

## Carbon Steel Pipes for Pressure Service

ท่อเหล็กกล้า สำหรับงานระบบแรงดัน

JIS G3454

Grade	% Chemical Composition (Max)					Mechanical Properties (Min)			Marking Color
	C	Si	Mn	P	S	Yield Strength	Tensile Strength	Elongation	
						MPa	MPa	%	
STPG370	0.25	0.35	0.30 - 0.90	0.04	0.04	215	370	30	White
STPG410	0.30	0.35	0.30 - 1.00	0.04	0.04	245	410	25	White

Nominal Size		Outside Diameter	Thickness	Weight (plain end)	Hydrostatic Test Pressure
mm	inch	mm	mm	kg/m	Schedule 40 bar
15	1/2"	21.70	2.80	1.31	60
20	3/4"	27.20	2.90	1.74	60
25	1"	34.00	3.40	2.57	60
32	1 1/4"	42.70	3.60	3.47	60
40	1 1/2"	48.60	3.70	4.10	60
50	2"	60.50	3.90	5.44	60
65	2 1/2"	76.30	5.20	9.12	60
80	3"	89.10	5.50	11.30	60
90	3 1/2"	101.60	5.70	13.50	60
100	4"	114.30	6.00	16.00	60
125	5"	139.80	6.60	21.70	60
150	6"	165.20	7.10	27.70	60
200	8"	216.30	8.20	42.10	60
250	10"	267.40	9.30	59.20	60
300	12"	318.50	10.30	78.30	60
350	14"	355.60	11.10	94.30	60
400	16"	406.40	12.70	123.00	60

Dimension Tolerances	Outside Diameter	Thickness
	DN ≤ 25 mm : ±0.3 mm DN ≥ 32 mm : ±0.8% DN ≥ 350 mm : ±0.5%	t < 3.00 mm : ±0.30 mm t ≥ 3.00 mm : ±10%

Grade	% Chemical Composition (Max)					Mechanical Properties (Min)			Marking Color
	C	Si	Mn	P	S	Yield Strength	Tensile Strength	Elongation	
						MPa	MPa	%	
SGP	-	-	-	0.04	0.04	-	290	19 - 25 up to wall thickness	White

Nominal Size		Outside Diameter		Thickness	Weight (plain end)
mm	inch	mm			
		STD	Tolerances	mm	kg/m
15	1/2"	21.7	±0.50	2.8	1.31
20	3/4"	27.2	±0.50	2.8	1.68
25	1"	34.0	±0.50	3.2	2.43
32	1 1/4"	42.7	±0.50	3.5	3.38
40	1 1/2"	48.6	±0.50	3.5	3.89
50	2"	60.5	±0.50	3.8	5.31
65	2 1/2"	76.3	±0.70	4.2	7.47
80	3"	89.1	±0.80	4.2	8.79
90	3 1/2"	101.6	±0.80	4.2	10.10
100	4"	114.3	±0.80	4.5	12.20
125	5"	139.8	±0.80	4.5	15.00
150	6"	165.2	±0.80	5.0	19.80
175	7"	190.7	±0.90	5.3	24.20
200	8"	216.3	±1.00	5.8	30.10
225	9"	241.8	±1.20	6.2	36.00
250	10"	267.4	±1.30	6.6	42.40
300	12"	318.5	±1.50	6.9	53.00
350	14"	355.6	-	7.9	67.70
400	16"	406.4	-	7.9	77.60

Dimension Tolerances	Thickness	Hydrostatic Test Pressure
		-12.5 % , +Not Limit