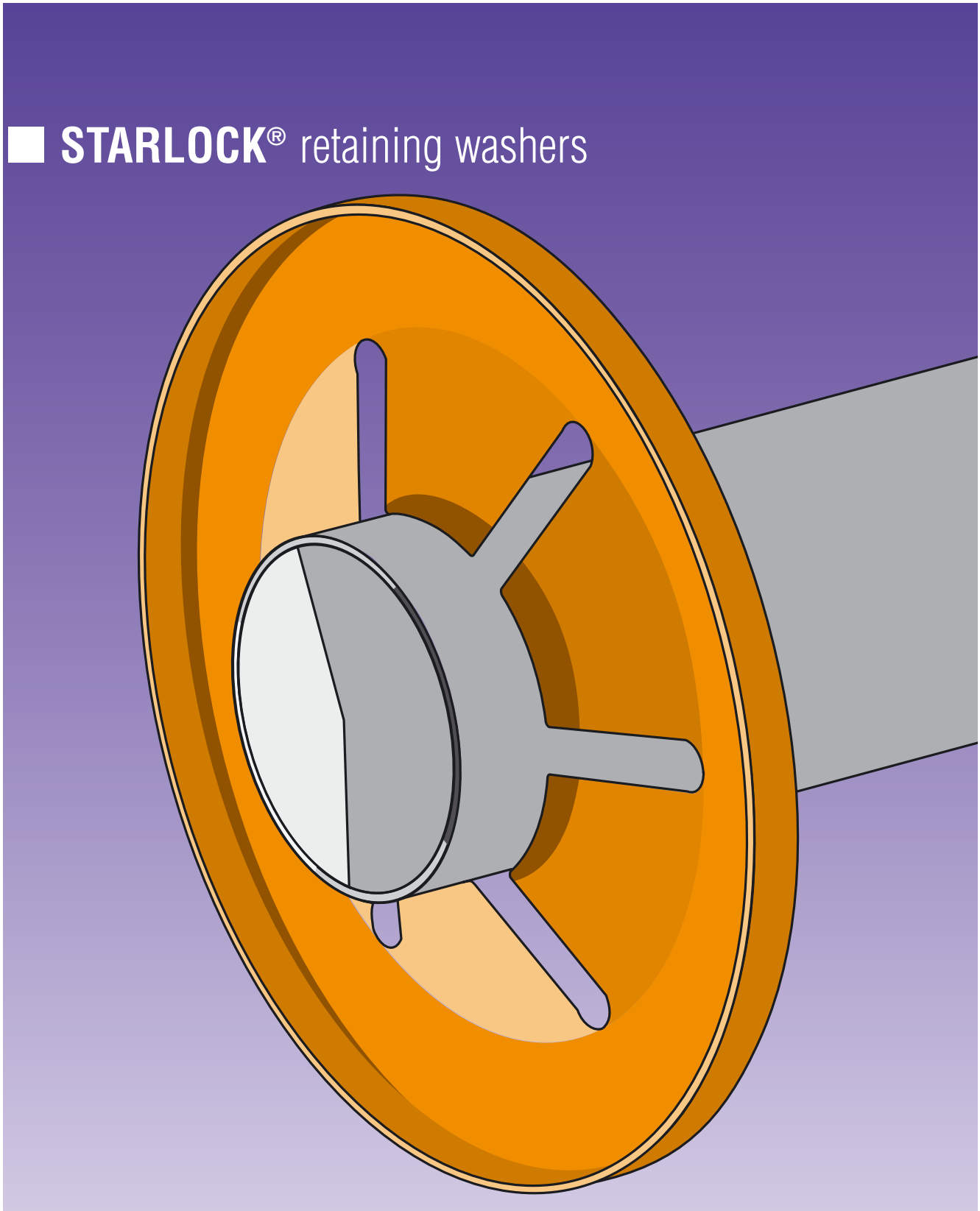
STARLOCK® retaining washers



TITGEMEYER Tb14256GB(0710)1

STARLOCK® retaining washers

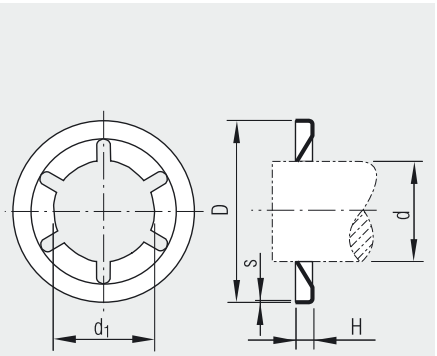
without cap

Material

Spring steel, brownish or bluish finish

Spring steel, mechanical zinc

Stainless steel



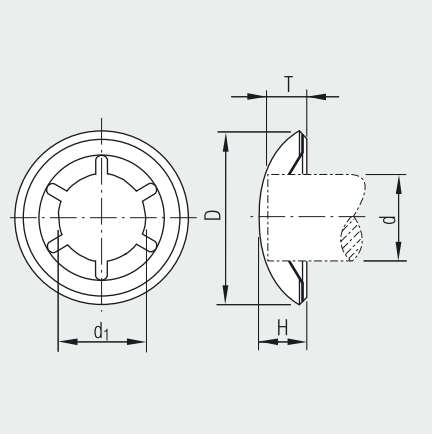
Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D ±0.3 [mm]	Height H ±0.2 [mm]	Material thickness S [mm]	Number of slits [piece]	Pull off force[2] [N]	Part No. ■ Steel painted	■ Steel zinc	■ Stainless
1.6	1.23 – 1.46	9.7	1.3	0.20	4	200	**399 201**	**399 401**[1]	**399 801**[1]
2.0	1.61 – 1.84	9.7	1.3	0.20	4	200	**399 202**	**399 402**[1]	**399 802**
2.4	2.02 – 2.25	9.7	1.3	0.20	4	200	**399 203**	**399 403**[1]	**399 803**[1]
3.0	2.58 – 2.81	9.7	1.3	0.20	4	200	**399 204**	**399 404**	**399 804**
3.2	2.78 – 3.01	9.7	1.3	0.20	4	200	**399 205**	**399 405**	**399 805**[1]
4.0	3.57 – 3.80	11.5	1.3	0.20	5	400	**399 206**	**399 406**	**399 806**
4.8	4.31 – 4.53	11.5	1.3	0.20	6	400	**399 207**	**399 407**	**399 807**
5.0	4.51 – 4.74	11.5	1.3	0.20	6	400	**399 208**	**399 408**	**399 808**
6.0	5.45 – 5.70	15.3	1.3	0.25	6	800	**399 209**	**399 409**	**399 809**
6.4	5.83 – 6.08	15.3	1.3	0.25	6	800	**399 210**	**399 410**	**399 810**[1]
7.0	6.46 – 6.72	15.3	1.3	0.25	6	800	**399 211**	**399 411**	**399 811**
8.0	7.40 – 7.66	15.3	1.3	0.25	6	800	**399 212**	**399 412**	**399 812**
9.0	8.50 – 8.75	18.4	1.9	0.30	6	1000	**399 213**	**399 413**	**399 813**
9.5	9.00 – 9.26	18.4	1.9	0.30	6	1000	**399 214**	**399 414**[1]	**399 814**
10.0	9.49 – 9.74	18.4	1.9	0.30	6	1000	**399 215**	**399 415**	**399 815**
11.0	10.50 – 10.76	18.4	1.9	0.30	6	1000	**399 216**	**399 416**	**399 816**
12.0	11.37 – 11.62	25.0	2.3	0.40	6	2500	**399 217**	**399 417**	**399 817**
12.7	12.10 – 12.36	25.0	2.3	0.40	6	2500	**399 218**	**399 418**[1]	**399 818**[1]
13.0	12.38 – 12.64	25.0	2.3	0.40	6	2500	**399 219**	**399 419**	**399 819**[1]
14.0	13.40 – 13.66	28.2	2.3	0.40	6	2500	**399 220**	**399 420**	**399 820**
15.0	14.43 – 14.68	28.2	2.3	0.40	6	2500	**399 221**	**399 421**	**399 821**[1]
16.0	15.28 – 15.53	28.2	2.3	0.40	6	2500	**399 222**	**399 422**	**399 822**
17.0	16.42 – 16.68	28.2	2.3	0.40	6	2500	**399 223**	**399 423**	**399 823**[1]
18.0	17.34 – 17.62	36.5	3.0	0.40	9	3500	**399 224**	**399 424**	**399 824**[1]
19.0	18.40 – 18.69	36.5	3.0	0.40	9	3500	**399 225**	**399 425**	**399 825**[1]
20.0	19.30 – 19.63	36.5	3.0	0.40	9	3500	**399 226**	**399 426**	**399 826**
21.0	20.33 – 20.61	36.5	3.0	0.40	9	3500	**399 227**	**399 427**[1]	**399 827**[1]
22.0	21.37 – 21.65	36.5	3.0	0.40	9	3500	**399 228**	**399 428**	**399 828**[1]
23.0	22.34 – 22.62	38.1	2.9	0.45	9	3500	**399 229**	**399 429**[1]	**399 829**[1]
24.0	23.33 – 23.66	38.1	3.2	0.50	9	3850	–	**399 430**	–
24.0	23.33 – 23.66	41.3	3.2	0.50	9	3850	**399 230**	–	–
25.0	24.30 – 24.63	41.3	3.2	0.50	9	3850	**399 231**	**399 431**	–

[1] *Not standard stock. These items will be manufactured to customer requirements.*

[2] *The pull off forces apply for steel parts and are based on tests using an untreated ST 37 h 11 steel spindle.*

Other surface finishes are available e.g. DELTA Tone + Seal (for spindle diameters from 12.0 mm) depending on quantity on request.

We reserve the right to amend specifications at any time.



with stainless steel cap

Material

Spring steel, brownish or bluish finish

Spring steel, mechanical zinc

Stainless steel

Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D ±0.3 [mm]	Height H ±0.2 [mm]	Insertion depth T max [mm]	Number of slits [piece]	Pull off force[2] [N]	**Part No.**		
							Steel painted	**Steel zinc**	**Stainless**
1.6	1.23 – 1.46	10.6	3.0	2.5	4	200	**399 351**	**399 451**[1]	**399 951**[1]
2.0	1.61 – 1.84	10.6	3.0	2.5	4	200	**399 352**	**399 452**[1]	**399 952**[1]
2.4	2.02 – 2.25	10.6	3.0	2.5	4	200	**399 353**	**399 453**	**399 953**[1]
3.0	2.58 – 2.81	10.6	3.0	2.5	4	200	**399 354**	**399 454**[1]	**399 954**
3.2	2.78 – 3.01	10.6	3.0	2.5	4	200	**399 355**	**399 455**	**399 955**[1]
4.0	3.57 – 3.80	12.4	3.8	3.0	5	400	**399 356**	**399 456**	**399 956**
4.8	4.31 – 4.53	12.4	3.8	3.0	6	400	**399 357**	**399 457**	**399 957**
5.0	4.51 – 4.74	12.4	3.8	3.0	6	400	**399 358**	**399 458**	**399 958**
6.0	5.45 – 5.70	16.2	5.0	4.0	6	800	**399 359**	**399 459**	**399 959**
6.4	5.83 – 6.08	16.2	5.0	4.0	6	800	**399 360**[1]	**399 460**[1]	**399 960**[1]
7.0	6.46 – 6.72	16.2	5.0	4.0	6	800	**399 361**	**399 461**[1]	**399 961**
8.0	7.40 – 7.66	16.2	5.0	4.0	6	800	**399 362**	**399 462**	**399 962**
9.0	8.50 – 8.75	19.7	5.9	4.5	6	1000	**399 363**	**399 463**	**399 963**
9.5	9.00 – 9.26	19.7	5.9	4.5	6	1000	**399 364**[1]	**399 464**[1]	**399 964**[1]
10.0	9.49 – 9.74	19.7	5.9	4.5	6	1000	**399 365**	**399 465**	**399 965**
11.0	10.50 – 10.76	19.7	5.9	4.5	6	1000	**399 366**	**399 466**	**399 966**
12.0	11.37 – 11.62	26.0	7.5	6.0	6	2500	**399 367**	**399 467**	**399 967**
12.7	12.10 – 12.36	26.0	7.5	6.0	6	2500	**399 368**[1]	**399 468**[1]	**399 968**[1]
13.0	12.38 – 12.64	26.0	7.5	6.0	6	2500	**399 369**[1]	**399 469**[1]	**399 969**[1]
14.0	13.40 – 13.66	29.4	9.0	7.0	6	2500	**399 370**	**399 470**	**399 970**[1]
15.0	14.43 – 14.68	29.4	9.0	7.0	6	2500	**399 371**	**399 471**	**399 971**[1]
16.0	15.28 – 15.53	29.4	9.0	7.0	6	2500	**399 372**	**399 472**	**399 972**[1]
17.0	16.42 – 16.68	29.4	9.0	7.0	6	2500	**399 373**	**399 473**	**399 973**[1]
18.0	17.34 – 17.62	38.2	11.7	8.7	9	3500	**399 374**	**399 474**	**399 974**[1]
19.0	18.40 – 18.69	38.2	11.7	8.7	9	3500	**399 375**[1]	**399 475**[1]	**399 975**[1]
20.0	19.30 – 19.63	38.2	11.7	8.7	9	3500	**399 376**	**399 476**	**399 976**[1]
21.0	20.33 – 20.61	38.2	11.7	8.7	9	3500	**399 377**[1]	**399 477**[1]	**399 977**[1]
22.0	21.37 – 21.65	38.2	11.7	8.7	9	3500	**399 378**[1]	**399 478**[1]	**399 978**[1]
23.0	22.34 – 22.62	39.8	13.0	9.5	9	3500	**399 379**[1]	**399 479**[1]	**399 979**[1]
24.0	23.33 – 23.66	43.0	12.5	9.5	9	3850	**399 380**[1]	**399 480**[1]	–
25.0	24.30 – 24.63	43.0	12.5	9.5	9	3850	**399 381**	**399 481**	–

[1] *Not standard stock. These items will be manufactured to customer requirements.*
[2] *The pull off forces apply for steel parts and are based on tests using an untreated ST 37 h 11 steel spindle.*

Material thicknesses for STARLOCK® are the same as uncapped version.
Other surface finishes are available e.g. DELTA Tone + Seal (for spindle diameters from 12.0 mm) depending on quantity on request.

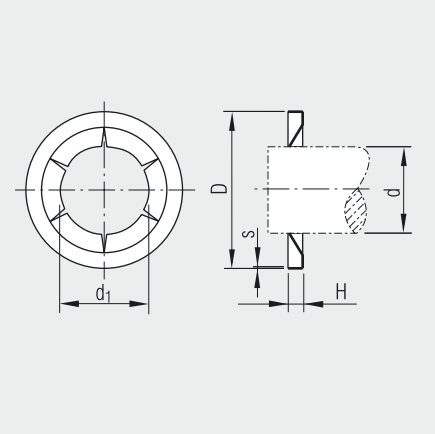
We reserve the right to amend specifications at any time.

STARLOCK® retaining washers

reinforced, without cap

Material

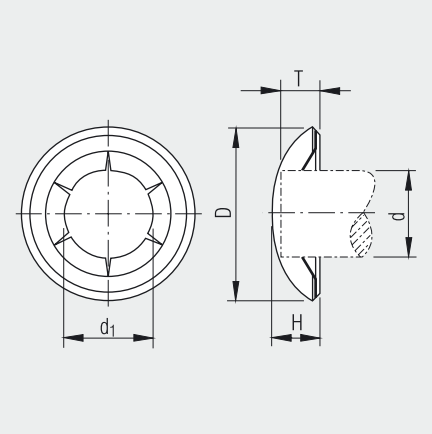
Spring steel, brownish or bluish finish



Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D *±0.3* [mm]	Height H *±0.3* [mm]	Material thickness S *±0.03* [mm]	Number of slits [piece]	Pull off force[1] [N]	**Part No.** ■ **Steel**
4.0	3.57 – 3.80	11.5	1.3	0.4	6	1250	**399 106**[2]
5.0	4.51 – 4.74	11.5	1.3	0.4	6	1250	**399 108**[2]
6.0	5.33 – 5.59	15.3	1.3	0.4	6	1800	**399 109**
8.0	7.25 – 7.42	15.3	1.3	0.4	6	1800	**399 112**

[1] *The pull off forces are based on our tests using an untreated ST 37 h 11 steel spindle.*
[2] *Not standard stock. These items will be manufactured to customer requirements.*

We reserve the right to amend specifications at any time.



reinforced,
with stainless steel cap

Material

■ **Spring steel,** brownish or bluish finish

Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D *±0.3* [mm]	Height H *±0.3* [mm]	Material thickness[2] S *±0.03* [mm]	Insertion depth T *max* [mm]	Number of slits [piece]	Pull off force[1] [N]	**Part No.** ■ **Steel**
4.0	3.57 – 3.80	12.3	3.5	0.4	3.0	6	1250	**399 156**[1]
5.0	4.51 – 4.74	12.3	3.5	0.4	3.0	6	1250	**399 158**[1]
6.0	5.33 – 5.59	16.2	5.0	0.4	4.0	6	1800	**399 159**[1]
8.0	7.25 – 7.42	16.2	5.0	0.4	4.0	6	1800	**399 162**

[1] *The pull off forces are based on our tests using an untreated ST 37 h 11 steel spindle.*
[2] *of the Starlock®*

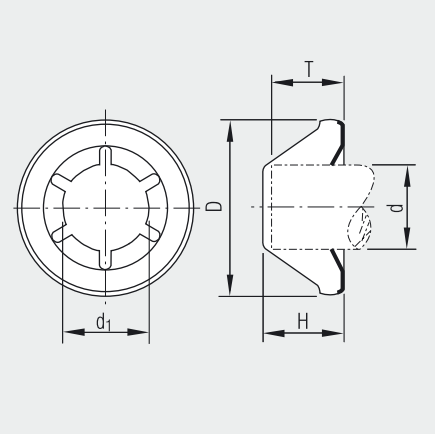
We reserve the right to amend specifications at any time.

STARLOCK® retaining washers

with steel deep cap, zinc plated

Material

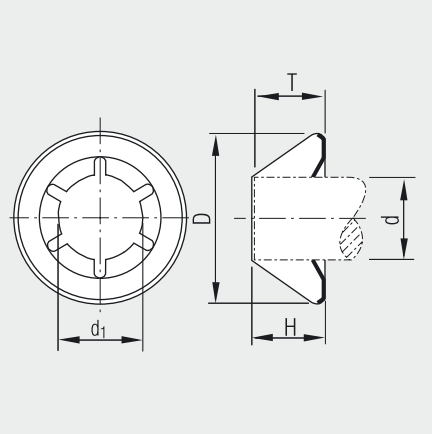
Spring steel, brownish or bluish finish



Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D *±0.3* [mm]	Height H *±0.3* [mm]	Material thickness[2] S *±0.03* [mm]	Insertion depth T *max* [mm]	Number of slits [piece]	Pull off force[1] [N]	**Part No.** ■ **Steel**
4.0	3.57 – 3.80	12.3	5.7	0.20	5.3	5	400	**399 636**
5.0	4.51 – 4.74	12.3	5.7	0.20	5.3	6	400	**399 638**
6.0	5.45 – 5.70	16.2	7.2	0.25	6.7	6	800	**399 639**
7.0	6.46 – 6.72	16.2	7.2	0.25	6.7	6	800	**399 641**
8.0	7.40 – 7.66	16.2	7.2	0.25	6.7	6	800	**399 642**
9.0	8.50 – 8.75	19.7	8.1	0.30	7.8	6	1000	**399 643**
10.0	9.49 – 9.74	19.7	8.1	0.30	7.8	6	1000	**399 645**
11.0	10.50 – 10.76	19.7	8.1	0.30	7.8	6	1000	**399 646**

[1] *The pull off forces are based on our tests using an untreated ST 37 h 11 steel spindle.*
[2] *of the Starlock®*

We reserve the right to amend specifications at any time.



with stainless steel trapezium cap

Material

Spring steel, brownish or bluish finish

Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D *±0.3* [mm]	Height H *±0.3* [mm]	Material thickness[2] S *±0.03* [mm]	Insertion depth T *max* [mm]	Number of slits [piece]	Pull off force[1] [N]	**Part No.** ■ **Steel**
5.0	4.51 – 4.74	12.3	4.3	0.20	4.0	6	400	**399 688**
6.0	5.45 – 5.70	16.2	4.8	0.25	5.0	6	800	**399 689**
8.0	7.40 – 7.66	16.2	4.8	0.25	5.0	6	800	**399 692**
10.0	9.49 – 9.74	19.7	5.6	0.30	5.7	6	1000	**399 695**

[1] *The pull off forces are based on our tests using an untreated ST 37 h 11 steel spindle.*
[2] *of the Starlock®*

We reserve the right to amend specifications at any time.

Starlock retaining washer, special design on request.
For example:

STARLOCK® retaining washers

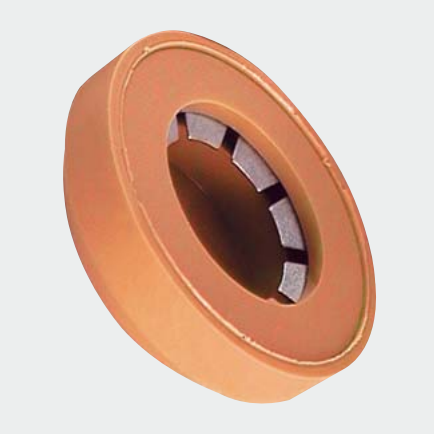
with coloured plastic cap

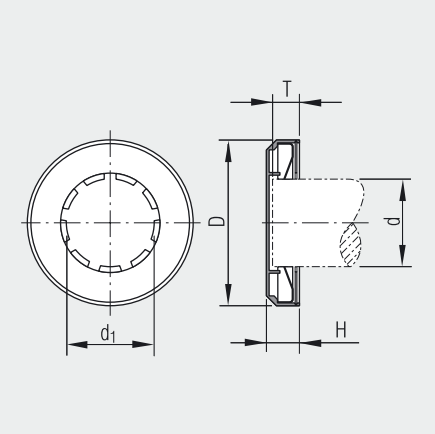
Material

Spring steel, brownish or bluish finish

Spring steel, mechanical zinc

Stainless steel





Spindle-ø d [mm]	Internal-ø d_1 [mm]	External-ø D *±0.3* [mm]	Height H *±0.3* [mm]	Insertion depth T *max* [mm]	Number of slits [piece]	Pull off force[1] [N]	**Part No.**		
							Steel painted	**Steel zinc**	**Stainless**
6.0	5.45 – 5.70	19.0	6.5	5.5	6	800	**Part No.[3] according to RAL colour or colour sample**		
6.4	5.83 – 6.08	19.0	6.5	5.5	6	800			
7.0	6.46 – 6.72	19.0	6.5	5.5	6	800			
8.0	7.40 – 7.66	19.0	6.5	5.5	6	800			
9.0	8.50 – 8.75	23.0	7.5	6.5	6	1000			
9.5	9.00 – 9.26	23.0	7.5	6.5	6	1000			
10.0	9.49 – 9.74	23.0	7.5	6.5	6	1000			
11.0	10.50 – 10.76	23.0	7.5	6.5	6	1000			
12.0	11.37 – 11.62	30.0	9.0	8.0	6	2500			
12.7	12.10 – 12.36	30.0	9.0	8.0	6	2500			
13.0	12.38 – 12.64	30.0	9.0	8.0	6	2500			
14.0	13.40 – 13.66	33.0	11.0	10.0	6	2500			
15.0	14.43 – 14.68	33.0	11.0	10.0	6	2500			
16.0	15.28 – 15.53	33.0	11.0	10.0	6	2500			
17.0	16.42 – 16.68	33.0	11.0	10.0	6	2500			
18.0	17.34 – 17.62	41.0	12.0	11.0	9	3500			
19.0	18.40 – 18.69	41.0	12.0	11.0	9	3500			
20.0	19.30 – 19.63	41.0	12.0	11.0	9	3500			
21.0	20.33 – 20.61	41.0	12.0	11.0	9	3500			
22.0	21.37 – 21.65	41.0	12.0	11.0	9	3500			
24.0[2]	23.33 – 23.66	46.0	14.0	13.0	9	3850			
25.0[2]	24.30 – 24.63	46.0	14.0	13.0	9	3850			

[1] The pull off forces apply for steel parts and are based on tests using an untreated ST 37 h 11 steel spindle.
[2] Not available in stainless steel
[3] Please state the following on all inquiries/orders:
1. Axle/spindle diameter
2. STARLOCK® retaining washer (insert) in spring steel, painted, mechanical zinc or stainless steel
3. Colour of plastic cap according to RAL or colour sample

Material thicknesses for STARLOCK® are the same as uncapped version

STARLOCK® retaining washer with plastic PA6 caps according to RAL or colour sample can be made to customer specification. Minimum order volume: 5000. Delivery time: approx. 3–4 weeks.

Special requests e.g. with company logo, symbols or lettering on request.

We reserve the right to amend specifications at any time.

Hand tools and magnetic fittings

for STARLOCK® retaining washers in spring steel, without cap

Spindle ø [mm]	Part No. Tool	Part No. Magnetic fitting
1.6 – 3.2	**390 303**	**390 310**
4.0 – 5.0	**390 303**	**390 311**
6.0 – 8.0	**390 303**	**390 312**
9.0 – 11.0	**390 303**	**390 313**
12.0 – 13.0	**390 303**	**390 317**
14.0 – 17.0	**390 303**	**390 318**
18.0 – 23.0	**390 303**	**390 315**
24.0 – 25.0	**390 303**	**390 316**

Hand tools and magnetic fittings

for STARLOCK® retaining washers with standard stainless steel caps

Axle-/spindle- ø [mm]	Part No. Tool	Part No. Magnetic fitting
1.6 – 3.2	**390 303**	**390 320**
4.0 – 5.0	**390 303**	**390 321**
6.0 – 8.0	**390 303**	**390 322**
9.0 – 11.0	**390 303**	**390 323**
12.0 – 13.0	**390 303**	**390 327**
14.0 – 17.0	**390 303**	**390 328**
18.0 – 22.0	**390 303**	**390 325**
23.0	**390 303**	**390 329**
24.0 – 25.0	**390 303**	**390 326**

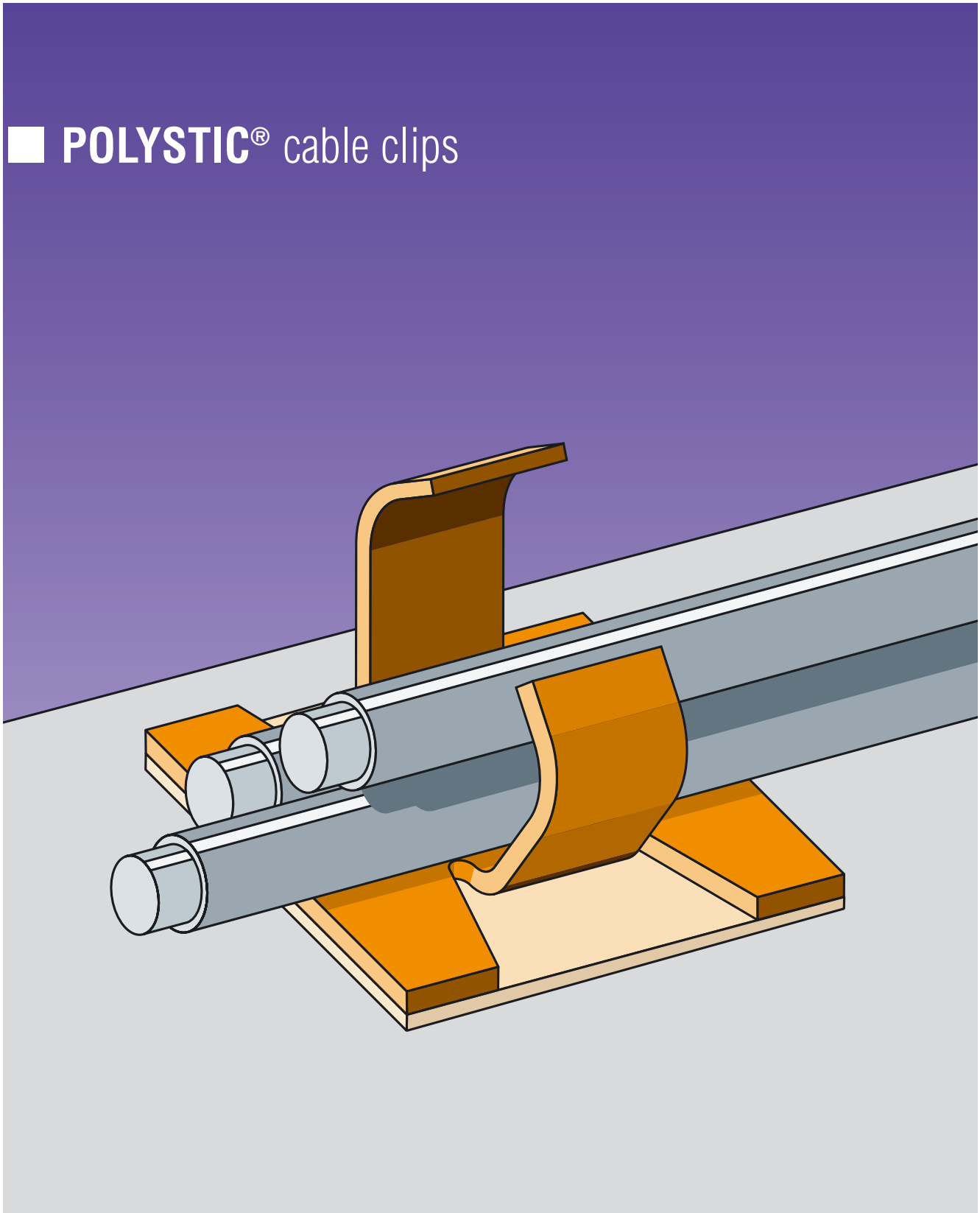
Hand tools and magnetic fittings

for STARLOCK® retaining washers with steel deep caps and stainless steel trapezium caps

Spindle ø [mm]	Part No. Tool	Part No. Magnetic fitting
4.0 – 5.0	**390 303**	**390 312**
6.0 – 9.0	**390 303**	**390 313**
10.0 – 11.0	**390 303**	**390 317**

NOTES

POLYSTIC® cable clips

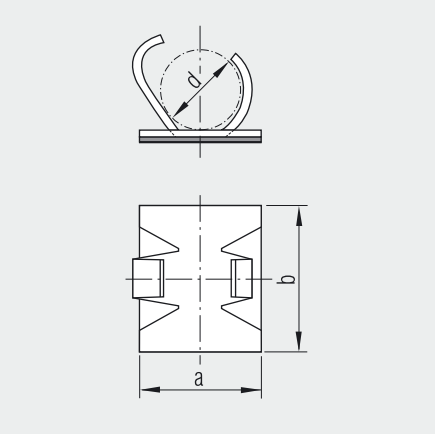


TTITGEMEYER Tb1427GB(0710)1

POLYSTIC® cable clips
self-adhesive

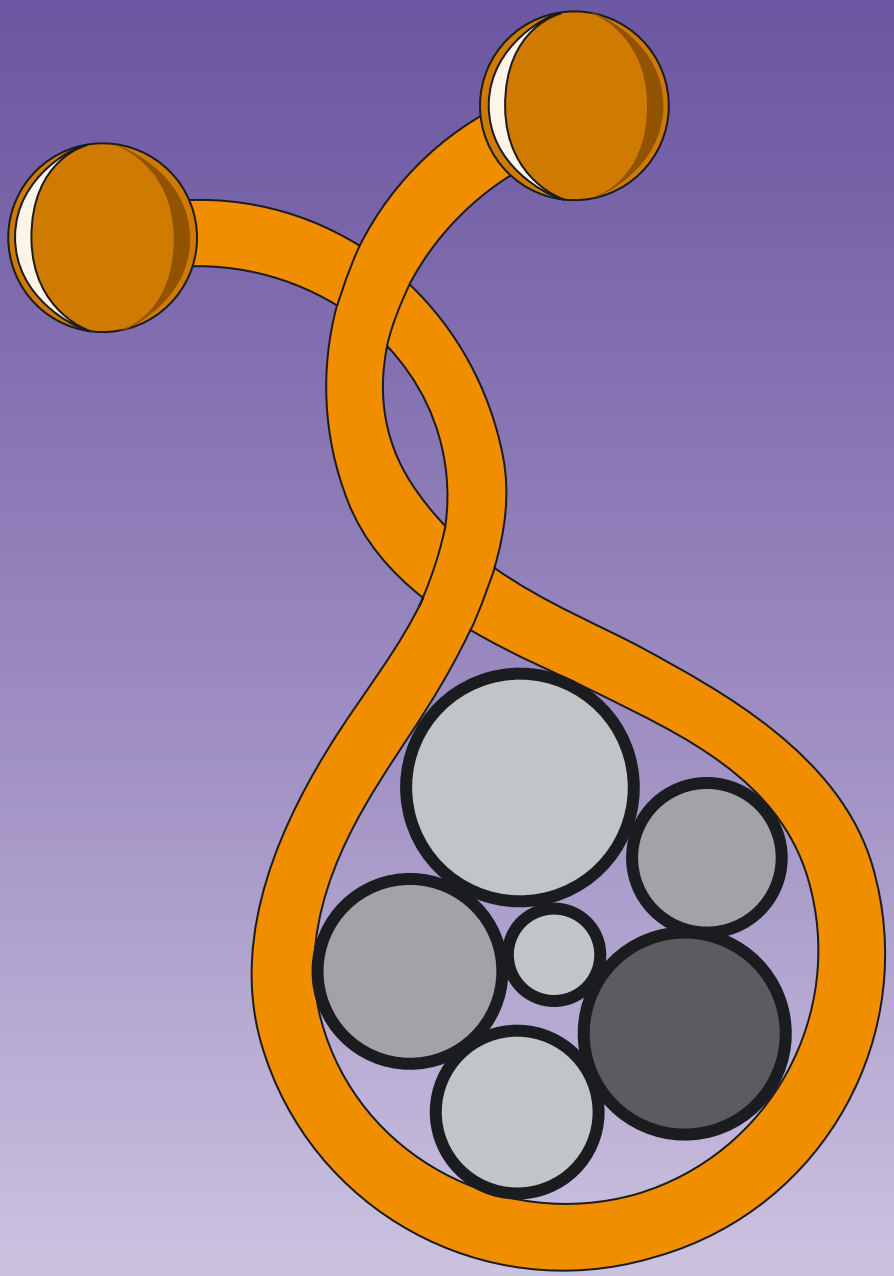
Material

■ **Aluminium**



Grip range up to *max* **cable-ø d [mm]**	Size of base plate a x b [mm]	Temperature resistance [°C]	Melt resistance, e.g. on stainless steel, rust-free [N/cm²]	Adhesive	**Part No.** ■ **Aluminium**
6	11 x 16	-40 to +70	0.7	india rubber	**436 609**
10	16 x 19	-40 to +70	0.7	india rubber	**436 610**

POLYSTIC® cable ties



TITGEMEYER Tb1459GB(0710)1

POLYSTIC® cable ties
Twist lock, removable

Twist lock

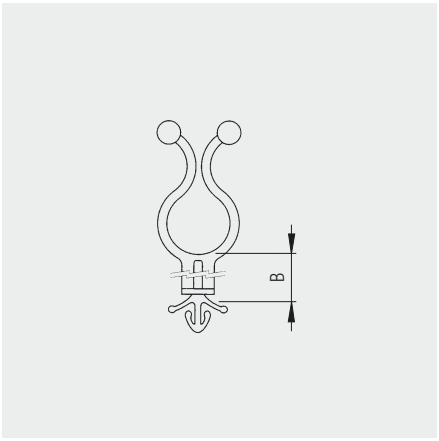
- quick and easy bundling of cables
- twist lock
- quick to open and close
- reusable

Material

Polyamid PA

Diameter of bundle *max* [mm]	Colour	**Part No.**
5 – 10	neutral	**–**
	black	**435 571 000**
10 – 12.5	neutral	**–**
	black	**435 570 000**
25.4 – 30.2	neutral	**–**
	black	**435 572 000**

We reserve the right to amend specifications at any time.



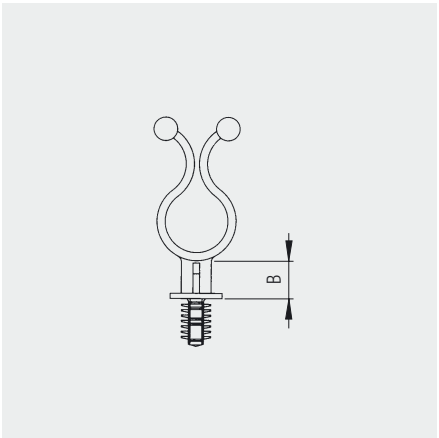
Twist lock hole fitting

- quick and easy bundling of cables
- hole fitting
- twist lock
- quick to open and close
- reusable

Material

Polyamid PA

Diameter of bundle *max* [mm]	Hole-ø *max* [mm]	Grip range [mm]		Plinth height B [mm]	Colour	**Part No.**
7.6	4.75	0.25 – 0.9		31.5	neutral	**435 575 000**



Twist lock hole fitting

- quick and easy bundling of cables
- hole fitting
- twist lock
- quick to open and close
- reusable

Material

Polyamid PA

Diameter of bundle *max* [mm]	Hole-ø *max* [mm]	Grip range [mm]		Plinth height B [mm]	Colour	**Part No.**
14.3 – 15.2	6.2 – 6.5	1.4 – 11		3.2	neutral	**435 576 000**
25.4 – 30.5	7.9 – 8.25	1.5 – 10.15		6.35	neutral	**435 577 000**

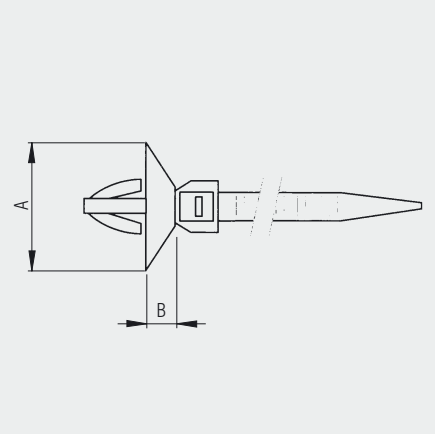
We reserve the right to amend specifications at any time.

POLYSTIC® cable ties
Hole fitting, removable

- quick and easy to install
- removable
- quick to open and close
- reusable

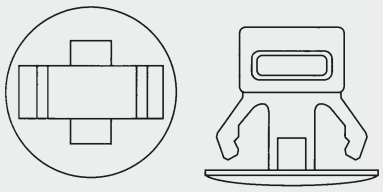
Material

Polyamid PA



Diameter of bundle *max* [mm]	Hole-ø *max* [mm]	Grip range [mm]	Plinth diameter A [mm]	Plinth height B [mm]	Colour	**Part No.**
3 – 20	6 – 6.5	0.6 – 2.5	18	4.2	black	**435 580 000**
3 – 20	6 – 6.5	0.6 – 2.5	18	4.2	black	**435 581 000**
8 – 37	6 – 6.5	0.6 – 2.5	16	3	black	**435 582 000**
3.5 – 20	6.5	0.8 – 2.2	17	10.6	black	**435 583 000**
5 – 20	6 – 6.5	0.8 – 2.2	19	10	black	**435 584 000**

We reserve the right to amend specifications at any time.



- quick and easy to install
- reusable

Material

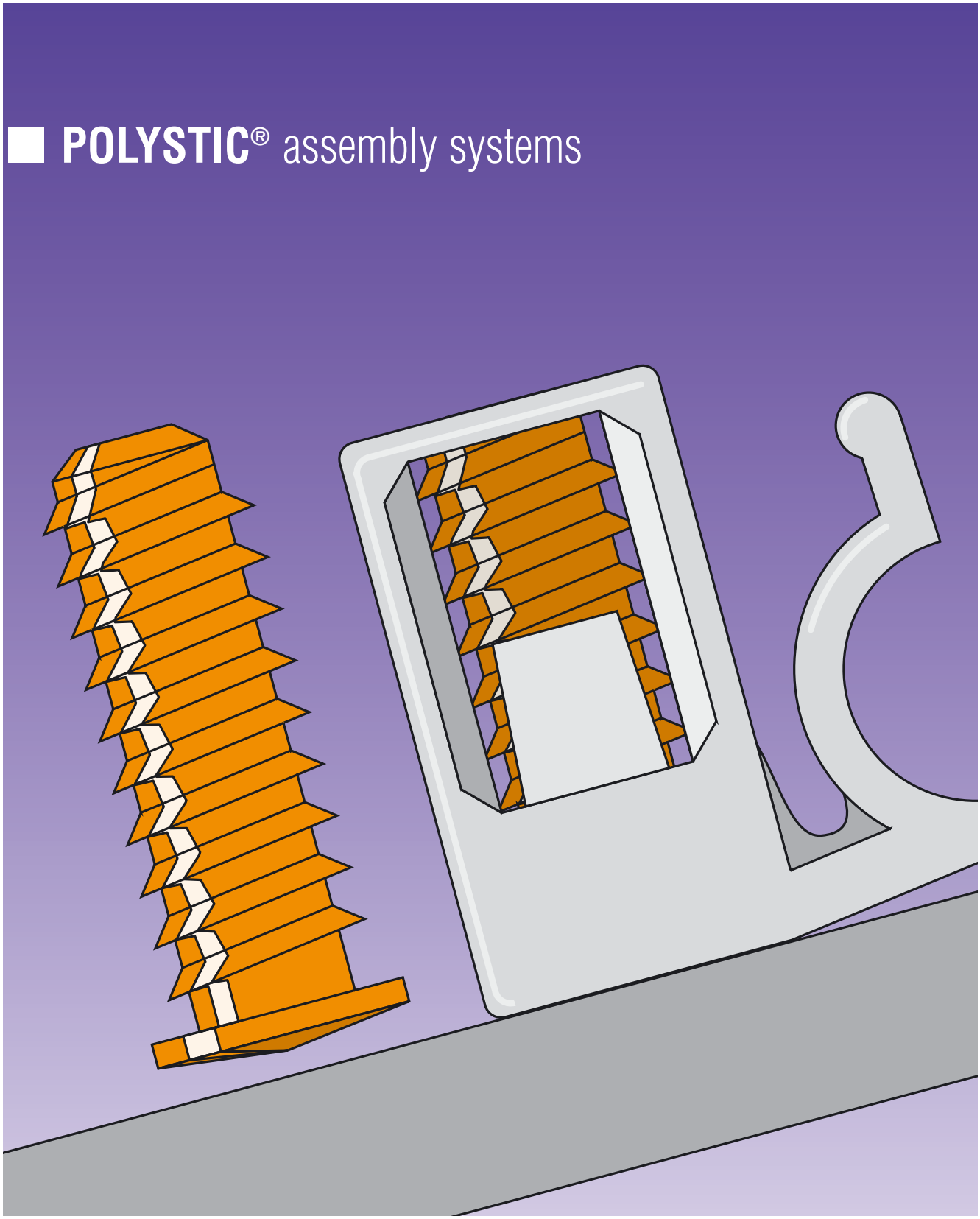
Polyamid PA

Cable tie width [mm]	Hole-ø *max* [mm]	Grip range [mm]	Colour	**Part No.**
5	9.5	1.0 – 2.5	black	**435 585 000**

We reserve the right to amend specifications at any time.

NOTES

POLYSTIC® assembly systems



TITGEMEYER Tb1428GB(0710)1

POLYSTIC® assembly systems
Weld studs

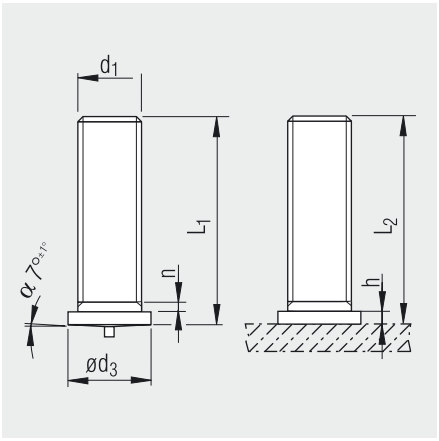
With metric thread
with CD pips
in accordance with EN ISO 13918

Material

Steel 4.8 copper-plated surface

Stainless steel 1.4301 or 1.4303

Aluminium AlMg 3



Thread d_1	Stud dimensions [mm]	Stud length L_1 +0.6 [mm]	Flange-ø d_3 ±0.2 [mm]	Flange height h [mm]	Thread undercut max [mm]	Stud length after welding L_2 ø [mm]	Part No. Steel	Stainless	Aluminium
M 3	M 3 x 6	6.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 303**	**434 503**	**434 403**
	M 3 x 8	8.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 304**	**434 504**	**434 404**
	M 3 x 10	10.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 305**	**434 505**	**434 405**
	M 3 x 12	12.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 306**	**434 506**	**434 406**
	M 3 x 15	15.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 314**	–	**434 407**
	M 3 x 16	16.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 315**	**434 515**	**434 415**
	M 3 x 20	20.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 316**	**434 516**	**434 416**
	M 3 x 25	25.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 317**	**434 517**	**434 417**
	M 3 x 30	30.0	4.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**424 318**	**434 518**	–
M 4	M 4 x 6	6.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 323**	**434 523**	**434 423**
	M 4 x 8	8.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 324**	**434 524**	–
	M 4 x 10	10.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 325**	**434 525**	**434 425**
	M 4 x 12	12.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 326**	**434 526**	–
	M 4 x 15	15.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 327**	**434 527**	**434 427**
	M 4 x 16	16.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 328**	**434 528**	**434 428**
	M 4 x 20	20.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 330**	**434 530**	**434 430**
	M 4 x 25	25.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 332**	**434 532**	**434 432**
	M 4 x 30	30.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 334**	**434 534**	**434 434**
	~~M 4 x 35~~	~~35.0~~	~~5.5~~	~~0.7 – 1.4~~	~~1.0~~	$\approx L_1^{\pm 0.3}$	**434 336**	**434 536**	~~**434 436**~~
	M 4 x 40	40.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 331**	–	–
	M 4 x 45	45.0	5.5	0.7 – 1.4	1.0	$\approx L_1^{\pm 0.3}$	**434 335**	–	–
M 5	M 5 x 6	6.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 343**	–	–
	M 5 x 8	8.0	7.0	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 344**	**434 544**	**434 444**
	M 5 x 10	10.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 345**	**434 545**	**434 445**
	M 5 x 12	12.0	7.0	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 346**	**434 546**	**434 446**
	M 5 x 15	15.0	7.0	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 347**	**434 547**	**434 447**
	M 5 x 16	16.0	7.0	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 348**	**434 548**	**434 448**
	M 5 x 20	20.0	7.0	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 350**	**434 550**	**434 450**
	M 5 x 20	20.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 360**	–	–
	M 5 x 25	25.0	7.0	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 352**	**434 552**	**434 452**
	M 5 x 25	25.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 361**	–	–
	M 5 x 30	30.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 353**	**434 553**	**434 453**
	M 5 x 35	35.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 354**	**434 554**	**434 454**
	M 5 x 40	40.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 355**	**434 555**	**434 455**
	M 5 x 50	50.0	6.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 356**	–	–

We reserve the right to amend specifications at any time.

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Thread d_1	Stud dimensions [mm]	Stud length L_1 *+0.6* [mm]	Flange-ø d_3 *±0.2* [mm]	Flange height h [mm]	Thread undercut *max* [mm]	Stud length after welding L_2 ø [mm]	**Part No.** ■ **Steel**	■ **Stainless steel**
M 6	M 6 x 8	8.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 364**	**434 564**
	M 6 x 10	10.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 365**	**434 565**
	M 6 x 12	12.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 366**	**434 566**
	M 6 x 15	15.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 367**	**434 567**
	M 6 x 16	16.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 368**	**434 568**
	M 6 x 20	20.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 370**	**–**
	M 6 x 25	25.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 372**	**434 572**
	M 6 x 30	30.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 373**	**434 573**
	M 6 x 35	35.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 374**	**434 574**
	M 6 x 40	40.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 375**	**434 575**
	M 6 x 45	45.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 376**	**434 576**
	M 6 x 50	50.0	7.5	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 377**	**434 577**
M 8	M 8 x 10	10.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 382**	**434 584**
	M 8 x 15	15.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 384**	**434 586**
	M 8 x 20	20.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 386**	**434 587**
	M 8 x 25	25.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 388**	**434 588**
	M 8 x 30	30.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 389**	**434 589**
	M 8 x 35	35.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 390**	**434 590**
	M 8 x 40	40.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 391**	**434 591**
	M 8 x 45	45.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 392**	**–**
	M 8 x 50	50.0	9.0[1]	0.8 – 1.4	2.0	$\approx L_1^{\pm 0.3}$	**434 393**	**–**
M 10	M 10 x 20	20.0	–	–	–	–	**434 397**	**–**

[1] *Flange ø on M 8 up to 11.0 mm depending on tensile strength requirements*

On request:
- Other dimensions, tensile strengths and surfaces.
- Aluminium and stainless steel 1.4571 version
- Not stocked in all dimensions and materials

When setting weld studs using capacitor discharge (CD) processes, we recommend the use of a TCD 66 A stud welding machine.

This machine can be fitted either with a
- PK 211[2] welding gun for gap welding, or a
- PK 311[3] welding gun for contact welding

[2] Gap welding for all above-mentioned materials, including aluminium
[3] Do not use contact welding on aluminium

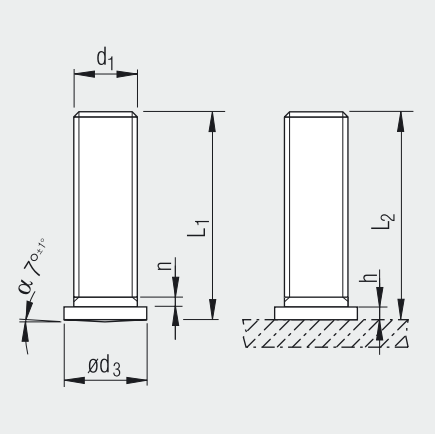
Weld studs with CD pips in steel and stainless steel can be welded using our short-cycle drawn-arc welding machines and the PK 560 handheld welding gun.

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. ferritic, non-corrosive chromium steel). We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

We reserve the right to amend specifications at any time.

With metric thread
without CD pips
in accordance with EN ISO 13918

- for stud welding using short-cycle drawn-arc processes



Material

Steel 4.8/6.8
copper-plated surface

Stainless steel
1.4303 or 1.4301

Thread d_1	Stud dimensions [mm]	Stud length L_1 +0.6 [mm]	Flange-ø d_3 ±0.2 [mm]	Flange height h [mm]	Thread undercut max [mm]	Stud length after welding L_2 ø [mm]	Part No. Steel	Part No. Stainless steel
M 4	M 4 x 6	6.0	5.0	0.6	1.0	$\approx L_1^{\pm 0.4}$	–	–
	M 4 x 8	8.0	5.0	0.6	1.0	$\approx L_1^{\pm 0.4}$	**434 270**	**434 541**
	M 4 x 10	10.0	5.0	0.6	1.0	$\approx L_1^{\pm 0.4}$	–	–
	M 4 x 12	12.0	5.0	0.6	1.0	$\approx L_1^{\pm 0.4}$	**434 340**	–
	M 4 x 40	40.0	5.0	0.6	1.0	$\approx L_1^{\pm 0.4}$	–	–
M 5	M 5 x 8	8.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	**434 342**	–
	M 5 x 10	10.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 5 x 12	12.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	**434 349**	–
	M 5 x 13	13.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	**434 351**	–
	M 5 x 15	15.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 5 x 16	16.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	**434 280**	–
	M 5 x 20	20.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	–	**434 582**
	M 5 x 25	25.0	6.0	0.7	2.0	$\approx L_1^{\pm 0.4}$	**434 362**	–
M 6	M 6 x 8	8.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 267**	–
	M 6 x 10	10.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 281**	**434 381**
	M 6 x 12	12.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 282**	–
	M 6 x 15	15.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 278**	**434 581**
	M 6 x 16	16.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 273**	–
	M 6 x 20	20.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 285**	–
	M 6 x 25	25.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 371**	–
	M 6 x 30	30.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 6 x 35	35.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 6 x 40	40.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	**434 287**	–
	M 6 x 45	45.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 6 x 50	50.0	7.0	0.8	2.0	$\approx L_1^{\pm 0.4}$	–	–

We reserve the right to amend specifications at any time.

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Thread d_1	Stud dimensions [mm]	Stud length L_1 *+0.6* [mm]	Flange-ø d_3 *±0.2* [mm]	Flange height h [mm]	Thread undercut *max* [mm]	Stud length after welding L_2 ø [mm]	**Part No.** ■ **Steel**	**Part No.** ■ **Stainless steel**
M 8	M 8 x 10	10.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 8 x 12	12.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 383**	–
	M 8 x 15	15.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 385**	–
	M 8 x 16	16.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 277**	–
	M 8 x 20	20.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 387**	**434 592**
	M 8 x 25	25.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 289**	–
	M 8 x 30	30.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 298**	–
	M 8 x 35	35.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 8 x 40	40.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	**434 399**	–
	M 8 x 45	45.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	–	–
	M 8 x 50	50.0	9.0	1.0	2.0	$\approx L_1^{\pm 0.4}$	–	–

On request:
- Other dimensions, tensile strengths and surfaces.
- Aluminium and stainless steel 1.4571 version
- Not stocked in all dimensions and materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. ferritic, non-corrosive chromium steel). We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

We reserve the right to amend specifications at any time.

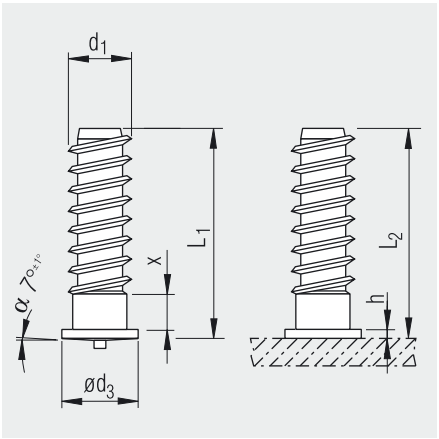
POLYSTIC® assembly systems
Weld studs

with fir-tree threads
with CD pips

Material

Steel 4.8 copper-plated surface

Stainless steel 1.4303 or 1.4301



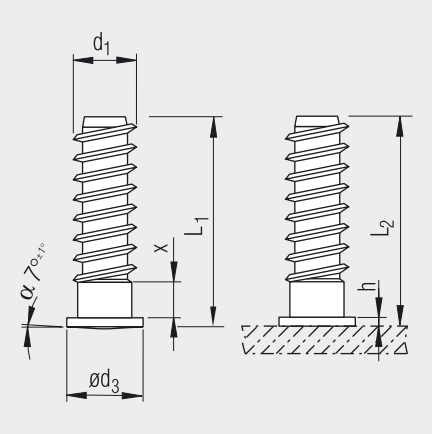
Thread d_1	Stud dimensions [mm]	Stud length L_1 *+0.6* [mm]	Flange-ø d_3 *±0.2* [mm]	Flange height h [mm]	Thread undercut *max* [mm]	Stud length after welding L_2 ø [mm]	**Part No.** ■ **Steel**	■ **Stainless steel**
T 5	T 5 x 9	9.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 211**	**434 216**
	T 5 x 10	10.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 209**	–
	T 5 x 12	12.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 213**	**434 217**
	T 5 x 14	14.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	–	**434 226**
	T 5 x 14.2	14.2	6.5	0.7	3.2	$\approx L_1^{\pm 0.3}$	**434 214**	–
	T 5 x 16.5	16.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 228**	–
	T 5 x 18	18.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 231**	**434 236**
	T 5 x 20	20.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	–	–
	T 5 x 25	25.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	–	–
	T 5 x 30	30.0	6.5	0.7	5.0	$\approx L_1^{\pm 0.3}$	**434 241**	–
	T 5 x 35	35.0	6.5	0.7	3.0	$\approx L_1^{\pm 0.3}$	–	–

On request:
- Other dimensions, tensile strengths and surfaces.
- Aluminium and stainless steel 1.4571 version
- Not stocked in all dimensions and materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. ferritic, non-corrosive chromium steel). We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

Plastic clips for Polystic®-System from page 293.

We reserve the right to amend specifications at any time.



with fir-tree threads
without CD pips
in accordance with EN ISO 13918

- for stud welding using short-cycle drawn-arc processes

Material

Steel 4.8 copper-plated surface

Stainless steel
1.4303 or 1.4301

Thread d_1	Stud dimensions [mm]	Stud length L_1 +0.6 [mm]	Flange-ø d_3 ±0.2 [mm]	Flange height h [mm]	Thread undercut max [mm]	Stud length after welding L_2 ø [mm]	**Part No.** Steel	Stainless steel
T 5	T 5 x 9	9.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 210**	**434 219**
	T 5 x 10	10.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 218**	–
	T 5 x 12	12.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 221**	–
	T 5 x 14	14.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 220**	–
	T 5 x 14.2	14.2	6.0	0.7	3.2	$\approx L_1^{\pm 0.3}$	**434 223**	**434 227**
	T 5 x 16	16.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 229**	–
	T 5 x 16.5	16.5	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 232**	–
	T 5 x 18	18.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 230**	–
	T 5 x 20	20.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 238**	–
	T 5 x 22	22.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 239**	–
	T 5 x 25	25.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 240**	–
	T 5 x 30	30.0	6.0	0.7	5.0	$\approx L_1^{\pm 0.3}$	**434 260**	–
	T 5 x 35	35.0	6.0	0.7	3.0	$\approx L_1^{\pm 0.3}$	**434 263**	–

On request:
- Other dimensions, tensile strengths and surfaces.
- Aluminium and stainless steel 1.4571 version
- Not stocked in all dimensions and materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. ferritic, non-corrosive chromium steel). We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

We reserve the right to amend specifications at any time.

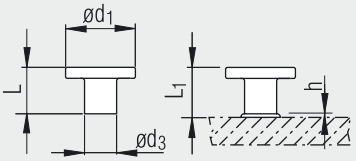
without CD pips

- for stud welding using drawn-arc processes
- for stud welding using short-cycle drawn-arc processes

Material

Steel copper-plated surface

Stainless steel
1.4301 or 1.4303



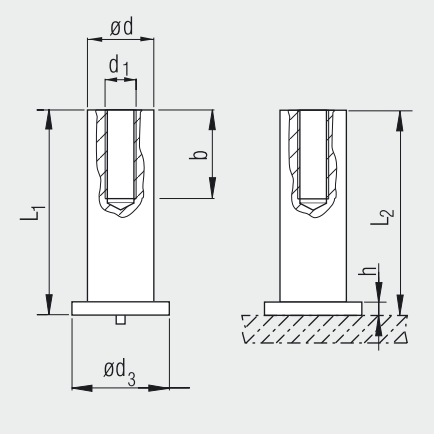
Stud-ø d_3 **±0.10** **[mm]**	T-stud dimensions [mm]	Total length L *+0.6* [mm]	Head-ø d_1 *-0.05 / +0.15* [mm]	**Part No.** ■ **Steel**	■ **Stainless steel**
3.0	3.0 x 3.9	3.9	5.0	**434 101**	**434 100**
	3.0 x 5.4	5.4	5.0	**434 121**	**434 120**
5.0	5.0 x 10.0	10.0	9.0	**434 111**	**434 110**

Other dimensions, materials, tensile strengths and surfaces on request.

For total height L_1 and welding bead h, after welding, no details can be provided.
These dimensions depend on the surface coating applied to the base material and the resulting welding parameters.

The above weld studs can be installed using a hand welding gun or by semi-automatic or automatic processes.

We reserve the right to amend specifications at any time.



with internal thread
with CD pips
in accordance with EN ISO 13918

- for stud welding using drawn-arc processes

Material

Steel 4.8 copper-plated surface

Stainless steel
1.4301 or 1.4303

Internal thread d_1	Stud dimensions [mm]	Stud length L_1 *+0.6* [mm]	Flange-ø d_3 *±0.2* [mm]	Flange height h [mm]	External-ø d *-0.05* [mm]	Stud length after welding L_2 [mm]	Depth of thread b *+0.5* [mm]	**Part No.** ■ **Steel**	**Part No.** ■ **Stainless steel**
M 3	M 3 x 8	8.0	7.0	0.5	5.0	$\approx L_1^{\pm 0.3}$	5.0	**434 810**	–
	M 3 x 12	12.0	7.0	0.5	5.0	$\approx L_1^{\pm 0.3}$	5.0	**434 812**	–
	M 3 x 15	15.0	7.0	0.5	5.0	$\approx L_1^{\pm 0.3}$	5.0	**434 813**	–
	M 3 x 30	30.0	7.0	0.5	5.0	$\approx L_1^{\pm 0.3}$	5.0	**434 816**	–
M 4	M 4 x 10	10.0	7.5	0.6	6.0	$\approx L_1^{\pm 0.3}$	6.0	**434 820**	–
	M 4 x 12	12.0	7.5	0.6	6.0	$\approx L_1^{\pm 0.3}$	6.0	**434 821**	–
	M 4 x 15	15.0	7.5	0.6	6.0	$\approx L_1^{\pm 0.3}$	6.0	**434 822**	–
	M 4 x 20	20.0	7.5	0.6	6.0	$\approx L_1^{\pm 0.3}$	6.0	**434 823**	–
	M 4 x 30	30.0	7.5	0.6	6.0	$\approx L_1^{\pm 0.3}$	6.0	**434 825**	**434 848**
M 5	M 5 x 12	12.0	8.0	0.7	7.1	$\approx L_1^{\pm 0.3}$	7.0	**434 831**	**434 847**
	M 5 x 20	20.0	8.0	0.7	7.1	$\approx L_1^{\pm 0.3}$	7.0	–	–
	M 5 x 40	40.0	8.0	0.7	7.1	$\approx L_1^{\pm 0.3}$	7.0	**434 838**	–

On request:
- Other dimensions, tensile strengths and surfaces.
- Aluminium and stainless steel 1.4571 version
- Not stocked in all dimensions and materials

Weld studs with CD pips in steel and stainless steel can be welded using our short-cycle drawn-arc welding machines and the PK 560 handheld welding gun.

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. ferritic, non-corrosive chromium steel). We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

We reserve the right to amend specifications at any time.

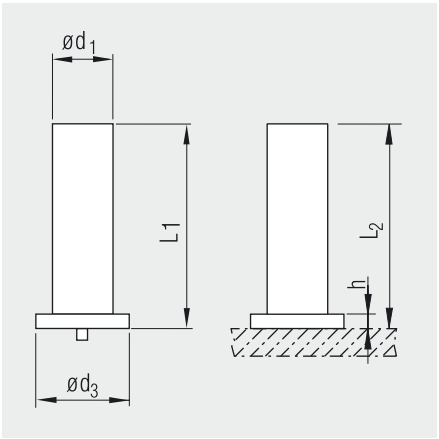
POLYSTIC® assembly systems
Weld studs

with CD pips
in accordance with EN ISO 13918
- for weld stud with CD pips

Material

Steel 4.8 copper-plated surface

Stainless steel 1.4301 or 1.4303



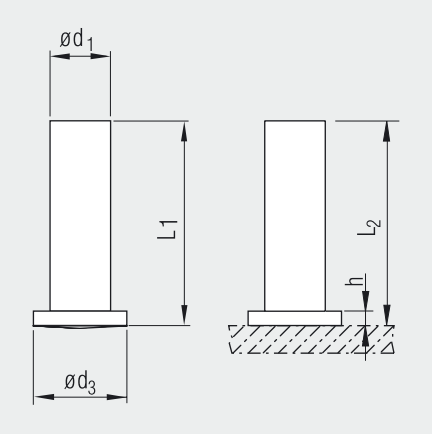
Stud-ø d_1 ±0.1 [mm]	Stud dimensions [mm]	Stud length L_1 +0.6 [mm]	Flange-ø d_3 ±0.2 [mm]	Flange height h [mm]	Stud length after welding L_2 [mm]	**Part No.**	
						Steel	**Stainless steel**
3.0	3 x 6	6.0	4.5	0.7 – 1.4	$\approx L_1^{\pm 0.3}$	–	**434 934**
	3 x 8	8.0	4.5	0.7 – 1.4	$\approx L_1^{\pm 0.3}$	–	**434 935**
	3 x 10	10.0	4.5	0.7 – 1.4	$\approx L_1^{\pm 0.3}$	–	–
	3 x 12	12.0	4.5	0.7 – 1.4	$\approx L_1^{\pm 0.3}$	–	**434 937**
	3 x 15	15.0	4.5	0.7 – 1.4	$\approx L_1^{\pm 0.3}$	–	–
	3 x 20	20.0	4.5	0.7 – 1.4	$\approx L_1^{\pm 0.3}$	**434 905**	–
4.0	4 x 8	8.0	5.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 912**	–
	4 x 10	10.0	5.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 913**	–
	4 x 12	12.0	5.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	–	–
	4 x 20	20.0	5.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	–	**434 945**
	4 x 25	25.0	5.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	–	**434 946**
	4 x 30	30.0	5.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 917**	–
5.0	5 x 6	6.0	6.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 967**	–
	5 x 12	12.0	6.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 923**	–
	5 x 15	15.0	6.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 924**	–
6.0	6 x 8	8.0	7.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 971**	–
	6 x 10	10.0	7.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 972**	**434 982**
	6 x 16	16.0	7.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	–	**434 983**
	6 x 20	20.0	7.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 975**	–
	6 x 40	40.0	7.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 979**	–
	6 x 55	55.0	7.5	0.8 – 1.4	$\approx L_1^{\pm 0.3}$	**434 981**	–

Other dimensions, materials, tensile strengths and surfaces on request.

Weld studs with CD pips in steel and stainless steel can be welded using our short-cycle drawn-arc welding machines and the PK 560 handheld welding gun.

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. ferritic, non-corrosive chromium steel). We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

We reserve the right to amend specifications at any time.



without CD pips
in accordance with EN ISO 13918

- for stud welding using drawn-arc processes
- for stud welding using short-cycle drawn-arc processes

Material

Steel 4.8 copper-plated surface

Stud-ø d_1 ±0.1 [mm]	Stud dimensions [mm]	Stud length L_1 +0.6 [mm]	Flange-ø d_3 ±0.2 [mm]	Flange height h [mm]	Stud length after welding L_2 [mm]	**Part No.** ■ **Steel**
4.0	4 x 6	6.0	5.0	0.6	$\approx L_1^{\pm 0.4}$	**434 910**
5.0	5 x 10	10.0	6.0	0.7	$\approx L_1^{\pm 0.4}$	**434 932**
6.0	6 x 10	10.0	7.0	0.8	$\approx L_1^{\pm 0.4}$	**434 963**
	6 x 20	20.0	7.0	0.8	$\approx L_1^{\pm 0.4}$	**434 997**
	6 x 25	25.0	7.0	0.8	$\approx L_1^{\pm 0.4}$	**434 998**
7.0	7 x 16	16.0	8.0	0.9	$\approx L_1^{\pm 0.4}$	**434 990**
8.0	8 x 17	17.0	9.0	1.0	$\approx L_1^{\pm 0.4}$	**434 991**
	8 x 19	19.0	9.0	1.0	$\approx L_1^{\pm 0.4}$	**434 989**
	8 x 20	20.0	9.0	1.0	$\approx L_1^{\pm 0.4}$	**434 987**
	8 x 28	28.0	9.0	1.0	$\approx L_1^{\pm 0.4}$	**434 996**

Other dimensions, materials, tensile strengths and surfaces on request.

The above studs can be installed using a handheld welding gun or with automatic feed.

For other fittings on weld studs we recommend our extensive range of STARLOCK® retaining washers.

STARLOCK® steel/stainless steel retaining washer without cap

STARLOCK® steel/stainless steel retaining washer with cap

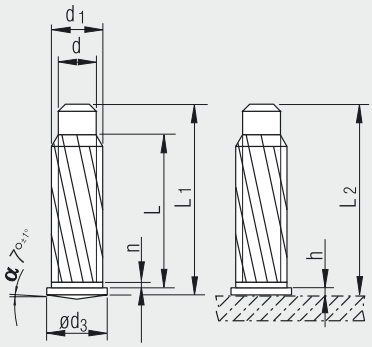
We reserve the right to amend specifications at any time.

metric thread with paint relieving groove, without CD pip

- for stud welding using drawn-arc processes
- for stud welding using short-cycle drawn-arc processes

Material

Steel copper-plated surface

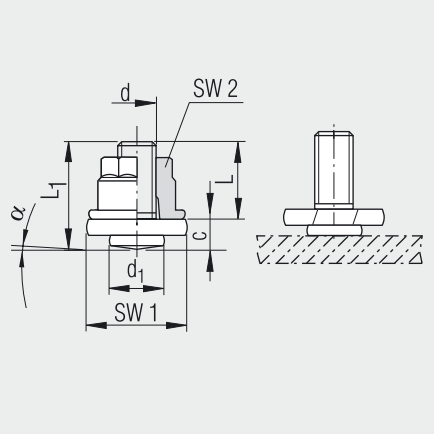


Thread d_1	Stud dimensions [mm]	Stud length L_1 +0.4 [mm]	Flange-ø d_3 ±0.3 [mm]	Flange height h ±0.2 [mm]	Thread undercut max [mm]	Stud length after welding L_2 ø [mm]	Part No. ■ Steel
M 4	M 4 x 12	12.0	5.0	0.6	0.8	≈ $L_1^{-0.4}$	**434 179**
	M 4 x 16	16.0	5.0	0.6	0.8	≈ $L_1^{-0.4}$	**434 181**
	M 4 x 25	25.0	5.0	0.6	0.8	≈ $L_1^{-0.4}$	**434 182**
M 5	M 5 x 12	12.0	6.0	0.7	0.8	≈ $L_1^{-0.4}$	**434 183**
	M 5 x 16	16.0	6.0	0.7	0.8	≈ $L_1^{-0.4}$	**434 184**
	M 5 x 20	20.0	6.0	0.7	0.8	≈ $L_1^{-0.4}$	**434 185**
	M 5 x 30	30.0	6.0	0.7	0.8	≈ $L_1^{-0.4}$	**434 186**
M 6	M 6 x 15	15.0	7.0	0.8	0.8	≈ $L_1^{-0.4}$	**434 187**
	M 6 x 20	20.0	7.0	0.8	0.8	≈ $L_1^{-0.4}$	**434 188**
	M 6 x 25	25.0	7.0	0.8	0.8	≈ $L_1^{-0.4}$	**434 189**
M 8	M 8 x 15	15.0	9.0	1.0	0.8	≈ $L_1^{-0.4}$	**434 191**
	M 8 x 20	20.0	9.0	1.0	0.8	≈ $L_1^{-0.4}$	**434 192**

Other dimensions, materials, surface finishes and studs with guide tips (diameter d and length L_1 - L) on request.

The above weld studs can be installed using a hand welding gun or by semi-automatic or automatic processes.

We reserve the right to amend specifications at any time.



with flanged nut
with metric thread

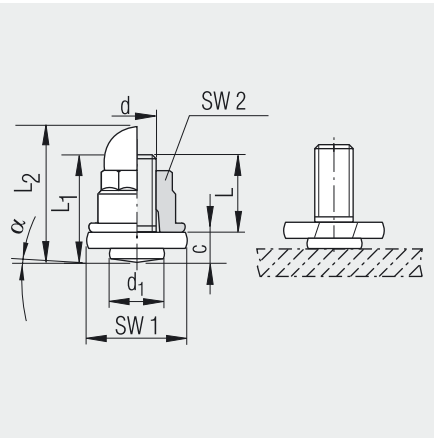
- for stud welding using drawn-arc processes
- for stud welding using short-cycle drawn-arc processes

Material

Steel Steel grade 8.8
Surface finish
Bolt: SnZn 70/30, yellow chromated
Screw nut: zinc plated,
colourless chromated

Thread d	Stud dimensions [mm]	Stud length L_1 *+0.2* [mm]	Flange-ø d_1 *-0.5* [mm]	Flange height c *±0.2* [mm]	Thread length L *±0.2* [mm]	SW 1 [mm]	SW 2 [mm]	**Part No.** ■ **Steel**
M 6	M 6 x 13	18	8.0	5.0	13.0	11.0	10.0	**434 258**
M 8	M 8 x 15	21	9.0	6.0	15.0	15.0	13.0	**434 256**

Other materials, tensile strengths and surfaces on request.



with closed nut cap
with metric thread

- for stud welding using drawn-arc processes

Material

Pin
Steel Steel grade 8.8,
yellow chromated

Nut cap Screw type 8
Surface finish zinc plated,
tin plated, colourless chromated

Thread d	Stud dimensions [mm]	Stud length L_1 *+0.2* [mm]	Flange-ø d_1 *-0.5* [mm]	Flange height c *±0.2* [mm]	Thread length L *±0.2* [mm]	Total length L_2 [mm]	SW 1 [mm]	SW 2 [mm]	**Part No.** ■ **Steel**
M 6	M 6 x 15	19.8	8.0	4.0	15.0	21.15	11.0	10.0	**434 197**
M 8	M 8 x 15	21.0	9.0	6.0	15.0	26.35	15.0	13.0	**434 198**

Other dimensions and materials on request.

The above weld studs can be installed using a hand welding gun or by semi-automatic or automatic processes.

We reserve the right to amend specifications at any time.

POLYSTIC® assembly systems
Large diameter flange/earthing stud

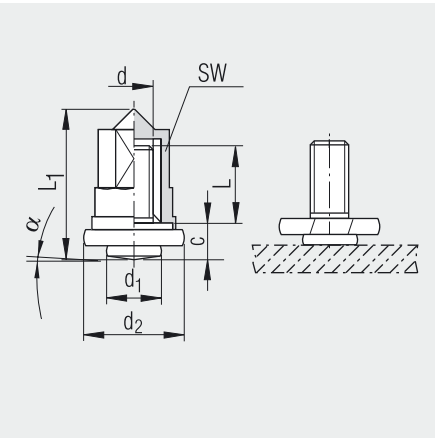
with metric thread and plastic cap
- for stud welding using drawn-arc processes
- for stud welding using short-cycle drawn-arc processes

Material

Steel Steel grade 8.8 copper-plated surface

Stainless steel

Plastic cap PA 6.6



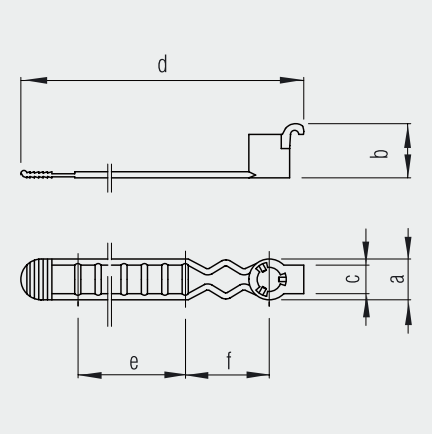
Thread d	Stud dimensions [mm]	Total length L_1 [mm]	Flange-ø d_1 -0.5 [mm]	Flange height c [mm]	Thread length L [mm]	Double flange ø d_2 [mm]	SW [mm]	Part No. Steel	Part No. Stainless steel
M 6	6 x 12	23.0	8.0	5.4	12.0	14.0	10.0	**434 290**	**434 291**[2]
M 8	8 x 15	26.0	10.0	5.4	15.0	14.0	10.0	**434 295**	**434 296**[1/3]

[1] *Flange-ø 8.0 mm*
[2] *Material 1.4016*
[3] *Material 1.4303*

Other materials, tensile strengths and surfaces on request.

The above weld studs can be installed using a hand welding gun or by semi-automatic or automatic processes.
Installation **with** plastic cap.

We reserve the right to amend specifications at any time.



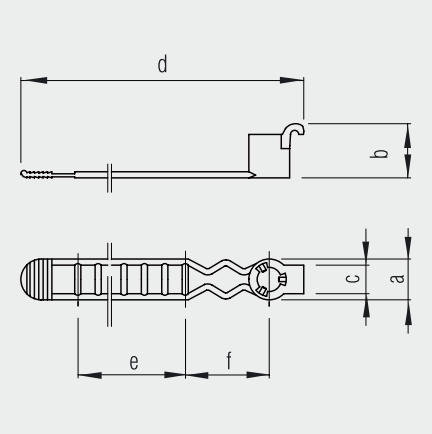
Cable ties
for fir-tree studs T 5

Material

PA 6.6

Fastening	Bundle-ø max [mm]	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No. PA 6.6
hammer fit	48	130	500	10.5	3.9	5.5	171.30	116.8	14.5	**435 910**

¹ *measured at 100 mm/min*



Cable ties
for fir-tree studs T 5

Material

PA 6.6

Fastening	Bundle-ø max [mm]	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No. PA 6.6
by hand	35	35	200	10.0	14.0	7.0	115	75.0	20.0	**435 911**

¹ *measured at 100 mm/min*

All cable ties can be re-opened if required.

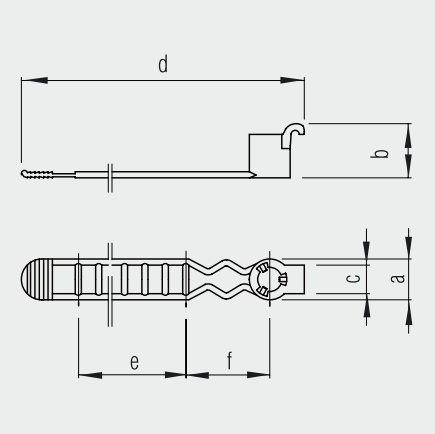
We reserve the right to amend specifications at any time.

Cable ties

- in hole-ø 6.5 mm
- for sheet thickness 0.8 – 3.0 mm

Material

PA 6.6



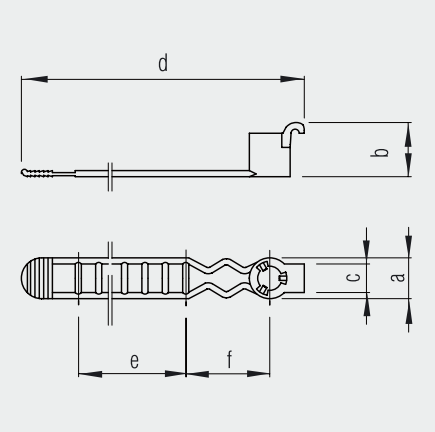
Fastening	Bundle-ø max [mm]	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No. PA 6.6
by hand	35	25	300	18.0	15.0	7.0	126	75.0	24.5	**435 912**

¹ *measured at 100 mm/min*

Cable ties
on T-stud

Material

PA 6.6

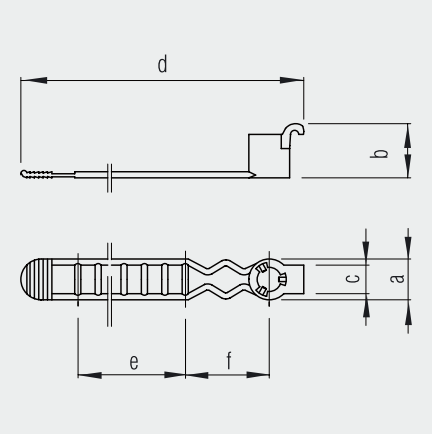


Fastening	Bundle-ø max [mm]	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No. PA 6.6
by hand	42	–	–	–	6.3	5.5	165.25	86.4	12.1	**435 914**
	50	–	–	–	6.3	5.5	181.00	107.2	14.8	**435 917**

¹ *measured at 100 mm/min*

All cable ties can be re-opened if required.

We reserve the right to amend specifications at any time.



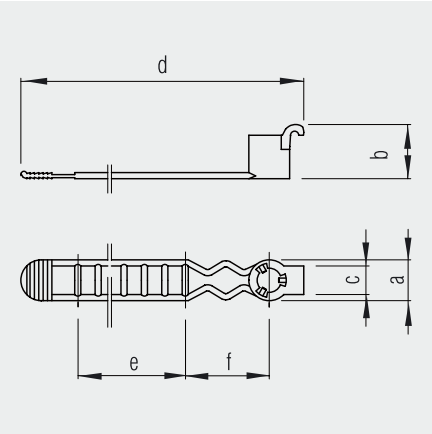
Cable ties
for fir-tree studs T 5

Material

PA 6.6

Fastening	Bundle-ø max [mm]	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No. PA 6.6
by hand	56	80	230	10.0	14.0	7.0	192	150.0	20.0	**435 918**

¹ *measured at 100 mm/min*



Cable ties
in hole 6.5 mm

Material

PA 6.6

Fastening	Bundle-ø max [mm]	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No. PA 6.6
by hand	35	–	–	18.0	11.0	–	136	–	–	**435 922**

¹ *measured at 100 mm/min*

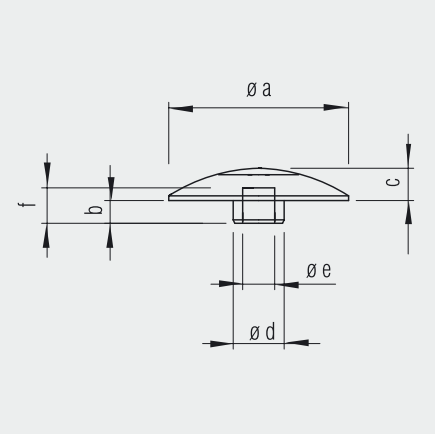
All cable ties can be re-opened if required.

We reserve the right to amend specifications at any time.

Button clips
for fir-tree studs T 5

Material

PE



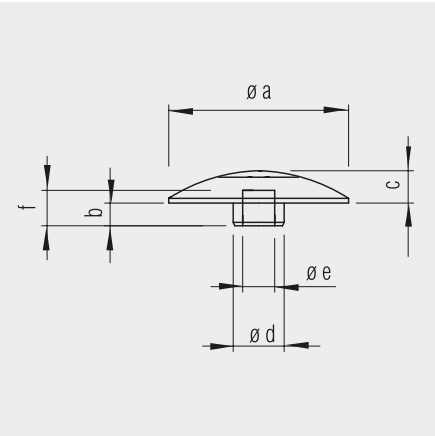
Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
by hand	70	150	30.0	12.0	5.0	9.5	5.0	–	**435 511**

¹ *measured at 100 mm/min*

Button clips
for fir-tree studs T 5

Material

PA 6.6

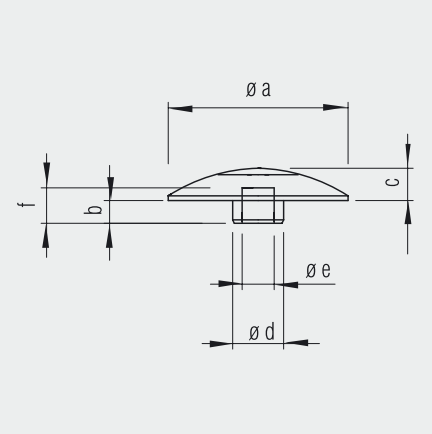


Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
by hand	30	200	30.0	5.7	–	9.5	–	–	**435 513**

¹ *measured at 100 mm/min*

Button clips on fir-tree studs can be unscrewed and removed again without causing any damage.

We reserve the right to amend specifications at any time.



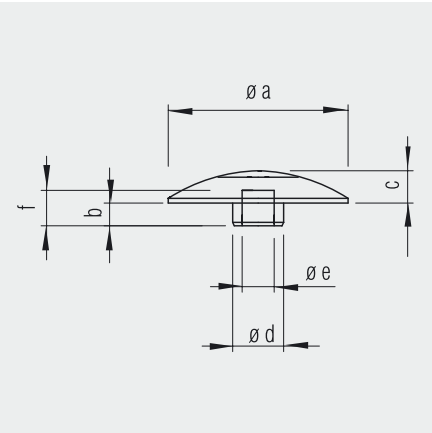
Button clips
for fir-tree studs T 5

Material

PA 6.6

Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
hammer fit	300	1000	30.0	6.0	4.6	9.5	4.7	15.0	**435 515**

¹ measured at 100 mm/min



Button clips
for fir-tree studs T 5

Material

PA 6.6

Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
hammer fit	250	650	14.0	5.0	–	8.5	–	–	**435 518**

¹ measured at 100 mm/min

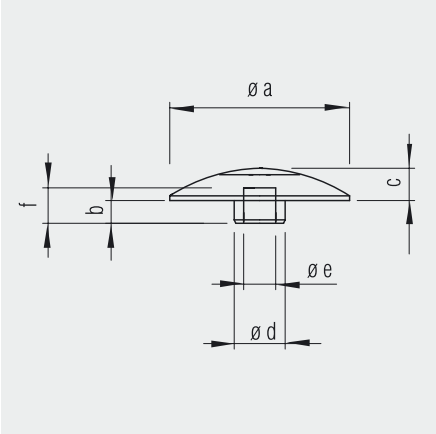
Button clips on fir-tree studs can be unscrewed and removed again without causing any damage.

We reserve the right to amend specifications at any time.

Button clips
for fir-tree studs T 5

Material

PA 6.6



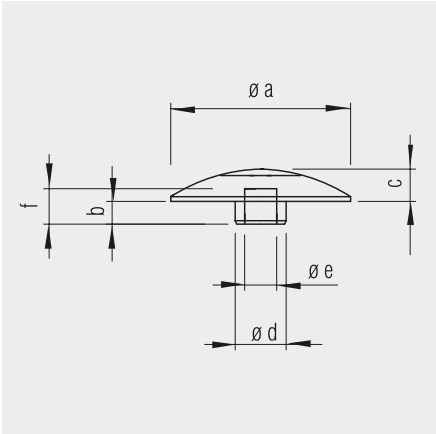
Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
by hand	15	220	25.0	7.2	2.0	9.0	3.8	–	**435 519**
by hand	–	–	30.0	6.0	8.0	10.0	–	–	**435 521**

¹ measured at 100 mm/min

Button clips
for fir-tree studs T 5

Material

PA 6.6

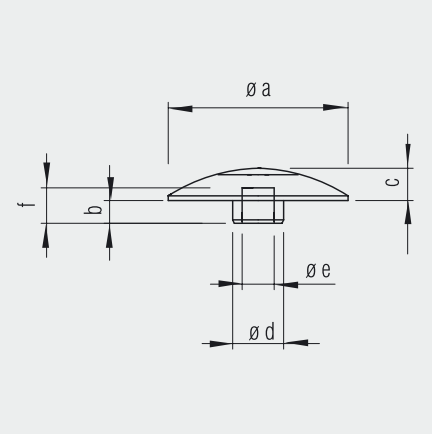


Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
hammer fit	130	500	19.0	4.0	5.0	9.0	4.8	–	**435 524**

¹ measured at 100 mm/min

Button clips on fir-tree studs can be unscrewed and removed again without causing any damage.

We reserve the right to amend specifications at any time.



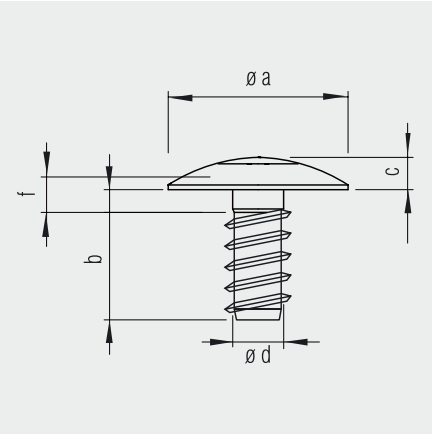
Button clips
for fir-tree studs T 5

Material

POM

Fastening	Push on force F_1 [N¹]	Pull off force F_2 [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
by hand	–	–	23.8	12.7	4.2	–	–	13.0	**435 526**

¹ *measured at 100 mm/min*



Button clips
with fir-tree threads

Material

POM

Fastening	Tightening torque *nom* [Ncm]	Over tightening torque *nom* [Ncm]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	Part No.
screw fitting	–	–	13.0	20.0	–	3.7	–	–	**435 533**

¹ *measured at 100 mm/min*

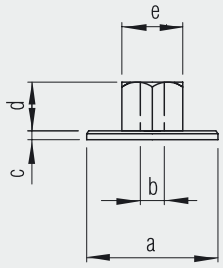
Button clips on fir-tree studs can be unscrewed and removed again without causing any damage.

We reserve the right to amend specifications at any time.

Plastic nuts straight flange
for fir-tree studs T 5

Material

PA 6
glass fibre reinforced, thermally stable



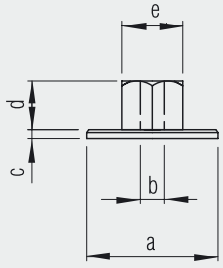
Fastening	Tightening torque *nom* [Ncm]	Over tightening torque *nom* [Ncm]	Pull off force [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
twist-on	175	400	4300	16.0	4.40	2.0	8.0	10.0	**435 310**

¹ measured at 100 mm/min

Plastic nuts straight flange
for fir-tree studs T 5

Material

PA 6.6 thermally stable

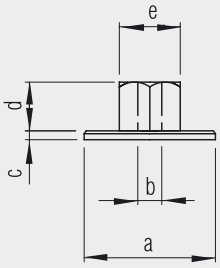


Fastening	Push on force *nom* [N]	Over tightening torque *nom* [Ncm]	Pull off force [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
hammer fit	25	75	900	22.0	4.75	1.5	6.5	10.0	**435 311**

¹ measured at 100 mm/min

If tensile force > 1800 N, the yield stress of the weld stud will be exceeded.

We reserve the right to amend specifications at any time.



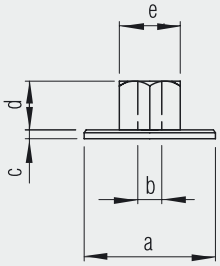
Plastic nuts straight flange
for fir-tree studs T 5

Material

PA 6[1], PA 6.6[2]

Fastening	Tightening torque *nom* [Ncm]	Over tightening torque *nom* [Ncm]	Pull off force [N[3]]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
twist-on	220	650	4000	16.0	4.25	2.8	8.2	10.0	**435 313[1]**
	75	200	4000	16.0	4.35	2.0	8.0	10.0	**435 314[2]**

[1] *glass fibre reinforced*
[2] *thermally stable*
[3] *measured at 100 mm/min*



Plastic nuts straight flange
for fir-tree studs T 5

Material

PA 6.6 neutral

Fastening	Push on force *nom* [N]	Over tightening torque *nom* [Ncm]	Pull off force [N[1]]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
hammer fit	–	–	–	18.0	4.85	2.0	10.0	10.0	**435 315**

[1] *measured at 100 mm/min*

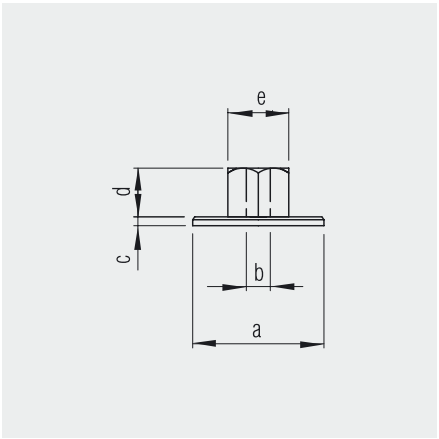
If tensile force > 1800 N, the yield stress of the weld stud will be exceeded.

We reserve the right to amend specifications at any time.

Plastic nuts straight flange
for fir-tree studs T 5

Material

POM



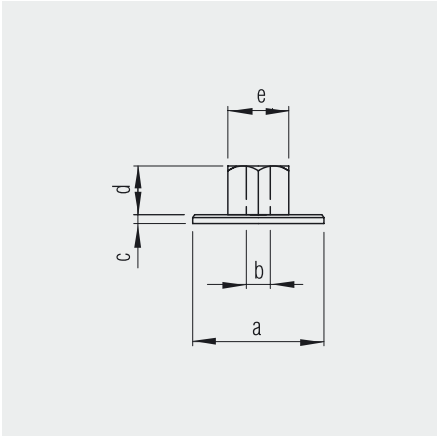
Fastening	Tightening torque *nom* [Ncm]	Over tightening torque *nom* [Ncm]	Pull off force [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
twist-on	–	–	–	12.0	4.2	1.5	5	9.9	**435 318**

¹ measured at 100 mm/min

Plastic nuts straight flange
for fir-tree studs T 5

Material

POM

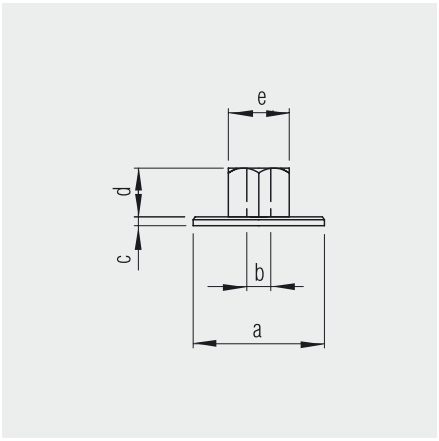


Fastening	Push on force *nom* [N]	Over tightening torque *nom* [Ncm]	Pull off force [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
by hand	–	–	270	12.0	4.7	2.0	6.0	10.0	**435 319**

¹ measured at 100 mm/min

If tensile force > 1800 N, the yield stress of the weld stud will be exceeded.

We reserve the right to amend specifications at any time.



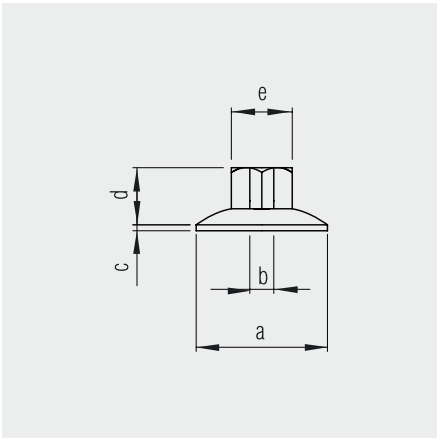
Plastic nuts
straight flange

Material

POM

Fastening	Tightening torque *nom* [Ncm]	Over tightening torque *nom* [Ncm]	Pull off force [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
twist-on	–	–	–	16.0	5.85	2.0	8.0	9.9	**435 321**

¹ *measured at 100 mm/min*



Plastic nuts
bulbed flange
for fir-tree studs T 5

Material

PA 6.6 thermally stable

Fastening	Push on force *nom* [N]	Over tightening torque *nom* [Ncm]	Pull off force [N¹]	Dimensions a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
hammer fit	25	75	1000	22.0	4.7	0.8	9.2	10.0	**435 309**

¹ *measured at 100 mm/min*

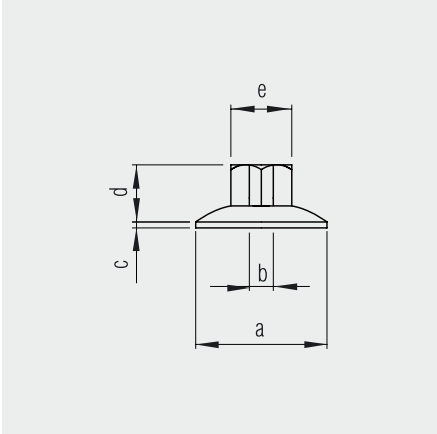
If tensile force > 1800 N, the yield stress of the weld stud will be exceeded.

We reserve the right to amend specifications at any time.

Plastic nuts
bulbed flange
for fir-tree studs T 5

Material

PA 6.6 thermally stable



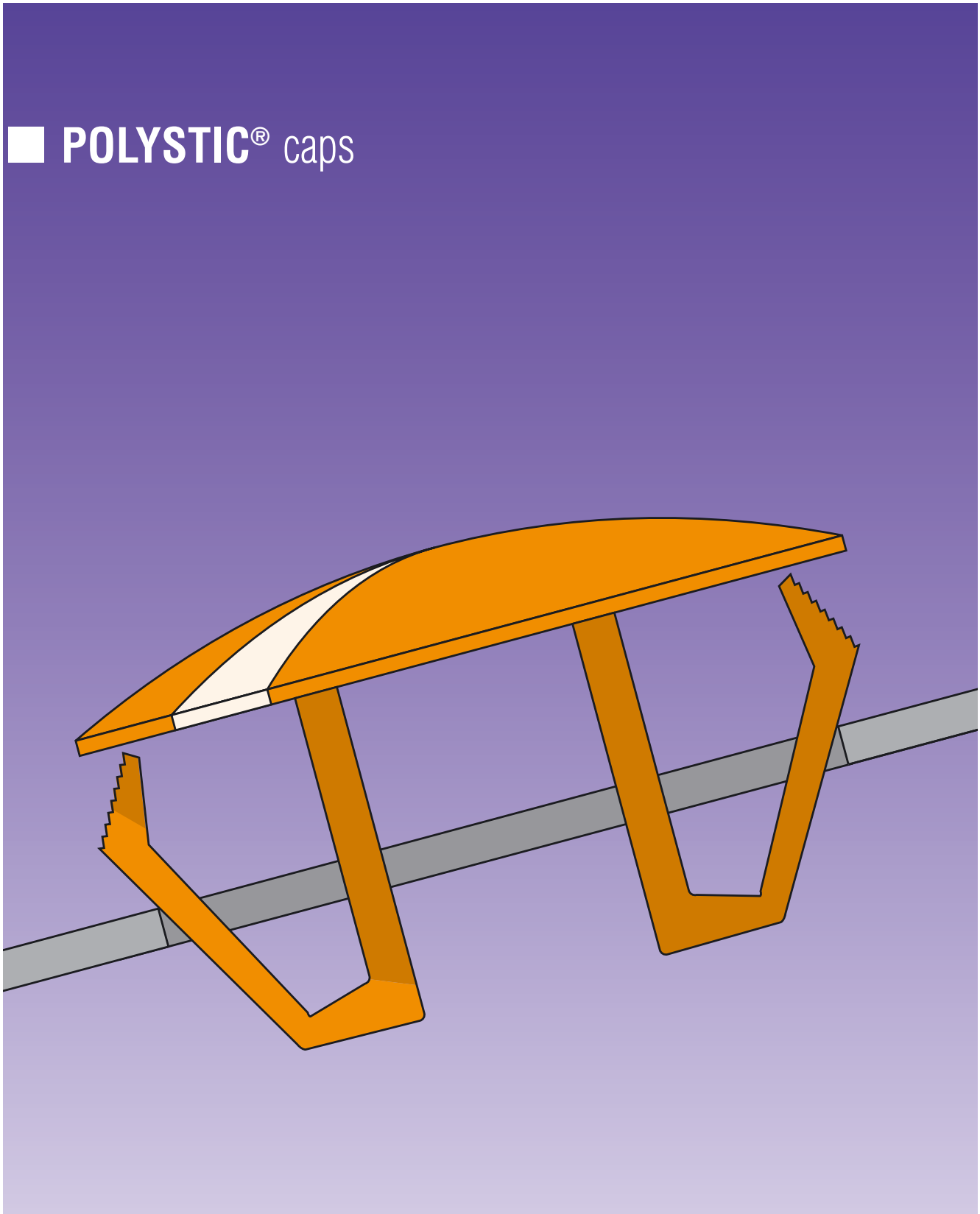
Fastening	Push on force	Over tighening torque	Pull off force	Dimensions					Part No.
	nom [N]	*nom* [Ncm]	[N¹]	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	
hammer fit	25	75	750	30.0	4.7	1.0	8.0	10.0	**435 512**

¹ measured at 100 mm/min

If tensile force > 1800 N, the yield stress of the weld stud will be exceeded.

We reserve the right to amend specifications at any time.

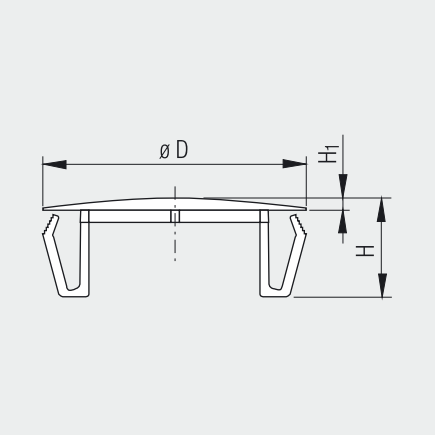
POLYSTIC® caps



POLYSTIC® caps

Material

High-grade polyacetal (POM)

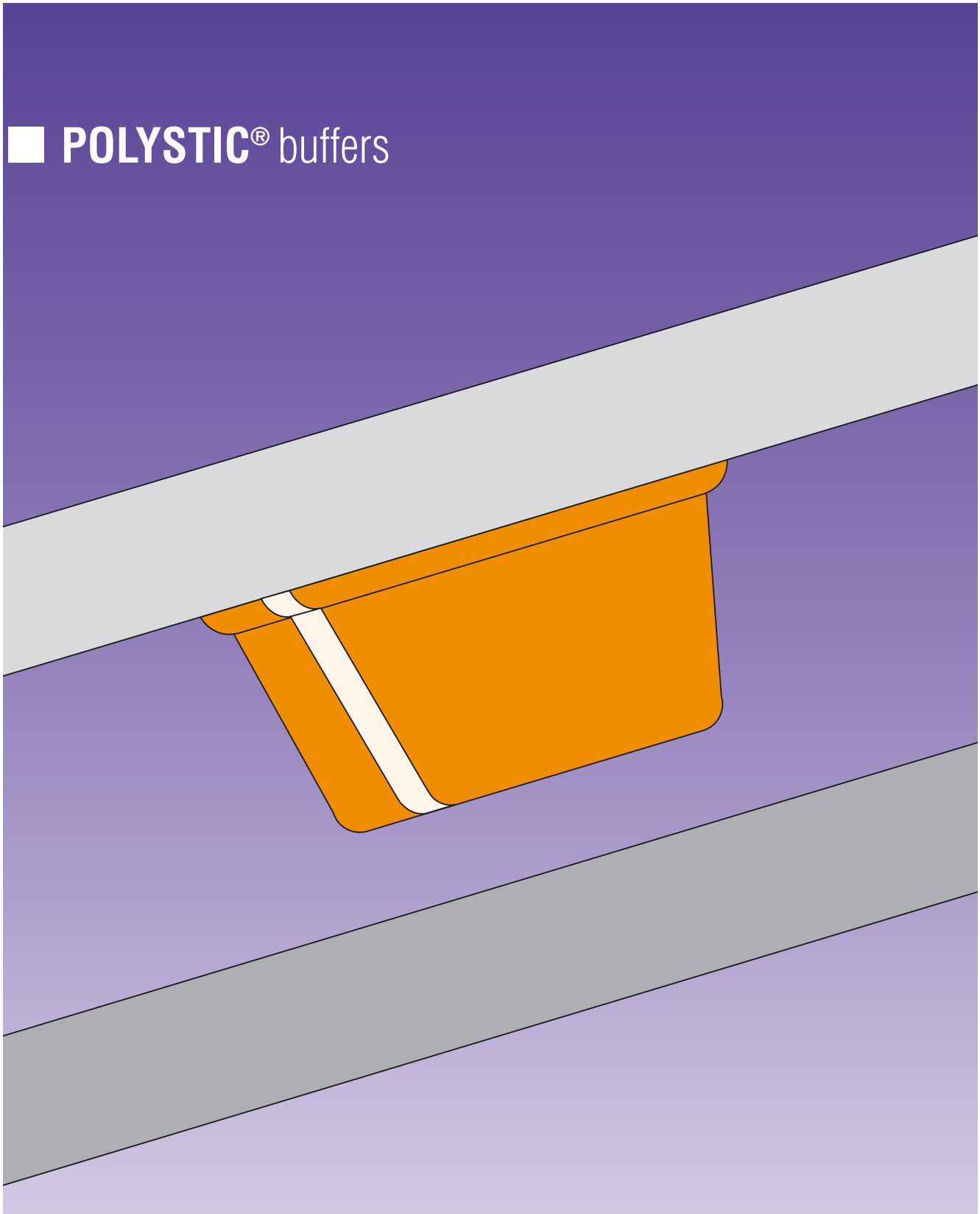


Hole-ø [mm]	Cap-ø ø D [mm]	Cap height H [mm]	Cap height H_1 [mm]	Material thickness [mm]	Packing unit [piece]	**Part No. Colour black**
9.5 – 11.0	16.0	12.6	1.6	0.8 – 3.2	1000	**435 010**
12.7 – 14.3	18.5	12.0	1.6	0.8 – 3.2	1000	**435 011**
15.0 – 17.5	21.5	12.0	1.6	0.8 – 3.2	1000	**435 012**
18.4 – 20.6	25.0	12.0	1.6	0.8 – 3.2	1000	**435 013**
22.0 – 25.5	32.5	13.2	1.6	0.8 – 3.2	1000	**435 014**
28.0 – 30.0	35.0	13.2	1.6	0.8 – 3.2	1000	**435 015**
35.0 – 38.0	43.0	13.2	1.6	0.8 – 3.2	1000	**435 016**
45.0 – 47.5	52.0	13.2	1.6	0.8 – 3.2	1000	**435 017**

Other dimensions and colours on request.

We reserve the right to amend specifications at any time.

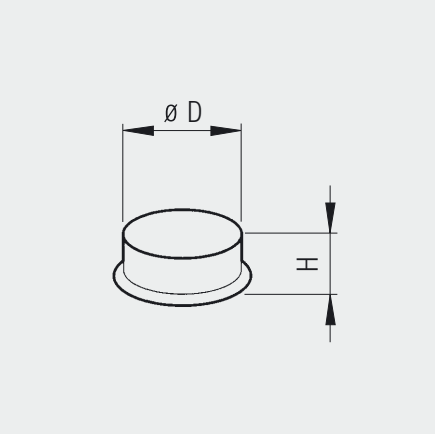
POLYSTIC® buffers



TITGEMEYER Tb1457GB(0710)1

POLYSTIC® buffers
Impact buffer / adhesive base

- quick and easy to install
- self-adhesive mounting surface
- rubber-based adhesive for greater bond strength
- buffer leaves no marks
- exceptional slip resistance
- material hardnesses from 55-65 Shore A



Material

Polyurethane PUR

Diameter D [mm]	Height H [mm]	Panel [piece]	Colour	**Part No.**
7.95	2.15	75	transparent	**436 650 000**
7.95	2.15	75	black	**436 651 000**
12.7	3.55	50	transparent	**436 652 000**
12.7	3.55	50	black	**436 653 000**
12.7	6.35	50	transparent	**436 654 000**

All dimensions +/- 0.5 mm, measured without adhesive backing.

Note:
- Buffers are not centrally punched at the buffer rim
- The listed dimensions are nominal

Shapes:


Rectangular (1)


Round concave (2)


Cylindrical (3)


Hemispherical (4)

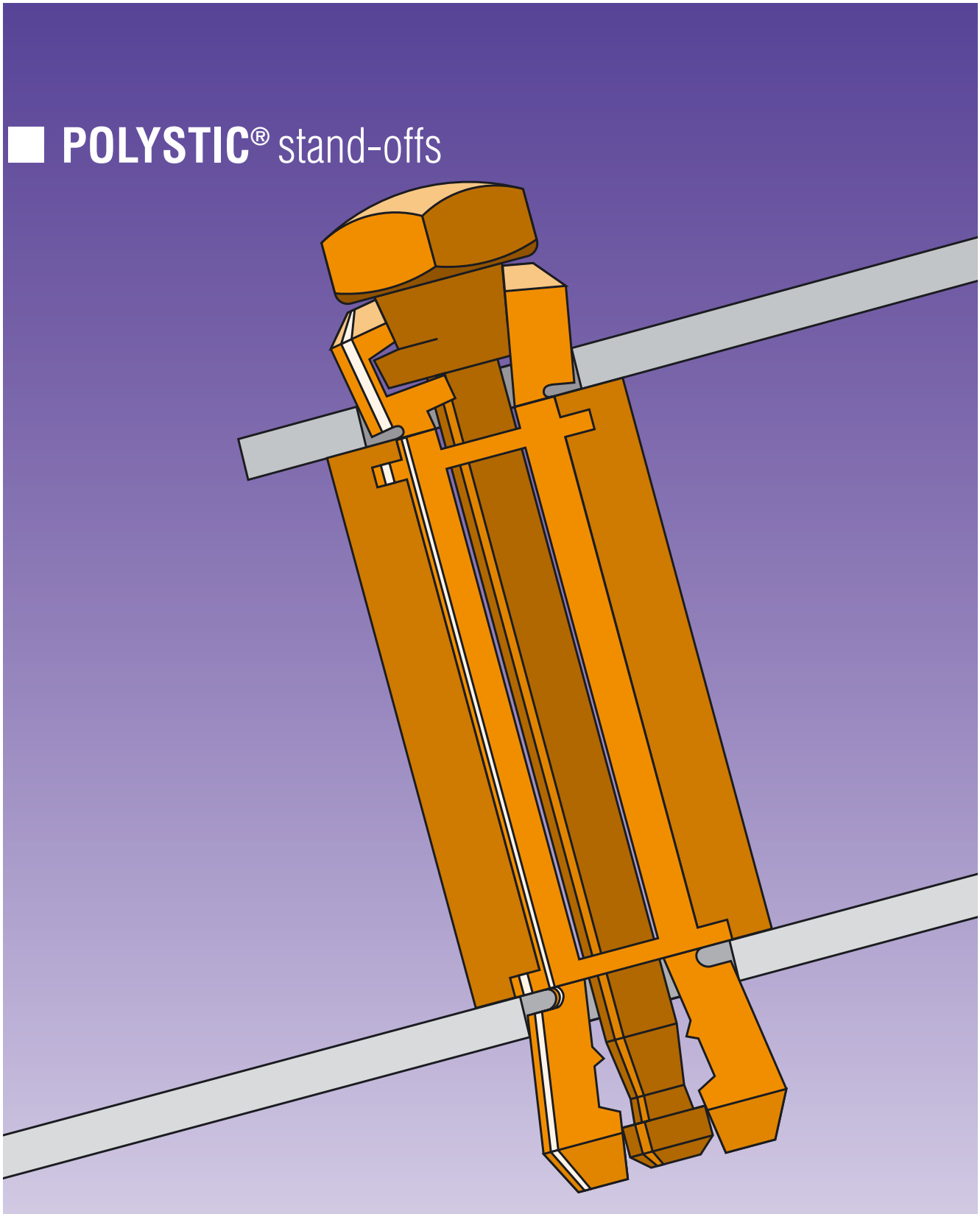

Square (5)


Square pointed (6)


Round with recess (7)

We reserve the right to amend specifications at any time.

POLYSTIC® stand-offs



TITGEMEYER Tb1430GB(0710)1

POLYSTIC® stand-offs

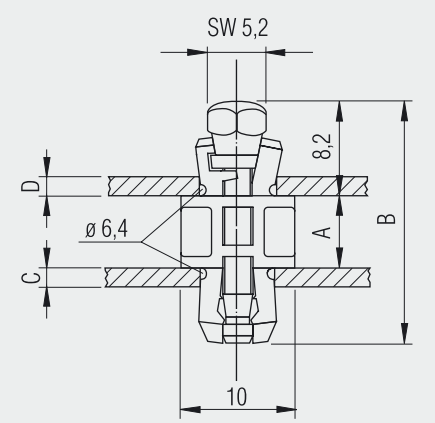
made of plastic with
1/4 turn lock

Temperature stability:
-40 ˚C to +170 ˚C

Colour: black

Material

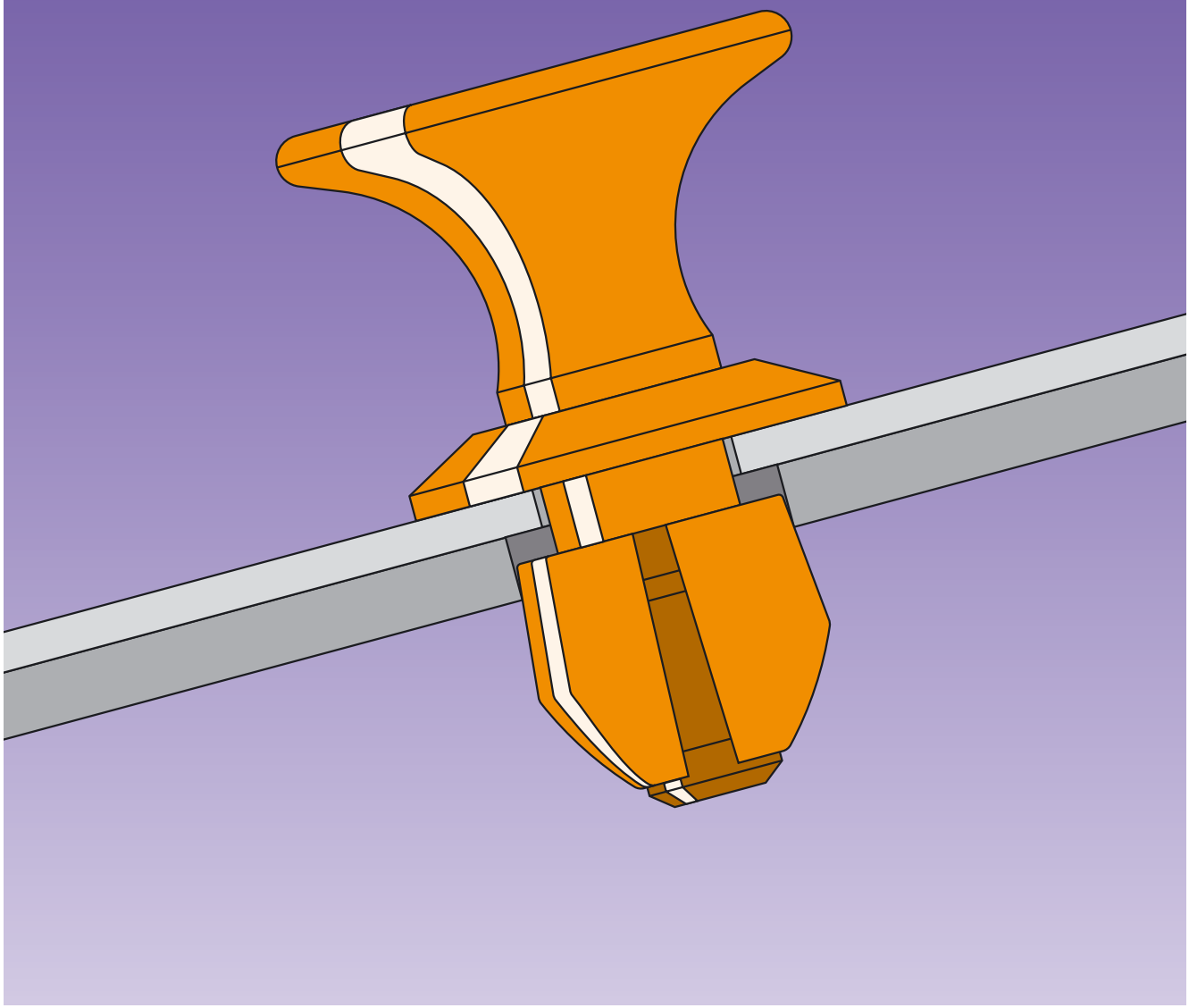
Polysulfone



Hole-ø **d** **[mm]**	Stand-off height A [mm]	Total height B [mm]	Material thickness of base plate C [mm]	Material thickness of circuit board D [mm]	**Part No.**
6.4	4.7	19.4	1.2 – 2.4	1.2 – 2.4	**409 170**
	6.4	21.3	1.2 – 2.4	1.2 – 2.4	**409 171**
	9.5	24.2	1.2 – 2.4	1.2 – 2.4	**409 172**
	12.7	27.3	1.2 – 2.4	1.2 – 2.4	**409 173**
	15.9	30.6	1.2 – 2.4	1.2 – 2.4	**409 174**
	19.1	33.7	1.2 – 2.4	1.2 – 2.4	**409 175**

We reserve the right to amend specifications at any time.

POLYSTIC® quick-release fasteners



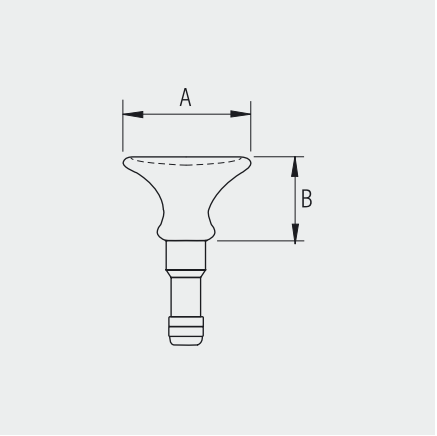
TITGEMEYER Tb1431GB(0710)1

POLYSTIC® quick-release fasteners
Broad heads

Light touch button

Material

Nylon

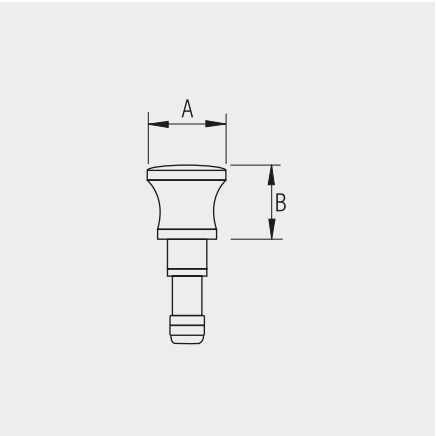


Nominal size ø d [mm]	Dimensions A [mm]	B [mm]	G¹ [mm]	Part No. black	white
8.0	16.0	9.5	1.5 – 4.4	**409 001**	**409 002**
			3.0 – 5.3	**409 003**	**–**
			4.6 – 6.9	**409 005**	**–**
			5.8 – 8.1	**409 007**	**–**

Miniature button

Material

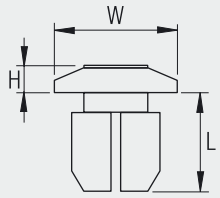
Nylon



Nominal size ø d [mm]	Dimensions A [mm]	B [mm]	G¹ [mm]	Part No. black	white
6.4	8.1	7.1	1.5 – 4.4	**409 041**	**409 042**
8.0	9.6	7.6	1.5 – 4.4	**409 011**	**409 012**

Material thickness of moving component T + fitting length of the fixed component S

We reserve the right to amend specifications at any time.



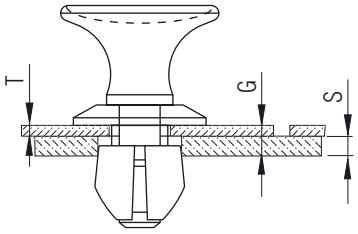
Material

Polycarbonate

Nominal size-ø d [mm]	Movable plate Hole-ø [mm]	Force T [mm]	Fixed plate Hole-ø [mm]	Grip range S [mm]	Dimensions H [mm]	L [mm]	W [mm]	Temperature resistance [°C]	Break value [N]	Compressive force [N]	Part No. black	Part No. white
6.4	6.15 – 6.05	1.0	6.35 – 6.45	0.5–2.8	2.0	9.4	8.5	90	176	333	**409 121**	**409 122**
		1.6		0.5–2.8	1.6	9.8	8.5				**409 123**	**–**
		2.5		1.0–2.8	1.6	10.9	8.5				**409 125**	**–**
		4.1		0.5–2.8	1.6	12.6	8.5				**–**	**–**
8.0	7.59 – 7.47	1.0	8.03 – 8.20	0.5–2.8	2.4	9.4	10.7	90	265	667	**409 101**	**409 102**
		1.6		0.5–2.8	2.0	9.8	10.7				**409 103**	**409 104**
		2.5		1.0–2.8	2.0	10.9	10.7				**409 105**	**409 106**
		4.1		0.5–2.8	2.0	12.6	10.7				**409 107**	**409 108**
		5.3		0.5–2.8	2.0	13.8	10.7				**409 109**	**–**

Assembly

G = Material thickness of movable mounting plate T + grip range length of the fixed frame plate S



Arrangement broad head – locking sleeve

Nominal size-ø d [mm]	T Thickness movable plate [mm]	S Grip range fixed plate [mm]	G [mm]	Part No. Locking sleeve black	Part No. Locking sleeve white	Part No. Broad head black	Part No. Broad head white
6,4	1.0	0.5–2.8	1.5–3.8	**409 121**	**409 122**	**409 041**	**409 042**
	1.6	0.5–2.8	2.1–4.4	**409 123**	**–**	**409 041**	**409 042**
	2.5	1.0–2.8	3.0–5.3	**409 125**	**–**	**–**	**–**
	4.1	0.5–2.8	4.6–6.9	**–**	**–**	**–**	**–**
8,0	1.0	0.5–2.8	1.5–3.8	**409 101**	**409 102**	**409 001**	**409 002**
	1.0	0.5–2.8	1.5–3.8	**409 101**	**409 102**	**409 011**	**409 012**
	1.6	0.5–2.8	2.1–4.4	**409 103**	**409 104**	**409 001**	**409 002**
	1.6	0.5–2.8	2.1–4.4	**409 103**	**409 104**	**409 011**	**409 012**
	2.5	1.0–2.8	3.0–5.3	**409 105**	**409 106**	**409 003**	**–**
	4.1	0.5–2.8	4.6–6.9	**409 107**	**409 108**	**409 005**	**–**
	5.3	0.5–2.8	5.8–8.1	**409 109**	**–**	**409 007**	**–**

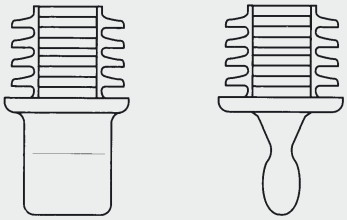
We reserve the right to amend specifications at any time.

POLYSTIC® lock
Catch and latch

- quick and easy to install
- self-adhesive
- ideal for lightweight doors, drawers and controls
- anchor lock

Material

Polyamide

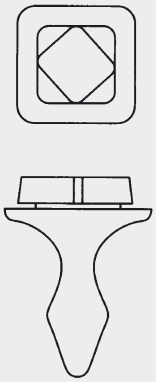


Dimensions [mm]	Material thickness [mm]	Hole-ø [mm]	Colour	**Part No.**
10.6 x 10.6 x 8.7	5	8	natur	**–**
10.6 x 10.6 x 8.7	5	8	black	**435 100 000**

- quick and easy to install
- self-adhesive
- ideal for lightweight doors, drawers and controls
- Quarter turn lock

Material

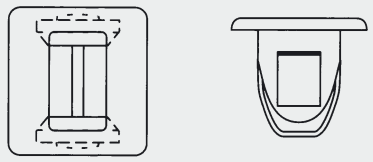
Polyamide



Dimensions [mm]	Material thickness [mm]	Hole-⍁ [mm]	Colour	**Part No.**
13.0 x 13.0 x 13.0	1.6	6.75 x 7.35	natur	**–**
13.0 x 13.0 x 13.0	1.6	6.75 x 7.35	black	**435 101 000**
9.0 x 9.0 x 13.0	2.0	6.75 x 7.35	natur	**–**
9.0 x 9.0 x 13.0	2.0	6.75 x 7.35	black	**435 102 000**

The forces given are guidelines only. The user is responsible for determining the values required for his application.
Temperature range: -10 °C to 60 °C.

We reserve the right to amend specifications at any time.



- quick and easy to install
- self-adhesive
- ideal for lightweight doors, drawers and controls

Material

Latch

Polyamide / Steel

Spring force	Dimensions [mm]	Hole [mm]	Material thickness [mm]	Colour	**Part No.**
+	15.0 x 18.2 x 1.7	12.5 x 11.6	1.5 – 2.0	neutral	**–**
+	15.0 x 18.2 x 1.7	12.5 x 11.6	1.5 – 2.0	black	**435 090 000**
++	18.0 x 20.0 x 1.7	16.7 x 13.1	0.9 – 1.5	neutral	**–**
++	18.0 x 20.0 x 1.7	16.7 x 13.1	0.9 – 1.5	black	**435 091 000**
+++	18.0 x 20.0 x 1.7	16.7 x 13.1	0.9 – 1.5	neutral	**–**
+++	18.0 x 20.0 x 1.7	16.7 x 13.1	0.9 – 1.5	black	**435 092 000**

+ = slight clamp force
++ = medium clamp force
+++ = high clamp force

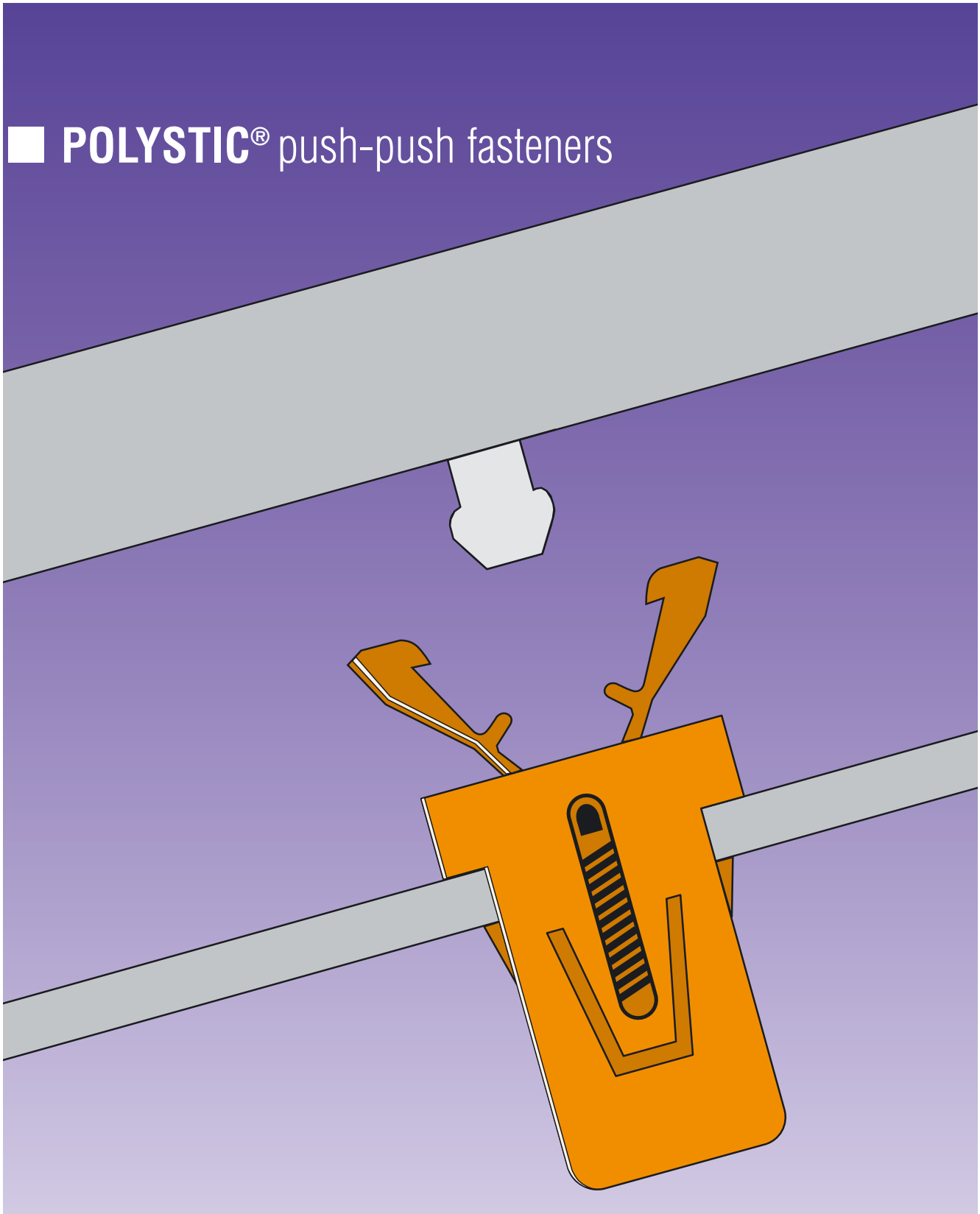
The forces given are guidelines only. The user is responsible for determining the values required for his application.

Combination	**435 090 000**	**435 091 000**	**435 092 000**
435 100 000	•	–	–
435 101 000	–	•	•
435 102 000	–	•	•

We reserve the right to amend specifications at any time.

NOTES

POLYSTIC® push-push fasteners



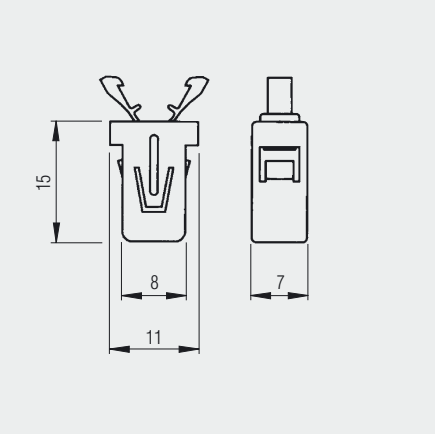
TITGEMEYER Tb1458GB(0710)1

POLYSTIC® push-push fasteners
Push Push clip

- quick and easy front assembly
- reliable, durable lock
- ideal for lightweight doors, drawers and controls
- no screws, bolts or rivets required
- ideal for profile applications
- temperature range: -10 °C to 60 °C
- Force on opening and closing approx. 7 N

Material

Polyamide / Steel

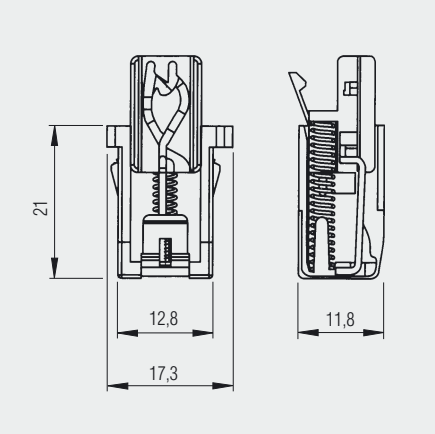


Dimensions [mm]	Grip range [mm]	Colour	**Part No.**
6.8 x 8.0	$2^{\pm 0,2}$	black	**435 082 000**

- quick and easy front assembly
- reliable, durable lock
- ideal for lightweight doors, drawers and controls
- no screws, bolts or rivets required
- ideal for profile applications
- force on closing 13 – 15 N max.
- force on opening 13 – 15 N min.
- retention force when closed 70 – 82 N

Material

Polyamide / Steel



Dimensions [mm]	Grip range [mm]	Colour	**Part No.**
12.8 x 11.8	$2^{\pm 0,2}$	black	**435 080 000**

The forces given are for guidance only. The user is responsible for determining the values required for his application.
Dimensional drawings for the corresponding snap-fit hooks available from supplier.

We reserve the right to amend specifications at any time.