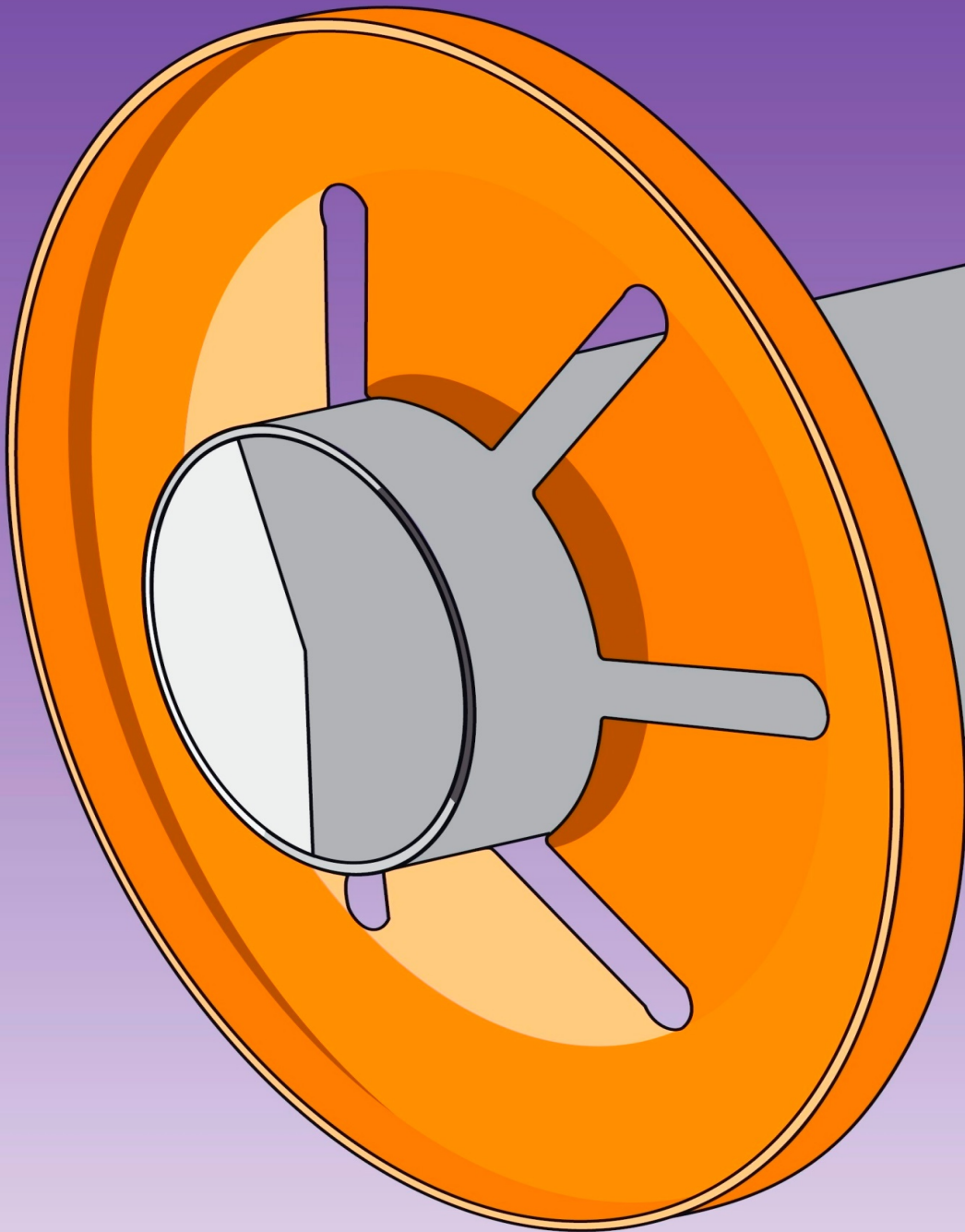


■ **STARLOCK**® push on fasteners



STARLOCK® push on fasteners	Introduction	Product description Application examples Part identification	3 4 5
	Standard Starlock®	■ spring steel - BV - metric round shafts	6
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The technical data, performance specifications, advice and recommendations e.g. application examples which appear in this catalogue are for guidance only. They are based on our experience. Legal claims cannot be made against us because we have no influence on the diversity of applications for which our products may be used. Indeed the user is obliged to undertake sufficient testing to ensure that our products are suitable for the intended application. We reserve the right to make technical changes at any time.

Reprint or copying of this catalogue - including extracts - or use of our illustrations or Titgemeyer part numbering system is only permitted with our explicit written approval.

PRODUCT DESCRIPTION

Starlock[®] fasteners simply push on to a shaft giving an instant fix and grip, thus eliminating costly threading, drilling or grooving operations. Once fixed in position, the Starlock[®] push-on fastener is so secure that it cannot be removed without destruction.

Material

Starlock[®] push on fasteners are manufactured from spring steel or stainless steel. Finest quality high carbon spring steel is specially heat treated to ensure secure holding quality.

Surface finish

Starlock[®] push on fasteners are available for metric and imperial applications. Standard spring steel metric parts have a bronze colour and standard spring steel imperial parts have a blue colour. The parts are given a thin varnish coating to provide a high level of finish. This surface finish will not protect against corrosion but is adequate for the protection of the Starlock[®] in most dry environments.

A higher level of corrosion protection on spring steel parts can be provided by a mechanical zinc finish, which is universally recognised, as an answer to avoid the negative effects of hydrogen embrittlement.

Other surface finishes for corrosion protection of spring steel parts are available on request.

When applications require a high level of corrosion resistance, stainless steel Starlock[®] parts are available to provide the answer.

Capped Starlock[®]

Starlock[®] push on fasteners can be fitted with a cap to conceal the fixing and enhance appearance.

The standard dome cap is manufactured from Stainless steel. The height of the dome cap has been developed to allow the shaft to penetrate through the Starlock[®] push on fastener sufficiently to provide maximum grip.

The standard deep cap is also manufactured from stainless steel and has been designed to allow for greater penetration through the Starlock[®] fastener allowing it to grip further along the shaft.

Extra deep caps are manufactured from electro-plated steel and provide the maximum amount of shaft penetration.

Nylon caps are available on request and in the colour required to suit your specific application.



APPLICATION EXAMPLES

The Starlock® push on fastener is a precision pressing designed for applications where a quick, permanent and efficient means of assembly is required to retain plain shafts of steel, non-ferrous and plastic materials. Starlock® push on fasteners have been used in the design of thousands of products around the world since the 1950s.

Automotive: ISO/TS 16949 approved

- Starlock® push on fasteners are used in many automotive applications and are manufactured in accordance with the requirements of the international automotive standard ISO/TS 16949, which aligns existing US, German, French and Italian automotive quality system standards within the global automotive industry. It specifies the quality system requirements for the design, development, production, installation and servicing of automotive related products.



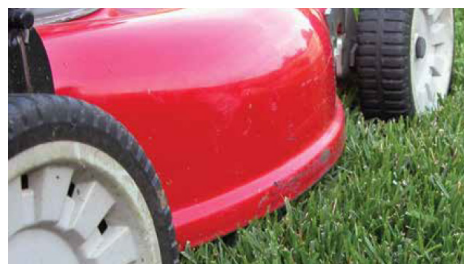
Industrial applications

- Medical applications for Starlock® are many and varied, ranging from axle caps on beds and trollies through to complicated diagnostic equipment.
- The electrical and electronics industries design the Starlock® push on fix principle into components that need a swift and permanent assembly.
- Construction insulation retention is a good example where a Starlock® with a small inside and large outside diameter is used.



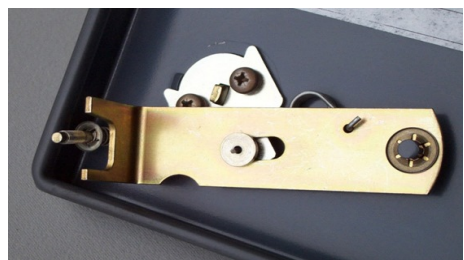
Applications at home

- Many household appliances that simply need to retain components within an assembly are fixed using a Starlock® push on fastener.
- Toys, go-karts and even hand puppets benefit from the cost effective and easy to assemble Starlock®.
- Capped Starlock® push on fasteners are such easy to use and effective products for retaining wheels, that they are used extensively in many wheeled products from lawn mowers to prams.

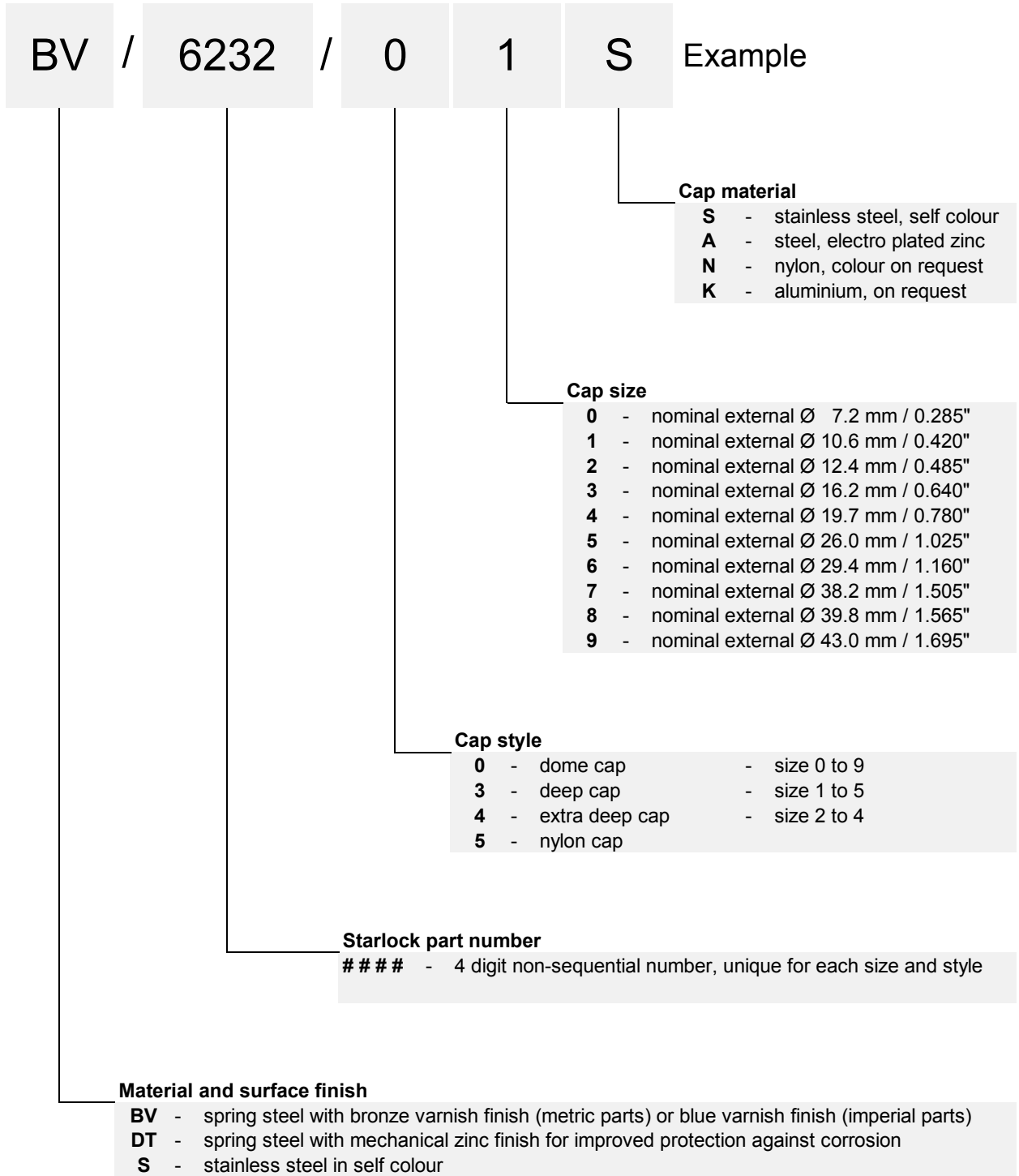


Applications at the office

- Special Starlock® fasteners for square shafts are used to assemble door handles.
- Special Starlock® inlock washers are used successfully in the manufacture of tubular office furniture.
- Computers and other office equipment contain standard Starlock® fasteners.



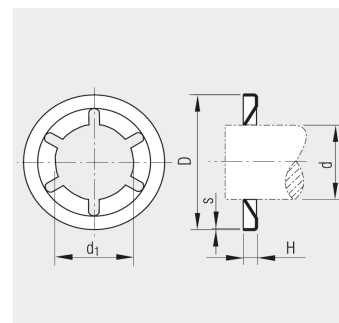
PART IDENTIFICATION



for metric round shafts
standard uncapped

Material

■ **Spring steel**
bronze varnish finish



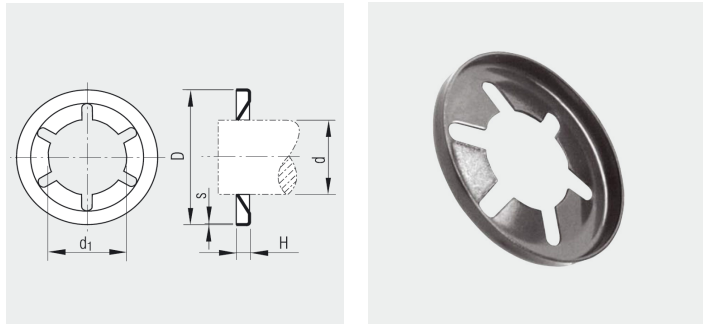
Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.2 mm	s mm		N	N		
1.5	1.23 - 1.46	9.7	1.3	0.20	4	39	196	BV/8004	- / -
2.0	1.61 - 1.84	9.7	1.3	0.20	4	69	196	BV/6489	399 202
3.0	2.58 - 2.81	9.7	1.3	0.20	4	108	196	BV/6490	399 204
4.0	3.57 - 3.80	11.5	1.3	0.20	5	69	392	BV/6492	399 206
5.0	4.51 - 4.74	11.5	1.3	0.20	6	118	392	BV/6491	399 208
6.0	5.45 - 5.70	15.3	1.3	0.25	6	147	785	BV/6493	399 209
7.0	6.46 - 6.72	15.3	1.3	0.25	6	186	785	BV/6703	399 211
8.0	7.40 - 7.66	15.3	1.3	0.25	6	216	785	BV/6704	399 212
9.0	8.50 - 8.75	18.4	1.9	0.30	6	206	981	BV/6708	399 213
10.0	9.49 - 9.74	18.4	1.9	0.30	6	284	981	BV/6496	399 215
11.0	10.50 - 10.76	18.4	1.9	0.30	6	412	981	BV/6706	399 216
12.0	11.37 - 11.62	25.0	2.3	0.40	6	441	2453	BV/6713	399 217
13.0	12.38 - 12.64	25.0	2.3	0.40	6	343	2453	BV/6829	399 219
14.0	13.40 - 13.65	28.2	2.3	0.40	6	245	2453	BV/6825	399 220
15.0	14.43 - 14.68	28.2	2.3	0.40	6	334	2453	BV/6714	399 221
16.0	15.28 - 15.53	28.2	2.3	0.40	6	549	2453	BV/6826	399 222
17.0	16.42 - 16.68	28.2	2.3	0.40	6	481	2453	BV/6715	399 223
18.0	17.34 - 17.62	36.6	3.0	0.40	9	226	3434	BV/6827	399 224
19.0	18.40 - 18.69	36.6	3.0	0.40	9	157	3777	BV/6828	399 225
20.0	19.30 - 19.63	36.6	3.0	0.40	9	265	3434	BV/6716	399 226
21.0	20.33 - 20.61	36.6	3.0	0.40	9	206	3777	BV/6830	399 227
22.0	21.37 - 21.65	36.6	3.0	0.40	9	540	3434	BV/6719	399 228
23.0	22.34 - 22.62	38.1	2.9	0.45	9	697	3434	BV/6831	399 229
24.0	23.33 - 23.66	41.3	3.2	0.50	9	451	3777	BV/6832	399 230
25.0	24.30 - 24.63	41.3	3.2	0.50	9	559	3777	BV/6717	399 231

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

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

We reserve the right to amend specifications at any time.



for imperial round shafts
standard uncapped

Material

■ **Spring steel**
blue varnish finish

Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.008 inch	s inch		N	N		
1/16	0.0485 - 0.0575	0.382	0.050	0.008	4	39	196	BV/6218	399 201
3/32	0.0795 - 0.0885	0.382	0.050	0.008	4	49	196	BV/5883	399 203
1/8	0.1095 - 0.1185	0.382	0.050	0.008	4	118	196	BV/5897	399 205
3/16	0.1695 - 0.1785	0.452	0.050	0.008	6	59	392	BV/5920	399 207
1/4	0.2295 - 0.2395	0.602	0.050	0.010	6	108	785	BV/5873	399 210
9/32	0.2605 - 0.2705	0.602	0.050	0.010	6	196	785	BV/6326	- / -
5/16	0.2915 - 0.3015	0.602	0.050	0.010	6	216	785	BV/5821	- / -
11/32	0.3235 - 0.3335	0.726	0.076	0.012	6	167	981	BV/6332	- / -
3/8	0.3545 - 0.3645	0.726	0.076	0.012	6	206	981	BV/6020	399 214
7/16	0.4175 - 0.4275	0.985	0.092	0.016	6	147	2453	BV/6216	- / -
1/2	0.4765 - 0.4865	0.985	0.092	0.016	6	343	2453	BV/6143	399 218
5/8	0.6005 - 0.6115	0.985	0.092	0.016	6	598	2453	BV/6185	- / -
3/4	0.7245 - 0.7355	1.440	0.119	0.016	9	157	3434	BV/6322	- / -
7/8	0.8495 - 0.8605	1.503	0.115	0.018	9	451	3434	BV/6328	- / -
1	0.9735 - 0.9865	1.629	0.125	0.020	9	706	3777	BV/6329	- / -

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

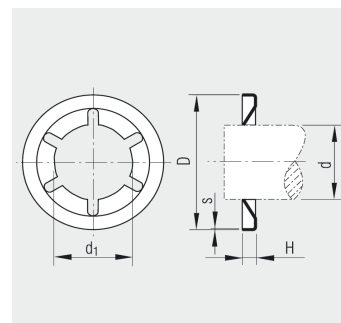
Other surface finishes are available e.g. DELTA Tone + Seal (for shaft diameters from 1/2 inch) depending on quantity on request.

We reserve the right to amend specifications at any time.

for metric round shafts
standard uncapped

Material

■ **Spring steel**
mechanical zinc finish



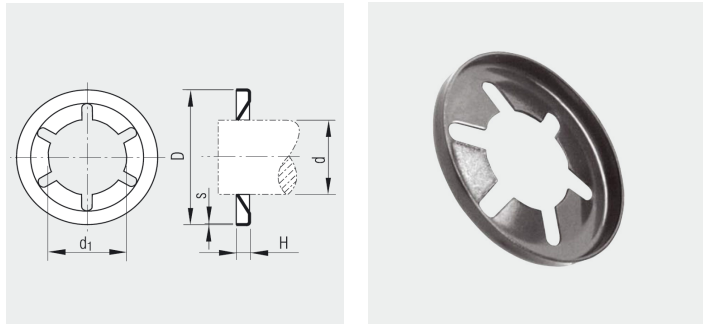
Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.2 mm	s mm		N	N		
1.5	1.23 - 1.46	9.7	1.3	0.20	4	39	196	DT/8004	- / -
2.0	1.61 - 1.84	9.7	1.3	0.20	4	69	196	DT/6489	399 402
3.0	2.58 - 2.81	9.7	1.3	0.20	4	108	196	DT/6490	399 404
4.0	3.57 - 3.80	11.5	1.3	0.20	5	69	392	DT/6492	399 406
5.0	4.51 - 4.74	11.5	1.3	0.20	6	118	392	DT/6491	399 408
6.0	5.45 - 5.70	15.3	1.3	0.25	6	147	785	DT/6493	399 409
7.0	6.46 - 6.72	15.3	1.3	0.25	6	186	785	DT/6703	399 411
8.0	7.40 - 7.66	15.3	1.3	0.25	6	216	785	DT/6704	399 412
9.0	8.50 - 8.75	18.4	1.9	0.30	6	206	981	DT/6708	399 413
10.0	9.49 - 9.74	18.4	1.9	0.30	6	284	981	DT/6496	399 415
11.0	10.50 - 10.76	18.4	1.9	0.30	6	412	981	DT/6706	399 416
12.0	11.37 - 11.62	25.0	2.3	0.40	6	441	2453	DT/6713	399 417
13.0	12.38 - 12.64	25.0	2.3	0.40	6	343	2453	DT/6829	399 419
14.0	13.40 - 13.65	28.2	2.3	0.40	6	245	2453	DT/6825	399 420
15.0	14.43 - 14.68	28.2	2.3	0.40	6	334	2453	DT/6714	399 421
16.0	15.28 - 15.53	28.2	2.3	0.40	6	549	2453	DT/6826	399 422
17.0	16.42 - 16.68	28.2	2.3	0.40	6	481	2453	DT/6715	399 423
18.0	17.34 - 17.62	36.6	3.0	0.40	9	226	3434	DT/6827	399 424
19.0	18.40 - 18.69	36.6	3.0	0.40	9	157	3777	DT/6828	399 425
20.0	19.30 - 19.63	36.6	3.0	0.40	9	265	3434	DT/6716	399 426
21.0	20.33 - 20.61	36.6	3.0	0.40	9	206	3777	DT/6830	399 427
22.0	21.37 - 21.65	36.6	3.0	0.40	9	540	3434	DT/6719	399 428
23.0	22.34 - 22.62	38.1	2.9	0.45	9	697	3434	DT/6831	399 429
24.0	23.33 - 23.66	41.3	3.2	0.50	9	451	3777	DT/6832	- / -
25.0	24.30 - 24.63	41.3	3.2	0.50	9	559	3777	DT/6717	399 431

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

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

We reserve the right to amend specifications at any time.



for imperial round shafts
standard uncapped

Material

■ Spring steel
mechanical zinc finish

Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.008 inch	s inch		N	N		
1/16	0.0485 - 0.0575	0.382	0.050	0.008	4	39	196	DT/6218	399 401
3/32	0.0795 - 0.0885	0.382	0.050	0.008	4	49	196	DT/5883	399 403
1/8	0.1095 - 0.1185	0.382	0.050	0.008	4	118	196	DT/5897	399 405
3/16	0.1695 - 0.1785	0.452	0.050	0.008	6	59	392	DT/5920	399 407
1/4	0.2295 - 0.2395	0.602	0.050	0.010	6	108	785	DT/5873	399 410
9/32	0.2605 - 0.2705	0.602	0.050	0.010	6	196	785	DT/6326	- / -
5/16	0.2915 - 0.3015	0.602	0.050	0.010	6	216	785	DT/5821	- / -
11/32	0.3235 - 0.3335	0.726	0.076	0.012	6	167	981	DT/6332	- / -
3/8	0.3545 - 0.3645	0.726	0.076	0.012	6	206	981	DT/6020	399 414
7/16	0.4175 - 0.4275	0.985	0.092	0.016	6	147	2453	DT/6216	- / -
1/2	0.4765 - 0.4865	0.985	0.092	0.016	6	343	2453	DT/6143	399 418
5/8	0.6005 - 0.6115	0.985	0.092	0.016	6	598	2453	DT/6185	- / -
3/4	0.7245 - 0.7355	1.440	0.119	0.016	9	157	3434	DT/6322	- / -
7/8	0.8495 - 0.8605	1.503	0.115	0.018	9	451	3434	DT/6328	- / -
1	0.9735 - 0.9865	1.629	0.125	0.020	9	706	3777	DT/6329	- / -

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

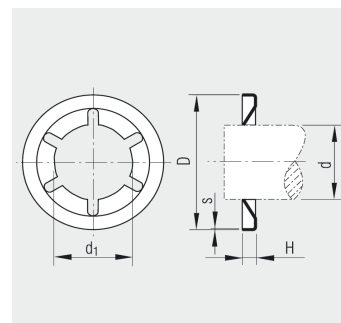
Other surface finishes are available e.g. DELTA Tone + Seal (for shaft diameters from 1/2 inch) depending on quantity on request.

We reserve the right to amend specifications at any time.

for metric round shafts
standard uncapped

Material

■ **Stainless steel**
self colour



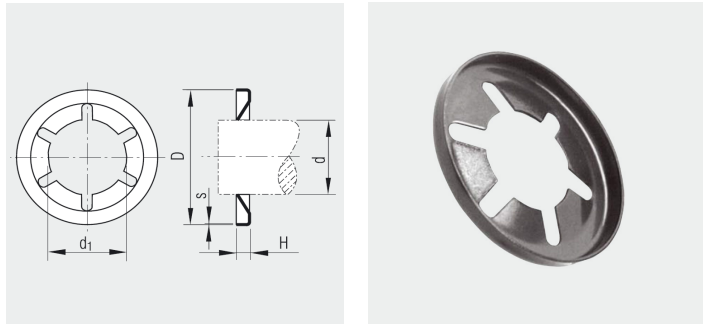
Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.2 mm	s mm		N	N		
1.5	1.23 - 1.46	9.7	1.3	0.20	4	39	196	S/8004	- / -
2.0	1.61 - 1.84	9.7	1.3	0.20	4	69	196	S/6489	399 802
3.0	2.58 - 2.81	9.7	1.3	0.20	4	108	196	S/6490	399 804
4.0	3.57 - 3.80	11.5	1.3	0.20	5	69	294	S/6492	399 806
5.0	4.51 - 4.74	11.5	1.3	0.20	6	118	294	S/6491	399 808
6.0	5.45 - 5.70	15.3	1.3	0.25	6	147	588	S/6493	399 909
7.0	6.46 - 6.72	15.3	1.3	0.25	6	186	588	S/6703	399 811
8.0	7.40 - 7.66	15.3	1.3	0.25	6	216	588	S/6704	399 812
9.0	8.50 - 8.75	18.4	1.9	0.30	6	196	784	S/6708	399 813
10.0	9.49 - 9.74	18.4	1.9	0.30	6	196	784	S/6496	399 815
11.0	10.50 - 10.76	18.4	1.9	0.30	6	196	784	S/6706	399 816
12.0	11.37 - 11.62	25.0	2.3	0.40	6	343	1961	S/6713	399 817
13.0	12.38 - 12.64	25.0	2.3	0.40	6	343	2453	S/6829	399 819
14.0	13.40 - 13.65	28.4	2.3	0.40	6	245	1961	S/6825	399 820
15.0	14.43 - 14.68	28.4	2.3	0.40	6	245	1961	S/6714	399 821
16.0	15.28 - 15.53	28.2	2.3	0.40	6	245	1961	S/6826	399 822
17.0	16.42 - 16.68	28.4	2.3	0.40	6	343	1470	S/6715	399 823
18.0	17.34 - 17.62	36.8	3.0	0.40	9	226	1961	S/6827	399 824
19.0	18.40 - 18.69	36.6	3.0	0.40	9	147	2453	S/6828	399 825
20.0	19.30 - 19.63	36.8	3.0	0.40	9	265	2941	S/6716	399 826
21.0	20.33 - 20.61	37.0	3.0	0.40	9	392	2941	S/6830	399 827
22.0	21.37 - 21.65	36.8	3.0	0.40	9	451	1961	S/6719	399 828
23.0	22.34 - 22.62	38.1	2.9	0.45	9	- / - ²	- / - ²	S/6831	399 829
24.0	23.33 - 23.66	41.3	3.2	0.50	9	- / - ²	- / - ²	S/6832	- / -
25.0	24.30 - 24.63	41.5	3.2	0.50	9	343	2453	S/6717	- / -

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Push on and pull off forces are available on request.

We reserve the right to amend specifications at any time.



for imperial round shafts
standard uncapped

Material

■ **Stainless steel**
self colour

Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.008 inch	s inch		N	N		
1/16	0.0485 - 0.0575	0.382	0.050	0.008	4	59	196	S/6218	399 801
3/32	0.0795 - 0.0885	0.382	0.050	0.008	4	49	196	S/5883	399 803
1/8	0.1095 - 0.1185	0.382	0.050	0.008	4	88	196	S/5897	399 805
3/16	0.1695 - 0.1785	0.452	0.050	0.008	6	59	392	S/5920	399 807
1/4	0.2295 - 0.2395	0.602	0.050	0.010	6	215	588	S/5873	399 810
9/32	0.2605 - 0.2705	0.605	0.050	0.010	6	215	588	S/6326	- / -
5/16	0.2915 - 0.3015	0.605	0.050	0.010	6	215	588	S/5821	- / -
11/32	0.3235 - 0.3335	0.732	0.076	0.012	6	167	981	S/6332	- / -
3/8	0.3545 - 0.3645	0.726	0.076	0.012	6	167	784	S/6020	399 814
7/16	0.4175 - 0.4275	0.983	0.092	0.016	6	- / - ²	- / - ²	S/6216	- / -
1/2	0.4765 - 0.4865	0.990	0.092	0.016	6	343	1961	S/6143	399 818
5/8	0.6005 - 0.6115	0.983	0.092	0.016	6	- / - ²	- / - ²	S/6185	- / -
3/4	0.7245 - 0.7355	1.440	0.119	0.016	9	157	2453	S/6322	- / -
7/8	0.8495 - 0.8605	1.500	0.115	0.018	9	- / - ²	- / - ²	S/6328	- / -
1	0.9735 - 0.9865	1.625	0.125	0.020	9	- / - ²	- / - ²	S/6329	- / -

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Push on and pull off forces are available on request.

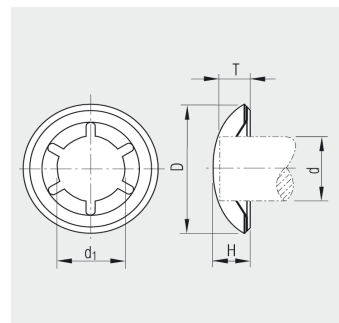
We reserve the right to amend specifications at any time.

for metric round shafts
with dome cap

Material

■ **Spring steel**
bronze varnish finish

■ **Stainless steel cap**
self colour



Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.3 mm	T max mm		N	N		
1.5	1.23 - 1.46	10.6	3.0	2.5	4	39	196	BV/7204/01S	- / -
2.0	1.61 - 1.84	10.6	3.0	2.5	4	69	196	BV/6662/01S	399 352
3.0	2.58 - 2.81	10.6	3.0	2.5	4	108	196	BV/6663/01S	399 354
4.0	3.57 - 3.80	12.3	3.8	3.0	5	69	392	BV/6665/02S	399 356
5.0	4.51 - 4.74	12.3	3.8	3.0	6	118	392	BV/6664/02S	399 358
6.0	5.45 - 5.70	16.1	5.1	4.0	6	147	785	BV/6666/03S	399 359
7.0	6.46 - 6.72	16.1	5.1	4.0	6	186	785	BV/6670/03S	399 361
8.0	7.40 - 7.66	16.1	5.1	4.0	6	216	785	BV/6671/03S	399 362
9.0	8.50 - 8.75	19.7	5.8	4.5	6	206	981	BV/6674/04S	399 363
10.0	9.49 - 9.74	19.7	5.8	4.5	6	284	981	BV/6668/04S	399 365
11.0	10.50 - 10.76	19.7	5.8	4.5	6	412	981	BV/6673/04S	399 366
12.0	11.37 - 11.62	26.0	7.5	6.0	6	441	2453	BV/6675/05S	399 367
13.0	12.38 - 12.64	26.0	7.5	6.0	6	343	2453	BV/6885/05S	399 369
14.0	13.40 - 13.65	29.4	9.0	7.0	6	245	2453	BV/6881/06S	399 370
15.0	14.43 - 14.68	29.4	9.0	7.0	6	334	2453	BV/6676/06S	399 371
16.0	15.28 - 15.53	29.4	9.0	7.0	6	549	2453	BV/6882/06S	399 372
17.0	16.42 - 16.68	29.4	9.0	7.0	6	481	2453	BV/6677/06S	399 373
18.0	17.34 - 17.62	38.2	11.7	8.7	9	226	3434	BV/6883/07S	399 374
19.0	18.40 - 18.69	38.2	11.7	8.7	9	157	3777	BV/6884/07S	399 375
20.0	19.30 - 19.63	38.2	11.7	8.7	9	265	3434	BV/6678/07S	399 376
21.0	20.33 - 20.61	38.2	11.7	8.7	9	206	3777	BV/6886/07S	399 377
22.0	21.37 - 21.65	38.2	11.7	8.7	9	540	3434	BV/6889/07S	399 378
23.0	22.34 - 22.62	39.8	13.0	9.5	9	697	3434	BV/6887/08S	399 379
24.0	23.33 - 23.66	43.0	12.5	9.5	9	451	3777	BV/6888/09S	399 380
25.0	24.30 - 24.63	43.0	12.5	9.5	9	559	3777	BV/6679/09S	399 381

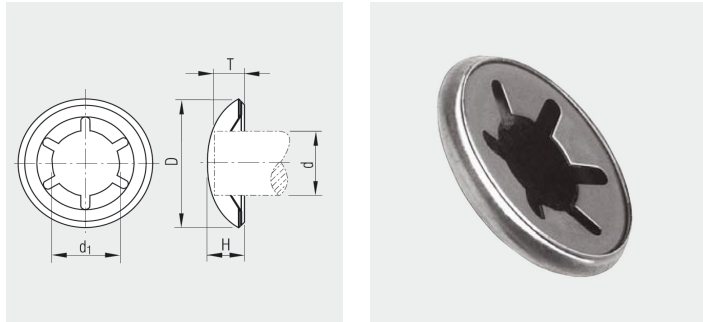
* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

Material thickness for a capped Starlock® is the same as the uncapped version.

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

We reserve the right to amend specifications at any time.



for imperial round shafts
with dome cap

Material

- Spring steel**
blue varnish finish
- Stainless steel cap**
self colour

Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.012 inch	T max inch		N	N		
1/16	0.0485 - 0.0575	0.418	0.120	0.100	4	39	196	BV/6232/01S	399 351
3/32	0.0795 - 0.0885	0.418	0.120	0.100	4	49	196	BV/6221/01S	399 353
1/8	0.1095 - 0.1185	0.418	0.120	0.100	4	118	196	BV/6222/01S	399 355
5/32	0.1405 - 0.1495	0.485	0.148	0.120	5	69	392	BV/6223/02S	- / -
3/16	0.1695 - 0.1785	0.485	0.148	0.120	6	59	392	BV/6224/02S	399 357
7/32	0.1975 - 0.2065	0.485	0.148	0.120	6	128	392	BV/6235/02S	- / -
1/4	0.2295 - 0.2395	0.635	0.200	0.160	6	108	785	BV/6225/03S	399 360
9/32	0.2605 - 0.2705	0.635	0.200	0.160	6	196	785	BV/6236/03S	- / -
5/16	0.2915 - 0.3015	0.635	0.200	0.160	6	216	785	BV/6226/03S	- / -
11/32	0.3235 - 0.3335	0.775	0.230	0.177	6	167	981	BV/6238/04S	- / -
3/8	0.3545 - 0.3645	0.775	0.230	0.177	6	206	981	BV/6227/04S	399 364
13/32	0.3865 - 0.3965	0.775	0.230	0.177	6	167	981	BV/6239/04S	- / -
7/16	0.4175 - 0.4275	1.025	0.295	0.236	6	147	2453	BV/6228/05S	- / -
1/2	0.4765 - 0.4865	1.025	0.295	0.236	6	343	2453	BV/6229/05S	399 368
17/32	0.5075 - 0.5175	1.025	0.295	0.236	6	589	2453	BV/6237/05S	- / -
5/8	0.6005 - 0.6115	1.025	0.295	0.236	6	598	2453	BV/6231/05S	- / -
3/4	0.7245 - 0.7355	1.505	0.460	0.343	9	157	3434	BV/6234/07S	- / -
7/8	0.8495 - 0.8605	1.565	0.510	0.375	9	451	3434	BV/6335/08S	- / -
1	0.9735 - 0.9865	1.695	0.490	0.375	9	706	3777	BV/6334/09S	- / -

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

Material thickness for a capped Starlock[®] is the same as the uncapped version.

Other surface finishes are available e.g. DELTA Tone + Seal (for shaft diameters from 1/2 inch) depending on quantity on request.

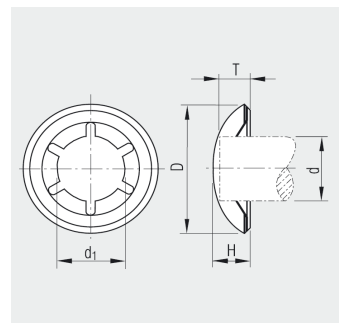
We reserve the right to amend specifications at any time.

for metric round shafts
with dome cap

Material

■ **Spring steel**
mechanical zinc finish

■ **Stainless steel cap**
self colour



Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.3 mm	T max mm		N	N		
1.5	1.23 - 1.46	10.6	3.0	2.5	4	39	196	DT/7204/01S	- / -
2.0	1.61 - 1.84	10.6	3.0	2.5	4	69	196	DT/6662/01S	399 452
3.0	2.58 - 2.81	10.6	3.0	2.5	4	108	196	DT/6663/01S	399 454
4.0	3.57 - 3.80	12.3	3.8	3.0	5	69	392	DT/6665/02S	399 456
5.0	4.51 - 4.74	12.3	3.8	3.0	6	118	392	DT/6664/02S	399 458
6.0	5.45 - 5.70	16.1	5.1	4.0	6	147	785	DT/6666/03S	399 459
7.0	6.46 - 6.72	16.1	5.1	4.0	6	186	785	DT/6670/03S	399 461
8.0	7.40 - 7.66	16.1	5.1	4.0	6	216	785	DT/6671/03S	399 462
9.0	8.50 - 8.75	19.7	5.8	4.5	6	206	981	DT/6674/04S	399 463
10.0	9.49 - 9.74	19.7	5.8	4.5	6	284	981	DT/6668/04S	399 465
11.0	10.50 - 10.76	19.7	5.8	4.5	6	412	981	DT/6673/04S	399 466
12.0	11.37 - 11.62	26.0	7.5	6.0	6	441	2453	DT/6675/05S	399 467
13.0	12.38 - 12.64	26.0	7.5	6.0	6	343	2453	DT/6885/05S	399 469
14.0	13.40 - 13.65	29.4	9.0	7.0	6	245	2453	DT/6881/06S	399 470
15.0	14.43 - 14.68	29.4	9.0	7.0	6	334	2453	DT/6676/06S	399 471
16.0	15.28 - 15.53	29.4	9.0	7.0	6	549	2453	DT/6882/06S	399 472
17.0	16.42 - 16.68	29.4	9.0	7.0	6	481	2453	DT/6677/06S	399 473
18.0	17.34 - 17.62	38.2	11.7	8.7	9	226	3434	DT/6883/07S	399 474
19.0	18.40 - 18.69	38.2	11.7	8.7	9	157	3777	DT/6884/07S	399 475
20.0	19.30 - 19.63	38.2	11.7	8.7	9	265	3434	DT/6678/07S	399 476
21.0	20.33 - 20.61	38.2	11.7	8.7	9	206	3777	DT/6886/07S	399 477
22.0	21.37 - 21.65	38.2	11.7	8.7	9	540	3434	DT/6889/07S	399 478
23.0	22.34 - 22.62	39.8	13.0	9.5	9	697	3434	DT/6887/08S	399 479
24.0	23.33 - 23.66	43.0	12.5	9.5	9	451	3777	DT/6888/09S	399 480
25.0	24.30 - 24.63	43.0	12.5	9.5	9	559	3777	DT/6679/09S	399 481

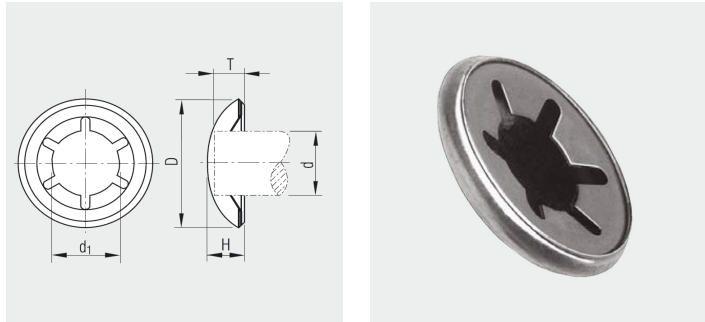
* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

Material thickness for a capped Starlock® is the same as the uncapped version.

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

We reserve the right to amend specifications at any time.



for imperial round shafts
with dome cap

Material

- Spring steel**
mechanical zinc finish
- Stainless steel cap**
self colour

Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.012 inch	T max inch		N	N		
1/16	0.0485 - 0.0575	0.418	0.120	0.100	4	39	196	DT/6232/01S	399 451
3/32	0.0795 - 0.0885	0.418	0.120	0.100	4	49	196	DT/6221/01S	399 453
1/8	0.1095 - 0.1185	0.418	0.120	0.100	4	118	196	DT/6222/01S	399 455
5/32	0.1405 - 0.1495	0.485	0.148	0.120	5	69	392	DT/6223/02S	- / -
3/16	0.1695 - 0.1785	0.485	0.148	0.120	6	59	392	DT/6224/02S	399 457
7/32	0.1975 - 0.2065	0.485	0.148	0.120	6	128	392	DT/6235/02S	- / -
1/4	0.2295 - 0.2395	0.635	0.200	0.160	6	108	785	DT/6225/03S	399 460
9/32	0.2605 - 0.2705	0.635	0.200	0.160	6	196	785	DT/6236/03S	- / -
5/16	0.2915 - 0.3015	0.635	0.200	0.160	6	216	785	DT/6226/03S	- / -
11/32	0.3235 - 0.3335	0.775	0.230	0.177	6	167	981	DT/6238/04S	- / -
3/8	0.3545 - 0.3645	0.775	0.230	0.177	6	206	981	DT/6227/04S	399 464
13/32	0.3865 - 0.3965	0.775	0.230	0.177	6	167	981	DT/6239/04S	- / -
7/16	0.4175 - 0.4275	1.025	0.295	0.236	6	147	2453	DT/6228/05S	- / -
1/2	0.4765 - 0.4865	1.025	0.295	0.236	6	343	2453	DT/6229/05S	399 468
17/32	0.5075 - 0.5175	1.025	0.295	0.236	6	589	2453	DT/6237/05S	- / -
5/8	0.6005 - 0.6115	1.025	0.295	0.236	6	598	2453	DT/6231/05S	- / -
3/4	0.7245 - 0.7355	1.505	0.460	0.343	9	157	3434	DT/6234/07S	- / -
7/8	0.8495 - 0.8605	1.565	0.510	0.375	9	451	3434	DT/6335/08S	- / -
1	0.9735 - 0.9865	1.695	0.490	0.375	9	706	3777	DT/6334/09S	- / -

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

Material thickness for a capped Starlock[®] is the same as the uncapped version.

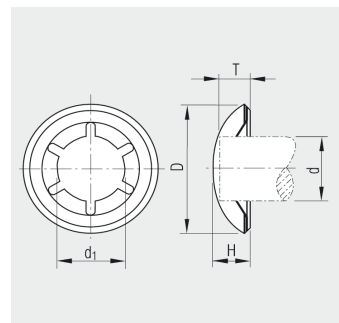
Other surface finishes are available e.g. DELTA Tone + Seal (for shaft diameters from 1/2 inch) depending on quantity on request.

We reserve the right to amend specifications at any time.

for metric round shafts
with dome cap

Material

■ **Stainless steel**
self colour



Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.3 mm	T max mm		N	N		
1.5	1.23 - 1.46	10.6	3.0	2.5	4	39	196	S/7204/01S	- / -
2.0	1.61 - 1.84	10.6	3.0	2.5	4	69	196	S/6662/01S	399 952
3.0	2.58 - 2.81	10.6	3.0	2.5	4	108	196	S/6663/01S	399 954
4.0	3.57 - 3.80	12.3	3.8	3.0	5	69	294	S/6665/02S	399 956
5.0	4.51 - 4.74	12.3	3.8	3.0	6	118	294	S/6664/02S	399 958
6.0	5.45 - 5.70	16.1	5.1	4.0	6	147	588	S/6666/03S	399 959
7.0	6.46 - 6.72	16.1	5.1	4.0	6	186	588	S/6670/03S	399 961
8.0	7.40 - 7.66	16.1	5.1	4.0	6	216	588	S/6671/03S	399 962
9.0	8.50 - 8.75	19.7	5.8	4.5	6	196	784	S/6674/04S	399 963
10.0	9.49 - 9.74	19.7	5.8	4.5	6	196	784	S/6668/04S	399 965
11.0	10.50 - 10.76	19.7	5.8	4.5	6	196	784	S/6673/04S	399 966
12.0	11.37 - 11.62	26.0	7.5	6.0	6	343	1961	S/6675/05S	399 967
13.0	12.38 - 12.64	26.0	7.5	6.0	6	343	2453	S/6885/05S	399 969
14.0	13.40 - 13.65	29.4	9.0	7.0	6	245	1961	S/6881/06S	399 970
15.0	14.43 - 14.68	29.4	9.0	7.0	6	245	1961	S/6676/06S	399 971
16.0	15.28 - 15.53	29.4	9.0	7.0	6	245	1961	S/6882/06S	399 972
17.0	16.42 - 16.68	29.4	9.0	7.0	6	343	1470	S/6677/06S	399 973
18.0	17.34 - 17.62	38.2	11.7	8.7	9	226	1961	S/6883/07S	399 974
19.0	18.40 - 18.69	38.2	11.7	8.7	9	147	2453	S/6884/07S	399 975
20.0	19.30 - 19.63	38.2	11.7	8.7	9	265	2941	S/6678/07S	399 976
21.0	20.33 - 20.61	38.2	11.7	8.7	9	392	2941	S/6886/07S	399 977
22.0	21.37 - 21.65	38.2	11.7	8.7	9	451	1961	S/6889/07S	399 978
23.0	22.34 - 22.62	39.8	13.0	9.5	9	- / - ²	- / - ²	S/6887/08S	399 979
24.0	23.33 - 23.66	43.0	12.5	9.5	9	- / - ²	- / - ²	S/6888/09S	- / -
25.0	24.30 - 24.63	43.0	12.5	9.5	9	343	2453	S/6679/09S	- / -

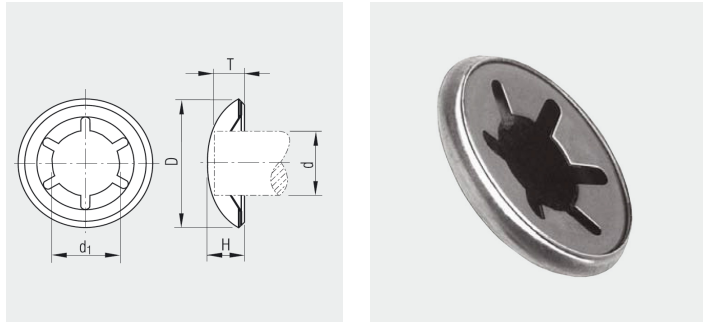
* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Push on and pull off forces are available on request.

Material thickness for a capped Starlock® is the same as the uncapped version.

We reserve the right to amend specifications at any time.



for imperial round shafts
with dome cap

Material

■ **Stainless steel**
self colour

Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.012 inch	T max inch		N	N		
1/16	0.0485 - 0.0575	0.418	0.120	0.100	4	59	196	S/6232/01S	399 951
3/32	0.0795 - 0.0885	0.418	0.120	0.100	4	49	196	S/6221/01S	399 953
1/8	0.1095 - 0.1185	0.418	0.120	0.100	4	88	196	S/6222/01S	399 955
5/32	0.1405 - 0.1495	0.485	0.148	0.120	5	69	392	S/6223/02S	- / -
3/16	0.1695 - 0.1785	0.485	0.148	0.120	6	59	392	S/6224/02S	399 957
7/32	0.1975 - 0.2065	0.485	0.148	0.120	6	128	392	S/6235/02S	- / -
1/4	0.2295 - 0.2395	0.635	0.200	0.160	6	215	588	S/6225/03S	399 960
9/32	0.2605 - 0.2705	0.635	0.200	0.160	6	215	588	S/6236/03S	- / -
5/16	0.2915 - 0.3015	0.635	0.200	0.160	6	215	588	S/6226/03S	- / -
11/32	0.3235 - 0.3335	0.775	0.230	0.177	6	167	981	S/6238/04S	- / -
3/8	0.3545 - 0.3645	0.775	0.230	0.177	6	167	784	S/6227/04S	399 964
13/32	0.3865 - 0.3965	0.775	0.230	0.177	6	167	981	S/6239/04S	- / -
7/16	0.4175 - 0.4275	1.025	0.295	0.236	6	- / - ²	- / - ²	S/6228/05S	- / -
1/2	0.4765 - 0.4865	1.025	0.295	0.236	6	343	1961	S/6229/05S	399 968
17/32	0.5075 - 0.5175	1.025	0.295	0.236	6	589	2453	S/6237/05S	- / -
5/8	0.6005 - 0.6115	1.025	0.295	0.236	6	- / - ²	- / - ²	S/6231/05S	- / -
3/4	0.7245 - 0.7355	1.505	0.460	0.343	9	157	2453	S/6234/07S	- / -
7/8	0.8495 - 0.8605	1.565	0.510	0.375	9	- / - ²	- / - ²	S/6335/08S	- / -
1	0.9735 - 0.9865	1.695	0.490	0.375	9	- / - ²	- / - ²	S/6334/09S	- / -

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Push on and pull off forces are available on request.

Material thickness for a capped Starlock[®] is the same as the uncapped version.

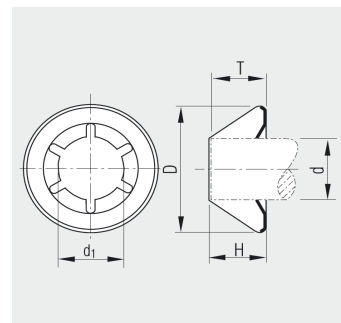
We reserve the right to amend specifications at any time.

for metric round shafts
with deep cap

Material

■ **Spring steel**
bronze varnish finish

■ **Stainless steel cap**
self colour



Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.3 mm	T max mm		N	N		
1.5	1.23 - 1.46	10.6	4.0	3.4	4	39	196	BV/7204/31S	- / - ²
2.0	1.61 - 1.84	10.6	4.0	3.4	4	69	196	BV/6662/31S	- / - ²
3.0	2.58 - 2.81	10.6	4.0	3.4	4	108	196	BV/6663/31S	399 650 ²
4.0	3.57 - 3.80	12.4	4.5	4.0	5	69	392	BV/6665/32S	399 677 ²
5.0	4.51 - 4.74	12.4	4.5	4.0	6	118	392	BV/6664/32S	399 688 ²
6.0	5.45 - 5.70	16.3	5.0	4.5	6	147	785	BV/6666/33S	399 689 ²
7.0	6.46 - 6.72	16.3	5.0	4.5	6	186	785	BV/6670/33S	- / - ²
8.0	7.40 - 7.66	16.3	5.0	4.5	6	216	785	BV/6671/33S	399 692 ²
9.0	8.50 - 8.75	19.8	6.0	5.5	6	206	981	BV/6674/34S	- / - ²
10.0	9.49 - 9.74	19.8	6.0	5.5	6	284	981	BV/6668/34S	399 695 ²
11.0	10.50 - 10.76	19.8	6.0	5.5	6	412	981	BV/6673/34S	- / - ²
12.0	11.37 - 11.62	26.0	7.2	6.8	6	441	2453	BV/6675/35S	- / - ²
13.0	12.38 - 12.64	26.0	7.2	6.8	6	343	2453	BV/6885/35S	- / - ²

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

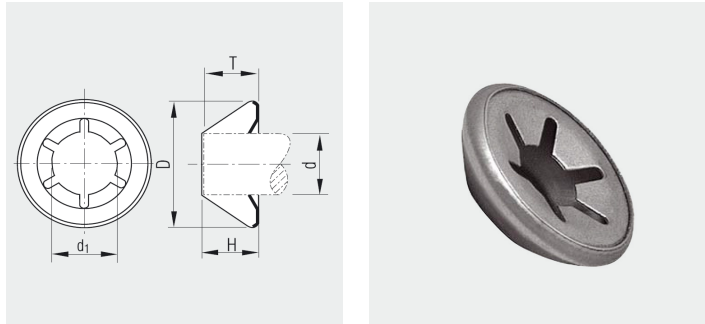
¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Parts also available from stock with a spring steel Starlock® in mechanical zinc finish or with a stainless steel Starlock®.

Material thickness for a capped Starlock® is the same as the uncapped version.

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

We reserve the right to amend specifications at any time.



for imperial round shafts
with deep cap

Material

- **Spring steel**
blue varnish finish
- **Stainless steel cap**
self colour

Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.012 inch	T max inch		N	N		
1/16	0.0485 - 0.0575	0.418	0.157	0.135	4	39	196	BV/6232/31S	- / - ²
3/32	0.0795 - 0.0885	0.418	0.157	0.135	4	49	196	BV/6221/31S	- / - ²
1/8	0.1095 - 0.1185	0.418	0.157	0.135	4	118	196	BV/6222/31S	- / - ²
5/32	0.1405 - 0.1495	0.488	0.175	0.160	5	69	392	BV/6223/32S	- / - ²
3/16	0.1695 - 0.1785	0.488	0.175	0.160	6	59	392	BV/6224/32S	- / - ²
7/32	0.1975 - 0.2065	0.488	0.175	0.160	6	128	392	BV/6235/32S	- / - ²
1/4	0.2295 - 0.2395	0.640	0.200	0.180	6	108	785	BV/6225/33S	- / - ²
9/32	0.2605 - 0.2705	0.640	0.200	0.180	6	196	785	BV/6236/33S	- / - ²
5/16	0.2915 - 0.3015	0.640	0.200	0.180	6	216	785	BV/6226/33S	- / - ²
11/32	0.3235 - 0.3335	0.780	0.235	0.196	6	167	981	BV/6238/34S	- / - ²
3/8	0.3545 - 0.3645	0.780	0.235	0.196	6	206	981	BV/6227/34S	- / - ²
13/32	0.3865 - 0.3965	0.780	0.235	0.196	6	167	981	BV/6239/34S	- / - ²
7/16	0.4175 - 0.4275	1.025	0.285	0.270	6	147	2453	BV/6228/35S	- / - ²
1/2	0.4795 - 0.4865	1.025	0.295	0.270	6	343	2453	BV/6229/35S	- / - ²
17/32	0.5075 - 0.5175	1.025	0.285	0.270	6	589	2453	BV/6237/35S	- / - ²
5/8	0.6005 - 0.6115	1.025	0.285	0.270	6	598	2453	BV/6231/35S	- / - ²

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Parts also available from stock with a spring steel Starlock® in mechanical zinc finish or with a stainless steel Starlock®.

Material thickness for a capped Starlock® is the same as the uncapped version.

Other surface finishes are available e.g. DELTA Tone + Seal (for shaft diameters from 1/2 inch) depending on quantity on request.

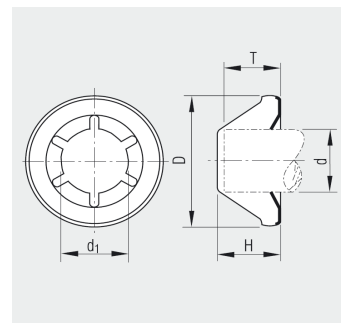
We reserve the right to amend specifications at any time.

for metric round shafts
with extra deep cap

Material

■ **Spring steel**
bronze varnish finish

■ **Steel cap**
electro plated zinc



Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.3 mm	T max mm		N	N		
3.0	2.58 - 2.81	12.3	5.7	5.3	4	108	196	BV/8300/42A	- / - ²
4.0	3.57 - 3.80	12.3	5.7	5.3	5	69	392	BV/6665/42A	399 636 ²
5.0	4.51 - 4.74	12.3	5.7	5.3	6	118	392	BV/6664/42A	399 638 ²
6.0	5.45 - 5.70	16.1	7.2	6.7	6	147	785	BV/6666/43A	399 639 ²
7.0	6.46 - 6.72	16.1	7.2	6.7	6	186	785	BV/6670/43A	399 641 ²
8.0	7.40 - 7.66	16.1	7.2	6.7	6	216	785	BV/6671/43A	399 642 ²
9.0	8.50 - 8.75	19.7	8.1	7.7	6	206	981	BV/6674/44A	399 643 ²
10.0	9.49 - 9.74	19.7	8.1	7.7	6	284	981	BV/6668/44A	399 645 ²
11.0	10.50 - 10.76	19.7	8.1	7.7	6	412	981	BV/6673/44A	399 646 ²

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

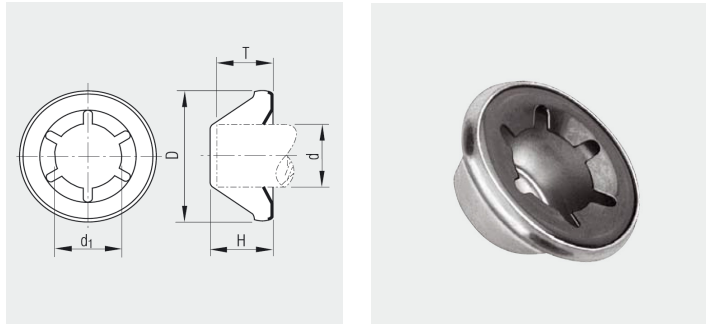
¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Parts also available from stock with a spring steel Starlock® in mechanical zinc finish or with a stainless steel Starlock®.

Material thickness for a capped Starlock® is the same as the uncapped version.

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

We reserve the right to amend specifications at any time.



for imperial round shafts
with extra deep cap

Material

- **Spring steel**
blue varnish finish
- **Steel cap**
electro plated zinc

Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* inch	d1 inch	D ±0.008 inch	H ±0.012 inch	T max inch		N	N		
5/32	0.1405 - 0.1495	0.485	0.224	0.208	5	69	392	BV/6223/42A	- / - ²
3/16	0.1695 - 0.1785	0.485	0.224	0.208	6	59	392	BV/6224/42A	- / - ²
7/32	0.1975 - 0.2065	0.485	0.224	0.208	6	128	392	BV/6235/42A	- / - ²
1/4	0.2295 - 0.2395	0.635	0.283	0.264	6	108	785	BV/6225/43A	399 672 ²
9/32	0.2605 - 0.2705	0.635	0.283	0.264	6	196	785	BV/6236/43A	- / - ²
5/16	0.2915 - 0.3015	0.635	0.283	0.264	6	216	785	BV/6226/43A	- / - ²
11/32	0.3235 - 0.3335	0.777	0.320	0.303	6	167	981	BV/6238/44A	- / - ²
3/8	0.3545 - 0.3645	0.777	0.320	0.303	6	206	981	BV/6227/44A	- / - ²
13/32	0.3865 - 0.3965	0.777	0.320	0.303	6	167	981	BV/6239/44A	- / - ²

* The tolerance on the shaft Ø up to and including 5/8" is ± 0.002" and above 5/8" is ± 0.004".

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Parts also available from stock with a spring steel Starlock® in mechanical zinc finish or with a stainless steel Starlock®.

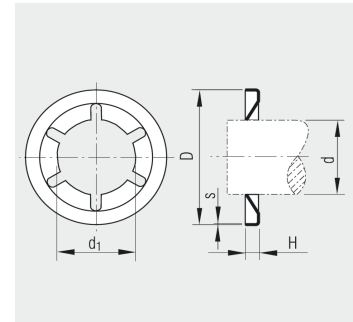
Material thickness for a capped Starlock® is the same as the uncapped version.

We reserve the right to amend specifications at any time.

for metric round shafts
heavy duty

Material

■ **Spring steel**
bronze varnish finish



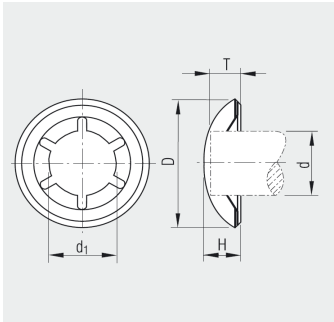
Shaft-Ø	Internal-Ø	External-Ø	Height	Material thickness	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	H ±0.2 mm	H ±0.2 mm	s mm		N	N		
4.0	3.57 - 3.80	11.5	1.27	0.4	5	245	1226	BV/8059	399 106 ²
5.0	4.51 - 4.74	11.5	1.27	0.4	6	245	1226	BV/8060	399 108 ²
6.0	5.33 - 5.59	15.3	1.27	0.4	6	392	1766	BV/8061	399 109 ²
7.0	6.46 - 6.72	15.3	1.27	0.4	6	392	1766	BV/8149	- / - ²
8.0	7.26 - 7.42	15.3	1.27	0.4	6	392	1766	BV/8062	399 112 ²
10.0	9.49 - 9.74	25.0	2.34	0.4	6	245	2453	BV/7074	- / - ²

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Not Standard Stock. These items will be manufactured to customer requirements.

We reserve the right to amend specifications at any time.



for metric round shafts
heavy duty with dome cap

Material

- **Spring steel**
bronze varnish finish
- **Stainless steel cap**
self colour

Shaft-Ø	Internal-Ø	External-Ø	Height	Insertion depth	Number of legs	Push on force	Pull off force ¹	Description	Part Number
d* mm	d1 mm	D ±0.2 mm	H ±0.3 mm	T max mm		N	N		
4.0	3.57 - 3.80	12.3	3.8	3.0	5	245	1226	BV/8045/02S	399 156 ²
5.0	4.51 - 4.74	12.3	3.8	3.0	6	245	1226	BV/8074/02S	399 158 ²
6.0	5.33 - 5.59	16.1	5.1	4.0	6	392	1766	BV/8075/03S	399 159 ²
8.0	7.25 - 7.42	16.1	5.1	4.0	6	392	1766	BV/8076/03S	399 162 ²

* The tolerance on the shaft Ø up to and including 16mm is ± 0.05mm and above 16mm is ± 0.1mm.

¹ The pull off forces are for guidance only and are based on tests using grade EN3B bright drawn mild steel shafts.

² Not Standard Stock. These items will be manufactured to customer requirements.

Material thickness for a capped Starlock® is the same as the uncapped version.

We reserve the right to amend specifications at any time.

SPECIAL STARLOCK®

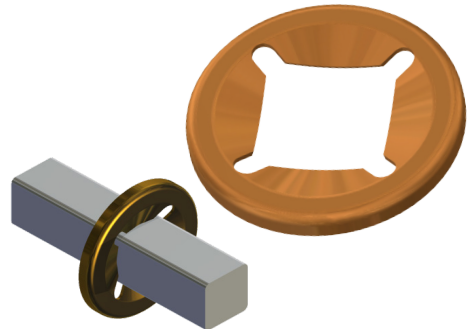
Starlock® with nylon caps

Starlock® push on fasteners can be fitted with a PA6 nylon cap, available to suit your colour sample or in the RAL colour of your choice. The caps can also be customised with your company logo, symbols or lettering on request. Minimum order quantity from 5,000 to 10,000 depending on colour and size.



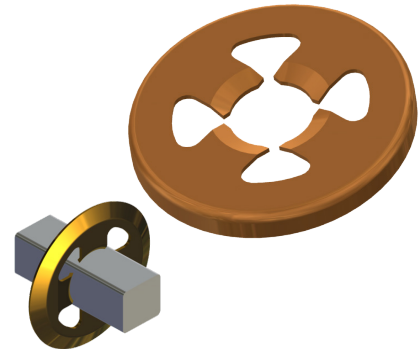
Starlock® for square shafts

Starlock® push on fasteners are also available to suit square shafts and are generally available in spring steel and many are also supplied in stainless steel. Like the majority of our range, Starlock® for square shafts can be supplied assembled with a cap to conceal the fixing and enhancing the appearance.



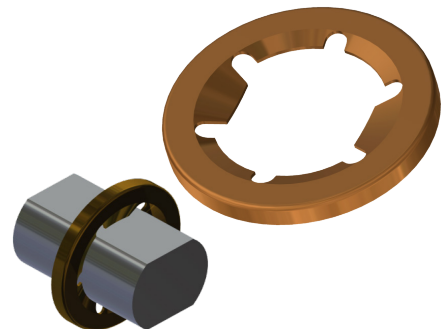
Starlock® for square shafts

Starlock® push on fasteners are available in a variety of designs to suit square shafts. Let us know the details of your application and we will advise the best style for the job.



Starlock® for double-D shafts

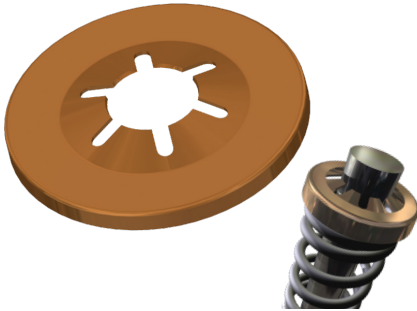
The double-D Starlock® push on fastener is designed to fit on a round shaft which has two parallel flats. This design is commonly used in door handle fittings but can be applied to any application where a double-D shaft is required.



SPECIAL STARLOCK[®]

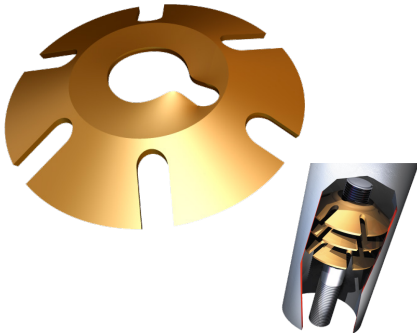
Reversed Starlock[®]

A special Starlock[®] used where the form is reversed and the edge of the flange is turned downwards, whilst retaining rigid strength. It can serve a dual purpose on assembly, for example as a housing for a compression spring as shown.



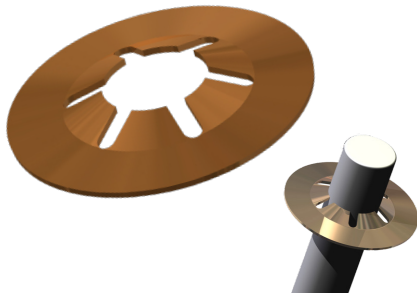
Starlock[®] Inlock

The Inlock fastener is an effective means of anchoring a threaded stud into a tube. The method employed for assembly is to screw two or more inlocks on to a stud and then to press this assembly into the tube leaving a threaded portion protruding. The number of inlocks used is dependent upon the load requirements, but a minimum of two, suitably spaced, must be used to align the stud with the bore of the tube.



Belleville Starlock[®]

The Belleville Starlock[®] was developed for applications where tension is required in the finished assembly. When the fastener is pressed flat, all movement and rattle is eliminated. A typical application for this type of fastener is in the assembly of numbers or letters to a car registration plate.



Flangeless Starlock[®]

Flangeless Starlock[®] fasteners are used where a greater degree of flexibility is required or where there is insufficient room for the flange. With certain fasteners assembly is possible without the use of a tool. This is a particularly attractive feature in the soft toy industry for the mounting of items such as eyes and noses. Also available as a ribbed style, which, for example, is used to hold insulation in place as the large diameter eliminates damage.



INSTALLATION TOOLS

STARLOCK® push on fasteners are quickly and easily installed using a simple hand tool fitted with a magnetic ferrule. Select the correct ferrule from the tables for each Starlock® type.



Tool
Part No.
6110

STARLOCK® without cap



Shaft diameter		External diameter		Magnetic ferrule Part No.
mm	inch	mm	inch	
1.5 - 3.0	1/16 - 1/8	9.7	0.380	6111
4.0 - 5.0	3/16	11.5	0.450	6112
6.0 - 8.0	1/4 - 5/16	15.3	0.600	6113
9.0 - 11.0	11/32 - 3/8	18.4	0.725	6114
12.0 - 13.0	7/16 - 5/8	25.0	0.983	6115
14.0 - 17.0	-	28.2	-	6400
18.0 - 23.0	3/4 - 7/8	36.5	1.437	6118
24.0 - 25.0	1	41.3	1.625	6388

STARLOCK® with stainless steel dome cap



Shaft diameter		External diameter mm / inch	Cap type	Magnetic ferrule Part No.
mm	inch			
1.5 - 3.0	1/16 - 1/8	10.7 / 0.420	01S	6381
4.0 - 5.0	5/32 - 7/32	12.3 / 0.485	02S	6382
6.0 - 8.0	1/4 - 5/16	16.3 / 0.640	03S	6383
9.0 - 11.0	11/32 - 13/32	19.8 / 0.780	04S	6384
12.0 - 13.0	7/16 - 5/8	26.0 / 1.025	05S	6385
14.0 - 17.0	-	29.4 / - - - -	06S	6893
18.0 - 22.0	3/4	38.2 / 1.505	07S	6389
23.0	7/8	39.8 / 1.565	08S	6897
24.0 - 25.0	1	43.0 / 1.695	09S	6398

STARLOCK® with stainless steel deep cap



Shaft diameter		External diameter mm / inch	Cap type	Magnetic ferrule Part No.
mm	inch			
1.5 - 3.0	1/16 - 1/8	10.7 / 0.420	31S	7011
4.0 - 5.0	5/32 - 7/32	12.5 / 0.490	32S	7012
6.0 - 8.0	1/4 - 5/16	16.3 / 0.640	33S	7013
9.0 - 11.0	11/32 - 13/32	19.8 / 0.785	34S	7014
12.0 - 13.0	7/16 - 5/8	26.1 / 1.028	35S	7015

STARLOCK® with steel extra deep cap



Shaft diameter		External diameter mm / inch	Cap type	Magnetic ferrule Part No.
mm	inch			
3.0 - 5.0	5/32 - 7/32	12.3 / 0.485	42A	7044
6.0 - 8.0	1/4 - 5/16	16.1 / 0.635	43A	7045
9.0 - 11.0	11/32 - 13/32	19.7 / 0.777	44A	7046



Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO/TS 16949:2009

This is to certify that:

Baker & Finncore Ltd
199 Newhall Street
Birmingham
B3 1SN
United Kingdom

Holds Certificate Number:

TS 552058

and operates a Quality Management System which complies with the requirements of ISO/TS 16949:2009 for the following scope:

The design and manufacture of Starlock fasteners and the manufacture of pressings.

Permitted exclusions: None

For and on behalf of BSI:



Gary Fenton, Chair, Certification Body Management Committee

Originally registered: 23/09/2013

Latest Issue: 23/09/2013

Expiry Date: 22/09/2016

IATF Number: 0170858

Page: 1 of 1



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Further clarifications regarding the scope of this certificate and the applicability of ISO/TS 16949:2009 requirements may be obtained by consulting the organization.

IATF Contracted Office: BSI Group Americas Inc., 12110 Sunset Hills Road, Suite 200, Reston, VA20190, USA

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 845 080 9000
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