
Surabaya 60292, East Java, Indonesia

Unit III - Surabaya

Ds. Warugunung - Kec. Karangpilang,
Surabaya 60221, East Java, Indonesia

Unit IV - Pasuruan

Jl. Kabupaten, Ds. Cangkringmalang,
Kec. Beji, Pasuruan, East Java, Indonesia

Unit V - Karawang

Kawasan Industri Mitrakarawang,
Jl. Mitra Raya 2 Blok F2, Desa Parungmulya,
Karawang 41361, West Java, Indonesia

Unit VI - Sidoarjo

Jl. Pahlawan 10, Cemengkalang,
Sidoarjo, East Java, Indonesia

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Gedung Baja, Lt. 7
Jl. Pangeran Jayakarta 55, Jakarta 10730, Indonesia
p : +6221 6231 3502
f : +6221 624 0313
e : marketing.sjo@spindo.co.id

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Jl. Daan Mogot KM. 18, Kel. Semanan,
Kec. Kalideres, West Jakarta
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f : +6221 2252 0635
e : depo.jakarta@spindo.co.id

Samarinda

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Samarinda, East Kalimantan

Makassar

Jl. Ir. Sutami 22,
Makassar, Sulawesi Selatan

SPINDO® MAJOR EXPERIENCE PROJECTS

CHEVRON PASIFIC INDONESIA	PERTAMINA	PERUSAHAAN GAS NEGARA	PERTAGAS	VICO INDONESIA	SENORO GAS	TOTAL E & P INDONESIA

Welded Steel Pipe Capabilities

Structural Pipes

- HFW / ERW : 1/4" - 12"
- SSAW / SAWH : 6" - 120"

Water Pipes

- HFW / ERW : 1/2" - 12"
- SSAW / SAWH : 6" - 80"

Oil & Gas Industry

- HFW / ERW : 3 1/2" - 8 5/8"
- SSAW / SAWH : 6" - 80"

Stainless Steel

- TIG : 1/4" - 4"



Headquarter

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Jl. Kalibutih No. 189 -191,
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f : +6221 624 0313
e : marketing.sjo@spindo.co.id



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Hotline Service: +6231 **5 320 320** | +6221 **623 13502**

Improving The
Quality
of Life

