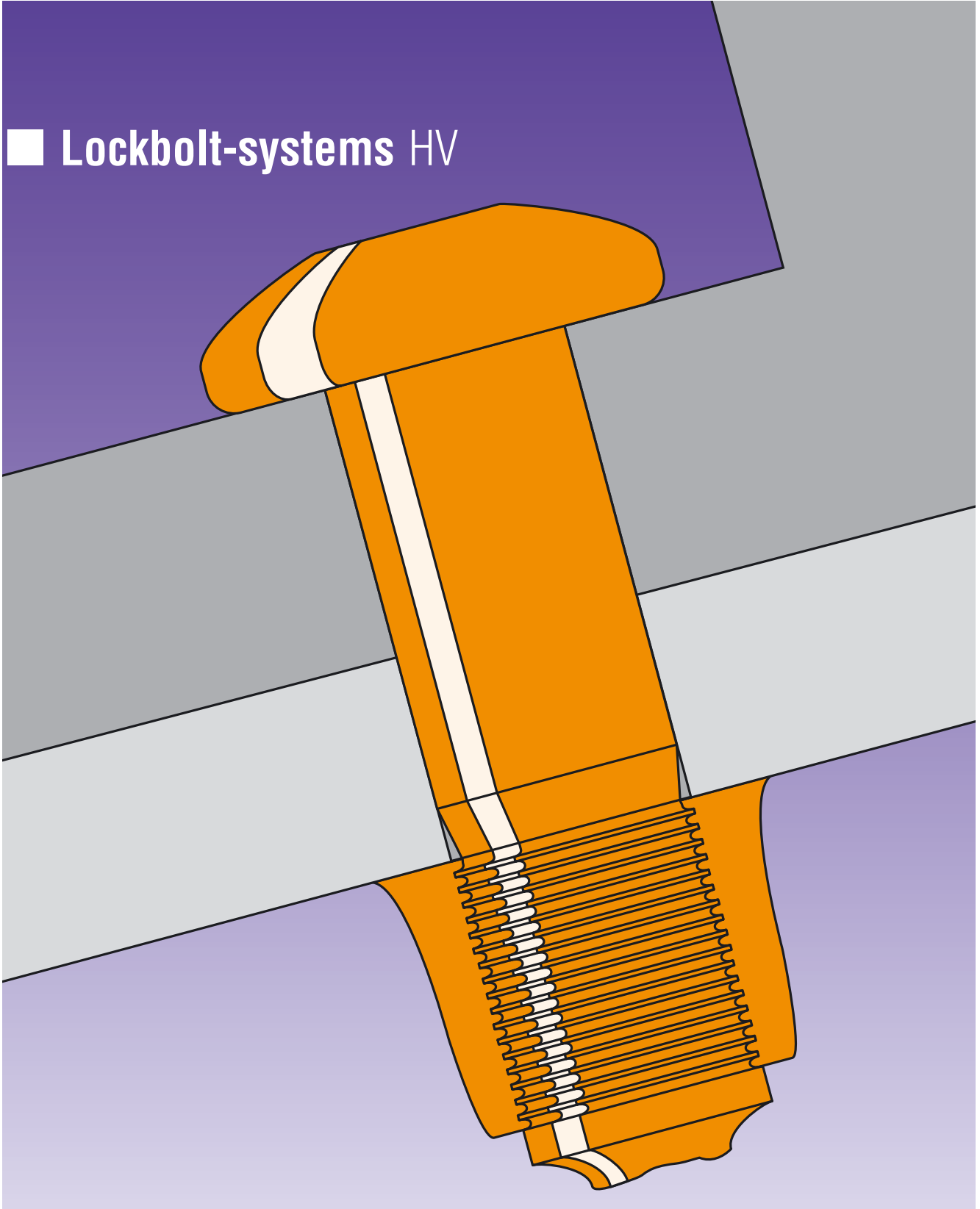


■ Lockbolt-systems HV



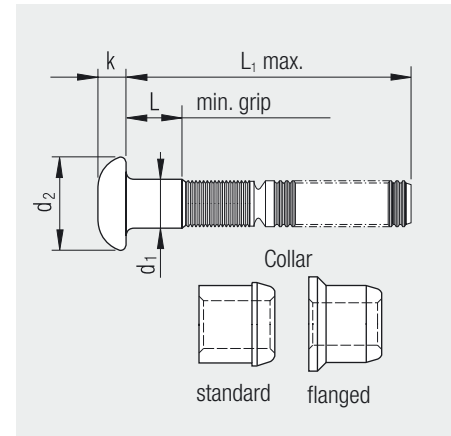
TTITGEMEYER Tb1423GB(0110)2

Lockbolt-systems HV

Brazier head

Material

Steel (Type 8.8)
untreated, black



Nominal pin- \varnothing	Hole- \varnothing	Grip range		Dimensions					Strength			Part No. Collar		Part No.
		Standard collar	Flange collar	L	L ₁	d ₁	d ₂	k	Shear	Tensile	Clamp	standard	flange	
[mm]	[mm]	[mm]	[mm]	nom [mm]	max [mm]	[mm]	nom [mm]	nom [mm]	[kN]	[kN]	[kN]	■ Steel, zinc	■ Steel, zinc	■ Pin Type 8.8
12.7	14.5	6.5 – 13.0	3.0 – 10.0	6.5	85.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 300
		12.5 – 19.5	9.5 – 16.5	12.5	91.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 301
		19.0 – 26.0	16.0 – 23.0	19.0	98.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 302
		25.5 – 32.5	22.5 – 29.0	25.5	104.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 303
		32.0 – 38.5	28.5 – 35.5	32.0	111.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 304
		38.0 – 45.0	35.0 – 42.0	38.0	117.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 305
		44.5 – 51.5	41.5 – 48.0	44.5	123.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 306
		51.0 – 58.0	47.5 – 54.5	51.0	130.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 307
		57.5 – 64.0	54.0 – 61.0	57.5	136.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 308
		63.5 – 70.5	60.5 – 67.5	63.5	142.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 309
		70.0 – 77.0	67.0 – 73.5	70.0	149.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 310
		76.5 – 83.5	73.0 – 80.0	76.5	155.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 311
		83.0 – 89.5	79.5 – 86.5	83.0	162.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 312
		89.0 – 96.0	86.0 – 93.0	89.0	168.0	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 313
		9.5 – 102.0	92.5 – 99.0	95.5	174.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 314
		101.5 – 108.5	98.5 – 105.5	101.5	180.5	12.5 – 13.1	23.5	8.0	64.0	75.8	53.5	377 200	377 210	377 315
16.0	17.5	6.5 – 13.0	2.5 – 9.5	6.5	98.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 400
		12.5 – 19.5	9.0 – 15.5	12.5	104.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 401
		19.0 – 26.0	15.0 – 22.0	19.0	110.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 402
		25.5 – 32.5	21.5 – 28.5	25.5	117.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 403
		32.0 – 38.5	28.0 – 35.0	32.0	123.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 404
		38.0 – 45.0	34.5 – 41.0	38.0	129.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 405
		44.5 – 51.5	40.5 – 47.5	44.5	136.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 406
		51.0 – 58.0	47.0 – 54.0	51.0	142.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 407
		57.5 – 64.0	53.5 – 60.0	57.5	149.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 408
		63.5 – 70.5	59.5 – 66.5	63.5	155.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 409
		70.0 – 77.0	66.0 – 73.0	70.0	161.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 410
		76.5 – 83.5	72.5 – 79.5	76.5	168.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 411
		83.0 – 89.5	79.0 – 85.5	83.0	174.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 412
		89.0 – 96.0	85.0 – 92.0	89.0	180.5	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 413
		95.5 – 102.0	91.5 – 98.0	95.5	187.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 414
		101.5 – 108.5	97.5 – 104.5	101.5	193.0	15.7 – 16.3	29.0	10.0	100.1	120.5	85.4	377 201	377 211	377 415

We reserve the right to amend specifications at any time.

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Continued

Nominal pin-Ø [mm]	Hole-Ø max [mm]	Grip range		Dimensions					Strength			Part No. Collar		Part No. ■ Pin Type 8.8
		Standard collar [mm]	Flange collar [mm]	L nom [mm]	L ₁ max [mm]	d ₁ [mm]	d ₂ nom [mm]	k nom [mm]	Shear [kN]	Tensile [kN]	Clamp [kN]	standard ■ Steel, zinc	flange ■ Steel, zinc	
19.0	21.0	6.5 – 13.0	2.0 – 8.5	6.5	110.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 500
		12.5 – 19.5	8.0 – 15.0	12.5	116.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 501
		19.0 – 26.0	14.5 – 21.5	19.0	123.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 502
		25.5 – 32.5	21.0 – 27.5	25.5	129.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 503
		32.0 – 38.5	27.0 – 34.0	32.0	136.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 504
		38.0 – 45.0	33.5 – 40.5	38.0	142.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 505
		44.5 – 51.5	40.0 – 47.0	44.5	148.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 506
		51.0 – 58.0	46.5 – 53.0	51.0	155.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 507
		57.5 – 64.0	52.5 – 59.5	57.5	161.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 508
		63.5 – 70.5	59.0 – 66.0	63.5	167.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 509
		70.0 – 77.0	65.5 – 72.5	70.0	174.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 510
		76.5 – 83.5	72.0 – 78.5	76.5	180.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 511
		83.0 – 89.5	78.0 – 85.0	83.0	187.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 512
		89.0 – 96.0	84.5 – 91.5	89.0	193.0	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 513
		95.5 – 102.0	91.0 – 97.5	95.5	199.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 514
	101.5 – 108.5	97.0 – 104.0	101.5	205.5	18.8 – 19.5	35.0	12.0	144.2	178.4	126.3	377 202	377 212	377 515	
22.2	24.0	12.5 – 19.5	7.0 – 14.0	12.5	124.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 601
		19.0 – 26.0	13.5 – 20.5	19.0	130.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 602
		25.5 – 32.5	20.0 – 27.0	25.5	137.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 603
		32.0 – 38.5	26.5 – 33.5	32.0	143.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 604
		38.0 – 45.0	33.0 – 39.5	38.0	149.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 605
		44.5 – 51.5	39.0 – 46.0	44.5	156.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 606
		51.0 – 58.0	45.5 – 52.5	51.0	162.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 607
		57.5 – 64.0	52.0 – 58.5	57.5	169.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 608
		63.5 – 70.5	58.0 – 65.0	63.5	175.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 609
		70.0 – 77.0	64.5 – 71.5	70.0	181.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 610
		76.5 – 83.5	71.0 – 78.0	76.5	188.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 611
		83.0 – 89.5	77.5 – 84.0	83.0	194.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 612
		89.0 – 96.0	83.5 – 90.5	89.0	200.5	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 613
		95.5 – 102.0	90.0 – 97.0	95.5	207.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213	377 614
			101.5 – 108.5	96.5 – 103.0	101.5	213.0	22.0 – 22.7	40.5	14.0	193.1	246.7	174.6	377 203	377 213
25.4	27.5	12.5 – 19.5	6.5 – 13.5	12.5	141.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 701
		19.0 – 26.0	13.0 – 20.0	19.0	147.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 702
		25.5 – 32.5	19.5 – 26.5	25.5	154.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 703
		32.0 – 38.5	26.0 – 32.5	32.0	160.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 704
		38.0 – 45.0	32.0 – 39.0	38.0	166.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 705
		44.5 – 51.5	38.5 – 45.5	44.5	173.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 706
		51.0 – 58.0	45.0 – 52.0	51.0	179.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 707
		57.5 – 64.0	51.5 – 58.0	57.5	186.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 708
		63.5 – 70.5	57.5 – 64.5	63.5	192.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 709
		70.0 – 77.0	64.0 – 71.0	70.0	198.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 710
		76.5 – 83.5	70.5 – 77.0	76.5	205.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 711
		83.0 – 89.5	76.5 – 83.5	83.0	211.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 712
		89.0 – 96.0	83.0 – 90.0	89.0	217.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 713
		95.5 – 102.0	89.5 – 96.0	95.5	224.0	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214	377 714
			101.5 – 108.5	95.5 – 102.5	101.5	230.5	25.1 – 26.0	46.5	15.5	251.4	323.5	229.1	377 204	377 214

¹ monitored and approved lockbolts available on request

For technical data see collar table. Order collars separately.

On request: • HV Lockbolts in steel Type 10.9,

HV Lockbolts in stainless steel and aluminium, zinc

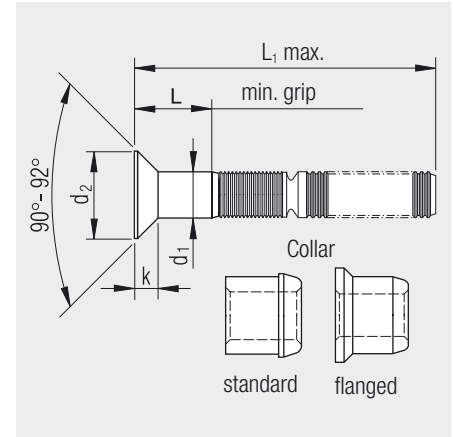
We reserve the right to amend specifications at any time.

Lockbolt-systems HV

Countersunk Head 90°

Material

Steel (Type 8.8)
untreated, black



Nominal pin-ø [mm]	Hole-ø max [mm]	Grip range		Dimensions					Strength			Part No. Collar		Part No. Pin Type 8.8
		Standard collar [mm]	Flange collar [mm]	L nom [mm]	L ₁ max [mm]	d ₁ [mm]	d ₂ nom [mm]	k nom [mm]	Shear [kN]	Tensile [kN]	Clamp [kN]	standard Steel, zinc	flange Steel, zinc	
12.7	14.5	12.5 – 19.5	9.5 – 16.5	12.5	91.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 341
		19.0 – 26.0	16.0 – 23.0	19.0	98.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 342
		25.5 – 32.5	22.5 – 29.0	25.5	104.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 343
		32.0 – 38.5	28.5 – 35.5	32.0	111.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 344
		38.0 – 45.0	35.0 – 42.0	38.0	117.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 345
		44.5 – 51.5	41.5 – 48.0	44.5	123.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 346
		51.0 – 58.0	47.5 – 54.5	51.0	130.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 347
		57.5 – 64.0	54.0 – 61.0	57.5	136.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 348
		63.5 – 70.5	60.5 – 67.5	63.5	142.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 349
		70.0 – 77.0	67.0 – 73.5	70.0	149.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 350
		76.5 – 83.5	73.0 – 80.0	76.5	155.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 351
		83.0 – 89.5	79.5 – 86.5	83.0	162.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 352
		89.0 – 96.0	86.0 – 93.0	89.0	168.0	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 353
		95.5 – 102.0	92.5 – 99.0	95.5	174.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 354
		101.5 – 108.5	98.5 – 105.5	101.5	180.5	12.5 – 13.1	23.0	6.3	64.0	75.8	53.5	377 200	377 210	377 355
16.0	17.5	12.5 – 19.5	9.0 – 15.5	12.5	104.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 441
		19.0 – 26.0	15.0 – 22.0	19.0	110.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 442
		25.5 – 32.5	21.5 – 28.5	25.5	117.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 443
		32.0 – 38.5	28.0 – 35.0	32.0	123.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 444
		38.0 – 45.0	34.5 – 41.0	38.0	129.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 445
		44.5 – 51.5	40.5 – 47.5	44.5	136.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 446
		51.0 – 58.0	47.0 – 54.0	51.0	142.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 447
		57.5 – 64.0	53.5 – 60.0	57.5	149.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 448
		63.5 – 70.5	59.5 – 66.5	63.5	155.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 449
		70.0 – 77.0	66.0 – 73.0	70.0	161.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 450
		76.5 – 83.5	72.5 – 79.5	76.5	168.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 451
		83.0 – 89.5	79.0 – 85.5	83.0	174.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 452
		89.0 – 96.0	85.0 – 92.0	89.0	180.5	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 453
		95.5 – 102.0	91.5 – 98.0	95.5	187.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 454
		101.5 – 108.5	97.5 – 104.5	101.5	193.0	15.7 – 16.3	29.5	7.9	100.1	120.5	85.4	377 201	377 211	377 455

For technical data see collar table. Order collars separately.

We reserve the right to amend specifications at any time.

Continue next page

Continued

Nominal pin-Ø [mm]	Hole-Ø max [mm]	Grip range		Dimensions					Strength			Part No. Collar		Part No. ■ Pin Type 8.8
		Standard collar [mm]	Flange collar [mm]	L nom [mm]	L ₁ max [mm]	d ₁ [mm]	d ₂ nom [mm]	k nom [mm]	Shear [kN]	Tensile [kN]	Clamp [kN]	standard ■ Steel, zinc	flange ■ Steel, zinc	
19.0	21.0	12.5 – 19.5	8.0 – 15.0	12.5	116.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 541
		19.0 – 26.0	14.5 – 21.5	19.0	123.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 542
		25.5 – 32.5	21.0 – 27.5	25.5	129.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 543
		32.0 – 38.5	27.0 – 34.0	32.0	136.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 544
		38.0 – 45.0	33.5 – 40.5	38.0	142.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 545
		44.5 – 51.5	40.0 – 47.0	44.5	148.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 546
		51.0 – 58.0	46.5 – 53.0	51.0	155.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 547
		57.5 – 64.0	52.5 – 59.5	57.5	161.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 548
		63.5 – 70.5	59.0 – 66.0	63.5	167.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 549
		70.0 – 77.0	65.5 – 72.5	70.0	174.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 550
		76.5 – 83.5	72.0 – 78.5	76.5	180.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 551
		83.0 – 89.5	78.0 – 85.0	83.0	187.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 552
		89.0 – 96.0	84.5 – 91.5	89.0	193.0	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 553
		95.5 – 102.0	91.0 – 97.5	95.5	199.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 554
101.5 – 108.5	97.0 – 104.0	101.5	205.5	18.8 – 19.5	35.0	9.5	144.2	178.4	126.3	377 202	377 212	377 555		
22.2	24.0	19.0 – 26.0	13.5 – 20.5	19.0	130.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 642
		25.5 – 32.5	20.0 – 27.0	25.5	137.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 643
		32.0 – 38.5	26.5 – 33.5	32.0	143.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 644
		38.0 – 45.0	33.0 – 39.5	38.0	149.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 645
		44.5 – 51.5	39.0 – 46.0	44.5	156.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 646
		51.0 – 58.0	45.5 – 52.5	51.0	162.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 647
		57.5 – 64.0	52.0 – 58.5	57.5	169.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 648
		63.5 – 70.5	58.0 – 65.0	63.5	175.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 649
		70.0 – 77.0	64.5 – 71.5	70.0	181.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 650
		76.5 – 83.5	71.0 – 78.0	76.5	188.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 651
		83.0 – 89.5	77.5 – 84.0	83.0	194.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 652
		89.0 – 96.0	83.5 – 90.5	89.0	200.5	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 653
		95.5 – 102.0	90.0 – 97.0	95.5	207.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 654
		101.5 – 108.5	96.5 – 103.0	101.5	213.0	22.0 – 22.7	40.5	11.0	193.1	246.7	174.6	377 203	377 213	377 655
25.4	27.5	19.0 – 26.0	13.0 – 20.0	19.0	147.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 742
		25.5 – 32.5	19.5 – 26.5	25.5	154.0	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 743
		32.0 – 38.5	26.0 – 32.5	32.0	160.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 744
		38.0 – 45.0	32.0 – 39.0	38.0	166.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 745
		44.5 – 51.5	38.5 – 45.5	44.5	173.0	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 746
		51.0 – 58.0	45.0 – 52.0	51.0	179.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 747
		57.5 – 64.0	51.5 – 58.0	57.5	186.0	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 748
		63.5 – 70.5	57.5 – 64.5	63.5	192.0	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 749
		70.0 – 77.0	64.0 – 71.0	70.0	198.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 750
		76.5 – 83.5	70.5 – 77.0	76.5	205.0	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 751
		83.0 – 89.5	76.5 – 83.5	83.0	211.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 752
		89.0 – 96.0	83.0 – 90.0	89.0	217.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 753
		95.5 – 102.0	89.5 – 96.0	95.5	224.0	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 754
		101.5 – 108.5	95.5 – 102.5	101.5	230.5	25.1 – 26.0	47.0	12.7	251.4	323.5	229.1	377 204	377 214	377 755

For technical data see collar table. Order collars separately.

On request: • HV Lockbolts in steel Type 10.9, HV Lockbolts in stainless steel and aluminium, zinc.

We reserve the right to amend specifications at any time.

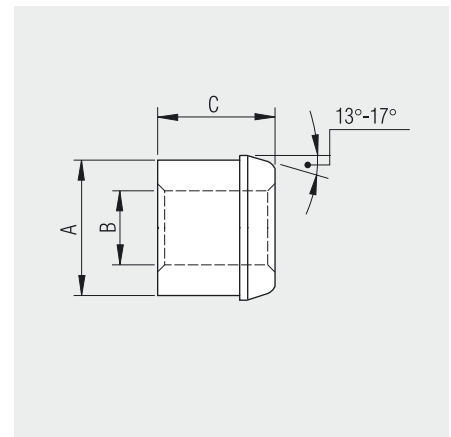
Lockbolt-systems HV


Collars for HV lockbolts

Standard collars

Material

 **Steel** zinc, passivate

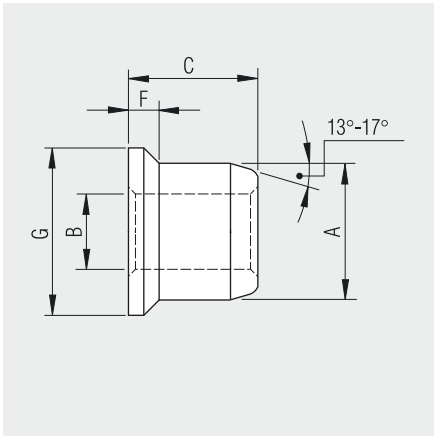


For nominal pin- \varnothing [mm]	Dimensions			Part No.  Steel
	A nominal [mm]	B nominal [mm]	C nominal [mm]	
12.7	20.2	13.4	16.0	377 200
16.0	25.1	16.7	21.8	377 201
19.0	30.0	19.9	24.0	377 202
22.2	34.8	23.4	28.0	377 203
25.4	39.9	26.4	32.0	377 204

All collars are lubricated.

On request: • Collars in stainless steel and aluminium


We reserve the right to amend specifications at any time.



Flange collars

Material

 **Steel** zinc, passivate

For nominal pin- \varnothing [mm]	Dimensions					Part No.  Steel
	A nominal [mm]	B nominal [mm]	C nominal [mm]	F nominal [mm]	G nominal [mm]	
12.7	20.2	13.4	18.5	3.2	25.5	377 210
16.0	25.1	16.7	24.0	4.0	32.0	377 211
19.0	30.0	19.9	29.0	4.8	38.0	377 212
22.2	34.8	23.4	33.5	5.6	40.5	377 213
25.4	39.9	26.4	38.0	6.4	48.0	377 214

All collars are lubricated.

On request: • Collars in stainless steel and aluminium

We reserve the right to amend specifications at any time.

