

# GRP JACKING DATASHEET

**CONTINUOUS FILAMENT WINDING ( CFW )**  
**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780**  
**JOINT TYPE : FULLFACE GRP JACKING COUPLING**

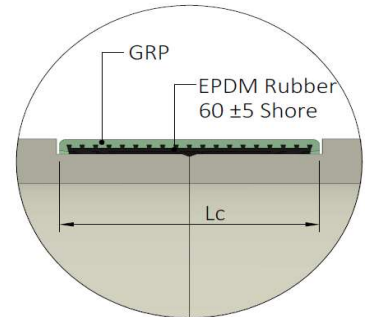
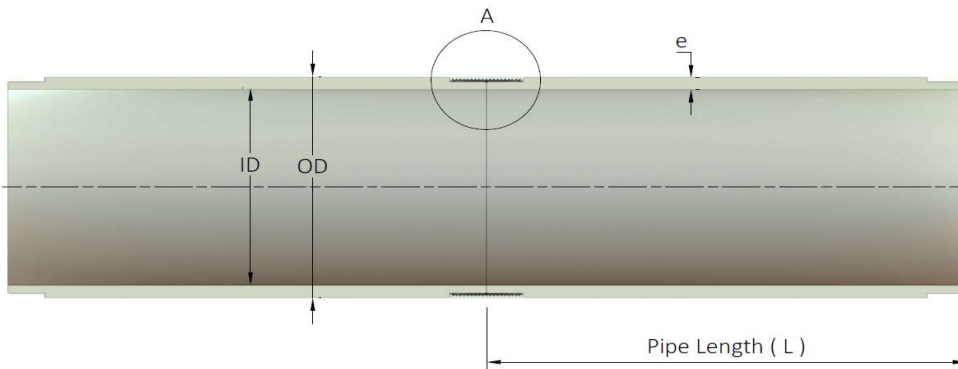


GRP JACKING PIPE TABLE : LOAD 50 – 150 TONS

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
50	376	314,0	31,0	67	688.303
	427	371,0	28,0	70	327.874
	478	426,0	26,0	74	180.575
	515	465,0	25,0	77	126.004
	530	480,0	25,0	79	115.106
	550	500,0	25,0	82	102.446
	618	568,0	25,0	93	71.090
	650	600,0	25,0	98	60.720
	718	668,0	25,0	109	44.542
	760	710,0	25,0	115	37.334
	820	770,0	25,0	125	29.503
	860	808,0	26,0	136	28.746
	924	872,0	26,0	147	23.027
	960	908,0	26,0	153	20.466
	1.026	974,0	26,0	163	16.675
1.099	1.051,0	24,0	162	10.557	
1.127	1.079,0	24,0	166	9.774	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
100	427	333,0	47,0	112	1.722.594
	478	392,0	43,0	117	879.382
	515	435,0	40,0	119	543.675
	530	454,0	38,0	117	419.465
	550	476,0	37,0	119	341.581
	618	552,0	33,0	121	163.423
	650	584,0	33,0	128	139.292
	718	656,0	31,0	134	83.648
	760	702,0	29,0	133	56.844
	820	762,0	29,0	144	44.865
	860	802,0	29,0	151	38.693
	924	868,0	28,0	158	27.784
	960	904,0	28,0	164	24.687
	1.026	970,0	28,0	175	20.106
	1.099	1.045,0	27,0	182	14.546
1.127	1.073,0	27,0	187	13.463	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
150	515	409,0	53,0	154	1.370.088
	530	424,0	53,0	159	1.244.856
	550	448,0	51,0	160	968.848
	618	528,0	45,0	162	439.562
	650	562,0	44,0	167	347.366
	718	636,0	41,0	174	201.573
	760	682,0	39,0	177	143.627
	820	744,0	38,0	187	104.130
	860	786,0	37,0	191	82.462
	924	852,0	36,0	201	60.467
	960	890,0	35,0	203	49.162
	1.026	960,0	33,0	206	33.307
	1.099	1.035,0	32,0	214	24.480
	1.127	1.065,0	31,0	213	20.535
	1.229	1.169,0	30,0	226	14.215



Lc = 148 mm (OD: 345 – 1499 mm)  
Lc = 180 mm (OD: 1536 – 3065mm)

**Design Assumptions:**  
\*The nominal pressure classes are PN1 and PN6 for jacking pipes and couplings.  
\*The pipe lengths are 2 – 3 m. Custom lengths are available.  
\*Factor of Safety (f for jacking load) = 3,5  
\*Ultimate compressive strength ≥ 85 N/m<sup>2</sup>  
\*Pipe thickness, weights and jacking load values are roughly calculated. All values derive from calculations and may therefore slightly vary from the finished product due to manufacturing tolerances.  
\*The manufacturer SUPERLIT has rights to change the technical data without notice.

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Design and R&D Department	Technology and Product Development		

# GRP JACKING DATASHEET

**CONTINUOUS FILAMENT WINDING ( CFW )**  
**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780**  
**JOINT TYPE : FULLFACE GRP JACKING COUPLING**

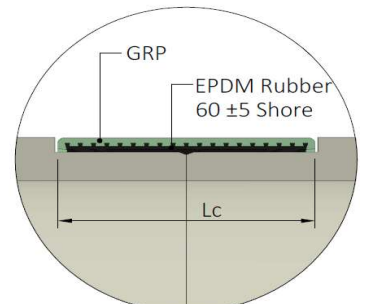
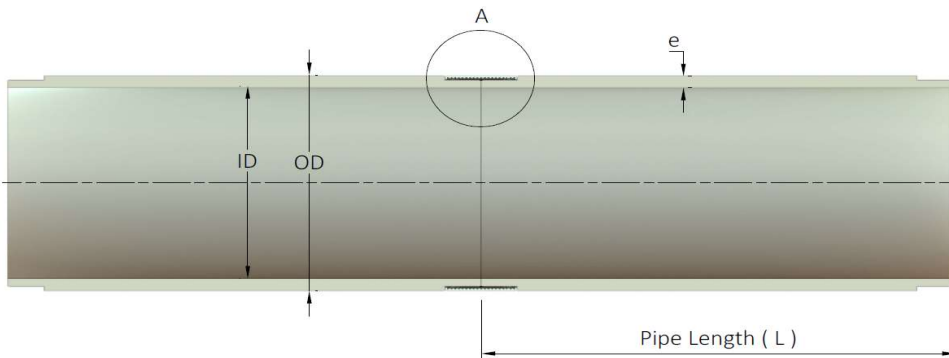


GRP JACKING PIPE TABLE : LOAD 200 – 400 TONS

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
200	618	504,0	57,0	201	908.614
	650	538,0	56,0	209	725.852
	718	616,0	51,0	214	387.236
	760	664,0	48,0	215	265.416
	820	728,0	46,0	224	181.842
	860	769,0	45,5	233	151.009
	924	838,0	43,0	238	100.721
	960	877,0	41,5	239	79.901
	1.026	946,0	40,0	248	57.835
	1.099	1.023,0	38,0	253	39.797
	1.127	1.053,0	37,0	253	33.882
	1.229	1.159,0	35,0	262	21.819
	1.290	1.222,0	34,0	268	17.183
	1.348	1.282,0	33,0	273	13.690
	1.399	1.335,0	32,0	275	11.112
1.434	1.370,0	32,0	282	10.300	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
300	760	624,0	68,0	296	821.962
	820	692,0	64,0	304	525.555
	860	735,0	62,5	313	416.957
	924	807,0	58,5	318	267.491
	960	846,0	57,0	323	217.874
	1.026	918,0	54,0	330	148.534
	1.099	997,0	51,0	336	99.832
	1.127	1.028,0	49,5	335	83.986
	1.229	1.136,0	46,5	345	52.674
	1.290	1.200,0	45,0	352	40.905
	1.348	1.262,0	43,0	352	30.990
	1.399	1.315,0	42,0	358	25.683
	1.434	1.351,0	41,5	363	22.930
	1.499	1.419,0	40,0	367	17.851
	1.536	1.448,0	44,0	412	22.217
	1.638	1.551,0	43,5	436	17.589
	1.720	1.634,0	43,0	453	14.603
	1.842	1.756,0	43,0	486	11.829
1.944	1.858,0	43,0	513	10.025	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
400	924	774,0	75,0	400	597.178
	960	816,0	72,0	402	461.745
	1.026	890,0	68,0	409	309.794
	1.099	971,0	64,0	416	204.815
	1.127	1.003,0	62,0	415	170.911
	1.229	1.113,0	58,0	427	105.258
	1.290	1.178,0	56,0	434	80.958
	1.348	1.240,0	54,0	439	62.954
	1.399	1.295,0	52,0	440	49.837
	1.434	1.332,0	51,0	443	43.440
	1.499	1.401,0	49,0	446	33.429
	1.536	1.430,0	53,0	494	39.541
	1.638	1.534,0	52,0	518	30.531
	1.720	1.622,0	49,0	514	21.842
	1.842	1.748,0	47,0	530	15.550
	1.944	1.852,0	46,0	548	12.332
	2.046	1.954,0	46,0	578	10.540



Detail A

Lc = 148 mm (OD: 345 – 1499 mm)  
Lc = 180 mm (OD: 1536 – 3065 mm)

**Design Assumptions:**  
\*The nominal pressure classes are PN1 and PN6 for jacking pipes and couplings.  
\*The pipe lengths are 2 – 3 m. Custom lengths are available.  
\*Factor of Safety (f for jacking load) = 3,5  
\*Ultimate compressive strength ≥ 85 N/m<sup>2</sup>  
\*Pipe thickness, weights and jacking load values are roughly calculated. All values derive from calculations and may therefore slightly vary from the finished product due to manufacturing tolerances.  
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**JOINT TYPE : FULLFACE GRP JACKING COUPLING**

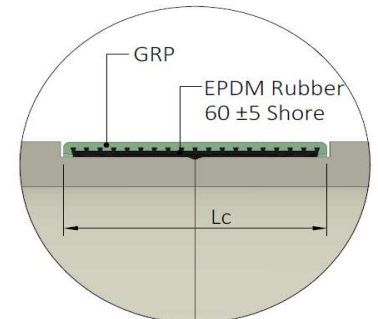
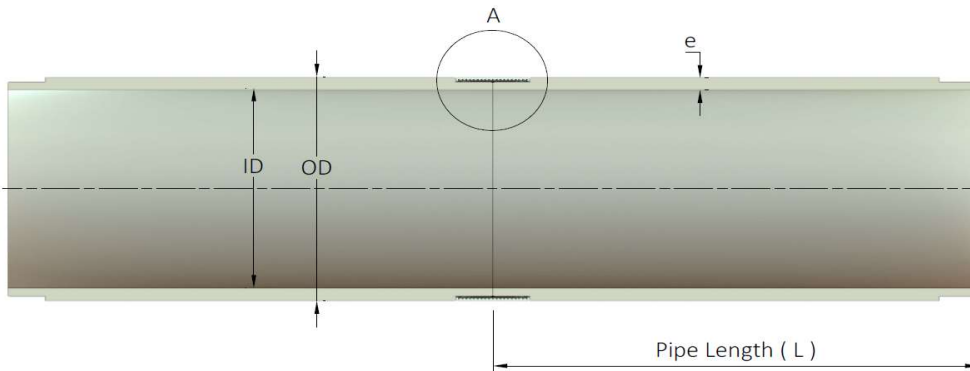


GRP JACKING PIPE TABLE : LOAD 500 – 700 TONS

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
500	1.099	945,0	77,0	494	352.836
	1.127	977,0	75,0	495	298.944
	1.229	1.090,0	69,5	506	177.663
	1.290	1.157,0	66,5	511	132.467
	1.348	1.220,0	64,0	516	102.164
	1.399	1.275,0	62,0	521	82.269
	1.434	1.312,0	61,0	526	72.349
	1.499	1.382,0	58,5	529	55.256
	1.536	1.412,0	62,0	574	61.396
	1.638	1.518,0	60,0	595	45.351
	1.720	1.606,0	57,0	595	33.220
	1.842	1.734,0	54,0	606	22.727
	1.944	1.840,0	52,0	618	17.128
	2.046	1.945,0	50,5	633	13.371
2.160	2.062,0	49,0	650	10.318	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
600	1.229	1.067,0	81,0	584	289.790
	1.290	1.134,0	78,0	594	219.902
	1.348	1.198,0	75,0	600	168.715
	1.399	1.255,0	72,0	600	131.777
	1.434	1.292,0	71,0	608	116.612
	1.499	1.363,0	68,0	611	88.524
	1.536	1.394,0	71,0	653	93.911
	1.638	1.500,0	69,0	680	70.167
	1.720	1.590,0	65,0	676	49.980
	1.842	1.718,0	62,0	693	34.863
	1.944	1.826,0	59,0	698	25.297
	2.046	1.932,0	57,0	712	19.417
	2.160	2.050,0	55,0	727	14.716
	2.250	2.144,0	53,0	731	11.582
2.453	2.341,0	56,0	843	11.046	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
700	1.399	1.234,0	82,5	682	192.875
	1.434	1.273,0	80,5	684	164.889
	1.499	1.345,0	77,0	688	124.437
	1.536	1.375,0	80,5	736	132.595
	1.638	1.484,0	77,0	755	94.068
	1.720	1.574,0	73,0	755	68.244
	1.842	1.704,0	69,0	768	46.195
	1.944	1.812,0	66,0	778	34.019
	2.046	1.918,0	64,0	797	26.388
	2.160	2.038,0	61,0	804	19.237
	2.250	2.132,0	59,0	812	15.304
	2.453	2.331,0	61,0	916	13.682
	2.553	2.431,0	61,0	955	12.100
	2.658	2.535,5	61,0	995	10.697



Lc = 148 mm (OD: 345 – 1499 mm)  
Lc = 180 mm (OD: 1536 – 3065mm)

**Design Assumptions:**  
\*The nominal pressure classes are PN1 and PN6 for jacking pipes and couplings.  
\*The pipe lengths are 2 – 3 m. Custom lengths are available.  
\*Factor of Safety ( for jacking load ) = 3,5  
\*Ultimate compressive strength ≥ 85 N/m<sup>2</sup>  
\*Pipe thickness, weights and jacking load values are roughly calculated. All values derive from calculations and may therefore slightly vary from the finished product due to manufacturing tolerances.  
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Design and R&D Department	Technology and Product Development		

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**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780**  
**JOINT TYPE : FULLFACE GRP JACKING COUPLING**

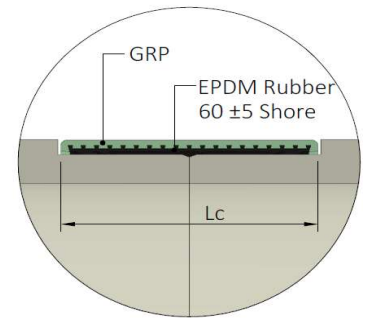
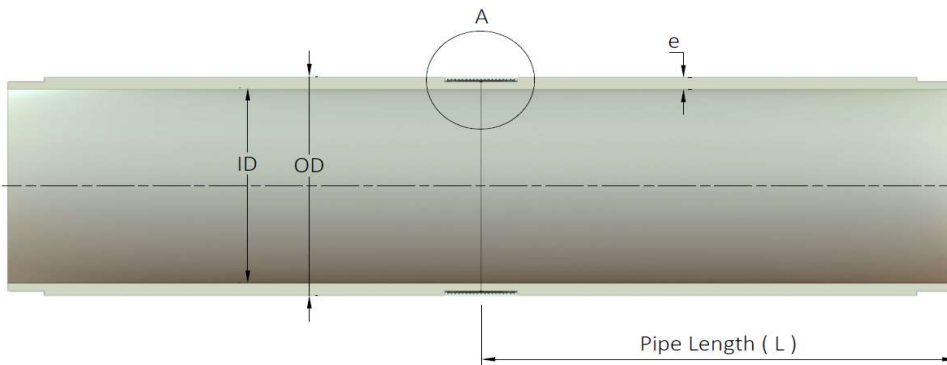


GRP JACKING PIPE TABLE : LOAD 800 – 1200 TONS

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
800	1.499	1.325,0	87,0	771	183.329
	1.536	1.357,0	89,5	813	185.648
	1.638	1.466,0	86,0	838	133.351
	1.720	1.558,0	81,0	834	94.601
	1.842	1.688,0	77,0	853	65.075
	1.944	1.797,0	73,5	863	47.552
	2.046	1.904,0	71,0	881	36.413
	2.160	2.024,0	68,0	893	26.917
	2.250	2.118,0	66,0	905	21.630
	2.453	2.319,0	67,0	1.004	18.267
	2.553	2.421,0	66,0	1.031	15.419
	2.658	2.525,5	66,0	1.074	13.628
2.758	2.628,0	65,0	1.099	11.601	
2.858	2.728,0	65,0	1.140	10.399	

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
1000	1.842	1.658,0	92,0	1.011	107.881
	1.944	1.768,0	88,0	1.026	79.143
	2.046	1.878,0	84,0	1.035	58.269
	2.160	1.998,0	81,0	1.058	43.912
	2.250	2.092,0	79,0	1.077	35.777
	2.453	2.293,0	80,0	1.192	30.030
	2.553	2.401,0	76,0	1.182	22.638
	2.658	2.509,5	74,0	1.201	18.418
	2.758	2.614,0	72,0	1.215	15.096
	2.858	2.718,0	70,0	1.226	12.405
	2.962	2.822,0	70,0	1.271	11.114
	3.065	2.925,0	70,0	1.317	10.006

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
1200	2.250	2.070,0	90,0	1.221	53.711
	2.453	2.275,0	89,0	1.321	41.822
	2.553	2.379,0	87,0	1.347	34.416
	2.658	2.487,5	85,0	1.373	28.273
	2.758	2.592,0	83,0	1.394	23.412
	2.858	2.698,0	80,0	1.396	18.718
	2.962	2.806,0	78,0	1.413	15.505
	3.065	2.913,0	76,0	1.427	12.884



Detail A

Lc = 148 mm (OD: 345 – 1499 mm)  
Lc = 180 mm (OD: 1536 – 3065mm)

**Design Assumptions:**  
\*The nominal pressure classes are PN1 and PN6 for jacking pipes and couplings.  
\*The pipe lengths are 2 – 3 m. Custom lengths are available.  
\*Factor of Safety (f for jacking load) = 3,5  
\*Ultimate compressive strength ≥ 85 N/m<sup>2</sup>  
\*Pipe thickness, weights and jacking load values are roughly calculated. All values derive from calculations and may therefore slightly vary from the finished product due to manufacturing tolerances.  
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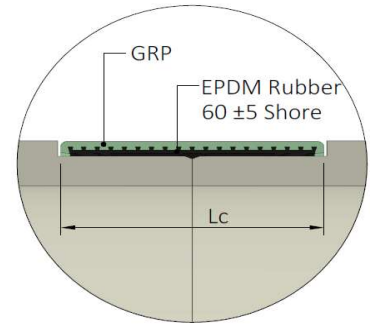
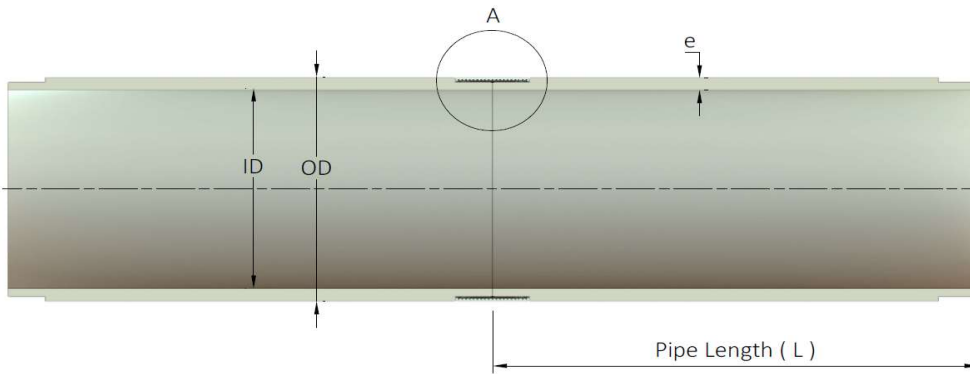
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**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780**  
**JOINT TYPE : FULLFACE GRP JACKING COUPLING**



GRP JACKING PIPE TABLE : LOAD 1400 TONS

JACKING LOAD Gj (tons)	OD (mm)	ID (mm)	e (mm)	Mass (kg/m)	SN (N/m <sup>2</sup> )
<b>1400</b>	2.758	2.574,0	92,0	1.540	32.208
	2.858	2.680,0	89,0	1.548	26.024
	2.962	2.788,0	87,0	1.571	21.718
	3.065	2.897,0	84,0	1.573	17.536



Detail A

Lc = 148 mm (OD: 345 – 1499 mm)  
 Lc = 180 mm (OD: 1536 – 3065mm)

**Design Assumptions:**  
 \*The nominal pressure classes are PN1 and PN6 for jacking pipes and couplings.  
 \*The pipe lengths are 2 – 3 m. Custom lengths are available.  
 \*Factor of Safety ( for jacking load ) = 3,5  
 \*Ultimate compressive strength  $\geq 85 \text{ N/m}^2$   
 \*Pipe thickness, weights and jacking load values are roughly calculated. All values derive from calculations and may therefore slightly vary from the finished product due to manufacturing tolerances.  
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