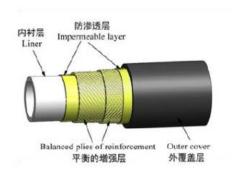


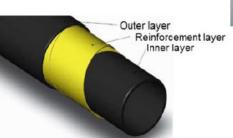
# PRODUCT INFORMATION

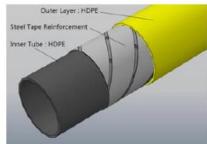
#### **PRODUCT INTRODUCTION**

Reinforced Flexible Pipe is a kind of composite pipe developed inter-nationally in recent years, its main features are corrosion resistance/ high work pressure endurance and keeping flexibility at the same time, it can be made into a reel form (continuous pipe), with a length from tens of meters to kilometers in one reel.

Structure	Function	Material Selection	Remarks
Inner Tube	For fluid or gas transportation	PE80 or PE100	May choose other high performance polymers such as PERT, PEX, PA, PVDF to meet the requirement.
Reinforce- ment Layer	Endure Internal Pressure	High strength fiber or steel	May choose various reinforcement material such as aramid fiber, poly- ester fiber, glass fiber, steel wire, steel cord or steel tape.
Outer Layer	Provide protection from outside	HDPE	May choose other polymers such as PERT, PEXT, PA to meet the protection requirement.



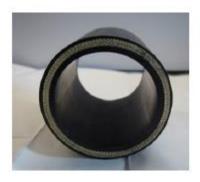




**Product Structure** 

### PRODUCT INTRODUCTION

#### **Product Type**



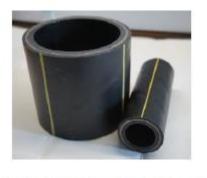


Steel-cord Reinforced Thermoplastic Pipe

Aramid-fiber Reinforced Thermoplastic Pipe



Glass-fiber Reinforced Flexible Pipe



Steel-belt Reinforced Flexible Pipe



Polyester-fiber Reinforced Flexible Pipe

#### **Product Application**



Land Oil and Gas

Offshore Oil and Gas

Petrochemical Industry

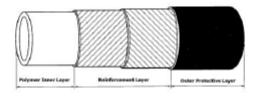
#### PIPE SPECIFICATION

We produce various specifications of Reinforced Flexible Pipes (RFP) with diameter of 50-290mm (2-8 inch) and high working pressure up to 42 Mpa(6090psi) according to client's requirements, the major pipe specific parameters are as below:

Nominal ID	2 inch	3 inch	4 inch	5 inch	6 inch	8 inch			
Operation Pressure	2.5-42Mpa	2-32Mpa	2-32Mpa	1.6-16Mpa	1-16Mpa	1-16Mpa			
Operation Temperature		-40°C -130°C							
Inner Tube	Polymers suc	ch as PE80, P	E100, PERT,	PEX, PA, PVDI	Fetc.				
Reinforcement		Reinforced material such as aramid fiber, polyester, glass fiber, steel wire, steel cord and steel tape etc.							
Outer Layer	Polymers suc	Polymers such as PE80, PE100, PERT, PEX, PA etc.							

Remarks: OPR's Reinforced Flexible Pipe products are designed, qualified, and manufactured in accordance with API SPE 15S, API SPEC 17J or API SPEC 17K or China 's Oil and Gas Industry Standards SY/T6662.2-2014, SY/T6662.4-2014 etc.

Products can be specially designed according to client's requirements.



### PIPE SPECIFICATION

# **Specification Sheet for Standard RFP (Aramid-fiber Reinforced)**

1	Product Type	ID (mm)	OD (mm)	Maximum Operation Pressure (MPa/Psi)	Weight Empty in Air (kg/m)	MBR in Storage (m)	MBR in Operation (m)	Maximum Installation Tension (kN)	Reel Dimension (LxWxH, m)	Reel Length (m)
	S70*10/PN5.5	50	70	5.5/800	1.8	1.17	1.93	15.23	3.5*2.5*3.5	2000
	S70*10/PN7.5	50	70	7.5/1090	1.8	1.17	1.93	15.23	3.5*2.5*3.5	2000
	S72*11/PN12	50	72	12/1740	2.02	1.20	1.98	17.03	3.5*2.5*3.5	2000
2"	S72*11/PN16	50	72	16/2320	2.02	1.20	1.98	17.03	3.5*2.5*3.5	2000
	S73+11.5/PN25	50	73	25/3625	2.14	1.22	2.02	17.95	3.5*2.5*3.5	2000
	S78*14/PN32	50	78	32/4640	2.7	1.30	2.15	22.74	3.5*2.5*3.5	1800
	S80*15/PN42	50	80	42/6090	2.94	1.34	2.21	24.75	3.5*2.5*3.5	1000
	S120+13.8/PN5.5	92.4	120	5.5/800	4.42	1.82	3.00	37.20	4*2.5*4	1000
	S120*13.8/PN7.5	92.4	120	7.5/1090	4.43	1.82	3.00	37.2	4*2.5*4	1000
4"	S121*14.3/PN12	92.4	121	12/1740	4.62	1.84	3.04	38.73	4*2.5*4	1000
4	S127*17.3/PN16	92.4	127	16/2320	5.73	1.93	3.19	48.17	4*2.5*4	1000
	S129*18.3/PN25	92.4	129	25/3625	6.11	1.96	3.24	51.42	4*2.5*4	1000
	S131*19.3/PN32	92.4	131	32/4640	6.54	1.99	3.29	54.72	4*2.5*4	500
	S176*17/PN5.5	142	176	5.5/800	8.17	2.67	4.41	68.61	4.3*2.5*4.3	500
	S181*19.5/PN7.5	142	181	7.5/1090	9.51	2.75	4.54	79.94	4.3*2.5*4.3	500
6"	S183+20.5/PN12	142	183	12/1740	10.07	2.78	4.59	84.56	4.3*2.5*4.3	500
	S185*21.5/PN16	142	185	16/2320	10.64	2.81	4.64	89.23	4.3*2.5*4.3	500
	S188*23/PN25	142	188	25/3625	11.55	2.85	4.71	96.33	4.3*2.5*4.3	500
	S234*21/PN5.5	192	234	5.5/800	13.54	3.55	5.86	113.54	6*2.2*6	300
8"	S236*22/PN7.5	192	236	7.5/1090	14.26	3.58	5.91	119.51	6 *2.2*6	300
°	S243*25.5/PN12	192	243	12/1740	16.78	3.69	6.09	140.79	6*2.2*6	300
	\$245*26.5/PN16	192	245	16/2320	17.59	3.72	6.14	146.98	6 *2.2*6	300

### PIPE SPECIFICATION

# **Specification Sheet for Standard RFP**(Steel-cord Reinforced)

I	Product Type	ID (mm)	OD (mm)	Maximum Operation Pressure (MPa/Psi)	Weight Empty in Air (kg/m)	MBR in Storage (m)	MBR in Operation (m)	Maximum Installa- tion Ten- sion (kN)	Reel Dimen- sion (LxWxH, m)	Reel Length (m)
	W72*11/PN5.5	50	72	5.5/800	2.21	0.8	1.2	13	3.1*2*3.1	1500
	W72*11/PN7.5	50	72	7.5/1090	2.27	8.0	1.2	15	3.1*2*3.1	1500
2"	W73*11.5/PN12	50	73	12/1740	2.47	0.85	1.3	20	3.1*2*3.1	1500
2	W74*12/PN16	50	74	16/2320	3.08	0.85	1.3	25	3.1*2*3.1	1500
	W80*15/PN25	50	80	25/3625	4.16	0.9	1.4	36	3.1*2*3.1	1500
	W81*15.5/PN32	50	81	32/4640	4.67	0.9	1.4	44	3.1*2*3.1	1000
	W100*12.5/PN5.5	75	100	5.5/800	3.66	1.1	1.7	26	3.1*2*3.1	1000
	W101*13/PN7.5	75	101	7.5/1090	3.96	1.1	1.7	31	3.1*2*3.1	1000
3"	W102*13.5/PN12	75	102	12/1740	4.92	1.1	1.7	38	3.1*2*3.1	1000
3	W108*16.5/PN16	75	108	16/2320	6.14	1.3	1.9	56	3.1*2*3.1	1000
	W110*17.5/PN25	75	110	25/3625	7.7	1.3	1.9	78	3.1*2*3.1	1000
	W114*19.5/PN32	75	114	32/4640	8.56	1.3	2	102	3.1*2*3.1	1000
	W122*14.8/PN5.5	92.4	122	5.5/800	5.6	1.35	2	41	4*2*4	600
	W123*15.3/PN7.5	92.4	123	7.5/1090	5.92	1.35	2	47	4*2*4	600
4"	W125*16.3/PN12	92.4	126	12/1740	6.95	1.4	2.2	63	4*2*4	600
4	W130*18.8/PN16	92.4	130	16/2320	8.21	1.5	2.2	77	4*2*4	600
	W132*19.8/PN25	92.4	132	25/3625	9.9	1.5	2.2	105	4*2*4	600
	W135*21.3/PN32	92.4	135	32/4640	11.29	1.55	2.3	134	4.8*2.5*4.8	350
	W182*20/PN5.5	142	182	5.5/800	11.25	1.85	2.8	81	4.8*2.5*4.8	350
6"	W183*20.5/PN7.5	142	183	7.5/1090	12.44	1.85	2.8	101	4.8*2.5*4.8	350
0	W191*24.5/PN12	142	191	12/1740	16.3	2	3.1	148	4.8*2.5*4.8	350
	W192*25/PN16	142	192	16/2320	17.72	2	3.1	167	4.8*2.5*4.8	350
	W240*25/PN5.5	192	240	5.5/800	18.73	2.5	3.7	146	6*2.2*6	500
8"	W245*26.5/PN7.5	192	245	7.5/1090	21.44	2.5	3.8	182	6*2.2*6	300
	W248*28/PN12	192	248	12/1740	25.31	2.6	3.9	258	6*2.2*6	300

# **Specification Sheet for Standard RFP (Steel-belt Reinforced)**

I	Product Type	ID (mm)	OD (mm)	Maximum Operation Pressure (MPa/Psi)	Weight Empty in Air (kg/m)	MBR in Storage (m)	MBR in Operation (m)	Maximum Installation Tension (kN)	Reel Dimension (LxWxH, m)	Reel Length (m)
	T70*10/PN5.5-7.5	50	70	7.5/1090	3.47	0.84	1.26	20.9	3.5*2.5*3.5	1500
	T71.5*10.75/PN12	50	71.5	12/1740	4.343	0.84	1.26	27	3.5*2.5*3.5	1500
2"	T72*11/PN16	50	72	16/2320	4.887	0.84	1.26	34	3.5*2.5*3.5	1500
	T76*13/PN25	50	76	25/3625	7.32	0.85	1.3	42.5	3.5*2.5*3.5	1500
	T80*15/PN32	50	80	32/4640	10.9	0.85	1.3	62.7	3.5*2.5*3.5	1500
	T98*11.5/PN5.5	75	98	5.5/800	5.8	1.17	1.6	35	3.5*2.5*3.5	1000
	T100*12.5/PN7.5	75	100	7.5/1090	7.15	1.17	1.6	44	3.5*2.5*3.5	1000
3"	T103*14/PN12	75	103	12/1740	9.37	1.17	1.6	60	3.5*2.5*3.5	1000
3	T106*15.5/PN16	75	106	16/2320	11.8	1.17	1.6	64	3.5*2.5*3.5	1000
	T112*18.5/PN25	75	112	25/3625	15.7	1.24	1.7	96	3.5*2.5*3.5	1000
	T124*24.5/PN32	75	124	32/4640	23.73	1.45	2	157	3.5*2.5*3.5	1000
	T121*14.3/PN5.5	92.4	121	5.5/800	8.51	1.4	1.92	50.8	4. 3*2,5*4,,3	600
	T123*15.3/PN7.5	92.4	123	7.5/1090	10.63	1.4	1.92	66	4.3*2.5*4.3	600
4 "	T125*16.3/PN12	92.4	125	12/1740	12.35	1.4	1.92	85	4.3*2.5*4.3	600
*	T126*16.8/PN12	92.4	126	16/2320	14.2	1.45	2	74.5	4.3*2.5*4.3	600
	T129*18.3/PN16	92.4	129	25/3625	16.58	1.45	2	138	4.3*2.5*4.3	600
	T145*26.3/PN25	92.4	145	32/4640	29.32	1.9	2.6	196	4.3*2.5*4.3	350
	T180*19/PN5.5	142	180	5.5/800	18.04	2	2.9	109	4.5*2.5*4.5	350
6"	T183*20.5/PN7.5	142	183	7.5/1090	21.52	2	2.9	134	4.5*2.5*4.5	350
Ĭ	T187*22.5/PN12	142	187	12/1740	28.8	2	2.9	184	4.5*2.5*4.5	350
	T200*29/PN16	142	200	16/2320	44	2.2	3.5	267	4.5*2.5*4.5	350
	T234*21/PN3.5	192	234	3.5/510	23.2	2.75	3.75	136	6.5*2.5*6.5	300
8"	T241*24.5/PN5.5	192	241	5.5/800	46.8	2.75	3.75	199	6.5*2.5*6.5	300
	T246*27/PN7.5	192	246	7.5/1090	39.2	2.75	3.75	210	6.5*2.5*6.5	300
	T260*34/PN12	192	260	16/2320	62	2.9	4	362	6.5*2.5*6.5	300

# **Specification Sheet for Standard RFP** (Polyester-fiber Reinforced)

I	Product Type	ID (mm)	OD (mm)	Maximum Operation Pressure (MPa/Psi)	Weight Empty in Air (kg/m)	MBR in Storage (m)	MBR in Operation (m)	Maximum Installation Tension (kN)	Reel Dimension (LxWxH, m)	Reel Length (m)
	T70*10/PN5.5-7.5	50	70	7.5/1090	3.47	0.84	1.26	20.9	3.5*2.5*3.5	1500
	T71.5*10.75/PN12	50	71.5	12/1740	4.343	0.84	1.26	27	3.5*2.5*3.5	1500
2"	T72*11/PN16	50	72	16/2320	4.887	0.84	1.26	34	3.5*2.5*3.5	1500
	T76*13/PN25	50	76	25/3625	7.32	0.85	1.3	42.5	3.5*2.5*3.5	1500
	T80*15/PN32	50	80	32/4640	10.9	0.85	1.3	62.7	3.5*2.5*3.5	1500
	T98*11.5/PN5.5	75	98	5.5/800	5.8	1.17	1.6	35	3.5*2.5*3.5	1000
	T100*12.5/PN7.5	75	100	7.5/1090	7.15	1.17	1.6	44	3.5*2.5*3.5	1000
3"	T103*14/PN12	75	103	12/1740	9.37	1.17	1.6	60	3.5*2.5*3.5	1000
3	T106*15.5/PN16	75	106	16/2320	11.8	1.17	1.6	64	3.5*2.5*3.5	1000
	T112*18.5/PN25	75	112	25/3625	15.7	1.24	1.7	96	3.5*2.5*3.5	1000
	T124*24.5/PN32	75	124	32/4640	23.73	1.45	2	157	3.5*2.5*3.5	1000
	T121*14.3/PN5.5	92.4	121	5.5/800	8.51	1.4	1.92	50.8	4. 3*2.5*43	600
	T123*15.3/PN7.5	92.4	123	7.5/1090	10.63	1.4	1.92	66	4.3*2.5*4.3	600
4 "	T125*16.3/PN12	92.4	125	12/1740	12.35	1.4	1.92	85	4.3*2.5*4.3	600
*	T126*16.8/PN12	92.4	126	16/2320	14.2	1.45	2	74.5	4.3*2.5*4.3	600
	T129*18.3/PN16	92.4	129	25/3625	16.58	1.45	2	138	4.3*2.5*4.3	600
	T145*26.3/PN25	92.4	145	32/4640	29.32	1.9	2.6	196	4.3*2.5*4.3	350
	T180*19/PN5.5	142	180	5.5/800	18.04	2	2.9	109	4.5*2.5*4.5	350
6"	T183*20.5/PN7.5	142	183	7.5/1090	21.52	2	2.9	134	4.5*2.5*4.5	350
Ĭ	T187*22.5/PN12	142	187	12/1740	28.8	2	2.9	184	4.5*2.5*4.5	350
	T200*29/PN16	142	200	16/2320	44	2.2	3.5	267	4.5*2.5*4.5	350
	T234*21/PN3.5	192	234	3.5/510	23.2	2.75	3.75	136	6.5*2.5*6.5	300
8"	T241*24.5/PN5.5	192	241	5.5/800	46.8	2.75	3.75	199	6.5*2.5*6.5	300
	T246*27/PN7.5	192	246	7.5/1090	39.2	2.75	3.75	210	6.5*2.5*6.5	300
	T260*34/PN12	192	260	16/2320	62	2.9	4	362	6.5*2.5*6.5	300

# **Specification Sheet for Standard RFP (Glass-fiber Reinforced)**

P	roduct Type	ID (mm)	OD (mm)	Maximum Operation Pressure	Weight Empty in Air	MBR in Storage (m)	MBR in Operation (m)	Maximum Installation Tension	Reel Dimension (LxWxH, m)	Reel Length (m)
				(MPa/Psi)	(kg/m)	()	()	(kN)	(	(,
	G70*10/PN2.5	50	70	2.5/363	2.01	0.50	0.75	18.68	3.5*2*3.5	1800
	G70*10/PN6.4	50	70	6.4/928	2.01	0.5	0.75	18.55	3.5*2*3.5	1700
	G72*11/PN12	50	72	12/1740	2.15	0.51	0.77	20.94	3.5*2*3.5	1600
	G73*11.5/PN16	50	73	16/2320	2.30	0.52	0.78	21.71	3.5*2*3.5	1600
	G74*12/PN20	50	74	20/2900	2.39	0.53	0.70	23.33	3.5*2*3.5	1600
	G76*13/PN25	50	76	25/3625	2.63	0.54	0.82	19.86	3.5*2*3.5	1600
2"	G78*14/PN32	50	78	32/4640	2.78	0.55	0.83	27.71	3.5*2*3.5	1500
	G78*9/GN2.5	60	78	2.5/363	2.14	0.56	0.84	25.83	4.1*2*4.1	1700
	G80*10/GN6.4	60	80	6.4/928	2.36	0.57	0.86	25.4	4.1*2*4.1	1600
	G82*11/GN12	60	82	12/1740	2.59	0.59	0.88	25.56	4.1*2*4.1	1600
	G84*12/GN16	60	84	16/2320	2.82	0.60	0.90	27.42	4.1*2*4.1	1600
	G85*12.5/GN20	60	85	20/2900	2.95	0.61	0.91	28.42	4.1*2*4.1	1600
	G87+13.5/GN25	60	87	25/3625	3.18	0.62	0.93	31.98	4.1*2*4.1	1500
	G84*9.5/GN2.5	65	84	2.5/363	2.36	0.60	0.90	28.35	4.2*2*4.2	1600
	G86*10.5/GN6.4	65	86	6.4/928	2.60	0.61	0.92	32.89	4.2*2*4.2	1600
2.5"	G88+11.5/GN12	65	88	12/1740	2.85	0.63	0.94	32.06	4.2*2*4.2	1500
2.3	G90*12.5/GN16	65	90	16/2320	3.11	0.64	0.94	31.80	4.2*2*4.2	1500
	G91*13/GN20	65	91	20/2900	3.24	0.65	0.98	34.75	4.2*2*4.2	1500
	G93+14/GN25	65	93	25/3625	3.51	0.66	1.00	31.81	4.2*2*4.2	1500
	G97*11/GN2.5	75	97	2.5/363	2.92	0.69	1.04	30.48	4.3*2*4.3	1500
	G99*12/GN6.4	75	99	6.4/928	3.21	0.71	1.06	32.07	4.3*2*4.3	1500
	G101*13/GN12	75	101	12/1740	3.51	0.72	1.08	33.34	4.3*2*4.3	1500
	G103*14/GN16	75	103	16/2320	3.80	0.74	1.10	39.51	4.3*2*4.3	1500
	G104*14.5/GN20	75	104	20/2900	3.96	0.75	1.12	35.96	4.3*2*4.3	1500
	G107*16/GN25	75	107	25/3625	4.41	0.76	1.15	40.43	4.3+2+4.3	1500
	G101*10.5/GN2.5	80	101	2.5/363	3.06	0.72	1.08	33.90	4.3+2+4.3	1500
	G103*11.5/GN6.4	80	103	6.4/928	3.36	0.74	1.10	34.03	4.3*2*4.3	1500
3"	G105*12.5/GN12	80	105	12/1740	3.66	0.75	1.13	37.76	4.3+2+4.3	1500
3	G107*13.5/GN16	80	107	16/2320	3.98	0.76	1.15	39.57	4.3*2*4.3	1500
	G109*14.5/GN20	80	109	20/2900	4.29	0.78	1.17	37.60	4.3+2+4.3	1500
	G111*15.5/GN25	80	111	25/3625	4.62	0.79	1.19	39.29	4.3*2*4.3	1500
	G107*11/GN2.5	85	107	2.5/363	3.36	0.76	1.15	37.62	4.3+2+4.3	1500
	G108*11.5/GN6.4	85	108	6.4/928	3.55	0.77	1.16	37.59	4.3*2*4.3	1500
	G111*13/GN12	85	111	12/1740	4.02	0.79	1.19	40.94	4.3*2*4.3	1500
	G113*14/GN16	85	113	16/2320	4.33	0.81	1.21	39.58	4.3*2*4.3	1500
	G115*15/GN20	85	115	20/2900	4.66	0.82	1.23	51.62	4.3*2*4.3	1500
	G117*16/GN25	85	117	25/3625	5.04	0.84	1.26	46.93	4.3+2+4.3	1200
	G112*11/GN2.5	90	112	2.5/363	3.55	0.8	1.20	39.92	4.3+2+4.3	1500
	G114*12/GN6.4	90	114	6.4/928	3.90	0.82	1.22	41.08	4.3*2*4.3	1500
	G117*13.5/GN12	90	117	12/1740	4.37	0.84	1.25	48.28	4.3+2+4.3	1200
4"	G119*14.5/GN16	90	119	16/2320	4.72	0.85	1.27	45.32	4.3*2*4.3	1200
	G121*15.5/GN20	90	121	20/2900	5.09	0.86	1.30	51.40	4.3*2*4.3	1200
	G125*11.5/GN2.5	102	125	2.5/363	4.17	0.89	1.34	46.25	4.3*2*4.3	1200
	G127*12.5/GN6.4	102	127	6.4/928	4.53	0.91	1.36	46.99	4.3*2*4.3	1200
5"	G153*14/GN2.5	125	153	2.5/363	5.61	1.09	1.64	67.77	4.3*2*4.3	1000
	G155*15/GN6.4	125	155	6.4/928	6.09	1.11	1.66	59.43	4.3*2*4.3	1000
6"	G180*15/GN2.5	150	180	2.5/363	7.00	1.29	1.93	72.16	4.3*2*4.3	800
	G183*16.5/GN6.4	150	183	6.4/928	7.81	1.31	1.96	78.64	4.3*2*4.3	800

#### **Major Customer**

















