

### **CONTINUOUS FILAMENT WINDING (CFW)**

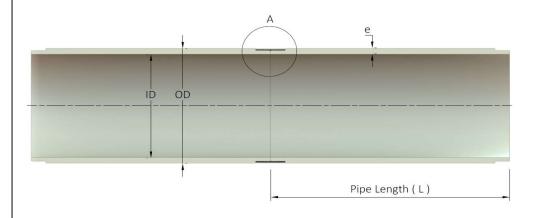
**GLASS REINFORCED POLYESTER (GRP) ISO 25780** 

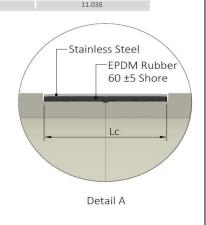
JOINT TYPE: FULLFACE STAINLESS STEEL JACKING COUPLING



GRP JACKING PIPE TABLE: LOAD 50 - 150 TONS

ACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
(20115)	376	320,0	28,0	61	494.183
	427	377,0	25,0	63	228.188
	478	432,0	23,0	66	122.547
	515	471,0	22,0	68	84.310
	530	486,0	22,0	70	77.060
	550	508,0	21,0	70	59.353
	618	579,0	19,5	73	32.814
	650	612,0	19,0	75	25.901
50	718	678,0	20,0	88	22.319
30	760	720,0	20,0	93	18.730
	820	778,0	21,0	105	17.225
	860	816,0	22,0	116	17.167
	924	878,0	23,0	130	15.782
	960	914,0	23,0	135	14.032
	1.026	978,0	24,0	151	13.037
	1.099	1.051,0	24,0	162	10.557
	1.127	1.079,0	24,0	166	10.199
	1.127	1.079,0	24,0	100	10.199
JACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	427	339,0	44,0	106	1.380.390
	478	390,0	44,0	120	948.700
	515	427,0	44,0	130	742.225
	530	460,0	35,0	109	321.832
	550	482,0	34,0	110	260.452
	618	556,0	31,0	114	134.095
	650	590,0	30,0	117	103.140
100	718	661,0	28,5	123	64.294
100	760	705,0	27,5	127	48.174
	820	768,0	26,0	130	31.967
	860	809,4	25,3	133	25.352
	924	873,0	25,5	144	20.812
	960	910,0	25,0	147	17.403
	1.026	974,0	26,0	163	16.001
	1.099	1.047,0	26,0	175	12.953
	1.127	1.075,0	26,0	180	11.989
			-,-		
IACKING LOAD Gj	OD	ID	е	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	515	413,0	51,0	149	1.205.045
	530	430,0	50,0	151	1.025.730
	550	454,0	48,0	151	793.340
	618	532,0	43,0	155	379.532
	650	568,0	41,0	157	276.915
	718	641,0	38,5	164	165.067
	760	686,0	37,0	168	121.629
150	820	751,0	34,5	170	76.889
-50	860	793,0	33,5	174	60.430
	924	857,6	33,2	186	46.981
	960	896,0	32,0	186	37.209
	1.026	964,0	31,0	194	27.445
	1.099	1.040,0	29,5	198	19.045
	1.127	1.068,0	29,5	203	17.624
	1.229	1.171,0 1.232,0	29,0 29,0	219 230	12.808
	1.290				11.038





Lc = 120 mm (OD: 345 – 860 mm) Lc = 140 mm (OD: 924 – 1434 mm) Lc = 170 mm (OD: 1499 – 3065 mm)

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Design	Assumpti	0

Design Assumptions:

"The nominal pressure dissess are PN1 – PNG and PN10 for jacking pipes and couplings.

"Stainless steel jacking coupling is grade 304. (SS - 316 is available upon request.)

"The pipe lengths are 2 – 3 m. Custom lengths are available.

"Factor of Safety (for jacking load) = 3,5

"Utlimate compressive strength 2 88 f/m"

"Pipe thickness, weights and jacking load values are roughly calculated. All values derive from calculations and may therefore slightly way from the finished product due to manufacturing tolerances.

"The manufacturer SUPERUT has nights to change the technical data without notice.

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Design and R&D Department	Technology and Product Development	Rev.	02	



#### **CONTINUOUS FILAMENT WINDING (CFW)**

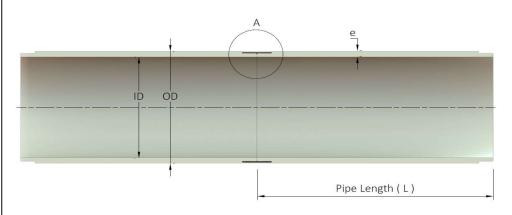
**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780** 

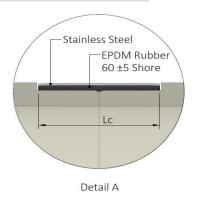
JOINT TYPE: FULLFACE STAINLESS STEEL JACKING COUPLING



GRP JACKING PIPE TABLE: LOAD 200 - 400 TONS

IACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
,	618	508,0	55,0	194	807.618
	650	545,0	52,5	197	587.635
	718	621,0	48,5	204	329.319
	760	668,0	46,0	206	231.645
	820	734,0	43,0	210	146.820
	860	777,0	41,5	213	112.910
	924	842,0	41,0	227	86.719
200	960	881,0	39,5	228	68.448
200	1.026	951,0	37,5	233	47.294
	1.099	1.028,0	35,5	237	32.219
	1.127	1.057,0	35,0	240	28.522
	1.229	1.163,0	33,0	248	18.197
	1.290	1.224,0	33,0	261	15.674
	1.348	1.284,0	32,0	264	12.454
	1.399	1.335,0	32,0	275	11.112
	1.434	1.370,0	32,0	282	10.300
	1.434	1.370,0	32,0	202	10.300
ACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	760	626,0	67,0	292	782.831
	820	698,0	61,0	291	449.684
	860	743,2	58,4	294	334.972
	924	812,0	56,0	305	232.621
	960	851,6	54,2	308	185.586
	1.026	924,0	51,0	312	123.977
	1.099	1.002,2 1.032,0	48,4 47,5	319 322	84.697
300	1.127 1.229	1.141,0	44,0	327	73.800 44.345
300	1.290	1.141,0	42,5	333	34.252
	1.348	1.266,0	41,0	337	26.740
	1.399	1.319,0	40,0	341	22.088
	1.434	1.356,0	39,0	342	18.928
	1.499	1.423,0	38,0	349	15.242
	1.536	1.462,0	37,0	348	13.027
	1.638	1.565,0	36,5	367	10.255
	1.720	1.642,0	39,0	412	10.818
ACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	924	778,0	73,0	390	546.793
	960	820,0	70,0	391	421.471
	1.026	895,0	65,5	395	274.710
	1.099	976,0	61,5	401	180.428
	1.127	1.007,0	60,0	402	154.029
	1.229 1.290	1.118,0 1.184,0	55,5 53,0	409 412	91.637 68.134
400	1.348	1.184,0	51,0	412	52.666
400	1.399	1.299,0	50,0	415	44.108
	1.434	1.337,0	48,5	422	37.158
	1.499	1.405,4	46,8	427	28.994
	1.536	1.444,0	46,0	430	25.489
	1.638	1.549,0	44,5	445	18.865
	1.720	1.634,0	43,0	453	14.603
	1.842 1.944	1.756,0 1.858,0	43,0 43,0	486 513	11.829 10.025





Lc = 120 mm (OD: 345 – 860 mm) Lc = 140 mm (OD: 924 – 1434 mm) Lc = 170 mm (OD: 1499 – 3065 mm)

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Design Assumptions
*The nominal proce

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Design Assumptions:

"The nominal pressure classes are PN1 – PN6 and PN10 for jacking pipes and couplings.

"Stainless steel jacking coupling is grade 304, (\$S - 316 is available upon request.)

"Factor of Safety for jacking load) = 3,5

"Factor of Safety (for jacking load) = 3,5

"Bight environments of Safety (for jacking load) 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.



#### **CONTINUOUS FILAMENT WINDING (CFW)**

**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780** 

JOINT TYPE: FULLFACE STAINLESS STEEL JACKING COUPLING

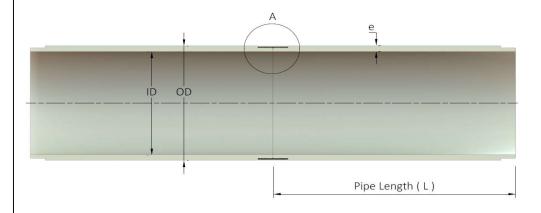


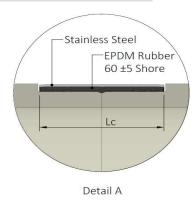
GRP JACKING PIPE TABLE: LOAD 500 - 700 TONS

JACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	1.026	866,0	80,0	475	498.943
	1.099	950,0	74,5	479	317.239
	1.127	981,0	73,0	483	274.095
	1.229	1.095,0	67,0	489	158.147
	1.290	1.162,0	64,0	493	117.361
	1.348	1.225,0	61,5	497	90.126
	1.399	1.279,0	60,0	505	74.228
500	1.434	1.317,6	58,2	503	62.454
300	1.499	1.387,0	56,0	507	48.219
	1.536	1.426,0	55,0	512	42.255
	1.638	1.532,0	53,0	528	30.846
	1.720	1.618,0	51,0	535	23.539
	1.842	1.745,0	48,5	546	16.315
	1.944	1.852,0	46,0	548	11.745
	2.046	1.954,0	46,0	578	10.038
	2.160	2.064,0	48,0	637	10.169

JACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	1.099	922,0	88,5	562	554.211
	1.127	955,0	86,0	562	465.154
	1.229	1.071,0	79,0	571	267.449
	1.290	1.139,0	75,5	576	198.199
	1.348	1.204,0	72,0	577	148.217
	1.399	1.259,0	70,0	584	120.552
	1.434	1.298,0	68,0	583	101.772
600	1.499	1.368,0	65,5	590	78.702
800	1.536	1.408,0	64,0	592	67.806
	1.638	1.515,0	61,5	609	48.978
	1.720	1.602,0	59,0	615	36.974
	1.842	1.731,0	55,5	623	24.736
	1.944	1.838,0	53,0	629	18.164
	2.046	1.943,0	51,5	645	14.203
	2.160	2.058,0	51,0	675	11.666
	2.250	2.150,0	50,0	691	10.169

JACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	1.399	1.239,0	80,0	663	174.869
	1.434	1.278,0	78,0	664	149.170
	1.499	1.349,0	75,0	671	114.507
	1.536	1.390,0	73,0	671	97.367
	1.638	1.498,0	70,0	689	69.732
	1.720	1.586,0	67,0	696	52.190
700	1.842	1.716,0	63,0	704	34.807
	1.944	1.824,0	60,0	710	25.316
	2.046	1.930,0	58,0	724	19.463
	2.160	2.045,0	57,5	759	16.031
	2.250	2.139,0	55,5	765	12.678
	2.453	2.349,0	52,0	784	10.057
	2.553	2.452,0	50,5	794	10.169
	2.658	2.559,5	49,0	803	10.390





Lc = 120 mm (OD: 345 – 860 mm) Lc = 140 mm (OD: 924 – 1434 mm) Lc = 170 mm (OD: 1499 – 3065 mm)

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Design Assumptions:
*The nominal pressure classes are PN1 - PN6 and PN10 for jacking pipes and couplings.
*Stainless steel jacking coupling is grade 304. (SS - 316 is available upon request.)
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"Stainless steel jacking coupling is grade 304. (\$S - 316 is available upon request.)
"The pipe lengths are Z - 3 m. Custom lengths are available.
"Factor of Safety (for jacking load) = 3,5
"Ultimate compressive strength 2 85 M/m"
"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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#### **CONTINUOUS FILAMENT WINDING (CFW)**

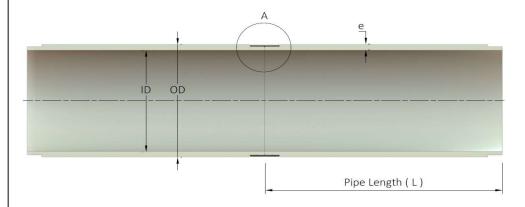
**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780** 

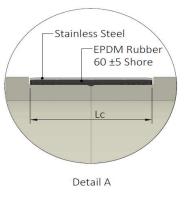
JOINT TYPE: FULLFACE STAINLESS STEEL JACKING COUPLING



GRP JACKING PIPE TABLE: LOAD 800 - 1200 TONS

JACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
` ′	1.499	1.329,0	85,0	755	170.250
	1.536	1.370,0	83,0	757	146.088
	1.638	1.480,0	79,0	773	101.981
	1.720	1.570,0	75,0	775	74.279
	1.842	1.700,0	71,0	790	50.501
	1.944	1.810,0	67,0	790	35.646
000	2.046	1.916,0	65,0	809	27.686
800	2.160	2.032,0	64,0	842	22.312
	2.250	2.126,0	62,0	852	17.832
	2.453	2.337,0	58,0	872	11.131
	2.553	2.441,0	56,0	878	10.237
	2.658	2.549,5	54,0	883	10.306
	2.758	2.652,0	53,0	900	10.239
	2.858	2.756,0	51,0	899	10.144
IACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
, ,	1.842	1.670,0	86,0	948	87.220
	1.944	1.780,0	82,0	959	63.416
	2.046	1.890,0	78,0	964	46.228
	2.160	2.007,0	76,5	1.001	36.754
	2.250	2.102,0	74,0	1.011	29.202
1000	2.453	2.315,0	69,0	1.033	18.002
1000	2.553	2.419,0	67,0	1.046	14.535
	2.658	2.527,5	65,0	1.058	11.703
	2.758	2.632,0	63,0	1.066	10.012
	2.858	2.736,0	61,0	1.071	10.269
	2.962	2.844,0	59,0	1.076	10.389
	3.065	2.951,0	57,0	1.077	10.105
ACKING LOAD GJ	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	2.250	2.076,0	87,0	1.182	48.315
	2.453	2.293,0	80,0	1.192	28.449
	2.553	2.399,0	77,0	1.197	22.331
1200	2.658	2.508,5	74,5	1.208	17.815
1200	2.758	2.614,0	72,0	1.215	14.301
	2.858	2.718,0	70,0	1.226	11.752
	2.962	2.826,0	68,0	1.236	10.167
	2.302	2.020,0	00,0	1.230	10.107





Lc = 120 mm (OD: 345 – 860 mm) Lc = 140 mm (OD: 924 – 1434 mm) Lc = 170 mm (OD: 1499 – 3065 mm)

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Design Assumptions:

"The nominal pressure classes are PN1 – PN6 and PN10 for jacking pipes and couplings.

"Stainless steel jacking coupling is grade 304, (SS - 316 is available upon request.)

"The pipe lengths are 2 – 3 m. Custom lengths are available.

"Factor of Safety (for jacking load) = 3,5

"Factor of Safety (for jacking load) = 3,5

"Ultimate compressive strength ≥ 85 M/m?

"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	Rev. <b>02</b>



### **CONTINUOUS FILAMENT WINDING (CFW)**

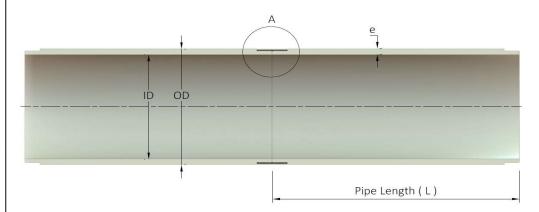
**GLASS REINFORCED POLYESTER ( GRP ) ISO 25780** 

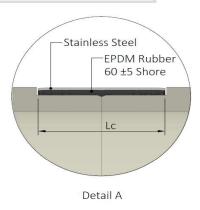
**JOINT TYPE: FULLFACE STAINLESS STEEL JACKING COUPLING** 



GRP JACKING PIPE TABLE: LOAD 1400 TONS

JACKING LOAD Gj	OD	ID	e	Mass	SN
(tons)	(mm)	(mm)	(mm)	(kg/m)	(N/m²)
	2.453	2.271,0	91,0	1.350	42.460
	2.553	2.377,0	88,0	1.362	33.783
4.400	2.658	2.487,5	85,0	1.373	26.785
1400	2.758	2.592,0	83,0	1.394	22.180
	2.858	2.698,0	80,0	1.396	17.732
	2.962	2.808,0	77,0	1.395	14.117
	3.065	2.915,0	75,0	1.408	11.718





Lc = 120 mm (OD: 345 – 860 mm) Lc = 140 mm (OD: 924 – 1434 mm) Lc = 170 mm (OD: 1499 – 3065 mm)

Design Assumptions:

"The nominal pressure classes are PNI – PN6 and PNI0 for jacking pipes and couplings.

"Stainless steel jacking coupling is grade 304. (SS - 316 is available upon request.)

"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?

"Ultimate compressive strength > 85 N/m?

"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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