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RIVKLE®

Stainless steel blind rivet nuts and studs

BÖLLHOFF

Contents



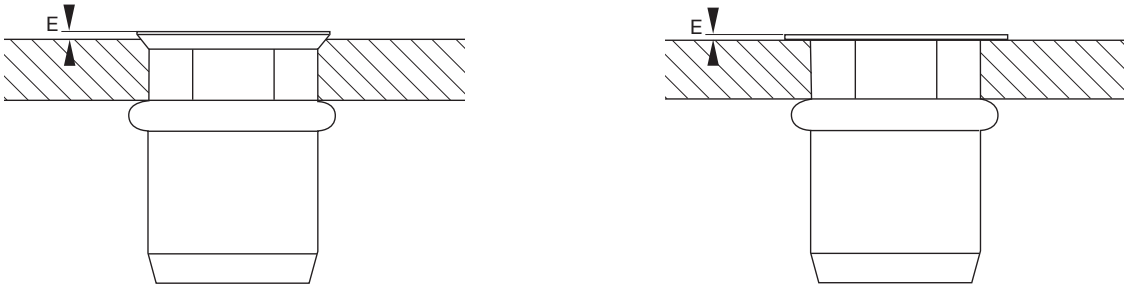
New product range

Stainless steel blind rivet nuts are prevalent in applications where aesthetic appearance and the ability to seal against the elements is essential. Example market sectors include industrial kitchen equipment, train construction and wind turbines.
As brand new applications emerge and existing issues become increasingly urgent to overcome, production technology has evolved, making it possible for increased precision inserts with optimized head projection.

This is why BÖLLHOFF, as an historical blind rivet nut manufacturer, has today renewed it's Stainless steel product line and proposes a comprehensive new range of products.

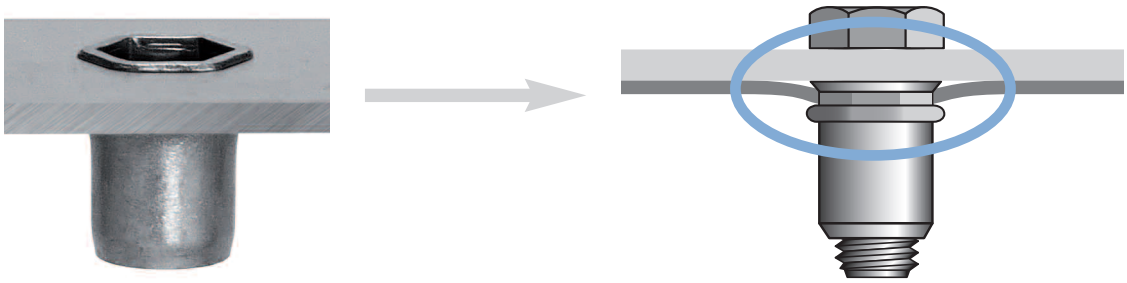
New thin head design

The aim of a thin head product is to achieve the minimum head projection whilst avoiding insert failure when installing a screw.
Thanks to the new cold forged production machine, BÖLLHOFF have defined a new optimized thin head design which satisfies these two needs.

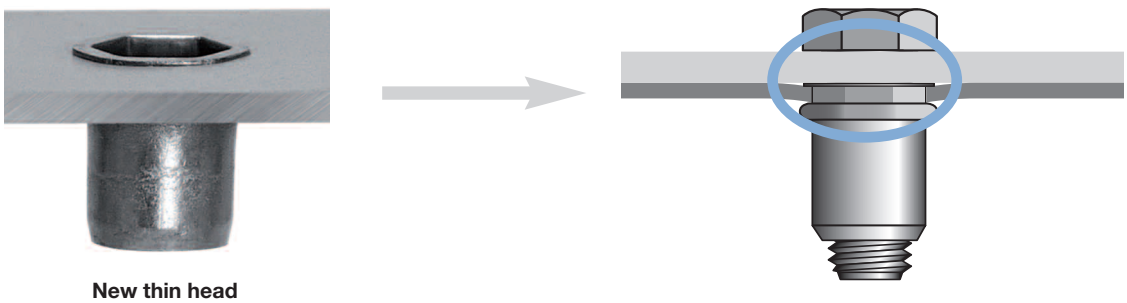


This new head design is applicable to the majority of the hexagonal thin head RIVKLE® range.
BÖLLHOFF took the opportunity of this new design development to renew the head projection measurement test and to clearly identify criteria which positively influence the head projection results.

Head projection could be improved even more by increasing the setting force (+ 1 to 2 kN), as BÖLLHOFF RIVKLE® are designed to resist high stresses.
Up to AX80 class screws, in case of excessive tightening, screw will break and RIVKLE® will remain re-useable.



Actual thin head



New thin head

See offer detail page 8

Lubricated RIVKLE® range

Context:

Most users of stainless steel screws associated with stainless steel nuts meet with galling issues.

The consequence is an out of control increase of the friction between the screw and female thread. This concerns nuts and also blind rivet nuts (RIVKLE®).
It disrupts the torque/tension ratio and may increase the risk of a bad assembly, reducing tensile strength and potententially damaging the components.

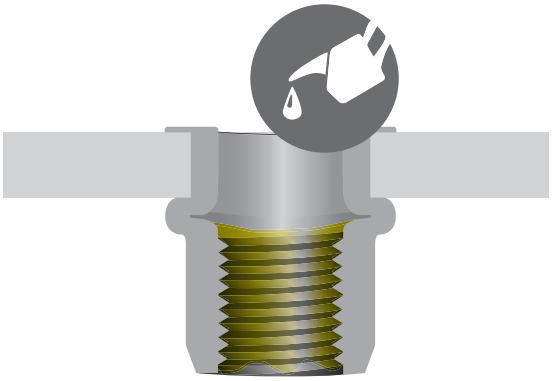
The General solution is to add an interface product, such as a lubricating paste, to limit this phenomena.

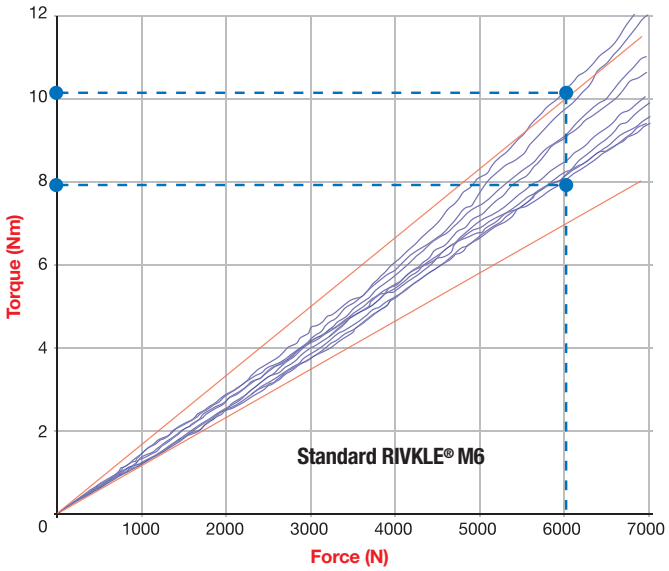
This represents additional operations and brings additional costs and risks:
- Cost of the product
- Cost of the operation
- Risk of missing
- Difficulties to reproduce quantity of product, impact on torque values, and inconsistent assembly

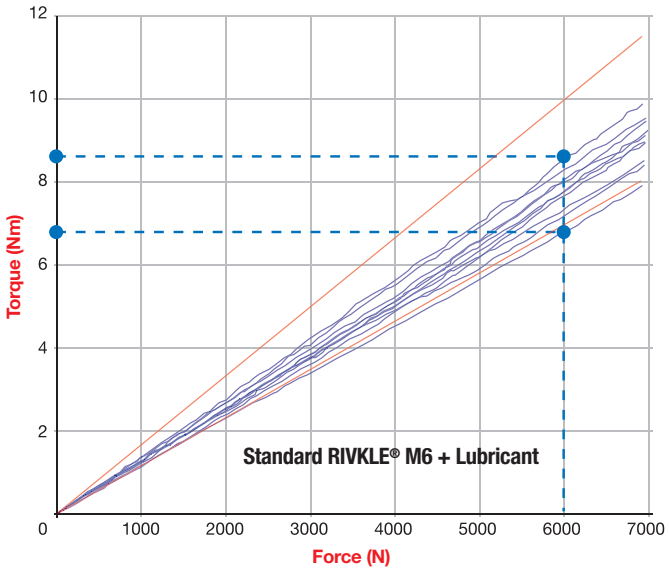
BÖLLHOFF solution:

After an investigation, BÖLLHOFF identified the best lubricant to apply to the RIVKLE®, limiting this galling phenomena.

BÖLLHOFF proposes a new range of lubricated products, based on the standard products + lubricant.







See offer detail page 8

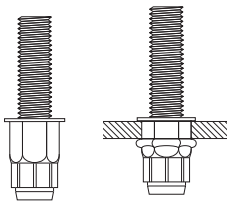
RIVKLE® Stud range

Principle:

Can be set with any power hand tool from the BÖLLHOFF range, by changing only the tooling.
RIVKLE® studs provide an opportunity to give additional function to the fastening point:

- Alignment
- Pre-adjustment
- Screwing (nut) with one hand for the operator

After setting, Stainless steel RIVKLE® studs provide a 800 N/mm² resistant fixing.
Body benefits from the new thin head design, allowing a minimum clearance with the upper part.



Stainless steel | Thin head | Hexagonal

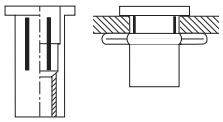
d (mm)	B (mm)	L1 (mm)	e min - max (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E (mm)	L (mm)	
M5	10,0	13,35	0,5 - 3,0	7,0	S=4,4-e	8,5	0,5	15,5 - 18,0	**372 98** 050 502
								20,5 - 23,0	**372 98** 050 503
								25,5 - 28,0	**372 98** 050 504
M6	13,0	15,65	0,5 - 3,0	9,0	S=4,4-e	10,8	0,5	15,5 - 18,0	**372 98** 060 506
								20,5 - 23,0	**372 98** 060 507
								25,5 - 28,0	**372 98** 060 508

RIVKLE® Plusnut range

Large clamping area for higher pull out resistance (soft and/or thin materials)

- Large load bearing surface to reinforce the workpiece
- Minimal radial stresses during installation, reducing the risk of breakage in soft or fragile materials

RIVKLE® PNC - Extended Grip Range



Stainless steel | Flat head | Slotted | Open

d (mm)	L (mm)	B (mm)	e (min - max) (mm)	D (mm)	Ø MIN (mm)	Ø MAX (mm)	L2 (mm)	E (mm)	
M4	17,6	11,1	0,50 - 3,80	6,12	6,13	6,25	8,6	0,96	**668 30** 488 038
M5	22,0	12,7	0,50 - 4,45	7,47	7,48	7,58	9,9	0,95	**668 30** 588 044
	23,8		4,45 - 8,10	7,97					**668 30** 588 081*
M6	26,9	15,9	0,50 - 7,10	8,79	8,80	8,90	12,8	1,50	**668 30** 688 071
	32,8		7,10 - 12,7						**668 30** 688 127*
M8	30,5	19,0	0,50 - 7,10	11,10	11,11	11,50	14,5	1,57	**668 30** 888 071
M10	33,2	22,2	0,50 - 7,10	13,06	13,07	13,26	15,8	2,24	**668 31** 088 071*

*Item not in stock – please contact BOLLHOFF for availability

New dedicated semi-automatic hand tools

Principle:

Investigation shows that stainless steel blind rivet nuts are sensitive in relation to setting parameters, crimping speed and sequence.
BÖLLHOFF have modified existing power hand tools to take this into account.

With a very limited increase in setting time, these two power hand tools ensure better quality setting, increase tooling life and are especially dedicated to stainless steel RIVKLE® range.

RIVKLE® P2007 stainless steel:

Based on original RIVKLE® P2007, this tool is the right choice for those who prefer pneumatically fed installation tools.

	ø RIVKLE®							
	M3	M4	M5	M6	M8	M10	M12	M14
Stainless steel		■	■	■	■			

F = 3 500 N => 21 000 N

Kg 2200 g

236 156 01 042

Tooling not included

RIVKLE® B2007 stainless steel:

Based on original battery tool RIVKLE® B2007, this tool is the right choice for those who prefer a battery operated tool.

	ø RIVKLE®							
	M3	M4	M5	M6	M8	M10	M12	M14
Stainless steel	■	■	■	■	■			

F = 3 500 N => 22 000 N

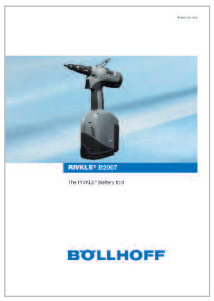
Kg 2490 g

236 166 01003

Tooling not included

YouTube RIVKLE B2007

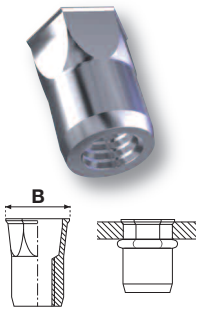
WEB www.rivkle-b2007.com



A dedicated brochure has been created for this product, please contact BÖLLHOFF for more information.

	M3	M4	M5	M6	M8	M10	M12	M14
Stainless steel Force en kN	3,50	5,50	8,00	13,00	20,00	22,00	28,00	-
Stainless steel A4 Force en kN	-	9,50	12,00	15,00	20,00	-	-	-

RIVKLE® – Blind rivet nuts - Stainless steel

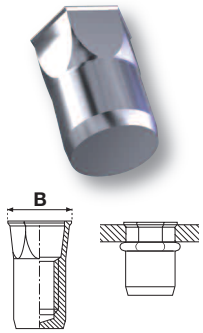


RIVKLE® Plus 24H

Stainless steel | Thin head | Semi-hexagonal | Open

d (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)		
M4	10,4	7,3	0,5 - 2,0	6,0	S=3,1-e	6,8	0,4	24H	**343 48** 040 020*	**343 49** 040 506*
	11,5		0,8 - 3,0		S=4,2-e				**343 48** 040 030*	**343 49** 040 507*
	11,7	7,8	3,0 - 4,2		S=5,8-e	6,0			**343 98** 040 629*	
M5	12,0	8,4	0,5 - 3,0	7,0	S=4,4-e	7,0	0,45	24H	**343 48** 050 020*	**343 49** 050 538*
	12,8	8,9	3,0 - 4,5		S=6,5-e	6,5	0,4		**343 98** 050 629	
M6	14,5	10,6	0,5 - 3,0	9,0	S=4,2-e	9,7	0,6	24H	**343 48** 060 025	
	14,3						0,3		**343 98** 060 624*	**343 98** 060 637*
	16,5	10,8	3,0 - 5,5		S=7,4-e	8,7	0,45		**343 48** 060 055*	
	16,0	11,1	4,0 - 5,5		S=8,0-e	8,5	0,5		**343 98** 060 630	
M8	15,8	13,0	0,5 - 3,0	11,0	S=4,7-e	10,4		24H	**343 48** 080 030*	**343 98** 080 631*
	17,6	12,9	1,5 - 5,0		S=7,0-e	10,0	0,3		**343 98** 080 625*	
M10	19,4	15,7	1,0 - 3,5	13,0	S=7,0-e	12,0	0,7		**343 48** 100 035	**343 49** 100 501

*New thin head design

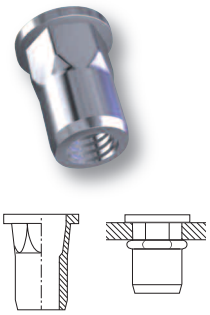


Stainless steel | Thin head | Semi-hexagonal | Closed

d (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)		
M4	15,4	7,3	0,5 - 2,5	6,0	S=3,8-e	11,5	0,4		**343 58** 040 025*	**343 59** 040 505*
	17,3	7,8	3,0 - 4,2		S=5,8-e				**343 98** 040 630	
M5	17,4	8,6	0,5 - 3,0	7,0	S=4,4-e	12,5	0,45		**343 58** 050 020*	**343 59** 050 505*
	20,0	8,9	3,0 - 4,5		S=6,5-e	13,4	0,5		**343 98** 050 683	
M6	20,5	10,6	0,5 - 3,0	9,0	S=4,2-e	15,0	0,6		**343 58** 060 030	
	22,5		1,0 - 3,5		S=4,8-e		0,3		**343 98** 060 628*	**343 98** 060 638*
	23,0	10,8	3,0 - 5,5		S=7,4-e	15,2	0,45		**343 58** 060 055*	

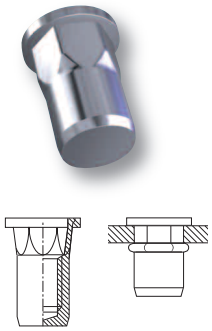
*New thin head design

Stainless steel | Flat head | Semi-hexagonal | Open

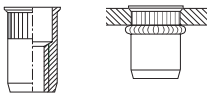


d (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	9,0	7,0	1,0 - 2,3	5,0	S=3,1-e	5,0	0,7	**233 48** 030 023
	9,7		2,3 - 3,0		S=4,5-e			**233 48** 030 030
M4	12,0	9,0	0,5 - 2,0	6,0	S=3,5-e	6,8	1,0	**233 48** 040 020
	12,1	8,0	2,0 - 3,5		S=5,5-e	6,0	0,7	**233 48** 040 040
M5	12,5	10,0	0,5 - 3,0	7,0	S=4,7-e	8,0	1,0	**233 48** 050 030
	14,0	9,0	2,0 - 4,0		S=4,8-e	7,5		**233 48** 050 040
M6	15,3	12,0	0,5 - 3,0	9,0	S=4,0-e	9,7	1,5	**233 48** 060 001
	16,0	11,0	3,0 - 4,5		S=7,1-e	9,0	1,4	**233 48** 060 045
M8	16,5	14,0	0,5 - 3,0	11,0	S=4,1-e	9,6	1,5	**233 48** 080 001
	18,5		3,0 - 5,5		S=8,0-e			**233 48** 080 002
M10	20,5	17,0	1,0 - 3,5	13,0	S=7,5-e	12,0	2,0	**233 48** 100 035
	22,7	16,0	3,5 - 5,5		S=9,4-e		1,8	**233 48** 100 055
M12	24,2	20,0	1,0 - 4,5	16,0	S=8,5-e	15,0	1,8	**233 48** 120 045

Stainless steel | Flat head | Semi-hexagonal | Closed



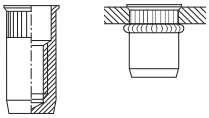
d (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	13,5	7,0	1,0 - 2,3	5,0	S=3,8-e	9,5	0,7	**233 58** 030 023
	14,3		2,3 - 3,0		S=4,5-e			**233 58** 030 030
M4	15,5	8,0	0,5 - 2,0	6,0	S=3,8-e	11,5	0,8	**233 58** 040 020
	17,5		2,0 - 3,5		S=5,6-e			**233 58** 040 040
M5	19,6	9,0	0,5 - 3,0	7,0	S=5,0-e	12,5	1,0	**233 58** 050 001
	20,0		2,0 - 4,0		S=6,1-e	13,5	0,8	**233 58** 050 040
M6	22,2	11,0	0,5 - 3,0	9,0	S=5,6-e	15,5	1,4	**233 58** 060 030
	23,5		3,0 - 4,5		S=7,1-e			**233 58** 060 045
M8	26,1	14,0	0,8 - 3,0	11,0	S=5,3-e	19,5	1,5	**233 58** 080 001
	27,0		3,0 - 5,5		S=8,2-e	18,0	1,4	**233 58** 080 055
M10	31,5	16,0	1,0 - 3,5	13,0	S=7,4-e	27,5	1,8	**233 58** 100 035
	33,5		3,5 - 5,5		S=9,4-e			**233 58** 100 055
M12	35,0	20,0	1,0 - 4,5	16,0	S=8,5-e	29,5	1,8	**233 58** 120 045



RIVKLE® Plus 24H

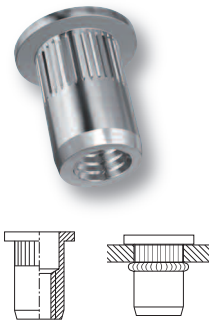
Stainless steel | Thin head | Knurled | Open

d (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	8,7	6,0	0,7 - 1,5	5,0	S=2,4-e	5,9	0,3	**343 66** 030 015
	7,9		1,5 - 2,5		S=3,5-e			**343 66** 030 025
	10,5		2,3 - 3,2		S=4,6-e			**343 66** 030 032
M4	11,6	7,0	0,7 - 3,0	6,0	S=4,0-e	7,5	0,5	**343 66** 040 230
	12,5		3,0 - 4,2		S=4,6-e	6,6	0,3	**343 66** 040 042
M5	12,3	8,0	0,7 - 3,3	7,0	S=4,4-e	8,0	0,5	**343 66** 050 233
	14,5		3,3 - 4,5		S=6,3-e	8,2	0,3	**343 66** 050 045
M6	14,5	10,0	0,7 - 3,3	9,0	S=5,7-e	8,6	0,6	**343 66** 060 233
	17,5		3,0 - 5,5		S=7,5-e	9,6	0,45	**343 66** 060 055
	17,0		4,5 - 6,0		S=7,9-e	8,7	0,4	**343 66** 060 060
M8	16,1	12,0	0,7 - 3,3	11,0	S=6,5-e	9,5	0,6	**343 66** 080 233
	18,6		3,3 - 5,5		S=9,0-e	10,0		**343 66** 080 255
	19,1		4,5 - 6,0		S=7,9-e	10,7	0,4	**343 66** 080 060
M10	18,3	14,0	0,8 - 1,5	13,0	S=3,9-e	13,9	0,4	**343 66** 100 015
	19,9		1,5 - 3,0		S=5,5-e			**343 66** 100 030
	21,5		3,0 - 4,5		S=7,1-e			**343 66** 100 045
	23,1		4,5 - 6,0		S=8,7-e			**343 66** 100 060
M12	21,5	17,5	0,8 - 1,5	16,0	S=3,8-e	17,2	0,4	**343 66** 120 015
	23,1		1,5 - 3,0		S=5,4-e			**343 66** 120 030
	24,7		3,0 - 4,5		S=7,0-e			**343 66** 120 045
	26,3		4,5 - 6,0		S=8,6-e			**343 66** 120 060



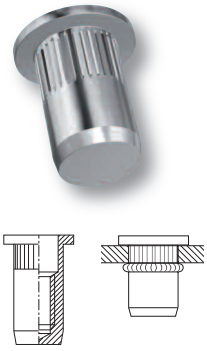
Stainless steel | Thin head | Knurled | Closed

d (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	13,0	6,0	0,7 - 1,5	5,0	S=2,4-e	10,2	0,3	**343 76** 030 015
	14,1		1,5 - 2,5		S=3,5-e			**343 76** 030 025
	14,8		2,3 - 3,2		S=4,6-e			**343 76** 030 032
M4	15,7	7,0	0,7 - 3,0	6,0	S=3,8-e	12,0	0,5	**343 76** 040 030
	16,7		2,5 - 3,5		S=4,0-e	11,9	0,3	**343 76** 040 035
	17,5		3,5 - 4,2		S=4,7-e			**343 76** 040 042
M5	17,8	8,0	0,8 - 2,0	7,0	S=3,2-e	14,2	0,3	**343 76** 050 020
	18,9		2,0 - 3,0		S=4,3-e			**343 76** 050 030
	20,5		3,0 - 4,5		S=5,4-e			**343 76** 050 045
M6	17,3	10,0	0,8 - 1,5	9,0	S=3,1-e	13,7	0,4	**343 76** 060 015
	18,8		1,5 - 3,0		S=4,7-e	13,6		**343 76** 060 030
	20,4		3,0 - 4,5		S=6,3-e			**343 76** 060 045
	22,0		4,5 - 6,0		S=7,9-e			**343 76** 060 060
M8	20,3	12,0	0,8 - 1,5	11,0	S=3,3-e	16,7	0,4	**343 76** 080 015
	21,9		1,5 - 3,0		S=4,7-e			**343 76** 080 030
	23,5		3,0 - 4,5		S=6,3-e			**343 76** 080 045
	25,1		4,5 - 6,0		S=7,9-e			**343 76** 080 060
M10	26,3	14,0	0,8 - 1,5	13,0	S=3,9-e	21,9	0,4	**343 76** 100 015
	27,9		1,5 - 3,0		S=5,5-e			**343 76** 100 030
	29,5		3,0 - 4,5		S=7,1-e			**343 76** 100 045
	31,1		4,5 - 6,0		S=8,7-e			**343 76** 100 060
M12	30,5	17,5	0,8 - 1,5	16,0	S=3,8-e	26,2	0,4	**343 76** 120 015
	32,1		1,5 - 3,0		S=5,4-e			**343 76** 120 030
	33,7		3,0 - 4,5		S=7,0-e			**343 76** 120 045
	35,3		4,5 - 6,0		S=8,6-e			**343 76** 120 060



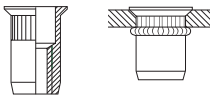
Stainless steel | Flat head | Knurled | Open

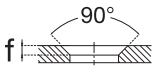
d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	9,3	7,0	0,7 - 1,5	5,0	S=2,4-e	5,9	1,0	**233 06** 030 015
	10,4		1,5 - 2,5		S=3,5-e			**233 06** 030 025
	11,0		2,3 - 3,2		S=4,4-e			**233 06** 030 032
M4	11,9	8,0	0,7 - 3,0	6,0	S=4,0-e	6,5	1,0	**233 06** 040 230
	12,4		3,3 - 4,2		S=4,7-e	6,0		**233 06** 040 042
M5	12,7	9,0	0,7 - 3,3	7,0	S=5,3-e	7,2	1,0	**233 06** 050 233
	14,9		3,3 - 4,5		S=5,4-e	7,8		**233 06** 050 045
M6	15,2	12,0	0,7 - 3,3	9,0	S=5,7-e	8,6	1,5	**233 06** 060 233
	16,4	11,0	3,0 - 4,5		S=6,3-e			**233 06** 060 045
	18,2		4,5 - 6,0		S=7,9-e			**233 06** 060 060
M8	16,9	14,0	0,7 - 3,3	11,0	S=6,5-e	9,5	1,5	**233 06** 080 233
	19,0		3,0 - 5,5		S=8,5-e			**233 06** 080 255
	20,0		4,5 - 6,0		S=7,9-e	10,6		**233 06** 080 060
M10	19,8	16,0	0,8 - 1,5	13,0	S=3,9-e	13,9	2,0	**233 06** 100 015
	21,4		1,5 - 3,0		S=5,5-e			**233 06** 100 030
	23,0		3,0 - 4,5		S=7,1-e			**233 06** 100 045
	24,6		4,5 - 6,0		S=8,7-e			**233 06** 100 060
M12	23,0	20,0	0,8 - 1,5	16,0	S=3,8-e	17,2	2,0	**233 06** 120 015
	24,6		1,5 - 3,0		S=5,4-e			**233 06** 120 030
	26,2		3,0 - 4,5		S=7,0-e			**233 06** 120 045
	27,8		4,5 - 6,0		S=8,6-e			**233 06** 120 060



Stainless steel | Flat head | Knurled | Closed

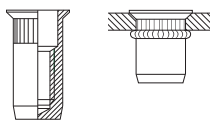
d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	13,6	7,0	0,7 - 1,5	5,0	S=2,4-e	10,2	1,0	**233 26** 030 015
	14,7		1,5 - 2,5		S=3,5-e			**233 26** 030 025
	15,4		2,3 - 3,2		S=4,4-e			**233 26** 030 032
M4	14,8	8,0	0,7 - 1,5	6,0	S=2,6-e	11,2	1,0	**233 26** 040 015
	16,2		0,7 - 3,0		S=4,8-e			**233 26** 040 030
	16,7		2,5 - 3,5		S=4,7-e			**233 26** 040 035
	17,5		3,5 - 4,2		S=5,5-e			**233 26** 040 042
M5	17,8	9,0	0,7 - 1,5	7,0	S=2,8-e	14,0	1,0	**233 26** 050 015
	19,3		1,5 - 3,0		S=4,5-e			**233 26** 050 030
	20,4		3,0 - 4,0		S=5,6-e	13,8		**233 26** 050 040
M6	18,3	11,0	0,8 - 1,5	9,0	S=3,1-e	13,7	1,5	**233 26** 060 015
	19,8		1,5 - 3,0		S=4,7-e			**233 26** 060 030
	21,4		3,0 - 4,5		S=6,3-e			**233 26** 060 045
	23,2		4,5 - 6,0		S=7,9-e			**233 26** 060 060
M8	21,3	14,0	0,8 - 1,5	11,0	S=3,2-e	16,6	1,5	**233 26** 080 015
	22,8		1,5 - 3,0		S=4,7-e			**233 26** 080 030
	24,4		3,0 - 4,5		S=6,3-e			**233 26** 080 045
	26,0		4,5 - 6,0		S=7,9-e			**233 26** 080 060
M10	27,8	16,0	0,8 - 1,5	13,0	S=3,9-e	21,9	2,0	**233 26** 100 015
	29,4		1,5 - 3,0		S=5,5-e			**233 26** 100 030
	31,0		3,0 - 4,5		S=7,1-e			**233 26** 100 045
	32,6		4,5 - 6,0		S=8,7-e			**233 26** 100 060
M12	32,0	20,0	0,8 - 1,5	16,0	S=3,8-e	26,2	2,0	**233 26** 120 015
	33,6		1,5 - 3,0		S=5,4-e			**233 26** 120 030
	35,2		3,0 - 4,5		S=7,0-e			**233 26** 120 045
	36,8		4,5 - 6,0		S=8,6-e			**233 26** 120 060

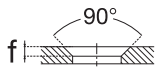




Stainless steel | Countersunk head | Knurled | Open

d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	f (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	8,8	7,0	1,3 - 2,0	5,0	0,9	S=2,9-e	5,9	0,1	**233 16** 030 020
	9,9		2,0 - 3,0			S=4,0-e			**233 16** 030 030
M4	9,3	8,0	1,3 - 2,0	6,0	0,9	S=3,1-e	6,2	0,1	**233 16** 040 020
	10,3		2,0 - 3,0			S=4,1-e			**233 16** 040 030
	11,4		3,0 - 4,0			S=6,5-e			**233 16** 040 040
M5	11,3	9,0	1,5 - 2,0	7,0	0,9	S=3,9-e	8,3	0,1	**233 16** 050 020
	12,3		2,0 - 3,0			S=5,0-e			**233 16** 050 030
	13,4		3,0 - 4,0			S=5,6-e	7,8		**233 16** 050 040
M6	14,3	10,6	1,5 - 4,0	9,0	0,9	S=5,7-e	8,6	0,1	**233 16** 060 400
	15,4	11,0	4,0 - 5,0			S=6,9-e			**233 16** 060 050
	16,5		5,0 - 6,0			S=8,0-e			**233 16** 060 060
M8	15,3	14,0	1,5 - 3,0	11,0	1,4	S=4,7-e	10,6	0,1	**233 16** 080 030
	16,3		3,0 - 4,0			S=5,8-e			**233 16** 080 040
	17,4		4,0 - 5,0			S=6,9-e			**233 16** 080 050
	18,5		5,0 - 6,0			S=8,0-e			**233 16** 080 060
M10	19,4	16,0	1,5 - 3,0	13,0	1,4	S=5,5-e	13,9	0,1	**233 16** 100 030
	21,0		3,0 - 4,5			S=7,0-e			**233 16** 100 045
	22,6		4,5 - 6,0			S=8,7-e			**233 16** 100 060
M12	22,6	19,0	1,5 - 3,0	16,0	1,4	S=5,4-e	17,2	0,1	**233 16** 120 030
	24,2		3,0 - 4,5			S=7,0-e			**233 16** 120 045
	25,8		4,5 - 6,0			S=8,6-e			**233 16** 120 060

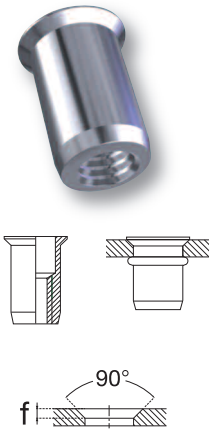




Stainless steel | Countersunk head | Knurled | Closed

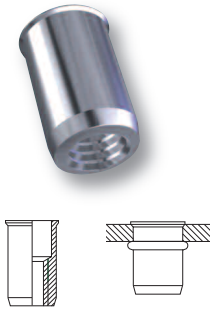
d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	f (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	13,1	7,0	1,3 - 2,0	5,0	0,9	S=2,9-e	10,2	0,1	**233 36** 030 020
	14,2		2,0 - 3,0			S=4,0-e			**233 36** 030 030
M4	14,3	8,0	1,3 - 2,0	6,0	0,9	S=3,1-e	11,2	0,1	**233 36** 040 020
	15,3		2,0 - 3,0			S=4,1-e			**233 36** 040 030
	16,4		3,0 - 4,0			S=6,5-e			**233 36** 040 040
M5	17,3	9,0	1,5 - 2,0	7,0	0,9	S=3,4-e	13,9	0,1	**233 36** 050 020
	18,3		2,0 - 3,0			S=4,5-e			**233 36** 050 030
	19,4		3,0 - 4,0			S=5,6-e			**233 36** 050 040
M6	18,3	11,0	1,5 - 3,0	9,0	0,9	S=4,7-e	13,6	0,1	**233 36** 060 030
	19,3		3,0 - 4,0			S=5,8-e			**233 36** 060 040
	20,4		4,0 - 5,0			S=6,9-e			**233 36** 060 050
	21,5		5,0 - 6,0			S=8,0-e			**233 36** 060 060
M8	21,3	14,0	1,5 - 3,0	11,0	1,4	S=4,8-e	16,5	0,1	**233 36** 080 030
	22,3		3,0 - 4,0			S=5,8-e			**233 36** 080 040
	23,4		4,0 - 5,0			S=6,9-e			**233 36** 080 050
	24,5		5,0 - 6,0			S=8,0-e			**233 36** 080 060
M10	27,4	16,0	1,5 - 3,0	13,0	1,4	S=5,5-e	21,9	0,1	**233 36** 100 030
	29,0		3,0 - 4,5			S=7,0-e			**233 36** 100 045
	30,6		4,5 - 6,0			S=8,7-e			**233 36** 100 060
M12	31,6	19,0	1,5 - 3,0	16,0	1,4	S=5,4-e	26,2	0,1	**233 36** 120 030
	33,2		3,0 - 4,5			S=7,0-e			**233 36** 120 045
	34,8		4,5 - 6,0			S=8,6-e			**233 36** 120 060

Stainless steel | Countersunk head | Plain | Open



d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	f (mm)	S (mm)	L2 (mm)	E max (mm)	
M4	11,3	8,0	1,30 - 2,50	6,0	1,3	S=4,4-e	6,8	0,1	**233 18** 040 250
	10,8		1,75 - 3,25			S=4,5-e	5,4		**233 18** 040 325
M5	12,5	9,2	1,50 - 3,00	7,0	1,5	S=4,0-e	8,5	0,1	**233 18** 050 300
	13,8	9,6	3,00 - 4,00			S=5,0-e			**233 18** 050 400
M6	14,8	11,3	1,50 - 3,00	9,0	1,5	S=4,9-e	9,5	0,1	**233 18** 060 300
	16,6	11,5	3,00 - 4,50			S=5,4-e	11,2		**233 18** 060 450
	18,2		4,50 - 6,00			S=7,0-e			**233 18** 060 600
M8	16,3	13,1	1,50 - 3,00	11,0	1,5	S=5,0-e	10,5	0,1	**233 18** 080 300
	18,1	13,5	3,00 - 4,50			S=5,9-e	12,2		**233 18** 080 450
	19,7		4,50 - 6,00			S=7,5-e			**233 18** 080 600
M10	20,4	15,5	1,50 - 3,00	13,0	1,5	S=4,2-e	16,2	0,1	**233 18** 100 300
	22,0		3,00 - 4,50			S=6,7-e			**233 18** 100 450
	23,6		4,50 - 6,00			S=7,4-e			**233 18** 100 600

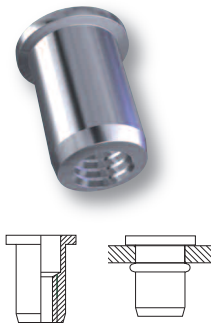
Stainless steel | Thin head | Plain | Open



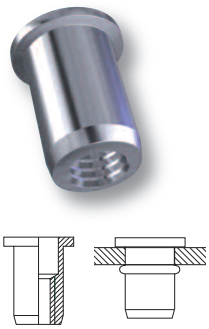
d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M3	8,8	5,3	0,5 - 1,5	4,7	S=2,8-e	5,5	0,4	**343 08** 030 150
M4	10,4	7,0	0,5 - 2,0	6,4	S=3,5-e	7,3	0,5	**343 08** 040 200
M5	11,6	7,7	0,5 - 3,0	7,1	S=5,0-e	7,3	0,6	**343 08** 050 300
M6	14,3	10,2	0,7 - 3,0	9,5	S=5,7-e	9,3	0,6	**343 08** 060 300
M8	16,6	11,3	0,7 - 3,0	10,5	S=6,1-e	10,5	0,7	**343 08** 080 300

inch For holes with imperial dimensions

Stainless steel | Flat head | Plain | Open

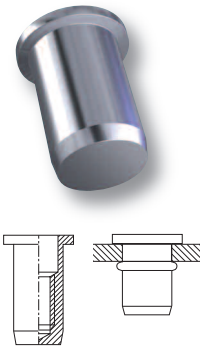


d (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	S (mm)	L2 (mm)	E max (mm)	
M4	12,0	9,0	0,50 - 2,00	6,0	S=3,5-e	6,8	1,0	**233 08** 040 020
	13,5		2,00 - 3,50		S=5,2-e			**233 08** 040 035
M5	12,5	10,0	0,50 - 3,00	7,0	S=4,7-e	8,0	1,0	**233 08** 050 030
	14,3	9,0	3,00 - 4,00		S=5,0-e	8,5		**233 08** 050 400
M6	16,5	12,0	0,80 - 3,00	9,0	S=4,7-e	10,0	1,5	**233 08** 060 300
	18,0		3,00 - 4,50		S=6,3-e			**233 08** 060 450
M8	16,5	14,0	0,80 - 3,00	11,0	S=4,7-e	9,5	1,5	**233 08** 080 300
	19,4		3,00 - 4,50		S=6,1-e	10,0		**233 08** 080 450
M10	22,4	16,0	1,00 - 3,00	13,0	S=4,6-e	16,0	2,0	**233 08** 100 300
	24,0		3,00 - 4,50		S=6,7-e			**233 08** 100 450
	25,6		4,50 - 6,00		S=7,8-e			**233 08** 100 600



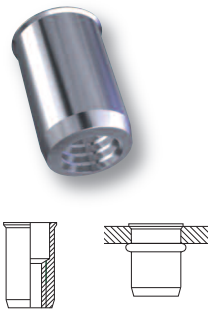
Stainless steel A4 | Flat head | Plain | Open

D (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	(N)	L2 max (mm)	E max (mm)	
M4	12,0	9,0	0,5 - 2,0	6,0	9 500	7,5	1,0	**233 04** 040 020
M5	12,5	10,0	0,5 - 3,0	7,0	12 000	7,5	1,0	**233 04** 050 030
M6	16,0	12,0	0,5 - 3,0	9,0	15 000	10,0	1,5	**233 04** 060 030
M8	17,5	15,0	0,5 - 3,0	11,0	20 000	11,2	1,5	**233 04** 080 030



Stainless steel A4 | Flat head | Plain | Closed

D (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	(N)	L2 max (mm)	E max (mm)	
M4	16,0	9,0	0,5 - 2,0	6,0	9 500	11,5	1,0	**233 24** 040 020
M5	18,5	10,0	0,5 - 3,0	7,0	12 000	13,2	1,0	**233 24** 050 030
M6	23,0	12,0	0,5 - 3,0	9,0	15 000	17,0	1,5	**233 24** 060 030
M8	25,0	15,0	0,5 - 3,0	11,0	20 000	18,7	1,5	**233 24** 080 030

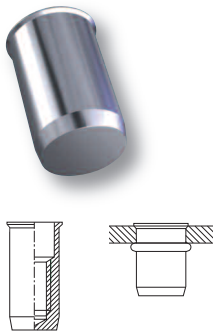


Stainless steel A4 | Thin head | Plain | Open

D (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	(N)	L2 max (mm)	E max (mm)	
M5	12,0	7,5	0,5 - 3,0	7,0	12 000	7,2	0,5	**343 64** 050 030
M6	14,5	9,5	0,5 - 3,0	9,0	15 000	9,4	0,5	**343 64** 060 030
M8	16,0	11,5	0,5 - 3,0	11,0	20 000	11,2	0,5	**343 64** 080 030

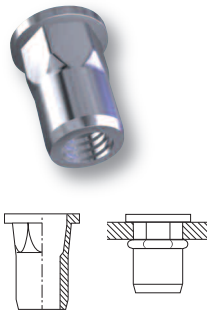
Range dedicated to industry use. In case of non metalic support, please contact us

Stainless steel A4 | Thin head | Plain | Closed



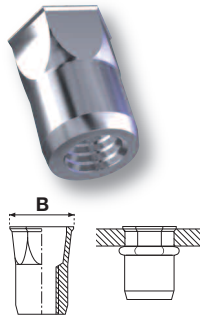
D (mm)	L (mm)	B (mm)	e (min - max) (mm)	Ø +0,1/0 (mm)	(N)	L2 max (mm)	E max (mm)	
M4	15,5	6,5	0,5 - 2,0	6,0	9 500	11,6	0,5	**343 74** 040 020
M5	18,0	7,5	0,5 - 3,0	7,0	12 000	13,2		**343 74** 050 030
M6	21,5	9,5		9,0	15 000	16,7		**343 74** 060 030
M8	24,0	11,5		11,0	20 000	19,2		**343 74** 080 030

Stainless steel A4 | Flat head | Semi-hexagonal | Open



D (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	(N)	L2 max (mm)	E max (mm)	
M4	12,0	9,0	0,5 - 2,0	6,0	9 500	7,5	1,0	**233 44** 040 020
M5	12,5	10,0	0,5 - 3,0	7,0	12 000	7,2		**233 44** 050 030
M6	16,0	12,0		9,0	15 000	9,3	1,5	**233 44** 060 030
M8	17,5	15,0		11,0	20 000	11,0		**233 44** 080 030

Stainless steel A4 | Thin head | Semi-hexagonal | Open



D (mm)	L (mm)	B (mm)	e (min - max) (mm)	H +0,1/0 (mm)	(N)	L2 max (mm)	E max (mm)	
M4	11,0	6,5	0,5 - 2,0	6,0	9 500	7,5	0,5	**343 44** 040 020
M5	12,0	7,5	0,5 - 3,0	7,0	12 000	7,2		**343 44** 050 030
M6	14,5	9,5		9,0	15 000	9,3		**343 44** 060 030
M8	16,0	11,5		11,0	20 000	11,0		**343 44** 080 030

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