

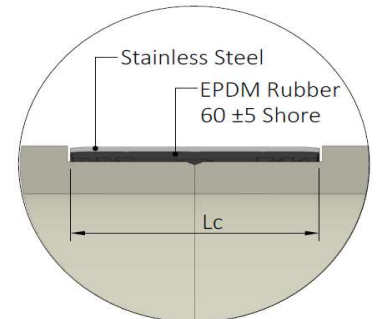
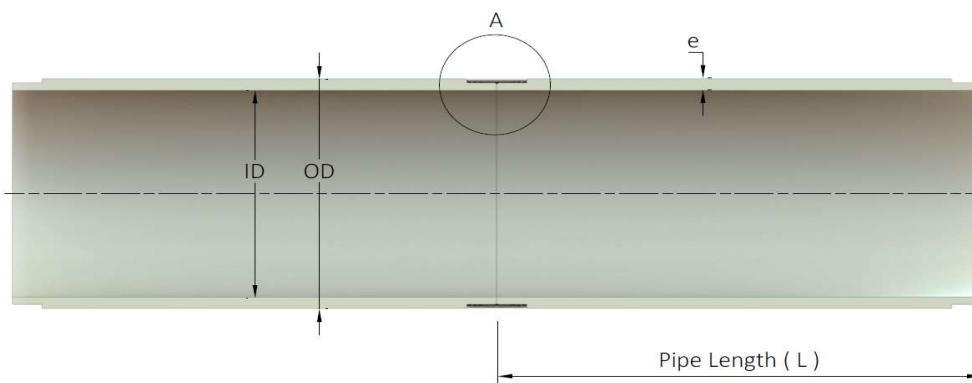
GRP JACKING DATASHEET

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



GRP JACKING PIPE TABLE : SN 20 000 – 80 000

OD (mm)	PIPE STIFFNESS (N/m ²)																										
	20 000				32 000				40 000				50 000				64 000				80 000						
	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max			
mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN
345	326,4	9,3	20	18	323,5	10,8	23	50	321,8	11,6	24	69	319,4	12,8	27	96	317,2	13,9	29	120	315,2	14,9	31	141			
376	355,8	10,1	23	39	352,6	11,7	27	78	350,6	12,7	29	102	348,0	14,0	32	133	345,8	15,1	34	160	343,6	16,2	37	186			
427	404,0	11,5	30	84	400,4	13,3	35	133	398,0	14,5	38	166	395,4	15,8	41	202	392,8	17,1	44	237	390,2	18,4	47	272			
478	452,2	12,9	38	138	448,0	15,0	44	203	445,6	16,2	47	240	442,6	17,7	51	285	440,8	18,6	54	313	436,8	20,6	59	373			
515	487,2	13,9	44	183	482,8	16,1	50	256	480,0	17,5	55	302	476,8	19,1	59	355	474,6	20,2	63	390	470,4	22,3	69	459			
530	501,6	14,2	46	198	497,0	16,5	53	277	494,0	18,0	58	328	490,8	19,6	63	382	487,4	21,3	68	439	484,4	22,8	73	489			
550	520,4	14,8	50	228	515,7	17,2	57	311	513,0	18,5	62	359	509,2	20,4	68	426	505,8	22,1	73	485	502,6	23,7	78	540			
618	584,8	16,6	63	330	579,5	19,3	72	435	576,0	21,0	79	505	572,2	22,9	86	580	568,4	24,8	92	654	565,0	26,5	98	720			
650	615,0	17,5	70	385	609,0	20,5	81	511	606,0	22,0	87	574	601,8	24,1	95	661	597,8	26,1	102	743	594,0	28,0	109	821			
718	679,6	19,2	84	459	673,0	22,5	98	612	669,6	24,2	105	690	664,8	26,6	115	800	660,4	28,8	125	900	656,0	31,0	134	1.000			
760	718,0	21,0	97	576	712,6	23,7	110	708	708,8	25,6	118	801	703,6	28,2	130	927	699,0	30,5	140	1.038	694,4	32,8	150	1.148			
820	776,0	22,0	110	676	769,0	25,5	127	862	764,6	27,7	138	978	759,2	30,4	151	1.119	754,0	33,0	163	1.254	749,4	35,3	174	1.373			
860	814,0	23,0	121	767	806,0	27,0	141	989	802,0	29,0	151	1.099	796,4	31,8	165	1.253	790,8	34,6	179	1.406	785,8	37,1	192	1.541			
924	874,0	25,0	141	853	866,0	29,0	163	1.092	862,0	31,0	174	1.211	855,6	34,2	191	1.399	850,0	37,0	206	1.563	844,0	40,0	222	1.738			
960	908,0	26,0	153	950	900,0	30,0	175	1.198	895,0	32,5	189	1.352	889,0	35,5	206	1.536	883,0	38,5	223	1.718	877,0	41,5	239	1.900			
1.026	971,0	27,5	172	1.118	962,0	32,0	200	1.417	957,0	34,5	215	1.581	950,0	38,0	236	1.810	943,6	41,2	255	2.018	938,0	44,0	271	2.199			
1.099	1.040,0	29,5	198	1.344	1.030,0	34,5	231	1.699	1.025,0	37,0	247	1.875	1.017,6	40,7	270	2.135	1.011,0	44,0	292	2.364	1.004,0	47,5	314	2.607			
1.127	1.066,6	30,2	208	1.431	1.056,2	35,4	243	1.810	1.051,0	38,0	260	1.998	1.043,0	42,0	286	2.285	1.036,6	45,2	307	2.513	1.029,8	48,6	329	2.754			
1.229	1.163,0	33,0	248	1.789	1.153,0	38,0	284	2.187	1.146,0	41,5	309	2.463	1.138,0	45,5	338	2.776	1.130,2	49,4	366	3.080	1.123,0	53,0	391	3.358			
1.290	1.220,0	35,0	276	2.049	1.209,0	40,5	318	2.508	1.202,4	43,8	343	2.781	1.194,4	47,8	373	3.110	1.186,6	51,7	402	3.428	1.178,4	55,8	432	3.761			
1.348	1.275,0	36,5	301	2.276	1.264,0	42,0	344	2.755	1.257,0	45,5	372	3.058	1.248,0	50,0	408	3.445	1.240,0	54,0	439	3.786	1.231,6	58,2	471	4.143			
1.399	1.323,4	37,8	323	2.483	1.311,4	43,8	373	3.026	1.304,2	47,4	402	3.349	1.295,0	52,0	440	3.759	1.286,6	56,2	474	4.131	1.278,2	60,4	508	4.501			
1.434	1.357,0	38,5	337	2.613	1.344,0	45,0	393	3.216	1.337,0	48,5	422	3.538	1.327,6	53,2	461	3.967	1.318,8	57,6	498	4.367	1.310,0	62,0	534	4.764			
1.499	1.418,6	40,2	368	2.901	1.405,0	47,0	429	3.560	1.398,0	50,5	459	3.897	1.388,0	55,5	503	4.375	1.379,0	60,0	542	4.802	1.369,0	65,0	585	5.274			
1.536	1.453,4	41,3	388	2.982	1.439,6	48,2	450	3.667	1.432,0	52,0	485	4.041	1.422,0	57,0	529	4.531	1.412,0	62,0	574	5.017	1.402,0	67,0	618	5.500			
1.638	1.550,0	44,0	440	3.474	1.536,0	51,0	508	4.216	1.527,0	55,5	552	4.689	1.516,0	61,0	604	5.263	1.506,4	65,8	650	5.761	1.496,0	71,0	699	6.297			
1.720	1.628,0	46,0	484	3.878	1.612,0	54,0	565	4.768	1.603,2	58,4	609	5.253	1.592,0	64,0	666	5.867	1.582,0	69,0	715	6.412	1.572,0	74,0	765	6.953			
1.842	1.743,0	49,5	557	4.582	1.726,0	58,0	650	5.594	1.717,0	62,5	698	6.126	1.705,0	68,5	763	6.831	1.694,0	74,0	822	7.472	1.683,0	79,5	880	8.109			
1.944	1.839,4	52,3	621	5.199	1.822,0	61,0	721	6.292	1.812,0	66,0	778	6.916	1.800,0	72,0	846	7.659	1.787,0	78,5	920	8.459	1.774,0	85,0	992	9.254			
2.046	1.936,0	55,0	688	5.840	1.918,0	64,0	797	7.031	1.907,0	69,5	863	7.753	1.894,0	76,0	940	8.600	1.882,0	82,0	1.011	9.378	1.870,0	88,0	1.082	10.150			
2.160	2.044,0	58,0	766	6.305	2.026,0	67,0	881	7.562	2.014,0	73,0	957	8.394	2.000,0	80,0	1.045	9.358	1.987,0	86,5	1.126	10.248							
2.250	2.129,0	60,5	832	6.943	2.110,0	70,0	958	8.325	2.097,0	76,5	1.044	9.263	2.083,0	83,5	1.136	10.267	2.069,6	90,2	1.223	11.222							
2.453	2.321,0	66,0	989	8.469	2.300,0	76,5	1.142	10.134	2.286,0	83,5	1.243	11.235	2.273,0	90,0	1.336	12.252											
2.553	2.416,0	68,5	1.069	9.241	2.393,0	80,0	1.242	11.138	2.379,0	87,0	1.347	12.285	2.369,0	92,0	1.422	13.099											
2.658	2.514,5	71,5	1.161	10.150	2.492,5	82,5	1.334	12.040	2.477,5	90,0	1.451	13.319															
2.758	2.610,0	74,0	1.247	10.995	2.586,6	85,7	1.438	13.081																			
2.858	2.704,0	77,0	1.345	11.964	2.680,4	88,8	1.544	14.144																			
2.962	2.803,0	79,5	1.439	12.895																							
3.065	2.901,0	82,0	1.536	13.856																							



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 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
 *Ultimate compressive strength ≥ 85 N/m²
 *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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GRP JACKING DATASHEET

CONTINUOUS FILAMENT WINDING (CFW)

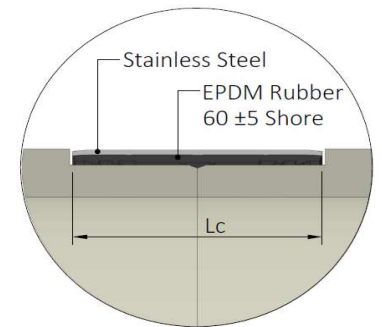
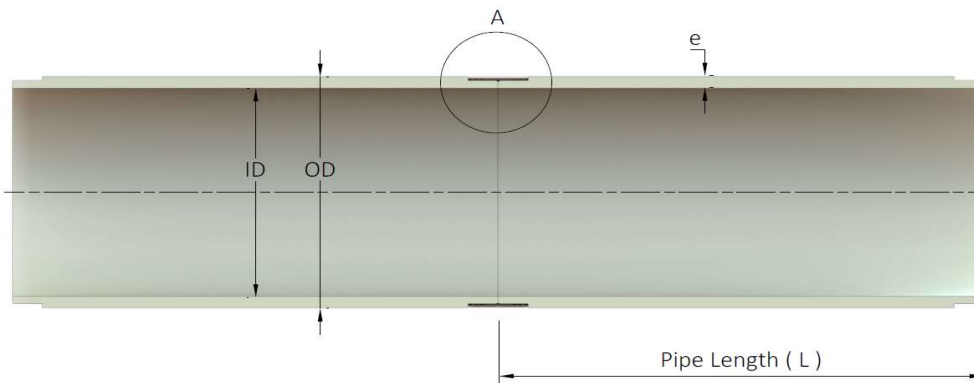
GLASS REINFORCED POLYESTER (GRP) ISO 25780

JOINT TYPE : FULLFACE STAINLESS STEEL JACKING COUPLING



GRP JACKING PIPE TABLE : SN 100 000 – 1 000 000

OD (mm)	PIPE STIFFNESS (N/m ²)																														
	100 000				128 000				160 000				200 000				320 000				640 000				1 000 000						
	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max	ID	e	Mass	F max			
mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN	mm	mm	kg / m	kN
345	312,6	16,2	33	169	310,0	17,5	36	197	306,8	19,1	39	231	304,0	20,5	42	260	296,8	24,1	49	334	311,0	32,5	70	552	301,6	37,2	79	651			
376	340,8	17,6	40	219	338,0	19,0	43	251	334,4	20,8	46	293	331,0	22,5	50	331	323,4	26,3	58	417	311,0	32,5	70	552	301,6	37,2	79	651			
427	387,0	20,0	51	315	384,0	21,5	55	354	379,8	23,6	60	409	376,0	25,5	64	459	367,4	29,8	74	568	353,2	36,9	90	744	342,4	42,3	102	873			
478	433,2	22,4	64	427	429,6	24,2	69	480	425,0	26,5	75	547	421,0	28,5	80	605	411,2	33,4	93	745	395,4	41,3	113	964	383,4	47,3	128	1.124			
515	466,6	24,2	75	520	462,8	26,1	80	580	457,4	28,8	88	666	453,6	30,7	93	725	443,0	36,0	108	888	426,0	44,5	131	1.141	413,0	51,0	149	1.329			
530	480,4	24,8	79	556	476,4	26,8	85	621	471,2	29,4	92	706	467,0	31,5	99	773	456,0	37,0	115	948	438,4	45,8	139	1.218	425,0	52,5	157	1.416			
550	498,4	25,8	85	612	494,2	27,9	91	684	489,0	30,5	100	772	484,8	32,6	106	842	473,0	38,5	124	1036	455,0	47,5	150	1.322	441,0	54,5	170	1.537			
618	560,0	29,0	107	817	555,2	31,4	116	909	549,6	34,2	125	1.015	544,6	36,7	134	1.109	531,6	43,2	156	1349	511,0	53,5	190	1.717	496,0	61,0	213	1.976			
650	589,0	30,5	119	923	584,0	33,0	128	1.023	578,0	36,0	139	1.143	572,8	38,6	148	1.245	559,2	45,4	172	1510	537,6	56,2	210	1.916	521,4	64,3	237	2.210			
718	651,0	33,5	144	1.112	645,2	36,4	156	1.241	638,0	40,0	170	1.399	632,8	42,6	181	1.513	617,6	50,2	211	1839	594,0	62,0	255	2.329	576,0	71,0	288	2.691			
760	688,8	35,6	162	1.281	682,8	38,6	175	1.422	675,0	42,5	192	1.604	669,6	45,2	203	1.728	653,8	53,1	236	2087	628,8	65,6	286	2.637	609,4	75,3	324	3.049			
820	743,0	38,5	189	1.537	736,8	41,6	203	1.694	729,2	45,4	221	1.885	722,4	48,8	236	2.054	705,4	57,3	274	2471	678,0	71,0	334	3.121	658,0	81,0	376	3.580			
860	779,6	40,2	207	1.707	773,0	43,5	223	1.883	764,4	47,8	244	2.110	758,0	51,0	259	2.277	740,0	60,0	301	2740	711,0	74,5	368	3.462	683,0	83,0	408	3.945			
924	837,2	43,4	240	1.934	830,2	46,9	258	2.134	821,6	51,2	281	2.378	814,0	55,0	300	2.591	795,0	64,5	348	3116	764,0	80,0	424	3.945	719,0	83,0	457	4.279			
960	869,8	45,1	259	2.115	862,8	48,6	278	2.324	853,6	53,2	303	2.594	845,6	57,2	324	2.828	826,0	67,0	376	3390	794,0	83,0	457	4.279	749,0	83,0	457	4.279			
1.026	930,0	48,0	295	2.456	922,0	52,0	318	2.710	912,0	57,0	347	3.024	904,0	61,0	370	3.274	882,4	71,8	430	3936	811,0	83,0	457	4.279	776,0	83,0	457	4.279			
1.099	995,8	51,6	339	2.888	988,2	55,4	363	3.147	977,0	61,0	398	3.524	968,6	65,2	423	3.805	945,4	76,8	493	4567	845,0	83,0	457	4.279	801,0	83,0	457	4.279			
1.127	1.021,2	52,9	357	3.057	1.013,0	57,0	383	3.343	1.002,0	62,5	418	3.724	992,6	67,2	447	4.045	969,4	78,8	519	4826	869,0	83,0	457	4.279	825,0	83,0	457	4.279			
1.229	1.114,0	57,5	423	3.704	1.104,6	62,2	456	4.061	1.093,0	68,0	496	4.499	1.082,6	73,2	531	4.887	1.061,0	81,0	594	5467	894,0	83,0	457	4.279	849,0	83,0	457	4.279			
1.290	1.169,0	60,5	467	4.140	1.160,0	65,0	500	4.499	1.147,0	71,5	547	5.014	1.136,0	77,0	587	5.445	1.114,0	85,0	641	6099	894,0	83,0	457	4.279	863,0	83,0	457	4.279			
1.348	1.221,6	63,2	510	4.563	1.211,0	68,5	550	5.006	1.198,0	75,0	600	5.543	1.187,0	80,5	641	5.993	1.164,0	89,0	690	6755	894,0	83,0	457	4.279	877,0	83,0	457	4.279			
1.399	1.267,8	65,6	549	4.955	1.257,0	71,0	592	5.423	1.243,0	78,0	647	6.024	1.232,0	83,5	690	6.491	1.208,0	93,0	738	7185	894,0	83,0	457	4.279	891,0	83,0	457	4.279			
1.434	1.299,2	67,4	578	5.247	1.289,0	72,5	620	5.700	1.274,8	79,6	677	6.325	1.264,0	85,0	720	6.795	1.240,0	95,0	768	7615	894,0	83,0	457	4.279	905,0	83,0	457	4.279			
1.499	1.359,0	70,0	628	5.742	1.348,0	75,5	675	6.253	1.333,0	83,0	738	6.943	1.321,0	89,0	788	7.489	1.296,0	100,0	816	8145	894,0	83,0	457	4.279	919,0	83,0	457	4.279			
1.536	1.392,0	72,0	662	5.979	1.380,0	78,0	714	6.550	1.366,0	85,0	775	7.210	1.354,0	91,0	825	7.710	1.328,0	102,0	854	8575	894,0	83,0	457	4.279	933,0	83,0	457	4.279			
1.638	1.485,0	76,5	750	6.859	1.472,0	83,0	811	7.519	1.460,0	89,0	866	8.122	1.448,0	95,0	916	8.616	1.412,0	104,0	900	9015	894,0	83,0	457	4.279	947,0	83,0	457	4.279			
1.720	1.559,0	80,5	829	7.651	1.546,0	87,0	892	8.344	1.546,0	89,0	866	8.122	1.534,0	95,0	916	8.616	1.498,0	108,0	944	9445	894,0	83,0	457	4.279	961,0	83,0	457	4.279			
1.842	1.670,0	86,0	948	8.857	1.657,0	93,0	1000	9.500	1.657,0	93,0	1000	9.500	1.645,0	99,0	1054	10.000	1.609,0	107,0	1088	10485	894,0	83,0	457	4.279	975,0	83,0	457	4.279			



Detail A
 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 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
 *Ultimate compressive strength ≥ 85 N/m²
 *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	Rev.	02