



BESISTA®

It's in the details

Peikko BESISTA® tension rod and compression bar systems set the standard for elegantly bracing buildings and other load-bearing structures. With detailed aesthetics and patented safety and installation features, BESISTA® is your first choice for load-carrying connections that boldly stand out.



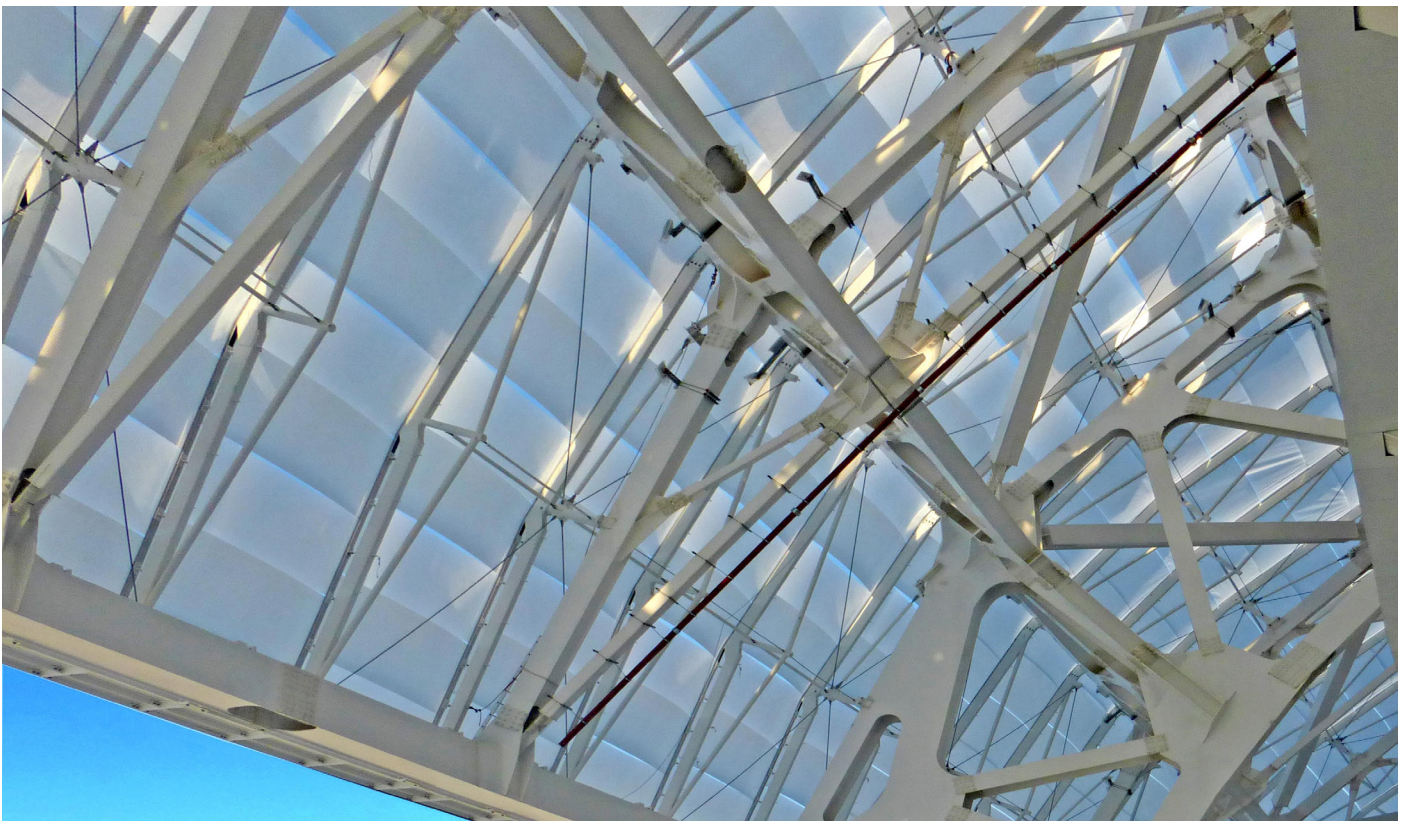
BESISTA® Rod Systems

BESISTA® BENEFITS

- ▶ Aesthetic design from every angle and down to the last detail.
- ▶ ETA approved and CE marked system.
- ▶ Simple installation without any additional thread protection thanks to special HDG rod thread.
- ▶ Visual checking points via openings in rod anchors.
- ▶ Individual rod lengths up to 15 m.
- ▶ Capable of tolerating misalignment up to 2° due to special shape of the slot.
- ▶ Costs and material optimization thanks to 24 thread sizes from M8 to M76, with limit tensile forces up to 2016 kN.
- ▶ Capable of transferring compression forces with compression rods made of steel or timber.
- ▶ Possibility to pretension rods with extra-light BESISTA® pretensioning systems BVS-230kN and BVS-500kN.

BESISTA® Rod System for architecture and civil engineering consists of rod anchors and tension / compression rods as main parts and extensive range of accessories like cover or extension sleeves and cross anchors for wide project. BESISTA® has been used in variety of applications, from sports stadiums to eye-catching bridges.

Hot-dip galvanized rod including special hot-dip galvanized rod threads provide corrosion protection during whole lifetime, simple handling and installation without special assembly work like sealing or encapsulation. Rod anchor is made of EN-GJS400-18C-LT material which is known as “ductile iron” provide enough capacity, flexibility and safety to bracing system and braced structure.





Limit tensile forces $N_{R,d}$ in kN for BESISTA® 540 (for limit compressive forces see technical manual)

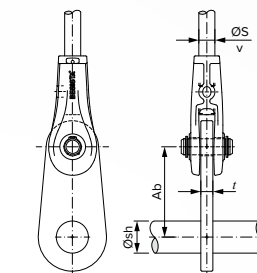
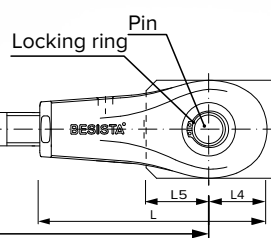
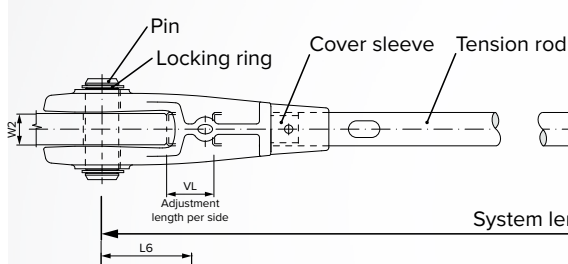
Material combinations	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39	M42	M45	M48	M52	M56	M60	M64	M68	M72	M76
1 Standard tens. rod plates S460N (Re 540) S355	19	31	43.7	59.6	81.4	100	127	157	183	238	291	360	424	506	581	677	764	911	1053	1225	1387	1584	1796	2016
2 tens. rod plates S460N (Re 540) GJS-400-15	16.4	27.3	40.9	57.3	81.4	92	123	135	164	203	256	338	368	465	501	614	655	798	955	1125	1200	1391	1596	1814
3 tens. rod plates S460N (Re 540) S235	15.4	25.6	38.5	53.8	76.9	86.5	110	121	148	182	230	304	331	419	451	552	589	686	821	968	1032	1197	1372	1560

Rod anchor (fork head)

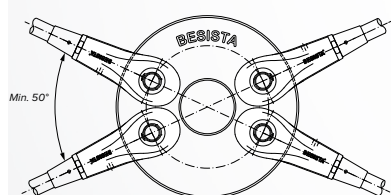
with cover sleeve

Tension rod

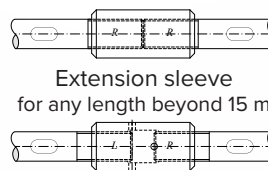
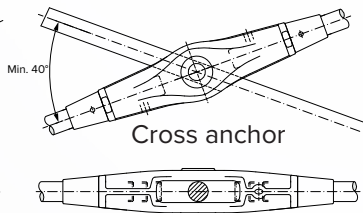
without cover sleeve



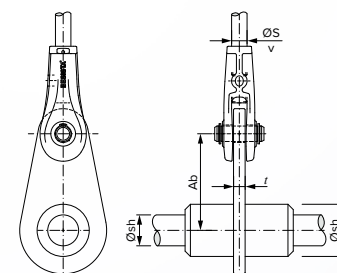
Suspension ring for solid rod



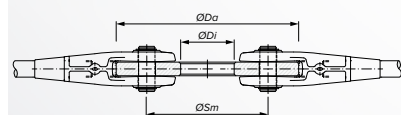
Circular disc



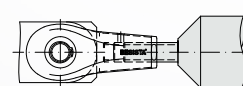
Tensioning sleeve for controlled tensioning



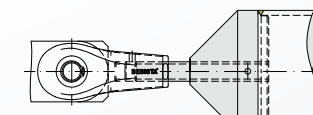
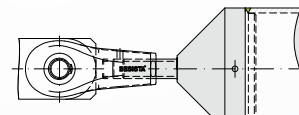
Suspension ring for coupler



Compression rod machine faced connection (solid rod)



Compression rod connection one-part for tube or timber



Compression rod connection two-part (tube) with higher-strength threaded bolts

Dimensions in mm for BESISTA® 540

Thread sizes		M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M33	M36	M39	M42	M45	M48	M52	M56	M60	M64	M68	M72	M76		
Tension rods	Ø d	8	10	12	14	16	18	20	22	24	27	30	33	36	39	42	45	48	52	56	60	64	68	72	76		
Rod anchors	Ø d1 Z	8	10	12	14	16	18	20	22	24	27	30	33	36	39	42	45	48	52	56	60	64	68	72	76		
	Ø d1 D ¹⁾	10	12	14	16	18	20	22	24	27	30	33	36	39	42	45	48	52	56	60	64	68	72	76	80		
	V ²⁾	14	16	18	20	22	26	28	30	36	40	44	46	50	54	58	64	70	74	80	84	92	96	100	108		
	L6 ³⁾	23	28	32	37	42	46	51	57	63	71	78	83	92	98	107	114	125	137	146	155	167	177	185	195		
Gusset plates	w2 (t)	6	8	10	12	15	15	18	18	20	22	25	30	30	35	35	40	40	45	50	55	55	60	65	70		
	c2 min	28	35	41	47	52	57	62	70	75	85	93	99	112	117	130	136	153	167	175	187	203	214	224	244		
	Ø d2 Z	8.5	11	13	15	17	19	21	23	25	28	31	34	37	40	43	46	50	54	58	62	66	70	74	78		
	Ø d2 D	10.5	13	15	17	19	21	23	25	28	31	34	37	40	43	46	49	54	58	62	66	70	74	78	82		
	L5 ⁴⁾	16	20	23	27	31	34	37	42	45	51	56	60	67	71	78	82	91	100	106	113	122	129	135	141		
Circular discs	Ø Da	96	118	140	162	184	204	224	248	268	302	334	364	400	430	466	496	534	582	626	668	718	764	800	848		
	Ø Di	30	36	42	48	54	60	66	72	78	88	98	108	118	128	138	148	158	170	184	196	210	226	234	248		
	Ø Sm	64	78	94	108	122	136	150	164	178	200	222	244	266	288	310	332	354	382	414	442	474	506	530	566		
Suspended rods	Ø d	8											10							12			14			16	

1) Larger pin diameters apply for compression rods: Ø d1 D for compression rods, Ø d1 Z for tension rods - see website under Technical data.

2) Max. adjustment length = 2xV 3) Rod length = system length - 2xL6 4) L5 = Distance from centre of pin to plate edge

EXPERT ADVICE LOCALLY AVAILABLE

Take advantage of Peikko specialists' advice and technical support during both the design and construction stages. This will help you improve the efficiency, safety, and comfortable operation of your building.

peikko.com



A faster, safer, and more sustainable way to design and build

Peikko supplies slim floor and other composite structures, as well as connection technology for precast, cast-in-situ, and hybrid applications.

Peikko's innovative solutions make your construction process more efficient.