

Particular Features

Max. tensile strength 10.000 N.

Fastener for maximum tensile strength and preload.

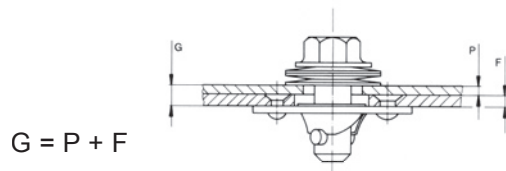
Preferred applications:

Commercial vehicles, coaches, agricultural machinery, chemical engineering, heating systems etc.

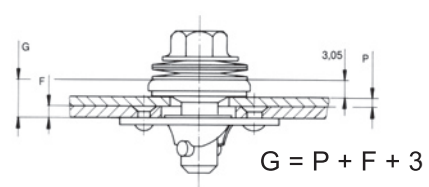
1. Select stud assembly and receptacle, pages H-2, H-3 and H-5.
2. Sealed: Also select rubber gasket and buffer plate, page H-4.
3. Select retaining washer, page H-4.
4. Select stud length number from total thickness G using the formula and table below, insert into stud part number * (e.g. 991S01-*AGV).

Determining the stud length number when using:

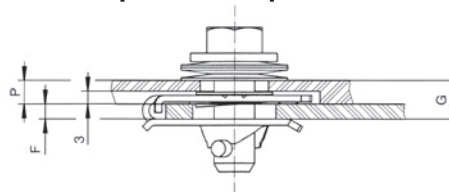
Rivet, Screw and Weld Mounting Receptacle



Sealed Stud Assemblies



Clip-On Receptacle




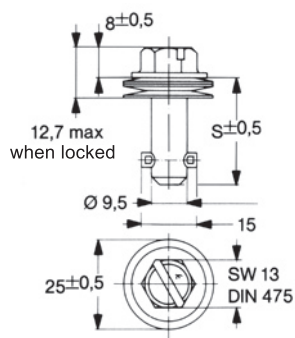

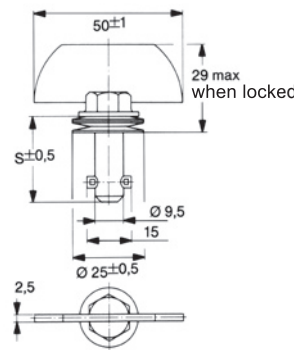

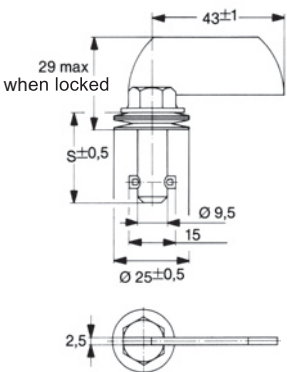

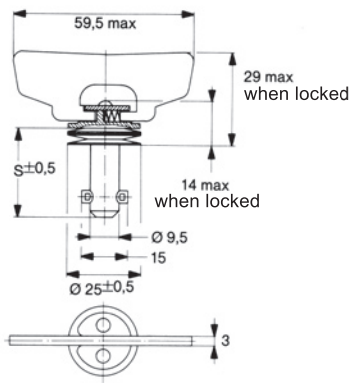
$G = P + F$
 $P_{min.} = 4$
 $F = 1,5 - 3,5$

Stud Length Table

Total Thickness G	Stud Length No.	Total Thickness G	Stud Length No.	Total Thickness G	Stud Length No.
0,90 - 1,65	1	13,85 - 14,60	18	26,80 - 27,55	35
1,65 - 2,40	2	14,60 - 15,35	19	27,55 - 28,30	36
2,40 - 3,15	3	15,35 - 16,15	20	28,30 - 29,10	37
3,15 - 3,95	4	16,15 - 16,90	21	29,10 - 29,85	38
3,95 - 4,70	5	16,90 - 17,65	22	29,85 - 30,60	39
4,70 - 5,45	6	17,65 - 18,40	23	30,60 - 31,35	40
5,45 - 6,20	7	18,40 - 19,20	24	31,35 - 32,15	41
6,20 - 7,00	8	19,20 - 19,95	25	32,15 - 32,90	42
7,00 - 7,75	9	19,95 - 20,70	26	32,90 - 33,65	43
7,75 - 8,50	10	20,70 - 21,45	27	33,65 - 34,40	44
8,50 - 9,25	11	21,45 - 22,25	28	34,40 - 35,20	45
9,25 - 10,05	12	22,25 - 23,00	29	35,20 - 35,95	46
10,05 - 10,80	13	23,00 - 23,75	30	35,95 - 36,70	47
10,80 - 11,55	14	23,75 - 24,50	31	36,70 - 37,45	48
11,55 - 12,30	15	24,50 - 25,25	32	37,45 - 38,25	49
12,30 - 13,10	16	25,25 - 26,05	33	38,25 - 39,00	50
13,10 - 13,85	17	26,05 - 26,80	34		


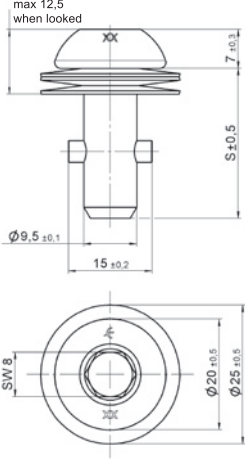

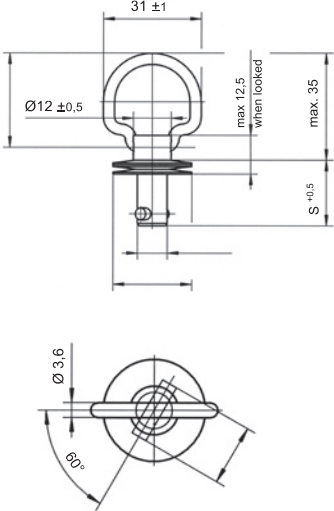
Other lengths on request.

■ Preferred dash-lengths

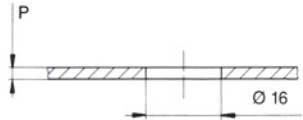
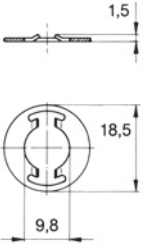
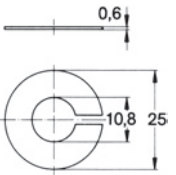
Style	Dimensions	Materials / Finish	°C	Part No.
<p>Hex Head Slotted Recess</p> 	 <p>8±0,5 12,7 max when locked s±0,5 Ø 9,5 15 25±0,5 SW 13 DIN 475</p> <p>S = 16,26 + (0,76 x length no.)</p>	<p>Steel / zinc-plated, CrVI-free, transparent passivated</p> <p>Stainless steel ¹⁾</p>	<p>230</p> <p>230</p>	<p>991S01- *-1AGV</p> <p>991S01- *-1BP</p>
<p>Fixed Wing Head</p> 	 <p>50±1 29 max when locked s±0,5 Ø 9,5 15 Ø 25±0,5 2,5</p> <p>S = 16,26 + (0,76 x length no.)</p>	<p>Steel / zinc-plated, CrVI-free, transparent passivated</p>	<p>230</p>	<p>991S02- *-1AGV</p>
<p>Offset Fixed Wing Head</p> 	 <p>43±1 29 max when locked s±0,5 Ø 9,5 15 Ø 25±0,5 2,5</p> <p>S = 16,26 + (0,76 x length no.)</p>	<p>Steel / zinc-plated, CrVI-free, transparent passivated</p>	<p>230</p>	<p>991S03- *-1AGV</p>
<p>180° Folding Wing Head</p> 	 <p>59,5 max 29 max when locked 14 max when locked s±0,5 Ø 9,5 15 Ø 25±0,5 3</p> <p>S = 16,26 + (0,76 x length no.)</p>	<p>Steel / zinc-plated, CrVI-free, transparent passivated</p>	<p>230</p>	<p>991S05- *-1AGV</p>

* Length no. from Table, see page H-1.

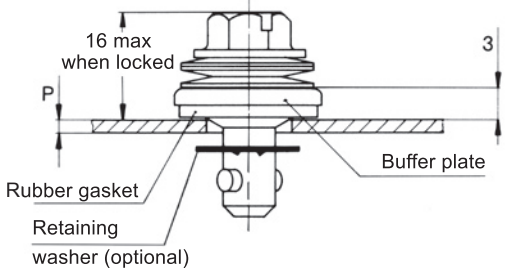
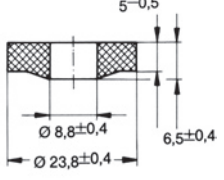
¹⁾ Max. tensile strength 7.000 N.


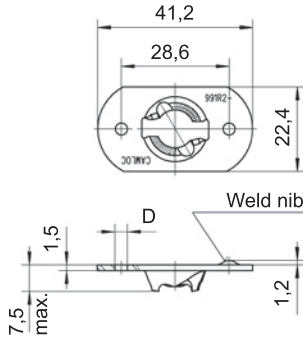

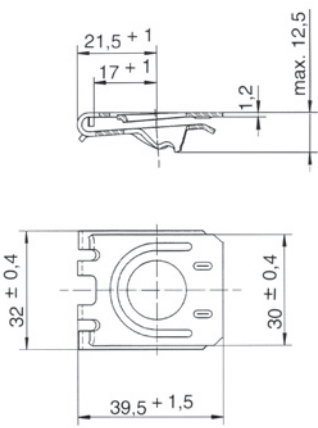
Style	Dimensions	Materials / Finish	°C	Part No.
<p>Hex Recess Head</p> 		<p>Steel / zinc-plated, CrVI-free, transparent passivated</p>	<p>230</p>	<p>991S30-*AGV</p>
<p>Folding Bail Handle</p> 	 <p>S = 15,03 + (0,76 X length no.)</p>	<p>Steel / zinc-plated, CrVI-free, transparent passivated</p>	<p>230</p>	<p>991S2991-*AGV</p>

* Length no. from Table, see page H-1.

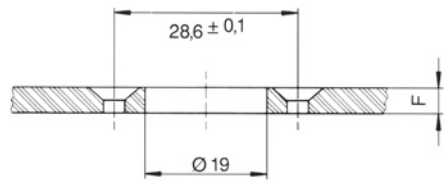
Installation Dimensions	Accessories	Material / Finish	Part No.
 	<p>Retaining washer</p> <p>Stainless steel</p> <p>991W04-1BP</p>	<p>Stainless steel</p>	<p>Stainless steel</p> <p>991W02-1BP</p>
			

Sealed Stud Assemblies

Installation Dimensions	Accessories	Material / Finish	Part No.
	<p>Buffer plate</p> <p>Stainless steel</p> <p>991W03-1BP</p>	<p>NBR black (100°C max.)</p>	<p>991S17-1K</p>
			

Style	Dimensions	Materials / Finish	Mounting Ø	°C	Part No.
Rivet / Screw Mounting 		Rivet / Screw Mounting Steel / zinc-plated, CrVI-free, transparent passivated	3,3	230	991R2-1AGV
		Steel / zinc-plated, CrVI-free, transparent passivated	4,1	230	991R2-3AGV
		Stainless steel	3,3	230	991R2-1BP
		Stainless steel	4,1	230	991R2-3BP
		Welding Steel / zinc-plated	-	230	991R2-2AZ
Clip-On 		Steel / zinc-plated, zinc flake coated Frame thickness F= 1,5mm - 3,5mm		230	991R6-1AK7

Receptacle Installation Instructions

Installation Dimensions	
Rivet / Screw or Welding Mounting 	Clip-On 