

CLEVEDON

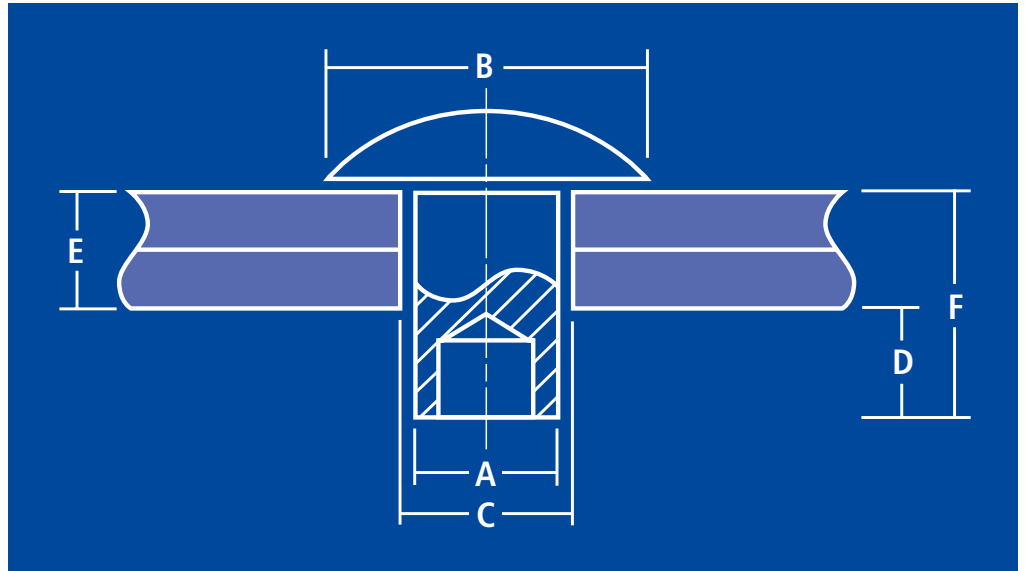
CLEVEDON FASTENERS LTD.



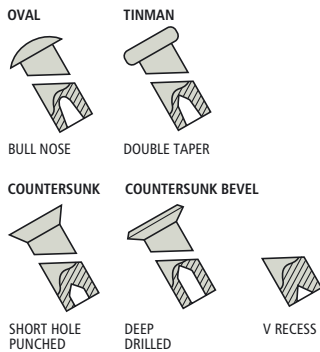
Semi Tubular Rivets

Semi Tubular rivets are set by deforming the hole formed in the end of the shank of the rivet. This can be done using a hand held punch or in high volume applications, fully automatically using a purpose built riveting machine.

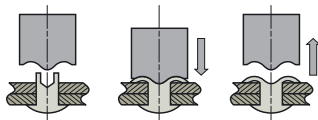
The correct specification of the rivet is the key to a successful application. The table below indicates the main dimensions and gives a guide to specifying the length of the rivet.



Head and Shank Forms



The Setting Process



Rivet Gauge	"A" Rivet Diameter	"B" Head Diameter	"C" Hole in Material	"C" Drill Size	"D" Riveting Allowance			Rivet Gauge
					Steel	Copper	Alum	
18	1.22 / 1.17	2.62 / 2.46	1.32 / 1.27	1.3	0.68	0.71	0.74	18
17	1.42 / 1.37	3.43 / 3.23	1.52 / 1.47	1.5	0.84	0.86	0.94	17
1/16	1.63 / 1.55	3.43 / 3.23	1.73 / 1.68	1.7	0.99	1.04	1.14	1/16
16	1.73 / 1.65	3.43 / 3.23	1.83 / 1.78	1.8	0.84	1.07	1.12	16
15	1.91 / 1.83	4.09 / 3.86	2.03 / 1.98	2.0	1.19	1.27	1.42	15
14 1/2	2.06 / 1.98	4.09 / 3.86	2.21 / 2.16	2.2	1.32	1.40	1.55	14 1/2
14	2.26 / 2.16	4.09 / 3.86	2.41 / 2.36	2.4	1.47	1.55	1.70	14
13	2.39 / 2.29	4.88 / 4.60	2.54 / 2.49	2.5	1.55	1.65	1.80	13
12 1/2	2.56 / 2.46	4.88 / 4.60	2.72 / 2.67	2.7	1.68	1.80	1.95	12 1/2
12	2.74 / 2.64	5.64 / 5.38	2.90 / 2.84	2.85	1.80	1.93	2.08	12
11	3.07 / 2.97	5.64 / 5.38	3.23 / 3.17	3.2	2.06	2.18	2.34	11
1/8	3.20 / 3.10	5.64 / 5.38	3.35 / 3.30	3.3	2.16	2.29	2.44	1/8
10	3.30 / 3.20	5.64 / 5.38	3.45 / 3.40	3.4	2.23	2.36	2.51	10
9 1/2	3.66 / 3.56	8.10 / 7.80	3.86 / 3.81	3.8	2.49	2.64	2.79	9 1/2
9	3.94 / 3.81	8.10 / 7.80	4.14 / 4.08	4.1	2.69	2.84	3.02	9
8	4.19 / 4.06	8.10 / 7.80	4.40 / 4.34	4.4	2.87	3.02	3.20	8
7	4.47 / 4.34	8.91 / 8.61	4.67 / 4.62	4.6	3.07	3.25	3.43	7
3/16	4.77 / 4.65	9.78 / 9.40	5.03 / 4.98	5.0	3.30	3.45	3.66	3/16
6	5.08 / 4.96	9.78 / 9.40	5.28 / 5.21	5.2	3.53	3.68	3.89	6
5	5.46 / 5.33	11.35 / 10.97	5.74 / 5.67	5.7	3.81	3.96	4.16	5
4	6.02 / 5.89	13.00 / 12.57	6.30 / 6.23	6.3	4.22	4.37	4.62	4
3	6.35 / 6.23	13.00 / 12.57	6.63 / 6.55	6.6	4.44	4.62	4.88	3

Example: 3mm diameter rivet to fix a combined thickness of 12mm in steel would require a rivet 12mm underhead plus 2.06mm riveting allowance giving a length of 14.06mm. We would be happy to advise you directly either by telephone, fax or e-mail.



Specials

Whilst we are happy to manufacture products to BS, ISO, DIN and other International Standards, many of our products are customer specific.

We work with our customers to develop components for specific applications. Approximately 50% of our manufacturing program is given over to specials of one kind or another.



Cost downs

An important area where we are able to assist customers is in the area of cost downs. This usually involves taking a turned part and converting it to a forged part with the consequent saving in material (unlike turning, net shape forging produces no scrap in the form of swarf).

Cold forging also produces a stronger piece part as the grain flow is not broken unlike a turned part. Finally, production rates of 120 parts per minute are fairly typical. All of these factors combine to make cold forging a very cost effective alternative to turned parts.

Please contact our sales team with details of your specific application. In order to save time and to enable us to get back to you in the quickest possible time, please forward a drawing or sketch, together with details of the application (safety critical, marine environment, extreme heat etc) and any heat treatment or plating requirements by fax or e-mail.

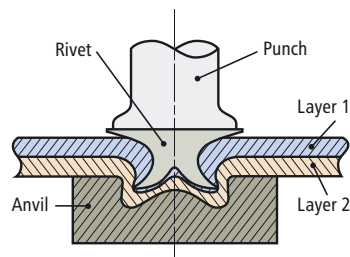


Self Piercing Rivets

From garage doors to automotive applications probably the most exciting development in riveting for many years, a rivet which does not need a hole! Clevedon are able to provide complete project management and support for self-piercing applications.

We specialise in optimising the joint strength in applications to ensure maximum customer benefit. Our technical sales team are on hand to help you develop a rivet for your specific needs.

Working with our partners we are able to offer a complete fastening solution.



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