

Test Ropes

available at Gigasense AB, for Calibration and Testing of
PIAB RTM – Rope Tension Meter - in the
 200 kN Tension Testing Machine

		Steel						
Rope No.)	Rope Ø (mm)	Rope construction	Wire Ø (mm)	Rope Area (mm ²)	Rm minimum (N/ mm ²)	Min Breaking Load (kN)	Max Test Load at PIAB (kN)	Notes
047	6.0	1x7	2.0	20.6	1380	28	11	
001	6.4	1x7	2.1	24	1170 28		11	
002	7.3	1x7	2.4	33	1240 41		16	
003	9.2	1x7	3.1	52	1300 68		27	
004	9.8	1x7	3.3	59	1340 79		31	
005	10.6	1x7	3.5	68	1320 90		36	
006	11.5	1x7	3.8	80	1320	106	42	
007	12.1	1x7	4.0	89	1320	118	47	
008	13.1	1x7	4.3	105	1300 136		54	
009	12.5	1x7	4.2	95	1730	164	65	High Tensile
010	15.3	1x7	5.1	139	1670 232		93	High Tensile
011	10.0	7x7 + Plastic cover	1.1	46	1480 68		27	Norselay
012	6.0	1x19	1.2	21	1240 26		10.5	
013	9.0	1x19	1.8	49	1280 62		25	
014	10.6	1x19	2.2	68	1280 86		34	
015	13.4	1x19	2.7	109	1280 140		56	
016	15.4	1x19	3.1	142	1310 186		74	
017	16.0	1x19	3.2	153	1320 202		81	
018	17.7	1x19	3.5	185	1300 241		96	
019	21.8	1x19	4.3	280	1340 374		149	
057	12.0	1x37 1.75		86	1350	116	46	
020	18.0	1x37	2.5	190	1200 225		90	
058	20.0	1x37	2.9	239	1200 286		114	
022	21.2	1x37	3.1	270	1280 344		137	

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023	22.2	1x37	3.3	295	990	290	115	
059	24.0	1x37	3.5	344	1200	413	165	
024	24.8	1x37	3.5	364	1330	480	192	
025	27.0	1x37	3.9	441	1300	570	228	
026	30.2	1x37	4.4	520	1330	692	276	
027	35.5	1x37	5.2	760	1330	998	399	
045	25.5	1x37	4.1/3.5	375	1380	517	207	<i>No end-fittings</i>
044	37.2	1x53	5.6/5,1/ 4.1	840	1380	1159	463	<i>No end-fittings</i>
021	20.0	1x61	2.3	236	1380	323	129	
046	28.0	1x61	3.2	462	1770	819	327	
028	32.0	1x61	3.6	604	1380	834	333	
029	36.0	1x61	4.0	766	1320	1010	404	märka om
030	19.0	3x7	3.0	145	1320	190	76	
031	10.0	6x7+core	1.0	36	1620	58	23	42 wires
032	8.0	6x19+ core		24.6	1530	37	15	114 wires
033	10.0	6x19+ core	0.66	38.5	1530	58.6	23	114 wires Zn
034	14.0	6x19+ core		75	1530	115	46	114 wires
035	16.0	6x19+ core		98	1530	150	60	114 wires
036	22.0	6x19+ core		186	1530	280	112	114 wires
037	24.0	6x19+ core		222	1530	336	134	114 wires
038	3.0	7x19		3.7	1440	5.3	2.1	133 wires Not for RTM
039	6.0	6x19-WSC	0.38	15.0	1770	21.2	8.4	133 wires
040	11.5	6x19-WSC		59	1440	84	33	133 wires
048	8.0	7x19		32.4	1960	67.1	26	Python 6FV
049	9.0	7x19		41.9	1960	82.2	32	Python 6FV
050	10.0	7x19		50.2	1960	98.3	39	Python 6FV
051	11.0	7x19		59.3	1960	116.2	46	Python 6FV
052	12.0	7x19		69.2	1960	135.6	54	Python 6FV

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053	16.0	7x19 Python		117.3	1960	229.9	91	Pfeifer Python 6FV
054	18.0	7x19 Python		144.4	1960	283.1	113	Pfeifer Python 6FV
055	20.0	7x19 Python		175.0	1960	342.9	137	Pfeifer Python 6FV
056	22.0	7x19 Python		208.5	1960	408.6	163	Pfeifer Python 6FV
062	10.0	6x36+ core		39.3	1770	58	23	216 wires
042	13.0	6x36+ core		66.4	1120	74	29	216 wires
060	24.0	CASAR Turboplast		299	1770	455	182	Multicore 8 outer strands
061	16.0	8x ca19+W		135	1680	226	90	Multicore 8 outer strands

	Stainless Steel	
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201	8.5	1x12	2.2	42	1000	42 (1000)	16	
202	2.0	1x19	0.4	2.3	1300	3.0	1.2	
203	4.0	1x19	0.8	9.5	1300	12	4.8	
224	6.0	1x19	1.2	21.4	1000	21	8.5	
204	7.0	1x19	1.4	29	1300	36	12	
205	8.0	1x19	1.6	37	1000	37	15	
206	10.0	1x19	2.0	59	1000	60	24	
221	12.0	1x19	2.45	85.4	1000	85	34	
207	14.5	1x19	2.9	125	1000	127	50	
222	16.0	1x19	3.25	151	1000	151	60	
226	19.0	1x19	3.9	214	1000	214	85	
223	20.0	1x19	4.1	237	1000	237	94	

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217	8.0	7x7	0.85	28.1	1300	36.1	14	(6x7+IWS)
208	9.5	6x7+core	0.95	32	1000	33	13	(6x7+FC)
218	6.0	7x19	0.38	15	1000	15	6	(6x19+IWS)
219	8.0	7x19	0.50	26	1000	26	10	(6x19+IWS)
220	8.5	7x19	0.53	30	1000	30	12	(6x19+IWS)
209	12.0	7x19	0.70	59	1000	59	24	(6x19+IWS)
228	12.5	7x19	0.75	65	1000	65	26	(6x19+IWS)
210	12.0	1x37	1.8	86.6	1000	86	34	
211	16.0	1x37	2.4	153	1000	153	61	
225	18.0	1x37	2.7	194	1000	194	77	
212	20.0	1x37	3.0	239	1000	239	95	
213	24.0	1x37	3.5	344	1000	350	140	
227	22.0	1x61	2.5	285	1000	285	114	
214	26.0	1x61	3.0	424	1000	399	159	
228	28.0	1x61	3.2	490	1000	490	196	
215	30.0	1x61	3.4	540	1000	550	220	
216	32.0	1x91	3.0	640	1000	640	256	
229	36.0	1x91	3.4	825	1000	825	330	

Aluminium + Steel (Al + Fe)

Rope No.)	Rope Ø (mm)	Rope construction	Wire Ø (mm)	Rope Area (mm ²)	Rm minimum (N/ mm ²)	Min Breaking Load (kN)	Max Test Load at PIAB (kN)	Notes
301	10.1	7xAl 1xFe	3.35	62		18	7	
302	14.0	7xAl 1xFe 30 (2.1)						
303	16.5	12xAl 7xFe	3.3	100 Al 60 Fe		85	34	
304	16.6	30xAl 7xFe	2.35 Fe 2.35 Al	130 Al 30 Fe		56	22	
305	32.0	42xAl 7xFe	4.4 / 2.5	565Al 32Fe		132	53	

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306	21.0	1x61	2.24	240					
307	23.6	Dove 26xAl 7xFe	Al3.72 Fe2.89	282.0 + 46.5		100.0	19	26 Al + 7 Fe	
309	21.7	26xAl 7xFe	Al-3.40 Fe-2.7	276.2		84.6	33	AFL-6 240	
310	15.65	26xAl 7xFe	Al-2.45 Fe-1.95	143.5		45.9	18	AFL-6 120	
311	12.75	12xAl 7xFe	Al-2.55 Fe-2.55	97.03		52.2	21	AFL-1,7 70	
312	10.74	6xAl 7xFe	Al-3.75 Fe-2.4	81.47		48	19	AFLs-1.5 50 (Al not Ø)	
313	11.26	6xAl 1xFe	Al-3.75 Fe-3.75	77.3		22.7	9	AFL-6 70	
314	14.3	Penguin 6xAl 1xFe	Al-4.77 Fe-4.77	107.2 + 17.8		37	14	4/0 ACSR	
315	18.3	Linnet 26xAl 7xFe	Al-2.89 Fe-2.25	170.6 + 27.8		63	25	336.4 ACSR	
316	23.2	Parakeet 24xAl 7xFe	Al-3.87 Fe-2.58	282.2 + 36.6		88	35	556.5 ACSR	
317	27.0	Tern 45xAl 7xFe	Al-3.38 Fe-2.25	403.8 + 27.83		98	39	795 ACSR	
318	34.2	Bittern 45xAl 7xFe	Al-4.27 Fe-2.85	644.4 + 44.6		151	60	1272 ACSR	
319	38.2	Lapwing 45xAl 7xFe	Al-4.78 Fe-3.18	807.8 + 55.6		187	75	1590 ACSR	
320	31.5	54xAl 7xFe	Al-3.50 Fe-3.50	586.9		159.8	64	AFL-8 525 (similar to Oliv)	
321	11.4	Quail 6xAl 1xFe	Al-3.78 Fe-3.78	67.3 11.22		23.5	9.4		
322	16.4	Partridge 26xAl 7xFe	Al-2.54 Fe-2.0	134.9 22.0		50.1	20.0		

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323	21.8	Hawk 26xAl 7xFe	Al-3.44 Fe-2.67	241.6 39.2		86.9	34.7	
324	28.1	Drake 26xAl 7xFe	Al-4.44 Fe-3.45	402.5 65.4		139	55.7	
325	9.8	1x7 Al-clad steel	3.26	56	1280	70.9	28	Alumoweld Guying + shielding
326	13.2	1x7 Al-clad steel	4.45	100	1150	111	44	Alumoweld Guying + shielding
327	19.0	1x19 Al	4.0	214	230	49	19	AAAC Alum
328	11.7	26xAl 7xFe	Al-1.85 Fe-1.44	69 11.4		26.3	10.5	DIN 48204-4/84
329	15.5	26xAl 7xFe	Al-2.44 Fe-1.90	121 19.8		44.9	17.5	DIN 48204-4/84

	Parafil Polyester cores in standard terminations	
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501								<i>discarded</i>
504								<i>discarded</i>
508								<i>discarded</i>
506	7.0	multicore fibres	-	7.97	615	4.9	1.9	Parafil type A
503	11.0	multicore fibres		31.8	615	19.6	7.8	Parafil type A
507	13.5	multicore fibres	-	55.8	615	34.3	13.7	Parafil type A
505	20.0	multicore fibres	-	119	615	73.6	29.4	Parafil type A
502	8.5	multicore fibres	-	15.3	1920	29.4	11.7	Parafil type F
509	11.0	multicore fibres	-	30.5	1920	58.8	23.5	Parafil type F
511	13.5	multicore fibres		53.5	1920	103	41.0	Parafil type F
510	17.0	multicore fibres		76.3	1920	147	58.8	Parafil type F

Copper + Steel (Cu + Fe)								
Rope No.)	Rope Ø (mm)	Rope construction	Wire Ø (mm)	Rope Area (mm ²)	Rm minimum (N/ mm ²)	Min Breaking Load (kN)	Max Test Load at PIAB (kN)	Notes
601	15.0	1x19 7 Cu/Fe + 12 Cu	3.0	134 Fe34 Cu100		79	31.0	
602	21.0	1x19 7 Cu/Fe + 12 Cu	4.2	263 Fe66 Cu197		153	61.0	

Copper alt. Bronze								
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701	6.5	1x7	2.2	25.8	340	8.7	3.5	Cu
702	7.5	1x7	2.3	29.0	380	11.0	4.4	Bronze
703	7.6	1x7	2.5	35.3	360	12.4	4.5	Cu
704	9.5	1x7	3.0	49.5	360	17.3	6.9	Cu
705	12.0	1x7	3.8	80.0	300	24.0	9.5	Cu
706	12.8	1x7	4.0	87.0	340	29.0	11.6	Cu
707	14.0	1x7	4.2	96.0	360	33.0	13.2	Cu
709	9.5	1x19	1.9	54	360	18.8	7.5	
710	9.5	1x19	1.9	54	430	23	9.0	Bronze
711	10.6	1x19	2.1	65.8	360	23.0	9.2	
712	12.8	1x19	2.6	97	360	34	13	
713	14.0	1x19	2.9	120	320	38	15	
714	16.0	1x19	3.3	155	320	48	18	

<h2>Different materials</h2>	
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Rope No.)	Rope Ø (mm)	Rope construction	Wire Ø (mm)	Rope Area (mm ²)	Rm minimum (N/ mm ²)	Min Breaking Load (kN)	Max Test Load at PIAB (kN)	Notes
901	8.4	1x12 Nirosta	2.1	41.6	1000	40.0	16.0	Nirosta 40 Rm 1050 kN/mm ²
902	10.5	1x19 Nirosta	2.1	65.8	1000	65.0	26.0	Nirosta 70 Rm 1050 kN/mm ²
903	9.2	12 CuAg 7 Nirosta 6 Cu	1.84 1.84 0.60	52.2 (31.9+18.6+1.7)		30.0	12.0	NiCuAg 50 Cu-leg.
904	10.8	1x19 Cu-leg.	2.15	68.9	450	31.0	12.4	Cu-leg70
905	7.5	1x7 Bz II 35	2.5	34.4	560	19.0	7.6	Bz II 35 Bronze