

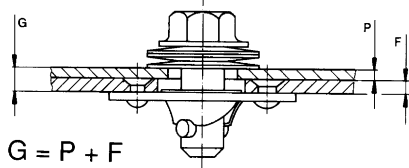
- Zugbelastung max. 10.000 N, Betriebsbelastung 7.000 N
- Verschluss für höchste Zugbelastung und Vorspannung
- Bevorzugte Anwendungen:  
Nutzfahrzeuge, Omnibusse, Landmaschinen, Verfahrenstechnik, Heizungsbau etc.
- Max. tensile strength 10,000 N, working load 7.000 N
- Fastener for maximum tensile strength and preload
- Preferred applications:  
Commercial vehicles, coaches, agricultural machinery, chemical engineering, heating systems, etc.



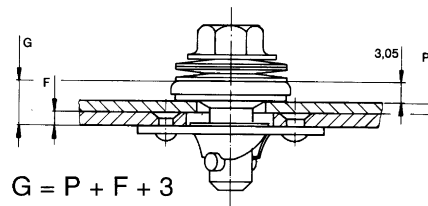
### Serie 991F

**Ermittlung der Längen-Nr. für Verschlusszapfen bei Verwendung von:**  
**Determining the stud length number when using:**

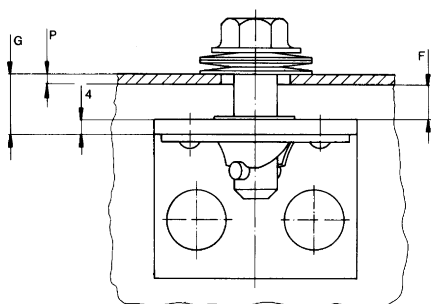
**Haltenocken für Niet-, Schraub-  
 und Schweißbefestigung/  
 Rivet, Screw and  
 Weld Mounting Receptacles**



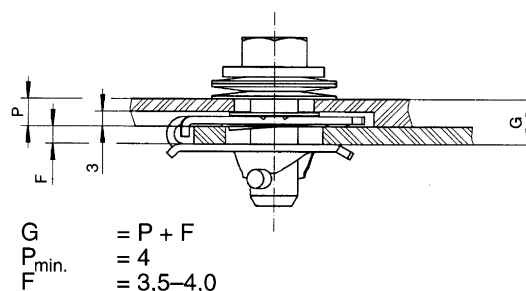
**Abgedichtete Verschlusszapfen/  
 Sealed Stud Assemblies**



**Haltenocken für Winkelbefestigung/  
 Slide-Mounting Receptacle**



**Haltenocken Clip On  
 Receptacle Clip On**



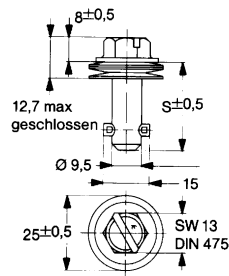
### Verschlusszapfen-Längentabelle / Stud Length Table

Gesamt-Klemmdicke Total Thickness G	Verschlusszapfen- Lngen-Nr. Stud Length No.	Gesamt-Klemmdicke Total Thickness G	Verschlusszapfen- Lngen-Nr. Stud Length No.	Gesamt-Klemmdicke Total Thickness G	Verschlusszapfen- Lngen-Nr. 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		

Weitere Längen auf Anfrage / Other lengths upon request

**Serie 991F - Verschlusszapfen / Stud Assemblies**

**Schlitzkopf  
 Sechskant  
 Slotted Recess  
 Hex Head**



$S = 16,26 + (0,76 \times \text{Längen-Nr.})$

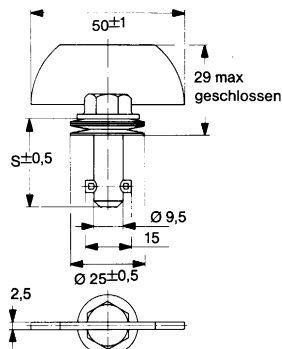
Artikel-Nr. : Material/Oberfläche:  
 Part-No.: Material/Finish:

**991S01-\*-1AGV** Stahl / verzinkt, CrVI-frei,  
 transparent passiviert  
 Steel / zinc-plated, CrVI-free,  
 transparent passivated

**991S01-\*-1BP** Stahl rostfrei <sup>1)</sup>  
 Stainless steel <sup>1)</sup>

<sup>1)</sup> Zugbelastung 7000 N max.  
<sup>1)</sup> Max. Tensile strength 7000 N

**Flügelkopf  
 Fixed Wing Head**

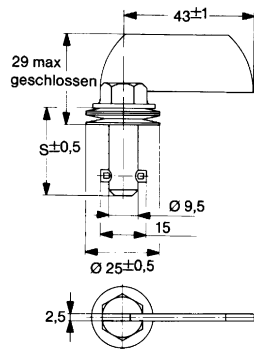
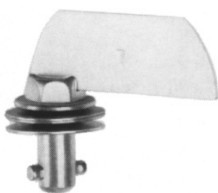


$S = 16,26 + (0,76 \times \text{Längen-Nr.})$

Artikel-Nr. : Material/Oberfläche:  
 Part-No.: Material/Finish:

**991S02-\*-1AGV** Stahl / verzinkt, CrVI-frei,  
 transparent passiviert  
 Steel / zinc-plated, CrVI-free,  
 transparent passivated

**Flügelkopf  
 einseitig  
 Offset Fixed  
 Wing Head**

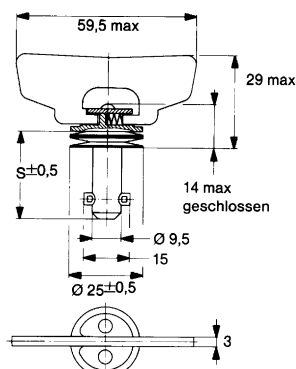


$S = 16,26 + (0,76 \times \text{Längen-Nr.})$

Artikel-Nr. : Material/Oberfläche:  
 Part-No.: Material/Finish:

**991S03-\*-1AGV** Stahl / verzinkt, CrVI-frei,  
 transparent passiviert  
 Steel / zinc-plated, CrVI-free,  
 transparent passivated

**Flügelkopf  
 klappbar 180°  
 180° Folding  
 Wing Head**



$S = 16,26 + (0,76 \times \text{Längen-Nr./length no.})$

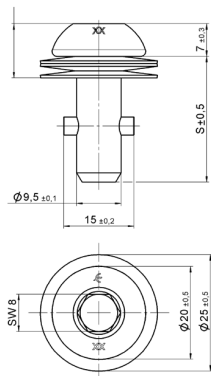
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 Part-No.: Material/Finish:

**991S05-\*-1AGV** Stahl / verzinkt, CrVI-frei,  
 transparent passiviert  
 Steel / zinc-plated, CrVI-free,  
 transparent passivated

\* Längen-Nr. aus Tabelle / Length no. from Table

**Serie 991F - Verschlusszapfen / Stud Assemblies**

**Innensechskant  
 Hexagonal Recess**



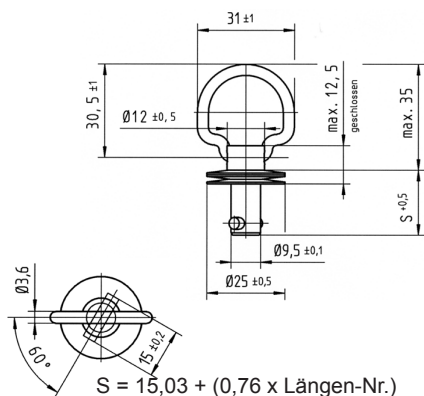
Artikel-Nr. :  
 Part-No.:

Material/Oberfläche:  
 Material/Finish:

**991S30-\*AGV**

Stahl / verzinkt, CrVI-frei,  
 transparent passiviert  
 Steel / zinc-plated, CrVI-free,  
 transparent passivated

**Klappbügel  
 Folding Ball  
 Handle**



Artikel-Nr. :  
 Part-No.:

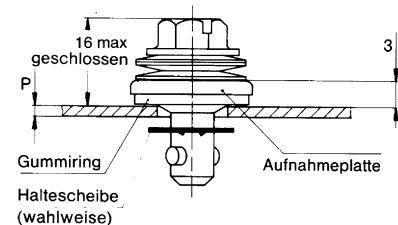
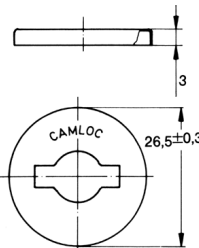
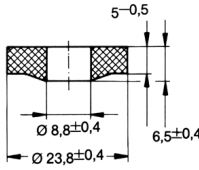
Material/Oberfläche:  
 Material/Finish:

**991S2991-\*AGV**

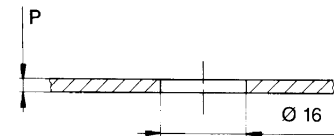
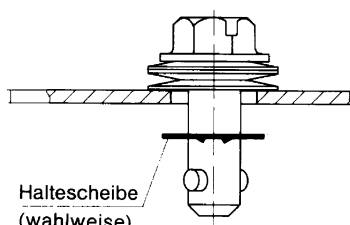
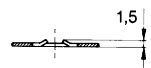
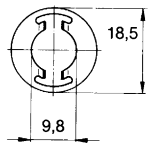
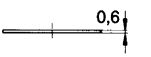
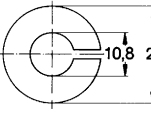
Stahl / verzinkt, CrVI-frei,  
 transparent passiviert  
 Steel / zinc-plated, CrVI-free,  
 transparent passivated

\* Längen-Nr. aus Tabelle / Length no. from Table


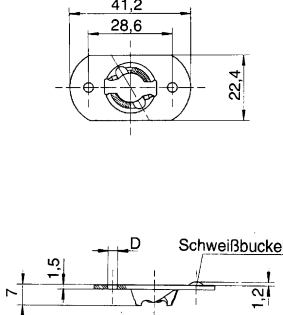
**Serie 991F - Abgedichtete Verschlusszapfen / Sealed Stud Assemblies**


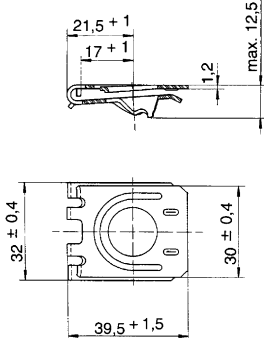
<p>Einbaumaße: Installation Dimensions:</p> 	<p>Zubehör: Accessories</p> <p>Aufnahmeplatte</p>  <p>Gummiring Rubber gasket</p> 	<p>Artikel-Nr.: Part-No.:</p> <p>Material/Oberfläche: Material/Finish:</p> <p><b>991W03-1BP</b>    Stahl, rostfrei                           stainless steel</p> <p><b>991S17-1K</b>      NBR schwarz                           (100° max)                           NBR black                           (100° max)</p>
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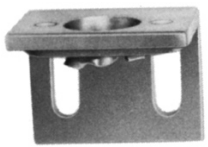
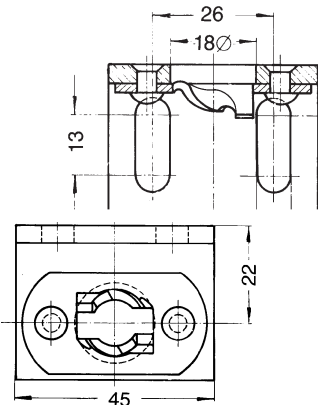
**Verschlusszapfen-Einbauanleitung / Stud Installation Instruction**

<p>Einbaumaße: Installation Dimensions:</p>   <p>Haltescheibe (wahlweise)</p>	<p>Zubehör: Accessories</p> <p>Haltescheibe Retaining Washer</p>   <p>Haltescheibe geschlitzt Slotted Washer</p>  	<p>Artikel-Nr.: Part-No.:</p> <p>Material/Oberfläche: Material/Finish:</p> <p><b>991W04-1BP</b>    Stahl rostfrei                           Stainless steel</p> <p><b>991W02-1BP</b>    Stahl / rostfrei                           Stainless steel</p>
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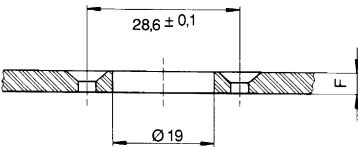
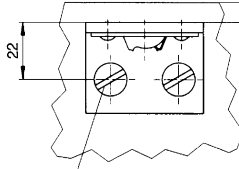
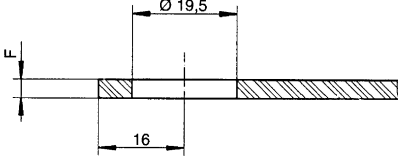
**Serie 991F - Haltenocken / Receptacles**

<p><b>Niet-/Schraub- oder Schweißbefestigung</b>  <b>Rivet / Screw or Weld Mounting</b></p> 		Artikel-Nr. : D: Material/Oberfläche: Part-No.: Material/Finish:
		<p><b>Nieten / Schrauben / Rivet/Screw Mounting</b></p> <p><b>991R2-1AGV</b> 3,3 Stahl / verzinkt, CrVI-frei,  <b>991R2-3AGV</b> 4,1 transparent passiviert                  Steel / zinc-plated,                  CrVI-free, transparent</p> <p><b>991R2-1BP</b> 3,3 Stahl rostfrei  <b>991R2-3BP</b> 4,1 Stainless steel</p> <p><b>991R2-2AZ</b>  <b>Schweißen/Welding</b>                  Stahl / verzinkt                  Steel / zinc-plated</p>

<p><b>Clip-On</b></p> 		Artikel-Nr. : F: Material/Oberfläche: Part-No. Material/Finish:
		<p><b>991R6-1AK7</b> 3,5-4,0 Stahl / Zink-lamellenbeschichtet                  Steel / Magniflake silver</p> <p>Rahmendicke / Thickness of Frame:                  F = 1,5mm - 3,5mm</p>

<p><b>Winkelbefestigung</b>  <b>Side Mounting</b></p> 		Artikel-Nr. : Material/Oberfläche: Part-No. Material/Finish:
		<p><b>991R18-2AG</b> Stahl / verzinkt                  Steel / zinc-plated</p>

**Haltenocken-Einbauanleitung / Receptacle Installation Instructions**

<p><b>Niet-/Schraub- oder Schweißbefestigung</b>  <b>Rivet/Screw or Weld Mounting</b></p> 	<p><b>Winkelbefestigung</b>  <b>Side Mounting</b></p> 	<p><b>Clip-On</b></p> 
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