

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		A		B		X42	
inch	mm	inch	mm	lb/ft	kg/m	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	18.038	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%	273.1	0.38	9.53	83.70	124.56	10.96	1589	12.78	1854	18.91	2743
		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%	323.8	0.37	9.27	102.56	152.63	8.55	1241	9.98	1448	16.74	2427
		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	355.6	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	406.4	0.44	11.31	145.86	217.06	8.66	1256	10.10	1465	16.94	2457
		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	457.2	0.38	9.53	138.22	205.69	6.75	979	7.88	1142	13.21	1915
		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	508.0	0.28	7.14	119.49	177.82	4.43	642	5.16	749	8.66	1256
		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
24	609.6	0.44	11.13	184.39	274.40	6.90	1001	8.05	1167	13.50	1957
		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
30	762.0	0.31	7.92	149.29	222.17	4.37	634	5.10	739	8.55	1239
		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
36	914.4	0.47	11.91	222.42	331.00	6.57	952	7.66	1111	12.85	1863

SPINDO® memproduksi pipa SSW 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.

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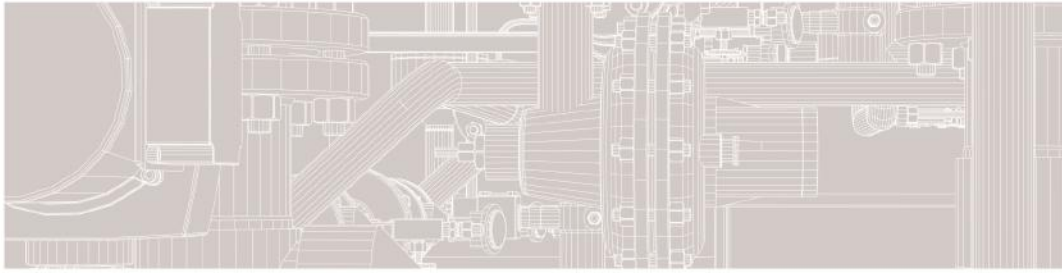
Test Pressure (Minimum)													
GRADE													
X46		X52		X56		X60		X65		X70		X80	
MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi	MPa	Psi
18.11	2627	20.37	2955	22.07	3201	23.49	3407	25.47	3694	27.45	3981	89.58	12993
2028	2942	22.82	3310	24.72	3585	26.31	3815	28.52	4137	30.74	4459	100.33	14552
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	18.31	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

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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		
		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		
22	558.80	0.56	14.27	295.52	439.78	7.08	1027	8.26	1198	14.67	2127		
		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		
24	609.60	0.56	14.27	325.93	485.03	6.44	934	7.51	1089	13.33	1934		
		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		



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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

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
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
44	1117.60	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  
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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
48	1219.20	0.88	22.23	1068.14	1589.56	4.79	695	5.59	811	9.93	1440
		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
52	1320.80	0.94	23.83	1194.19	1777.15	4.92	714	5.75	833	10.20	1479
		0.44	11.13	610.95	909.19	2.12	308	2.48	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
56	1422.40	0.94	23.83	1295.69	1928.20	4.55	659	5.30	769	9.42	1366
		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
60	1524.00	0.94	23.83	1397.19	2079.25	4.22	612	4.92	714	8.74	1268
		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		

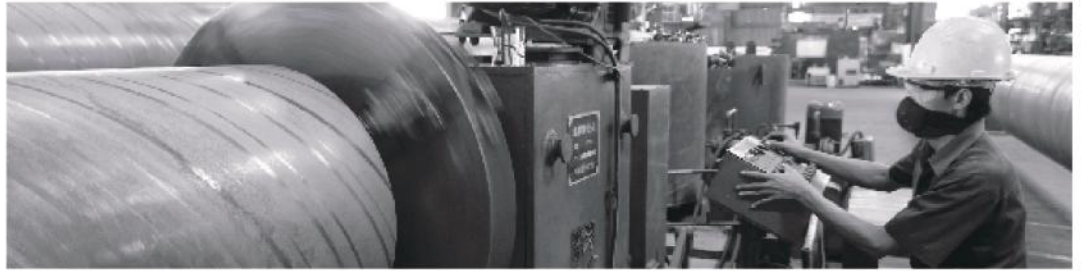


OIL & GAS PIPES  
SAWH  
SSAW

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

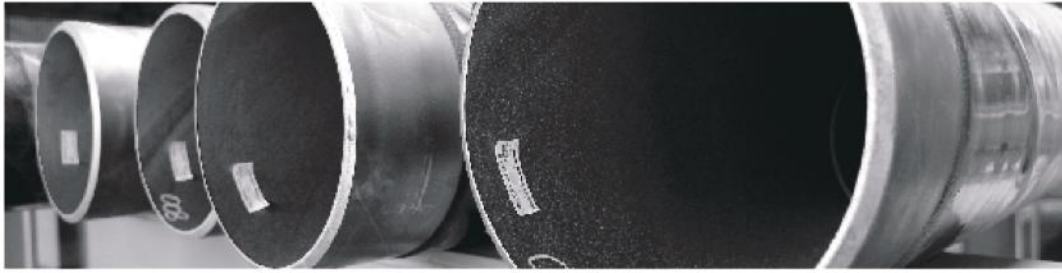


OIL & GAS PIPES  
SAWH  
SSAW



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
68	1727.20	0.94	23.83	1600.19	2381.35	3.69	536	4.31	625	7.65	1110
		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
72	1828.80	0.94	23.83	1701.69	2532.39	3.48	504	4.06	588	7.20	1044
		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
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)	-	$A_f = C \frac{A_{xc}^{0.2}}{U^{0.9}}$ <p>A<sub>f</sub> is the specified minimum elongation C is 1940 (SI), 625000 (USC)</p> <p>A<sub>xc</sub> is the applicable tensile test piece cross-sectional area (mm<sup>2</sup>)</p> <p>U is the specified minimum tensile strength (Mpa).</p>	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)	

