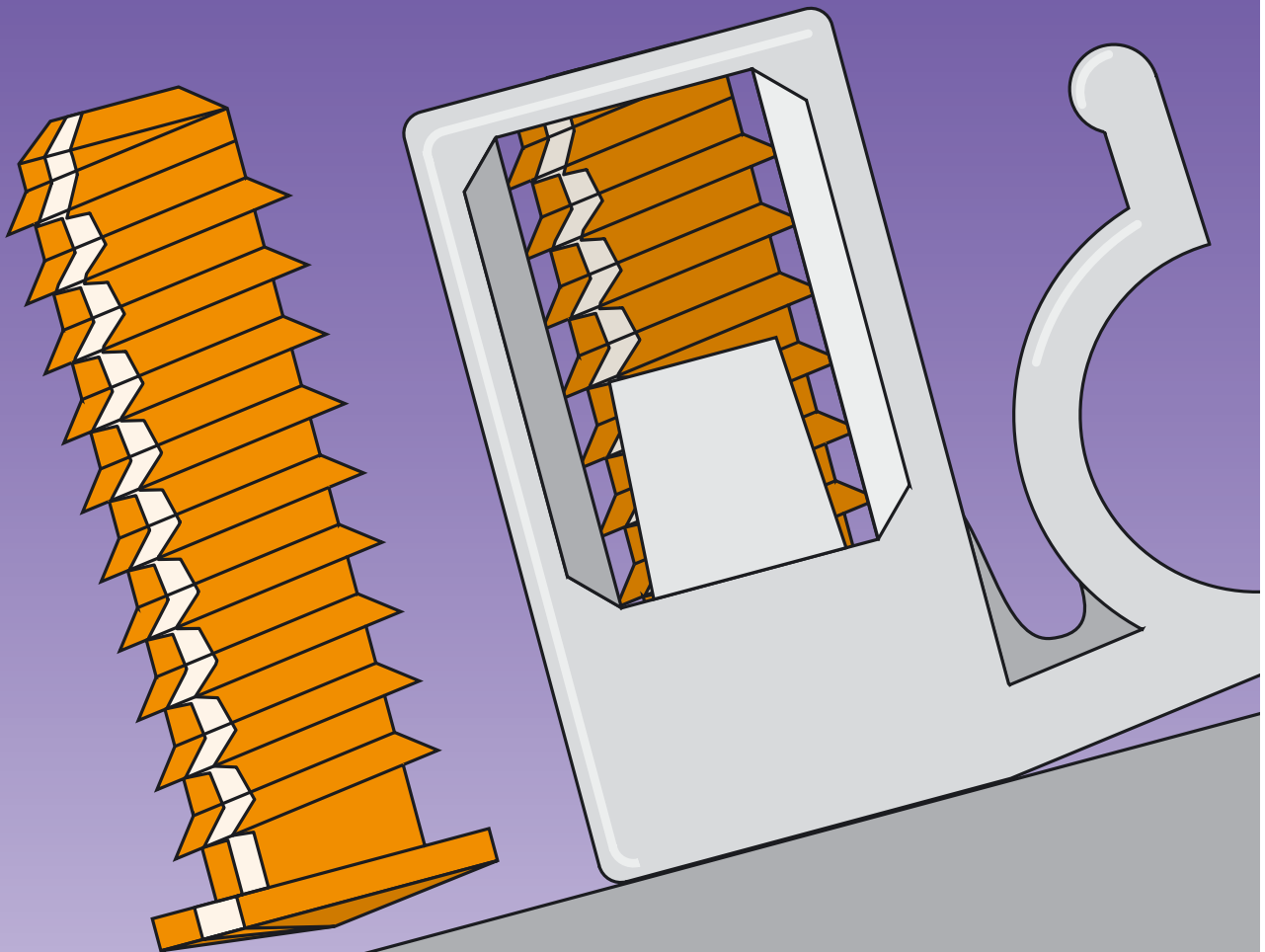


TITGEMEYER^{GTO}

YOUR SOLUTION

POLYSTIC[®] assembly systems



POLYSTIC® assembly systems

Weld studs with metric thread with CD pips
in accordance with EN ISO 13918,
for stud welding using capacitor discharge process

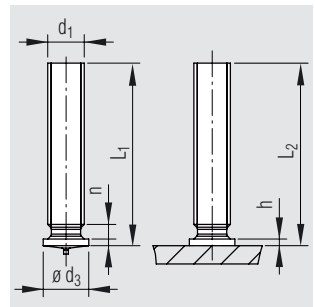
Material




 Steel (4.8) copper-plated surface

 Stainless Steel 1.4301 or 1.4303 (A2-50)



 Aluminium ENAW-AIMg 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 [mm]	Part No.		
							 Steel	 Stainless Steel	 Aluminium
M 3	M 3 x 6	6.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 303	434 503	434 403
	M 3 x 8	8.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 304	434 504	434 404
	M 3 x 10	10.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 305	434 505	434 405
	M 3 x 12	12.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 306	434 506	434 406
	M 3 x 16	16.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 315	434 515	434 415
	M 3 x 20	20.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 316	434 516	434 416
	M 3 x 25	25.0	4.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 317	434 517	434 417
M 4	M 4 x 6	6.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 323	434 523	434 423
	M 4 x 8	8.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 324	434 524	–
	M 4 x 10	10.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 325	434 525	434 425
	M 4 x 12	12.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 326	434 526	–
	M 4 x 15	15.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 327	434 527	434 427
	M 4 x 16	16.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 328	434 528	434 428
	M 4 x 20	20.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 330	434 530	434 430
	M 4 x 25	25.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 332	434 532	434 432
M 5	M 4 x 30	30.0	5.5	0.7 – 1.4	1.0	≈ L ₁ ^{-0.3}	434 334	434 534	434 434
	M 5 x 8	8.0	7.0	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 344	434 544	434 444
	M 5 x 10	10.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 345	434 545	434 445
	M 5 x 12	12.0	7.0	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 346	434 546	434 446
	M 5 x 15	15.0	7.0	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 347	434 547	434 447
	M 5 x 16	16.0	7.0	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 348	434 548	434 448
	M 5 x 20	20.0	7.0	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 350	434 550	434 450
	M 5 x 20	20.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 360	–	–
	M 5 x 25	25.0	7.0	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 352	434 552	434 452
	M 5 x 25	25.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 361	–	–
	M 5 x 30	30.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 353	434 553	434 453
	M 5 x 35	35.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 354	434 554	434 454
	M 5 x 40	40.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 355	434 555	434 455
M 5 x 50	50.0	6.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 356	–	–	

Continued on next page

We reserve the right to amend specifications at any time.

Continued

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 [mm]	Part No.		
							■ Steel	■ Stainless Steel	■ Aluminium
M 6	M 6 x 8	8.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 364	434 564	–
	M 6 x 10	10.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 365	434 565	–
	M 6 x 12	12.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 366	434 566	434 466
	M 6 x 15	15.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 367	434 567	434 467
	M 6 x 16	16.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 368	434 568	–
	M 6 x 20	20.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 370	464 570	434 470
	M 6 x 25	25.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 372	434 572	434 471
	M 6 x 30	30.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 373	434 573	–
	M 6 x 35	35.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 374	434 574	–
	M 6 x 40	40.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 375	434 575	–
	M 6 x 45	45.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 376	434 576	–
	M 6 x 50	50.0	7.5	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 377	434 577	–
M 8	M 8 x 10	10.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 382	434 584	–
	M 8 x 15	15.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 384	434 586	–
	M 8 x 20	20.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 386	434 587	434 486
	M 8 x 25	25.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 388	434 588	–
	M 8 x 30	30.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 389	434 589	434 489
	M 8 x 35	35.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 390	434 590	–
	M 8 x 40	40.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 391	434 591	–
	M 8 x 45	45.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-0.3}	434 392	–	–
M 8 x 50	50.0	9.0 ¹	0.8 – 1.4	2.0	≈ L ₁ ^{-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

Note: • Not stocked in all dimensions and materials

On request: • Other dimensions, tensile strengths and surfaces
• Available in other materials

To install capacitor discharge (CD) weld studs, we recommend the stud welder CDi 1502.

This device can be operated with

- Pistol CA 08 for gap welding process or with
- Gun V 08 for contact welding process

² Gap welding for all above-mentioned materials, including aluminium

³ Do not use contact welding on aluminium

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. S 235 / 1.4301).

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.

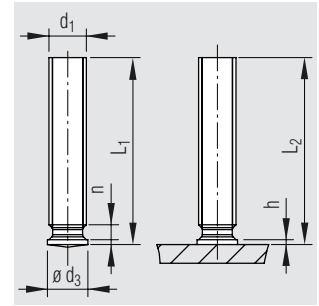
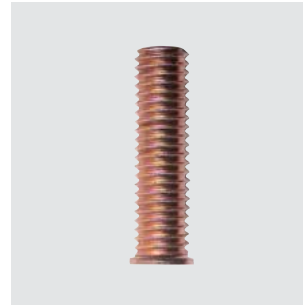
POLYSTIC® assembly systems



Weld studs with metric thread 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 (A2-50)



Thread d₁	Stud dimensions [mm]	Stud length L₁ +0.6 [mm]	Flange- \varnothing d₃ ± 0.2 [mm]	Flange height h [mm]	Thread undercut <i>max.</i> [mm]	Stud length after welding L₂ [mm]	Part No.	
							 Steel	 Stainless Steel
M 4	M 4 x 8	8.0	5.0	0.6	1.0	$\approx L_1^{-0.3}$	434 270	434 541
	M 4 x 12	12.0	5.0	0.6	1.0	$\approx L_1^{-0.3}$	434 340	–
M 5	M 5 x 8	8.0	6.0	0.7	2.0	$\approx L_1^{-0.3}$	434 342	–
	M 5 x 12	12.0	6.0	0.7	2.0	$\approx L_1^{-0.3}$	434 349	–
	M 5 x 13	13.0	6.0	0.7	2.0	$\approx L_1^{-0.3}$	434 351	–
	M 5 x 16	16.0	6.0	0.7	2.0	$\approx L_1^{-0.3}$	434 280	–
	M 5 x 20	20.0	6.0	0.7	2.0	$\approx L_1^{-0.3}$	–	434 582
	M 5 x 25	25.0	6.0	0.7	2.0	$\approx L_1^{-0.3}$	434 362	–
M 6	M 6 x 8	8.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 267	–
	M 6 x 10	10.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 281	434 381
	M 6 x 12	12.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 282	–
	M 6 x 15	15.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 278	434 581
	M 6 x 16	16.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 273	–
	M 6 x 20	20.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 285	–
	M 6 x 25	25.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 371	–
	M 6 x 30	30.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	–	–
	M 6 x 35	35.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	–	–
	M 6 x 40	40.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	434 287	–
	M 6 x 45	45.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	–	–
	M 6 x 50	50.0	7.0	0.8	2.0	$\approx L_1^{-0.3}$	–	–

Continued on next page

We reserve the right to amend specifications at any time.

Continued

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 [mm]	Part No.	
							■ Steel	■ Stainless Steel
M 8	M 8 x 10	10.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	–	–
	M 8 x 12	12.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	434 383	–
	M 8 x 15	15.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	434 385	–
	M 8 x 16	16.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	434 277	–
	M 8 x 20	20.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	434 387	434 592
	M 8 x 25	25.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	434 289	–
	M 8 x 40	40.0	9.0	1.0	2.0	≈ L ₁ ^{-0.3}	434 399	–

Note: • Not stocked in all dimensions and materials

On request: • Other dimensions, tensile strengths and surfaces
• Available in other materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. S 235 / 1.4301).

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.

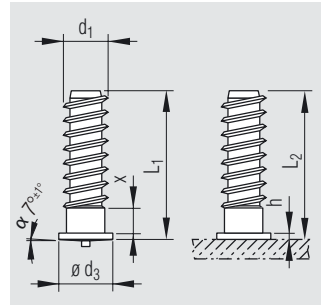
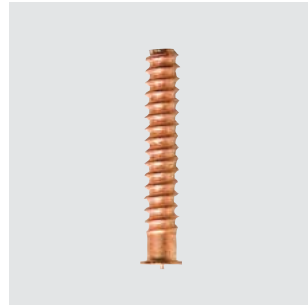
POLYSTIC® assembly systems

Weld studs with fir-tree threads with CD pips for stud welding using capacitor discharge process

Material

■ Steel (4.8) copper-plated surface

■ Stainless Steel 1.4303 or 1.4301 (A2-50)



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 [mm]	Part No.	
							■ Steel	■ Stainless Steel
T 5	T 5 x 9	9.0	6.5	0.7	3.0	≈ L ₁ ^{-0.3}	434 211	434 216
	T 5 x 10	10.0	6.5	0.7	3.0	≈ L ₁ ^{-0.3}	434 209	–
	T 5 x 12	12.0	6.5	0.7	3.0	≈ L ₁ ^{-0.3}	434 213	434 217
	T 5 x 14	14.0	6.5	0.7	3.0	≈ L ₁ ^{-0.3}	–	434 226
	T 5 x 14.2	14.2	6.5	0.7	3.2	≈ L ₁ ^{-0.3}	434 214	–
	T 5 x 16.5	16.0	6.5	0.7	3.0	≈ L ₁ ^{-0.3}	434 228	–
	T 5 x 18	18.0	6.5	0.7	3.0	≈ L ₁ ^{-0.3}	434 231	434 236
	T 5 x 30	30.0	6.5	0.7	5.0	≈ L ₁ ^{-0.3}	434 241	–

Note:

- Not stocked in all dimensions and materials

On request:

- Other dimensions, tensile strengths and surfaces
- Available in other materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. S 235 / 1.4301). 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 15.

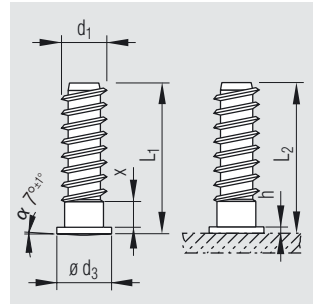
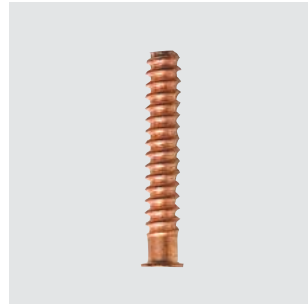
We reserve the right to amend specifications at any time.

Weld studs with fir-tree threads without CD pips for stud welding using short-cycle drawn-arc processes

Material

■ Steel (4.8) copper-plated surface

■ Stainless Steel 1.4303 or 1.4301 (A2-50)



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 [mm]	Part No.	
							■ Steel	■ Stainless Steel
T 5	T 5 x 9	9.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 210	434 219
	T 5 x 10	10.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 218	—
	T 5 x 12	12.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 221	—
	T 5 x 14	14.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 220	—
	T 5 x 14.2	14.2	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 223	434 227
	T 5 x 16	16.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 229	—
	T 5 x 16.5	16.5	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 232	—
	T 5 x 18	18.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 230	—
	T 5 x 20	20.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 238	—
	T 5 x 22	22.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 239	—
	T 5 x 25	25.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 240	—
	T 5 x 30	30.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 260	—
T 5 x 35	35.0	6.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 263	—	
T 6	T 6 x 25	25.0	7.0	0.7	3.0	≈ L ₁ ^{-0.3}	434 286	—

Note: • Not stocked in all dimensions and materials

On request: • Other dimensions, tensile strengths and surfaces
• Available in other materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. S 235 / 1.4301). 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.

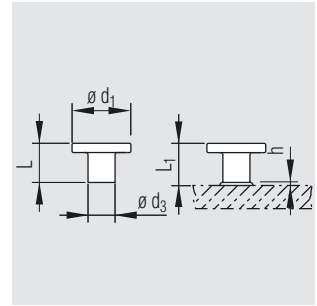
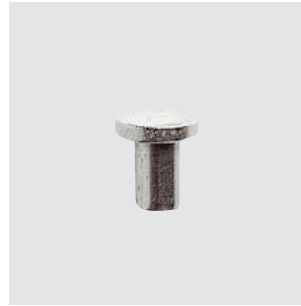
POLYSTIC® assembly systems

Weld studs without CD pips
for stud welding using short-cycle drawn-arc processes

Material

■ Steel copper-plated surface

■ Stainless Steel 1.4301 or 1.4303 (A2-50)



Stud- \varnothing d_3 ± 0.10 [mm]	T-stud dimension [mm]	Total length L $+0.6$ [mm]	Head- \varnothing 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	9.0	434 111	434 110

On request: • Other dimensions, materials, tensile strengths and surfaces

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.

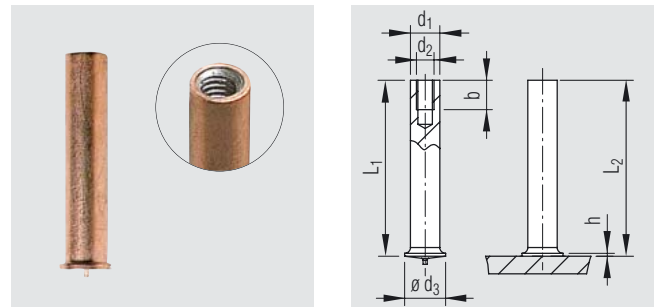
We reserve the right to amend specifications at any time.

Weld studs with internal thread with CD pips
in accordance with EN ISO 13918,
for stud welding using capacitor discharge process

Material

■ Steel (4.8) copper-plated surface

■ Stainless Steel 1.4301 or 1.4303 (A2-50)



Internal Thread d ₂	Stud dimensions [mm]	Stud length L ₁ +0.6 [mm]	Flange-ø d ₃ ±0.2 [mm]	Flange height h [mm]	External-ø d ₁ -0.05 [mm]	Stud length after welding L ₂ [mm]	Depth of thread b +0.5 [mm]	Part No.	
								■ Steel	■ Stainless Steel
M 3	M 3 x 8	8.0	7.0	0.5	5.0	≈ L ₁ ^{-0.3}	5.0	434 810	—
	M3 x 12	12.0	7.0	0.5	5.0	≈ L ₁ ^{-0.3}	5.0	434 812	—
	M3 x 15	15.0	7.0	0.5	5.0	≈ L ₁ ^{-0.3}	5.0	434 813	—
	M3 x 30	30.0	7.0	0.5	5.0	≈ L ₁ ^{-0.3}	5.0	434 816	—
M 4	M4 x 10	10.0	7.5	0.6	6.0	≈ L ₁ ^{-0.3}	6.0	434 820	—
	M4 x 12	12.0	7.5	0.6	6.0	≈ L ₁ ^{-0.3}	6.0	434 821	—
	M4 x 15	15.0	7.5	0.6	6.0	≈ L ₁ ^{-0.3}	6.0	434 822	—
	M4 x 20	20.0	7.5	0.6	6.0	≈ L ₁ ^{-0.3}	6.0	434 823	—
M 5	M4 x 30	30.0	7.5	0.6	6.0	≈ L ₁ ^{-0.3}	6.0	434 825	434 848
	M5 x 12	12.0	8.0	0.7	7.1	≈ L ₁ ^{-0.3}	7.0	434 831	434 847
	M5 x 40	40.0	8.0	0.7	7.1	≈ L ₁ ^{-0.3}	7.0	434 838	—

Note: • Not stocked in all dimensions and materials

On request: • Other dimensions, tensile strengths and surfaces
• Available in other materials

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. S 235 / 1.4301).

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.

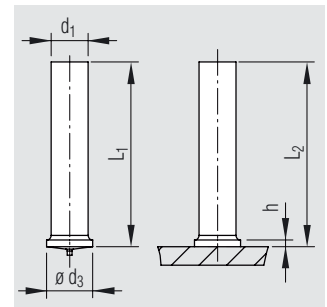
POLYSTIC® assembly systems

Weld studs with CD pips
in accordance with EN ISO 13918,
for stud welding using capacitor discharge process

Material

■ Steel (4.8) copper-plated surface

■ Stainless Steel 1.4301 or 1.4303 (A2-50)



Stud- \varnothing d_1 ± 0.1 [mm]	Stud dimensions [mm]	Stud length L_1 $+0.6$ [mm]	Flange- \varnothing 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	$\approx L_1^{-0.3}$	–	434 934
	3 x 8	8.0	4.5	0.7 – 1.4	$\approx L_1^{-0.3}$	–	434 935
	3 x 12	12.0	4.5	0.7 – 1.4	$\approx L_1^{-0.3}$	–	434 937
	3 x 20	20.0	4.5	0.7 – 1.4	$\approx L_1^{-0.3}$	434 905	–
4.0	4 x 8	8.0	5.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 912	–
	4 x 10	10.0	5.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 913	–
	4 x 20	20.0	5.5	0.8 – 1.4	$\approx L_1^{-0.3}$	–	434 945
	4 x 25	25.0	5.5	0.8 – 1.4	$\approx L_1^{-0.3}$	–	434 946
	4 x 30	30.0	5.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 917	–
5.0	5 x 6	6.0	6.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 967	–
	5 x 12	12.0	6.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 923	–
	5 x 15	15.0	6.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 924	–
6.0	6 x 8	8.0	7.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 971	–
	6 x 10	10.0	7.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 972	434 982
	6 x 16	16.0	7.5	0.8 – 1.4	$\approx L_1^{-0.3}$	–	434 983
	6 x 20	20.0	7.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 975	–
	6 x 40	40.0	7.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 979	–
	6 x 55	55.0	7.5	0.8 – 1.4	$\approx L_1^{-0.3}$	434 981	–

On request: • Other dimensions, materials, tensile strengths and surfaces

Faulty joints may occur when installing weld studs with dissimilar materials (e.g. S 235 / 1.4301).

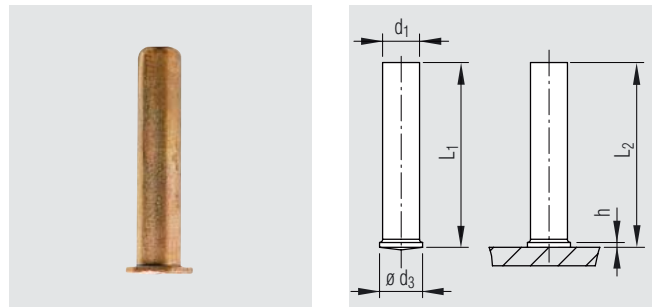
We strongly advise that you first conduct appropriate welding tests to establish whether the desired tensile strength and corrosion protection properties can be achieved using the chosen combination of materials.

We reserve the right to amend specifications at any time.

Weld studs without CD pips
in accordance with EN ISO 13918,
for stud welding using short-cycle drawn-arc processes

Material

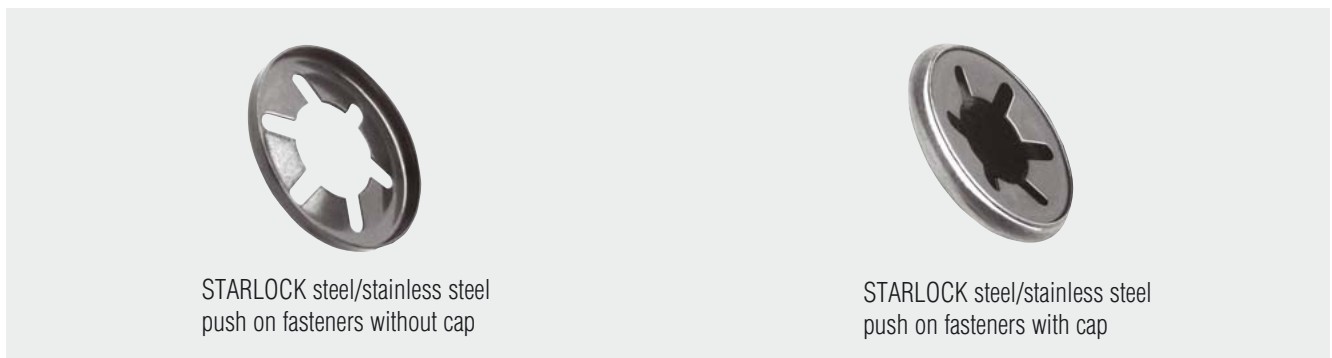
■ Steel (4.8) copper-plated surface



Stift-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	≈ L ₁ ^{-0.3}	434 910
5.0	5 x 10	10.0	6.0	0.7	≈ L ₁ ^{-0.3}	434 932
6.0	6 x 10	10.0	7.0	0.8	≈ L ₁ ^{-0.3}	434 963
	6 x 20	20.0	7.0	0.8	≈ L ₁ ^{-0.3}	434 997
	6 x 25	25.0	7.0	0.8	≈ L ₁ ^{-0.3}	434 998
7.0	7 x 16	16.0	8.0	0.9	≈ L ₁ ^{-0.3}	434 990
8.0	8 x 17	17.0	9.0	1.0	≈ L ₁ ^{-0.3}	434 991
	8 x 19	19.0	9.0	1.0	≈ L ₁ ^{-0.3}	434 989
	8 x 20	20.0	9.0	1.0	≈ L ₁ ^{-0.3}	434 987
	8 x 28	28.0	9.0	1.0	≈ L ₁ ^{-0.3}	434 996

On request: • Other dimensions, materials, tensile strengths and surfaces

For other fittings on weld studs we recommend our extensive range of STARLOCK® push on fasteners.



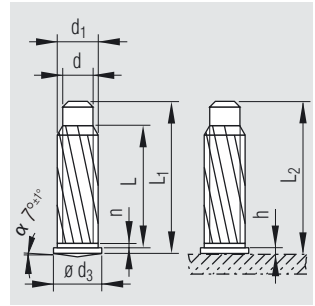
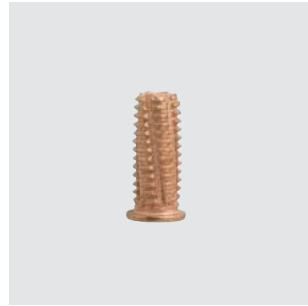
We reserve the right to amend specifications at any time.


POLYSTIC® assembly systems

Weld studs, metric thread with paint relieving groove, without CD pips for stud welding using short-cycle drawn-arc processes

Material


 Steel (4.8) copper-plated surface



Thread d_1	Stud dimensions [mm]	Stud length L_1 $+0.4$ [mm]	Flange- \varnothing d_3 ± 0.3 [mm]	Flange height $h \pm 0.2$ [mm]	Thread undercut <i>max.</i> [mm]	Stud length after welding L_2 [mm]	Part No.
							 Steel
M 4	M 4 x 12	12	5.0	0.6	0.8	$\approx L_1^{-0.3}$	434 179
	M 4 x 16	16	5.0	0.6	0.8	$\approx L_1^{-0.3}$	434 181
	M 4 x 25	25	5.0	0.6	0.8	$\approx L_1^{-0.3}$	434 182
M 5	M 5 x 12	12	6.0	0.7	0.8	$\approx L_1^{-0.3}$	434 183
	M 5 x 16	16	6.0	0.7	0.8	$\approx L_1^{-0.3}$	434 184
	M 5 x 20	20	6.0	0.7	0.8	$\approx L_1^{-0.3}$	434 185
	M 5 x 30	30	6.0	0.7	0.8	$\approx L_1^{-0.3}$	434 186
M 6	M 6 x 15	15	7.0	0.8	0.8	$\approx L_1^{-0.3}$	434 187
	M 6 x 20	20	7.0	0.8	0.8	$\approx L_1^{-0.3}$	434 188
	M 6 x 25	25	7.0	0.8	0.8	$\approx L_1^{-0.3}$	434 189
M 8	M 8 x 15	15	9.0	1.0	0.8	$\approx L_1^{-0.3}$	434 191
	M 8 x 20	20	9.0	1.0	0.8	$\approx L_1^{-0.3}$	434 192

Material

 Steel (8.8) copper-plated surface

Thread d_1	Stud dimensions [mm]	Stud length L_1 $+0.4$ [mm]	Flange- \varnothing d_3 ± 0.3 [mm]	Flange height $h \pm 0.2$ [mm]	Thread undercut <i>max.</i> [mm]	Stud length after welding L_2 [mm]	Part No.
							 Steel
M 6	M 6 x 12	12	7.0	0.8	0.8	$\approx L_1^{-0.3}$	434 159
	M 6 x 35	35	7.0	0.8	0.8	$\approx L_1^{-0.3}$	434 135

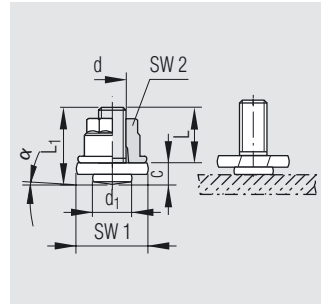
On request: • Other dimensions, materials, surface finishes and studs with guide tips (diameter d and length $L_1 - L$)

We reserve the right to amend specifications at any time.

Large diameter flange with flanged nut with metric thread
for stud welding using short-cycle drawn-arc processes

Material

- Steel (8.8)
- Surface finish
- Bolt: SnZn 70/30, yellow passivated
- Screw nut: zinc plated, colourless passivated



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

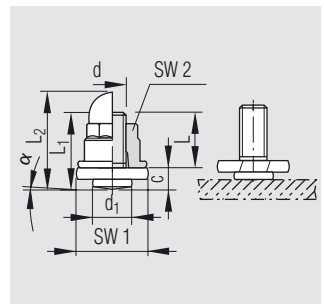
On request: • Other dimensions, materials, tensile strengths and surfaces

Earthing stud with closed nut cap with metric thread
for stud welding using drawn-arc processes

Material

- Pin Steel (8.8) yellow passivated

Nut cap screw type 8.
Surface finish zinc plated, tin plated, colourless passivated



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 13	18	8.0	4.0	15.0	21.2	11.0	10.0	434 197
M 8	M 8 x 15	21	9.0	6.0	15.0	26.4	15.0	13.0	434 198

On request: • Other dimensions, materials

We reserve the right to amend specifications at any time.

POLYSTIC® assembly systems

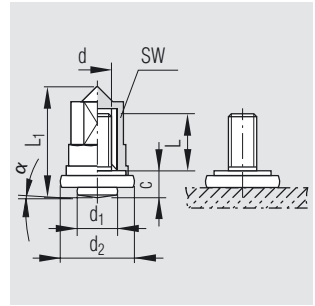
Large diameter flange/earthing stud with metric thread and plastic cap
for stud welding using short-cycle drawn-arc processes


Material

 Steel (8.8) copper-plated surface

 Stainless Steel (A2-50) 

 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	 Stainless Steel
M 6	6 x 12	23.0	8.0	5.4	12.0	14.0	10.0	434 290	434 291²
M 6	6 x 15	23.0	8.0	5.4	15.0	14.0	10.0	434 293	—
M 8	8 x 15	26.0	10.0	5.4	15.0	14.0	10.0	434 295	434 296¹⁺³

¹ Flange-ø 8.0 mm

² Material 1.4016

³ Material 1.4303

On request: • Other materials, tensile strengths and surfaces

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

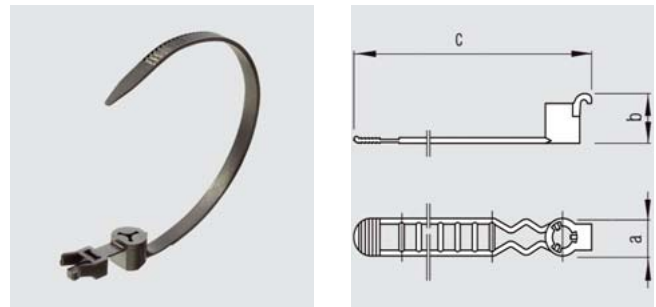
We reserve the right to amend specifications at any time.

Cable ties

- for fir-tree studs T5
- removable

Material

Plastic PA 6.6, black



Fastening	Bundle- \varnothing max [mm]	Push-on force F1 * [N]	Pull-off force F2 * [N]	Width a max [mm]	Height b [mm]	Total length c [mm]	Part No.
hammer fit	40.0	130	500	10.5	9.95	172.25	435 910

* measured at 100 mm/min

All cable ties can be re-opened if required.

We reserve the right to amend specifications at any time.

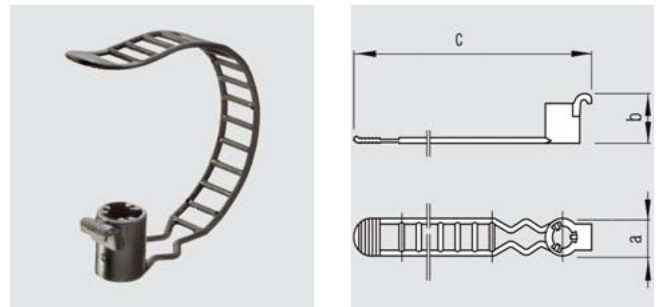
POLYSTIC® assembly systems

Cable ties

- for fir-tree studs T5
- removable

Material

Plastic PA 6.6, black



Fastening	Bundle- \varnothing max [mm]	Push-on force F1 * [N]	Pull-off force F2 * [N]	Width a max [mm]	Height b [mm]	Total length c [mm]	Part No.
by hand	28.0	35	200	10.4	14.15	118.0	435 911

* measured at 100 mm/min

All cable ties can be re-opened if required.

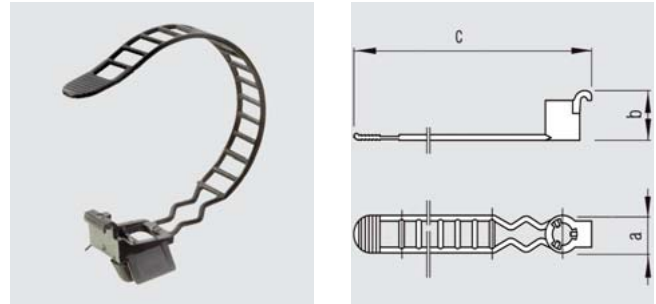
We reserve the right to amend specifications at any time.

Cable ties

- in hole \varnothing 6.5 mm.
- for sheet thickness 0.8 - 3.0 mm
- removable

Material

Plastic PA 6.6, black



Fastening	Bundle- \varnothing max [mm]	Push-on force F1 * [N]	Pull-off force F2 * [N]	Width a max [mm]	Height b [mm]	Total length c [mm]	Part No.
by hand	35.0	25	300	23.0	4.0	126.0	435 912

* measured at 100 mm/min

All cable ties can be re-opened if required.

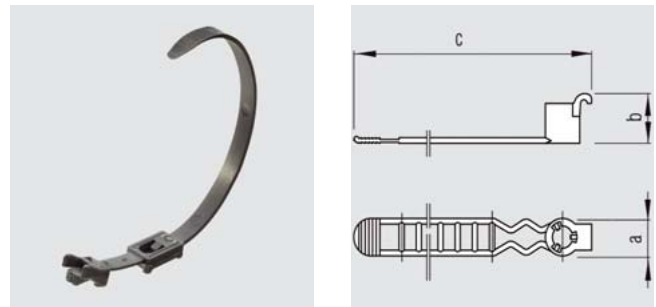
POLYSTIC® assembly systems

Cable ties

- on T-stud
- removable

Material

Plastic PA 6.6, black



Fastening	Bundle- \varnothing max [mm]	Push-on force F1 * [N]	Pull-off force F2 * [N]	Width a max [mm]	Height b [mm]	Total length c [mm]	Part No.
by hand	40.0	-	-	11.1	5.5	167.0	435 914
	45.0	-	-	11.1	5.5	210.0	435 917

* measured at 100 mm/min

All cable ties can be re-opened if required.

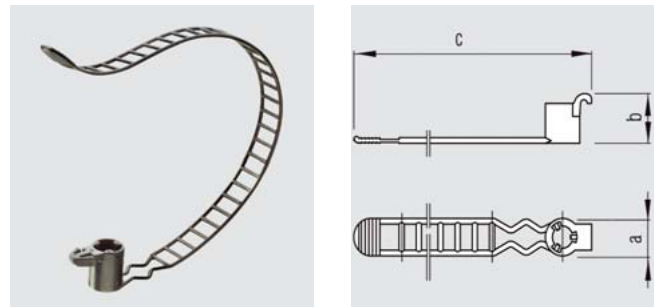
We reserve the right to amend specifications at any time.

Cable ties

- for fir-tree studs T5
- removable

Material

Plastic PA 6.6, black



Fastening	Bundle- \varnothing max [mm]	Push-on force F1 * [N]	Pull-off force F2 * [N]	Width a max [mm]	Height b [mm]	Total length c [mm]	Part No.
by hand	55.0	80	230	10.2	14.4	198.0	435 918

* measured at 100 mm/min

All cable ties can be re-opened if required.

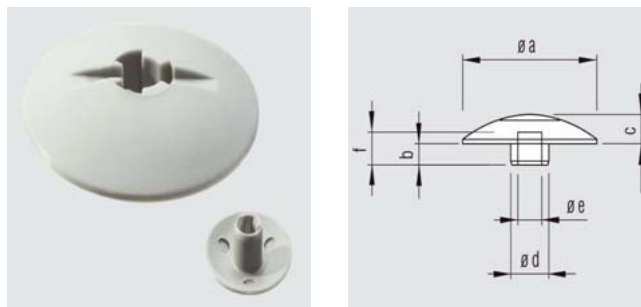
POLYSTIC® assembly systems

Button clips

- for fir-tree studs T5

Material

Plastic PA 6.6



Fastening	Push-on force F1 * [N]	Pull-off force F2 * [N]	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

* measured at 100 mm/min

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

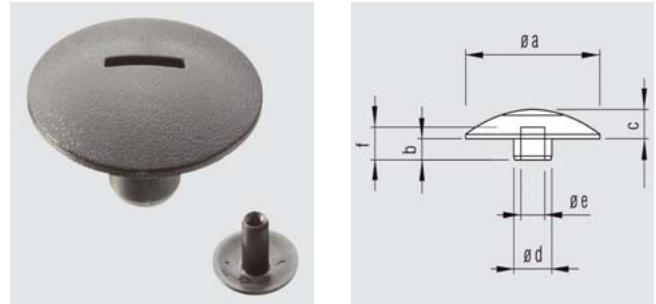
We reserve the right to amend specifications at any time.

Button clips

- for fir-tree studs T5

Material

Plastic PA 6.6



Fastening	Push-on force F1 * [N]	Pull-off force F2 * [N]	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

* measured at 100 mm/min

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

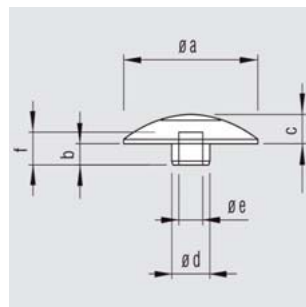
POLYSTIC® assembly systems

Button clips

- for fir-tree studs T5

Material

Plastic PA 6.6



Fastening	Push-on force F1 * [N]	Pull-off force F2 * [N]	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

* 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 T5

Material

Plastic PA 6.6



Fastening	Push-on force F1 * [N]	Pull-off force F2 * [N]	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
	15	-	30.0	6.0	8.0	10.0	-	-	435 521

* 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.

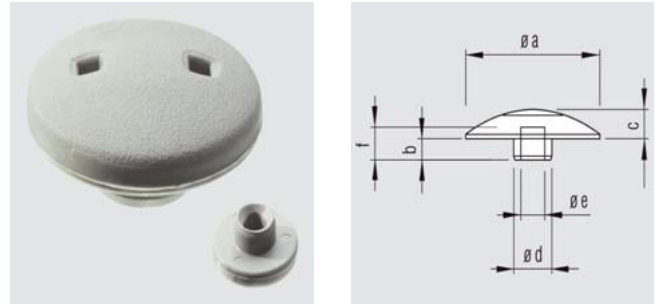
POLYSTIC® assembly systems

Button clips

- for fir-tree studs T5

Material

Plastic PA 6.6



Fastening	Push-on force F1 * [N]	Pull-off force F2 * [N]	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

* measured at 100 mm/min

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

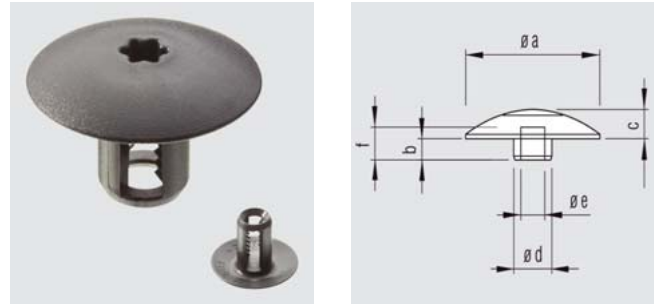
We reserve the right to amend specifications at any time.

Button clips

- for fir-tree studs T5

Material

Plastic POM



Fastening	Push-on force F1 * [N]	Pull-off force F2 * [N]	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

* measured at 100 mm/min

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

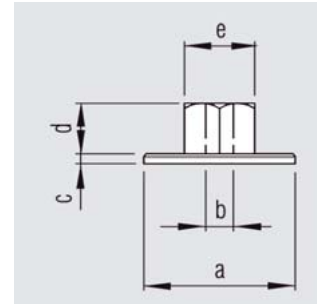
POLYSTIC® assembly systems

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic PA 6 glass fibre reinforced, thermally stable



Fastening	Tightening torque nom [Ncm]	Over tightening torque nom [Ncm]	Pull-off force* [N]	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

* measured at 100 mm/min

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

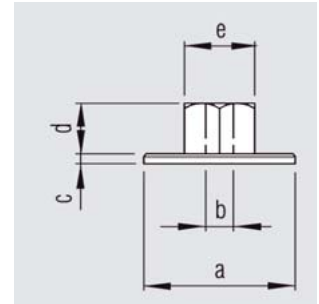
We reserve the right to amend specifications at any time.

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic PA 6.6 thermally stable



Fastening	Push-on force nom [N]	Over tightening torque nom [Ncm]	Pull-off force*	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

* 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.

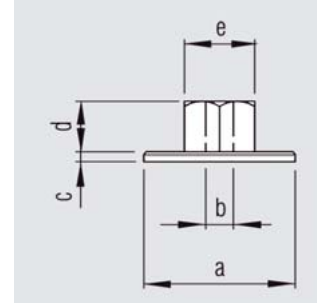
POLYSTIC® assembly systems

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic PA 6, Plastic PA 6.6



Fastening	Tightening torque nom [Ncm]	Over tightening torque nom [Ncm]	Pull-off force* [N]	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 313¹
	75	200	4000	16.0	4.35	2.0	8.0	10.0	435 314²

* measured at 100 mm/min

¹ Plastic PA 6

² Plastic PA 6.6

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

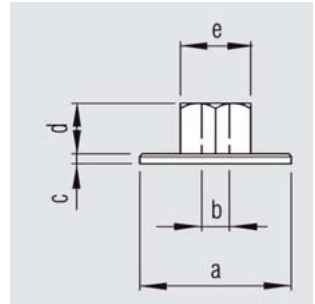
We reserve the right to amend specifications at any time.

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic PA 6.6 neutral



Fastening	Push-on force nom [N]	Over tightening torque nom [Ncm]	Pull-off force* [N]	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

* 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.

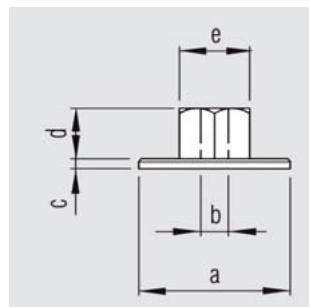
POLYSTIC® assembly systems

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic POM



Fastening	Tightening torque nom [Ncm]	Over tightening torque nom [Ncm]	Pull-off force* [N]	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	Part No.
twist-on	-	-	-	12.0	4.2	1.5	5.0	9.9	435 318

* measured at 100 mm/min

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

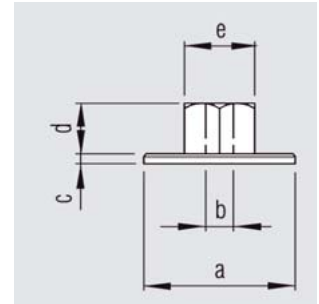
We reserve the right to amend specifications at any time.

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic POM



Fastening	Push-on force nom [N]	Over tightening torque nom [Ncm]	Pull-off force*	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

* 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.

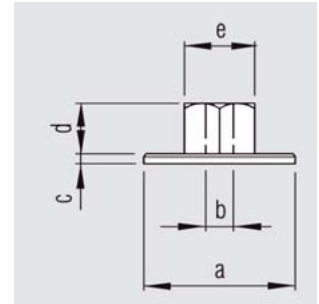
POLYSTIC® assembly systems

Plastic nuts, straight flange

- for fir-tree studs T5

Material

Plastic POM



Fastening	Tightening torque nom [Ncm]	Over tightening torque nom [Ncm]	Pull-off force* [N]	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

* measured at 100 mm/min

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

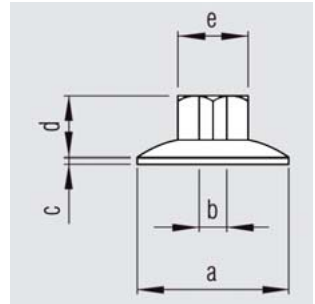
We reserve the right to amend specifications at any time.

Plastic nuts, bulbed flange

- for fir-tree studs T5

Material

Plastic PA 6.6 thermally stable



Fastening	Push-on force nom [N]	Over tightening torque nom [Ncm]	Pull-off force*	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

* 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.

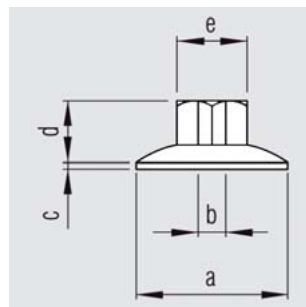
POLYSTIC® assembly systems

Plastic nuts, bulbed flange

- for fir-tree studs T5

Material

Plastic PA 6.6 thermally stable



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

* 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.

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