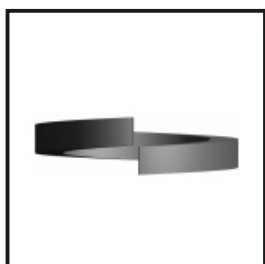
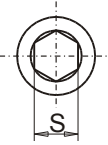
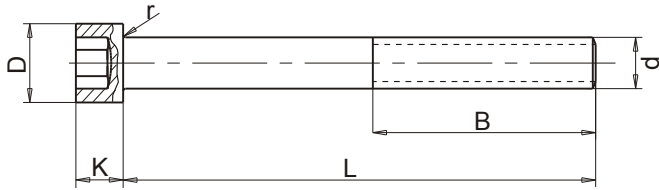


ARANDELA GROWER DIN 7980 / 416	IV/21
CÁNCAMO FORJADO DIN 580 (Macho) DIN 582 (Hembra) / 410	IV/15
CÁNCAMO FUNDICIÓN DIN 580 / 409	IV/14
CÁNCAMO GIRATORIO / 420	IV/16
CÁNCAMO "RUD" / 421	IV/17
CINTA DE PRECISIÓN EN ESTUCHE / 422	IV/22
CINTA DE PRECISIÓN EN ROLLO / 423	IV/23
CINTA DE PRECISIÓN EN ROLLO ANCHO VARIABLE / 424	IV/24
CINTA DE PRECISIÓN SURTIDO / 425	IV/25
COLUMNA DE APOYO / 499	IV/26
ELEMENTO FORJADO DE TRANSPORTE "ET1" / 417	IV/18
ELEMENTO FORJADO DE TRANSPORTE "ET2" / 418	IV/19
ELEMENTO FORJADO DE TRANSPORTE "ET3" / 419	IV/20
ESPARRAGO ALLEN DIN 913 / 404	IV/ 4
LLAVE ALLEN ACODADA DIN 911 / 411	IV/ 5
POSICIONADOR BOLA / PIVOTE ESFÉRICO / 412	IV/12
TAPÓN DE CIERRE A EXPANSIÓN <i>EXPANDER</i> ® / 415	IV/13
TOPE GUIA HEMBRA "TGH" / 408	IV/ 9
TOPE GUIA MACHO "TGM" / 407	IV/ 8
TOPE PLACA EXPULSORA "TPE" / 413	IV/11
TORNILLO AVELLANADO DIN 7991 / 403	IV/ 3
TORNILLO ALLEN DIN 912 - 8.8 / 401	IV/ 1
TORNILLO ALLEN DIN 912 - 12.9 / 402	IV/ 2
TORNILLO LÍMITE HEMBRA "TLH" / 406	IV/ 7
TORNILLO LÍMITE MACHO "TLM" / 405	IV/ 6
TORNILLO LIMITADOR "KRT" / 414	IV/10



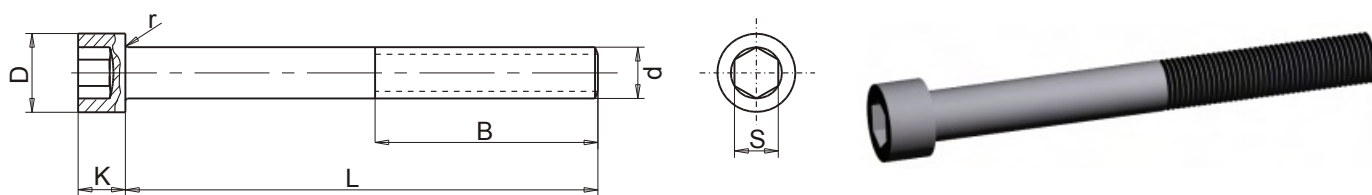
**TORNILLO ALLEN DIN 912 - 8.8**  
**SOCKET HEAD CAP SCREWS DIN 912 - 8.8**
**401**

**RESISTENCIA A LA TRACCION / TENSILE STRENGTH: ( 80-100 Kp/mm2 )**

d	M- 3	M- 4	M- 5	M- 6	M- 8	M- 10	M-12	M-14	M-16	M-18	M-20	M-24	M-30
b	18	20	22	24	28	32	36	40	44	52	52	60	72
D	5.5	7	8.5	10	13	16	18	21	24	27	30	36	45
K	3	4	5	6	8	10	12	14	16	18	20	24	30
S	2.6	3	4	5	6	8	10	12	14	14	17	19	22
r	0.2	0.2	0.2	0.3	0.5	0.5	1	1	1	1	1	1.6	2

L	M- 3	M- 4	M- 5	M- 6	M- 8	M- 10	M-12	M-14	M-16	M-18	M-20	M-24	M-30
6	*	*	*										
8	*	*	*	*									
10	*	*	*	*	*								
12	*	*	*	*	*								
14	*	*	*	*	*								
16	*	*	*	*	*	*							
18	*	*	*	*	*	*							
20	*	*	*	*	*	*	*						
22	*	*	*	*	*	*	*						
25	*	*	*	*	*	*	*	*	*				
30	*	*	*	*	*	*	*	*	*	*	*		
35	*	*	*	*	*	*	*	*	*	*	*		
40	*	*	*	*	*	*	*	*	*	*	*	*	
45		*	*	*	*	*	*	*	*	*	*	*	*
50		*	*	*	*	*	*	*	*	*	*	*	*
55		*	*	*	*	*	*	*	*	*	*	*	*
60		*	*	*	*	*	*	*	*	*	*	*	*
65		*	*	*	*	*	*	*	*	*	*	*	*
70		*	*	*	*	*	*	*	*	*	*	*	*
80			*	*	*	*	*	*	*	*	*	*	*
90			*	*	*	*	*	*	*	*	*	*	*
100			*	*	*	*	*	*	*	*	*	*	*
110					*	*	*	*	*	*	*	*	*
120					*	*	*	*	*	*	*	*	*
130					*	*	*	*	*	*	*	*	*
140					*	*	*	*	*	*	*	*	*
150					*	*	*	*	*	*	*	*	*
160					*	*	*	*	*	*	*	*	*
170					*	*	*	*	*	*	*	*	*
180					*	*	*	*	*	*	*	*	*
190					*	*	*	*	*	*	*	*	*
200					*	*	*	*	*	*	*	*	*
220					*	*	*	*	*	*	*	*	*
240					*	*	*	*	*	*	*	*	*
260					*	*	*	*	*	*	*	*	*
280					*	*	*	*	*	*	*	*	*
300					*	*	*	*	*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM : d x L.**

SOCKET HEAD CAP SCREWS DIN 912 - 12.9



RESISTENCIA A LA TRACCION / TENSILE STRENGTH: (120-140 Kp/mm2)

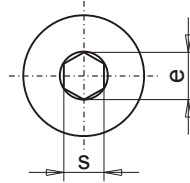
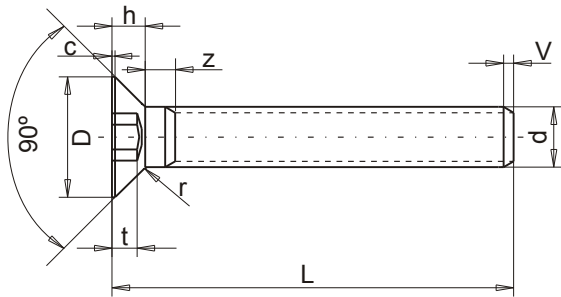
d	M- 3	M- 4	M- 5	M- 6	M- 8	M- 10	M-12	M-14	M-16	M-18	M-20	M-24	M-30
b	18	20	22	24	28	32	36	40	44	52	52	60	72
D	5.5	7	8.5	10	13	16	18	21	24	27	30	36	45
K	3	4	5	6	8	10	12	14	16	18	20	24	30
S	2.6	3	4	5	6	8	10	12	14	14	17	19	22
r	0.2	0.2	0.2	0.3	0.5	0.5	1	1	1	1	1	1.6	2

L	M- 3	M- 4	M- 5	M- 6	M- 8	M- 10	M-12	M-14	M-16	M-18	M-20	M-24	M-30
6	*	*	*										
8	*	*	*	*									
10	*	*	*	*	*								
12	*	*	*	*	*								
14	*	*	*	*	*								
16	*	*	*	*	*	*							
18	*	*	*	*	*	*							
20	*	*	*	*	*	*	*						
22	*	*	*	*	*	*	*						
25	*	*	*	*	*	*	*	*	*				
30	*	*	*	*	*	*	*	*	*	*	*		
35	*	*	*	*	*	*	*	*	*	*	*		
40	*	*	*	*	*	*	*	*	*	*	*	*	
45		*	*	*	*	*	*	*	*	*	*	*	
50		*	*	*	*	*	*	*	*	*	*	*	
55		*	*	*	*	*	*	*	*	*	*	*	
60		*	*	*	*	*	*	*	*	*	*	*	*
65		*	*	*	*	*	*	*	*	*	*	*	*
70		*	*	*	*	*	*	*	*	*	*	*	*
80			*	*	*	*	*	*	*	*	*	*	*
90			*	*	*	*	*	*	*	*	*	*	*
100			*	*	*	*	*	*	*	*	*	*	*
110					*	*	*	*	*	*	*	*	*
120					*	*	*	*	*	*	*	*	*
130					*	*	*	*	*	*	*	*	*
140					*	*	*	*	*	*	*	*	*
150					*	*	*	*	*	*	*	*	*
160					*	*	*	*	*	*	*	*	*
170					*	*	*	*	*	*	*	*	*
180					*	*	*	*	*	*	*	*	*
190						*	*	*	*	*	*	*	*
200						*	*	*	*	*	*	*	*
220						*	*	*	*	*	*	*	*
240						*	*	*	*	*	*	*	*
260						*	*	*	*	*	*	*	*
280						*	*	*	*	*	*	*	*
300						*	*	*	*	*	*	*	*

FORMA DE PEDIDO / ORDER FORM : d x L.

**TORNILLO AVELLANADO DIN 7991  
SOCKET HEAD CAP SCREWS DIN 7991**

**403**



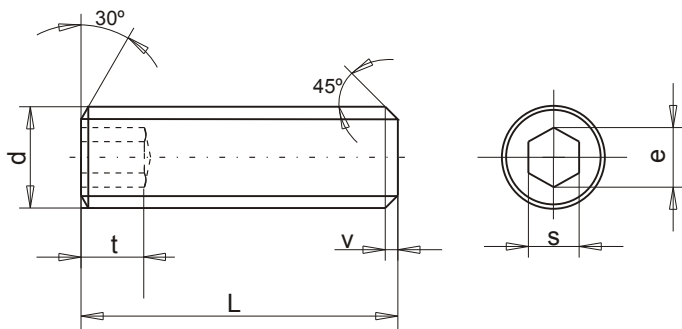
**RESISTENCIA A LA TRACCION / TENSILE STRENGTH : ( 100-120 Kp/mm2 )**

d	M- 3	M- 4	M- 5	M- 6	M- 8	M- 10	M-12	M-14	M-16	M-20
D	6	8	10	12	16	20	24	27	30	36
h	1.7	2.3	2.8	3.3	4.4	5.5	6.5	7	7.5	8.5
c	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5
r	0.1	0.2	0.2	0.3	0.5	0.5	1	1	1	1
s	2	2.5	3	4	5	6	8	10	10	12
t	1.3	2	2.4	2.8	3.8	4.8	5	5.3	5.8	6.8
e	2.3	2.9	3.5	4.7	5.8	7	9.4	11.7	11.7	14
v	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2	2.5
z	1	1.4	1.6	2	2.5	3	3.5	4	4.5	5

L	M- 3	M- 4	M- 5	M- 6	M- 8	M- 10	M-12	M-14	M-16	M-20
8	*	*	*							
10	*	*	*	*						
12	*	*	*	*						
16	*	*	*	*	*	*				
18	*	*	*	*	*	*				
20	*	*	*	*	*	*	*			
25	*	*	*	*	*	*	*	*		
30	*	*	*	*	*	*	*	*	*	
35		*	*	*	*	*	*	*	*	*
40		*	*	*	*	*	*	*	*	*
45			*	*	*	*	*	*	*	*
50			*	*	*	*	*	*	*	*
55				*	*	*	*	*	*	*
60				*	*	*	*	*	*	*
70					*	*	*	*	*	*
80					*	*	*	*	*	*
90						*	*	*	*	*
100						*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM : d x L.**

SCREW PLUGS DIN 913

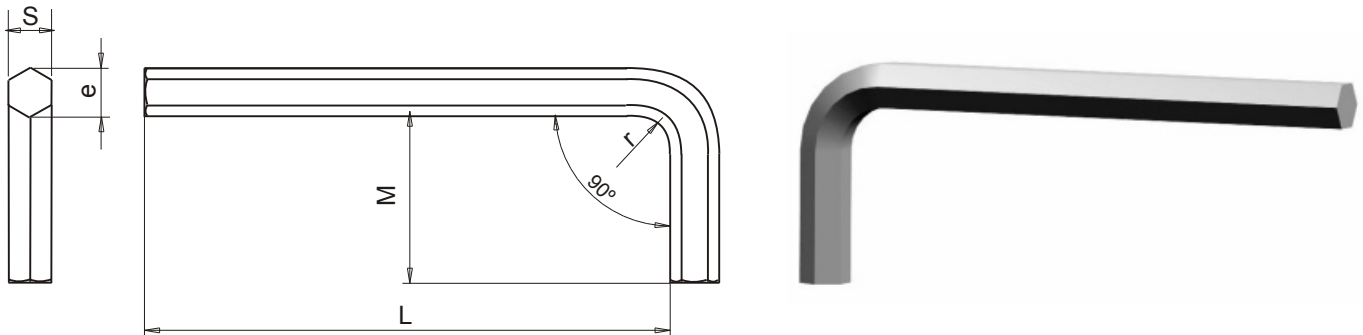


RESISTENCIA A LA TRACCION / TENSILE STRENGTH: (120 Kp/mm<sup>2</sup>)

d	M-2,5	M- 3	M- 4	M- 5	M- 6	M- 8	M-10	M-12	M-14	M-16	M-20	M-24
peso	0.45	0.5	0.7	0.8	1	1.25	1.5	1.75	2	2	2.5	3
e	1.5	1.8	2.3	2.9	3.5	4.7	5.8	7	7	9.4	11.7	14
s	1.3	1.5	2	2.5	3	4	5	6	6	8	10	12
t	2	2	2.5	3	3.5	5	6	8	8	10	12	15
v	0.5	0.5	0.75	0.75	1	1.25	1.5	1.75	2	2	2.5	3

L	M-2,5	M- 3	M- 4	M- 5	M- 6	M- 8	M-10	M-12	M-14	M-16	M-20	M-24
3	*	*	*									
4	*	*	*	*								
5	*	*	*	*	*							
6	*	*	*	*	*	*						
8	*	*	*	*	*	*						
10	*	*	*	*	*	*	*					
12	*	*	*	*	*	*	*	*	*			
16		*	*	*	*	*	*	*	*	*		
20		*	*	*	*	*	*	*	*	*	*	*
25		*	*	*	*	*	*	*	*	*	*	*
30		*	*	*	*	*	*	*	*	*	*	*
35			*	*	*	*	*	*	*	*	*	*
40			*	*	*	*	*	*	*	*	*	*
45				*	*	*	*	*	*	*	*	*
50				*	*	*	*	*	*	*	*	*
55					*	*	*	*	*	*	*	*
60					*	*	*	*	*	*	*	*
70						*	*	*	*	*	*	*
80						*	*	*	*	*	*	*
90						*	*	*	*	*	*	*
100						*	*	*	*	*	*	*

FORMA DE PEDIDO / ORDEN FORM: d x L.

**LLAVE ALLEN ACODADA DIN 911**  
**SOCKET SCREW ALLEN KEY DIN 911**
**411**

**MATERIAL** : 50 Cr V4.

**DUREZA / HARDNESS** : 45-50 Hrc.

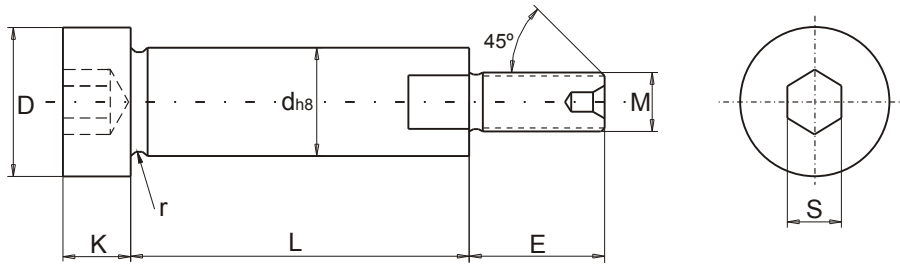
**RESISTENCIA / RESISTANCE** : 140 - 165 Kg/mm2.

<b>S</b>	<b>e</b>	<b>L</b>	<b>M</b>	<b>r</b>
1.5	1.73	50	12	2
2	2.3	55	15	2
2.5	2.9	60	18	2.5
3	3.5	65	20	3
4	4.6	72	25	4
5	5.8	80	28	5
6	6.9	90	32	6
8	9.2	100	36	8
10	11.5	112	40	10
12	13.8	125	45	12
14	16.2	140	55	14
17	19.6	160	60	16
18	22	180	70	18

**FORMA DE PEDIDO / ORDER FORM** : **S**.

**TORNILLO LIMITE MACHO “ TLM “**

**SHOULDER BOLT “ TLM “**



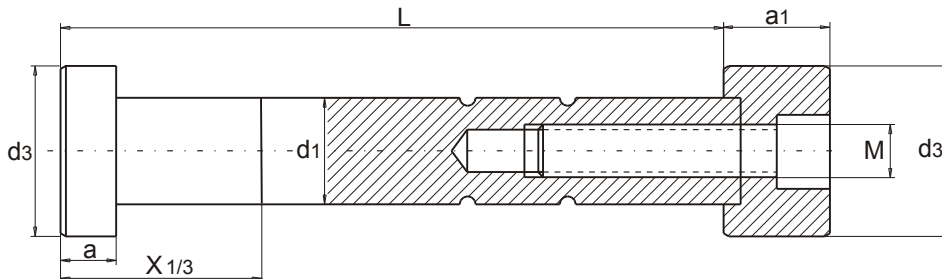
**MATERIAL** : Acero aleado Cromo-Níquel-Molibdeno.  
Special alloyed steel Cr-Ni-Mo.

**RESISTENCIA A LA TRACCION:**  
**TENSILE STRENGTH :** 120 - 140 Kp/mm2.

M	M- 5	M- 6	M- 8	M-10	M-12	M-16	M-20	M-24
<b>d (h8)</b>	6	8	10	12	16	20	25	32
<b>D (h13)</b>	9	11	14	18	22	28	36	45
<b>K (h14)</b>	4	5	6	8	10	12	16	20
<b>E</b>	8	10	12	16	20	25	32	40
<b>S</b>	3	4	5	6	8	10	14	17
<b>r</b>	0.4	0.5	0.6	0.8	0.9	1	1.2	1.5

M	M- 5	M- 6	M- 8	M-10	M-12	M-16	M-20	M-24
<b>d (h8)</b>	6	8	10	12	16	20	25	32
<b>L</b>								
<b>6</b>	*	*	*					
<b>8</b>	*	*	*	*				
<b>10</b>	*	*	*	*	*			
<b>12</b>	*	*	*	*	*			
<b>14</b>	*	*	*	*	*			
<b>16</b>	*	*	*	*	*	*		
<b>20</b>	*	*	*	*	*	*	*	
<b>25</b>	*	*	*	*	*	*	*	
<b>30</b>	*	*	*	*	*	*	*	
<b>32</b>	*	*	*	*	*	*	*	
<b>40</b>	*	*	*	*	*	*	*	
<b>50</b>	*	*	*	*	*	*	*	*
<b>60</b>	*	*	*	*	*	*	*	*
<b>63</b>	*	*	*	*	*	*	*	*
<b>70</b>		*	*	*	*	*	*	*
<b>80</b>		*	*	*	*	*	*	*
<b>90</b>		*	*	*	*	*	*	*
<b>100</b>		*	*	*	*	*	*	*
<b>110</b>		*	*	*	*	*	*	*
<b>120</b>			*	*	*	*	*	*
<b>125</b>			*	*	*	*	*	*
<b>140</b>			*	*	*	*	*	*
<b>160</b>			*	*	*	*	*	*
<b>200</b>				*	*	*	*	*
<b>250</b>					*	*	*	*

**FORMA DE PEDIDO / ORDER FORM : M x d x L.**

**TORNILLO LIMITE HEMBRA “ TLH “**  
**SHOULDER BOLT “ TLH “**
**406**


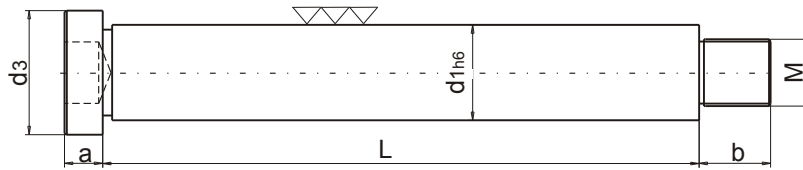
**MATERIAL** : Acero aleado al Cromo Molibdeno.  
*Special alloyed steel Cr-Ni-Mo.*

**RESISTENCIA A LA TRACCION :** 110-120 Kg/mm2.  
**TENSILE STRENGTH :**

d1	d3	a	a1	M	L									
					100	120	140	160	180	200	220	240	260	
F7	-0.1	-0.1	-0.1											
16	26	5	16	8	*	*	*	*	*					
20	32	6	20	10		*	*	*	*	*	*	*	*	
25	38	7	24	12		*	*	*	*	*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM : d1 x L.**

GUIDE STOP " TGM "



**MATERIAL :** Acero 1.7242 / Steel 1.7242

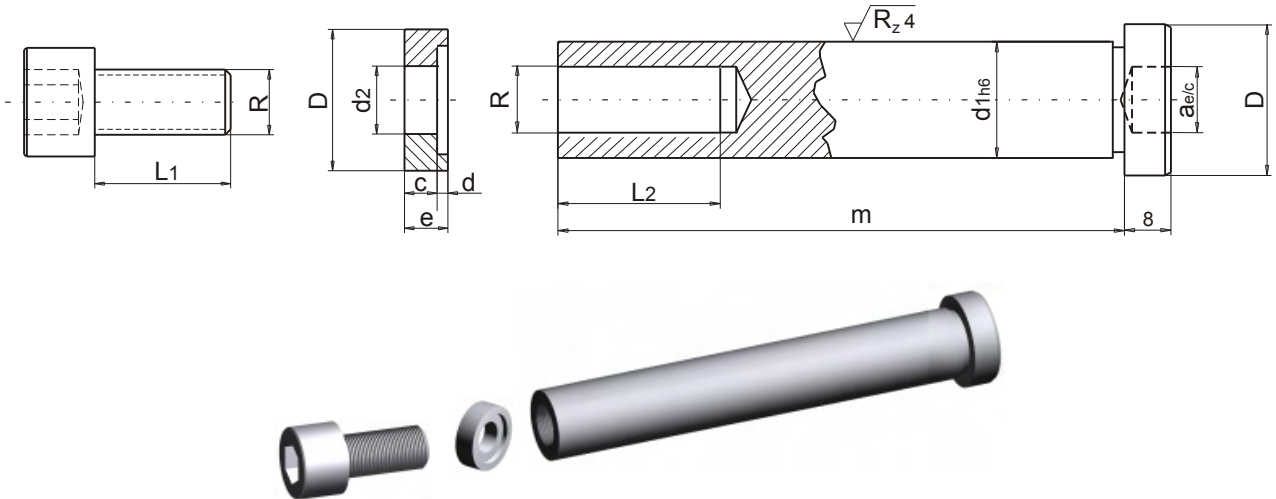
**DUREZA / HARDNESS :** 46-48 Hrc

d1 h6	d3	a	b	M	L									
					40	50	60	80	100	125	150	175	200	
14	20	8	12	10	*	*	*	*	*	*	*	*	*	*
20	26	8	15	14	*	*	*	*	*	*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM :** d1 x L.

**TOPE GUIA HEMBRA “ TGH “**  
**GUIDE STOP “ TGH “**

**408**



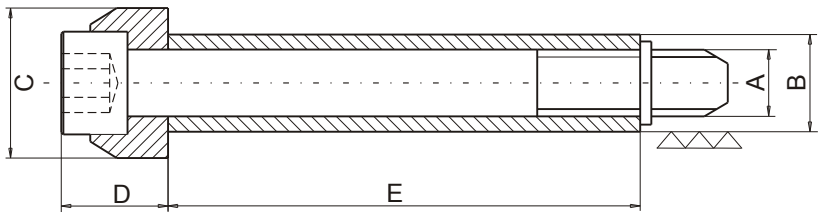
**MATERIAL** : Acero 1.1730 / Steel 1.1730

**DUREZA / HARDNESS** : 50-52 HRC

d1	D	d2	a	c	d	e	L1	L2	R	m								
										40	50	60	80	100	125	150	175	200
h6																		
14	20	8.5	8	4	2	6	20	18	M- 8	*	*	*	*	*	*	*	*	*
20	26	12.5	10	6	2	8	25	25	M-12	*	*	*	*	*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM** : d1 x m.

**TORNILLO LIMITADOR “ KRT “**  
**STOPPER BOLT “ KRT “**



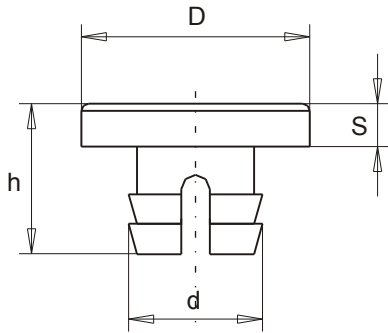
**MATERIAL** : Acero 1.7242 / Steel 1.7242  
**DUREZA / HARDNESS** : 46-48 Hrc

A	B	C	D	E														
				20	25	30	35	40	45	50	55	60	70	80	90	100	110	120
6MA	10	15	10	*	*	*	*	*	*	*	*	*	*					
8MA	12.5	19	13			*	*	*	*	*	*	*	*	*				
10MA	15	23	15			*	*	*	*	*	*	*	*	*	*			
12MA	17.5	27	18					*	*	*	*	*	*	*	*	*	*	*
16MA	23	34	24							*	*	*	*	*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM** : A x E.

**TOPE PLACA EXPULSORA " TPE "**  
**STOP FOR EJECTION PLATE " TPE "**

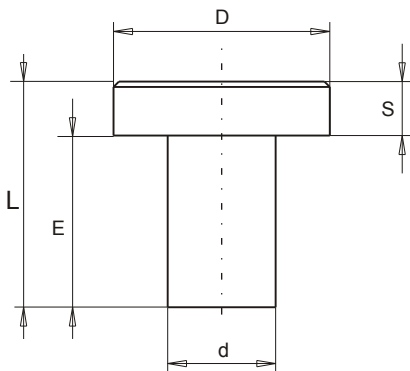
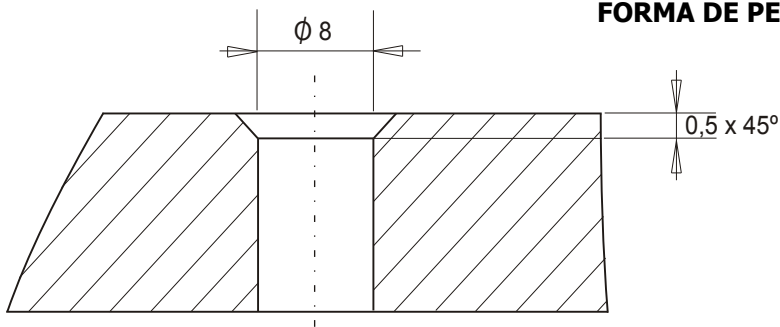
**413**



**MATERIAL** : Acero 1.7242 / Steel 1.7242

D	d	h	S
16	8.2	11	3
25	8.2	11	3

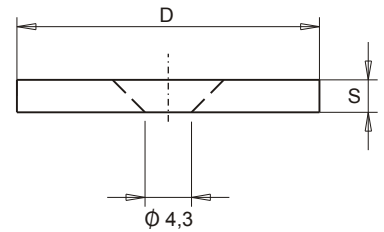
**FORMA DE PEDIDO / ORDER FORM : D.**



**MATERIAL** : Acero 1.7242 / Steel 1.7242

d	D	S	E	L
8	15	4	16	20
10	20	5	10	15

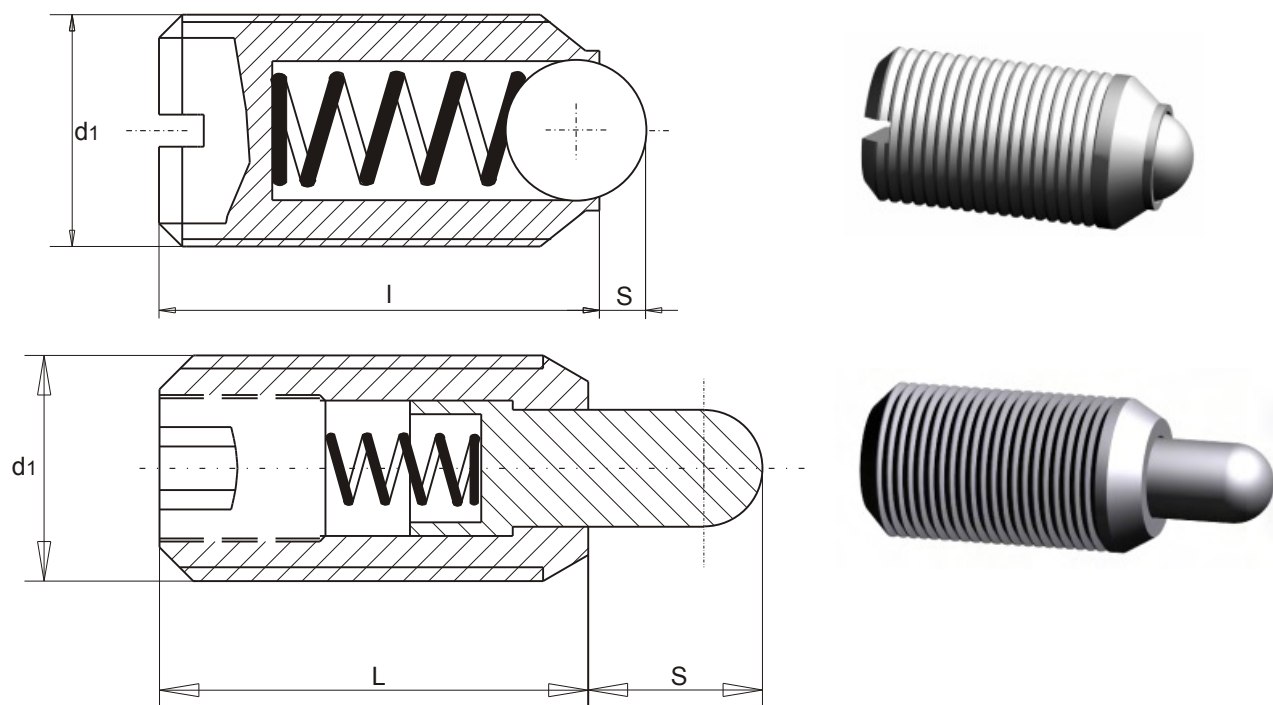
**FORMA DE PEDIDO / ORDER FORM : d.**



**MATERIAL** : Acero 1.7242 / Steel 1.7242

D	S
18	3
28	3

**FORMA DE PEDIDO : D.**  
**ORDER FORM : D.**

**POSICIONADOR BOLA / POSICIONADOR PIVOTE ESFERICO**
**BALL PLUNGER / SFERIC PIVOT PLUNGER**

**MATERIAL:** Acero F-114. Pavonado.

**MATERIAL:** Steel F-114

d1	l	s	Diam.Bola Ball Diam.
M- 3	7	0.5	1.5
M- 4	9	0.8	2.5
M- 5	12	0.9	3
M- 6	14	1	3.5
M- 8	16	1.5	5
M-10	19	2	6
M-12	22	2.5	8
M-16	24	3.5	10
M-20	30	4.5	12
M-24	34	5.5	15

**FORMA DE PEDIDO :** d1/bola.  
**ORDER FORM :** d1/ball

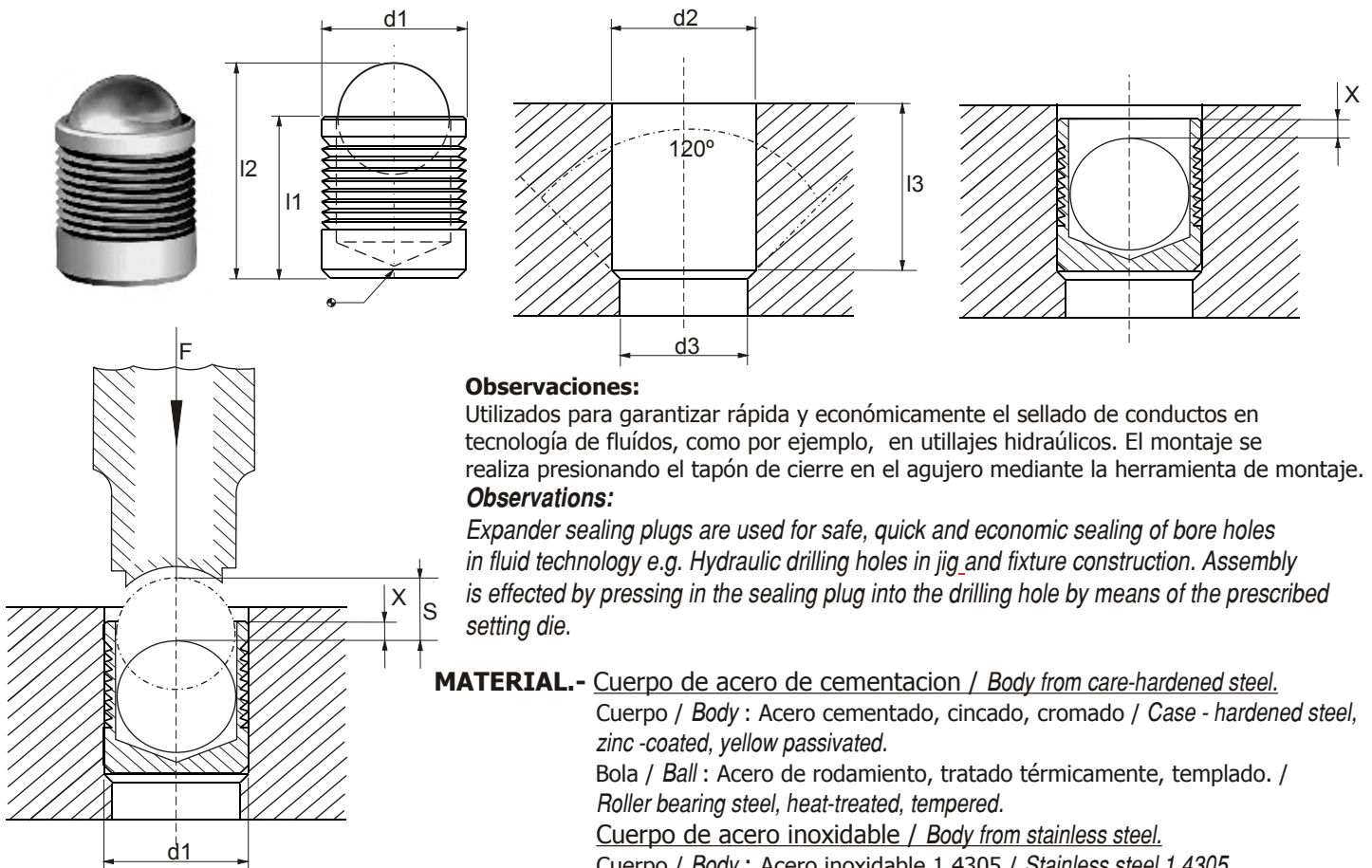
**MATERIAL:** Acero F-114. Pavonado.

**MATERIAL:** Steel F-114

d1	l	s	Diam. Pivote Sferic pivot Diam.
M- 4	9	1.5	1.8
M- 5	12	2	2.4
M- 6	14	2	2.7
M- 8	16	2	4
M-10	19	2.5	4.5
M-12	22	3.5	6
M-16	24	4.5	8.5
M-20	30	6.5	10
M-24	34	8	12

**FORMA DE PEDIDO :** d1/pivote.

**FORMA DE PEDIDO :** d1/Sferic pivot

**TAPONES DE CIERRE A EXPANSION EXPANDER®**  
**EXPANDER® SEALING PLUGS**
**415**

**Observaciones:**

Utilizados para garantizar rápida y económicamente el sellado de conductos en tecnología de fluidos, como por ejemplo, en utillajes hidráulicos. El montaje se realiza presionando el tapón de cierre en el agujero mediante la herramienta de montaje.

**Observations:**

Expander sealing plugs are used for safe, quick and economic sealing of bore holes in fluid technology e.g. Hydraulic drilling holes in jig and fixture construction. Assembly is effected by pressing in the sealing plug into the drilling hole by means of the prescribed setting die.

**MATERIAL.-** Cuerpo de acero de cementacion / Body from care-hardened steel.

Cuerpo / Body : Acero cementado, cincado, cromado / Case - hardened steel, zinc -coated, yellow passivated.

Bola / Ball : Acero de rodamiento, tratado térmicamente, templado. / Roller bearing steel, heat-treated, tempered.

Cuerpo de acero inoxidable / Body from stainless steel.

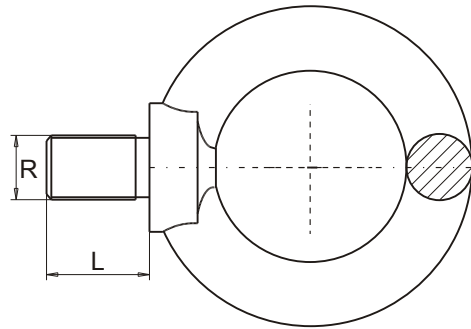
Cuerpo / Body : Acero inoxidable 1.4305 / Stainless steel 1.4305.

Bola / Ball : Acero de rodamiento, tratado térmicamente, templado / Roller bearing steel, heat-treated, tempered.

d1	l1	l2	d2 +0,1	d3 max.	l3 Min.	x ±0,2	s	Peso gr. Weight gr.
3	3,6	4,6	3	2,2	3,4	0,4	1,2	0,2
4	4	5,2	4	3,3	3,8	0,2	1,5	0,4
5	5,5	7	5	4,3	5,3	0,4	2	0,7
6	6,5	8,6	6	5,3	6,3	0,4	2,5	1,2
7	7,5	10,1	7	6,4	7,3	0,4	3	1,9
8	8,5	11,7	8	7,4	8,3	0,3	3,5	3,1
9	10	13,7	9	8,4	9,8	0,4	4	4,1
10	11	15,2	10	9,4	10,8	0,4	4,5	6
12	13	18	12	10,6	12,8	0,4	5,5	9,4
14	15	20,8	14	12,7	14,5	0,4	6,35	14,4
16	17	23,7	16	14,7	16,5	0,6	7	21,7
18	19	26,3	18	16,7	18,5	0,6	8	32,4
20	22	30,5	20	18,7	21,5	0,8	9	44,7
22	25	34,2	22	20,7	24,5	0,8	10	59,3

**FORMA DE PEDIDO / ORDER FORM : Material x d1**

EYE BOLT DIN 580

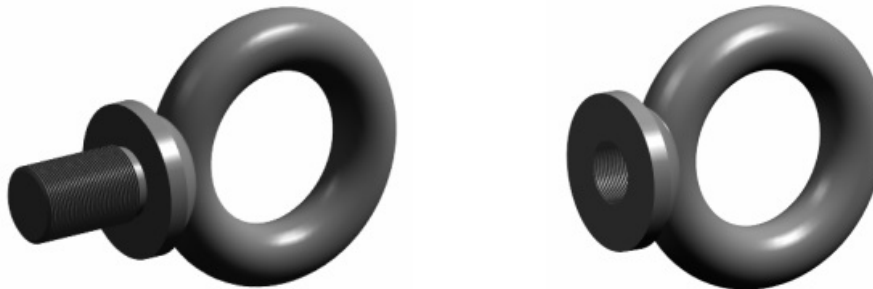
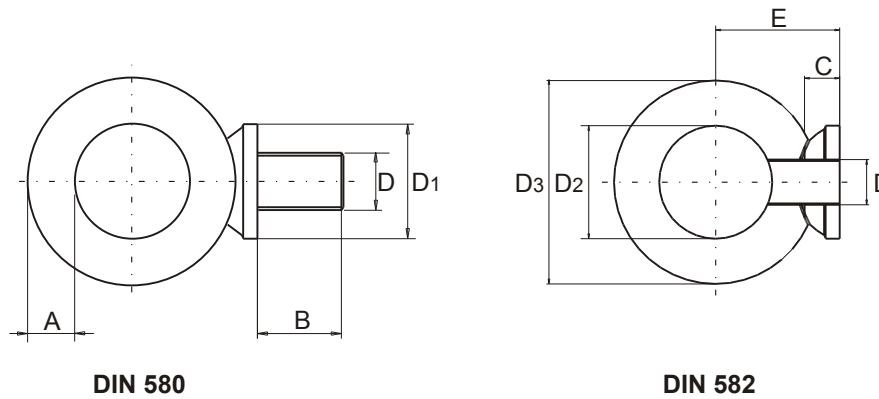


**MATERIAL :** Acero de fundición. / *Cast ironed steel.*

R	M- 8	M-10	M-12	M-14	M-16	M-18	M-20	M-22	M-24	M-30	M-36	M-42	M-48
<b>Carga max. en Kgs.</b> <i>Maximum load Kgs.</i>	85	150	220	220	380	450	570	800	1050	1700	2500	3400	5200
L	15	18	22	22	26	30	30	32	38	45	55	65	70

**FORMA DE PEDIDO / ORDER FORM :** R.

**CANCAMO FORJADO DIN 580 (Macho) / DIN 582 (Hembra)**  
**EYE BOLT DIN 580 (Male) DIN 582 (Female)**



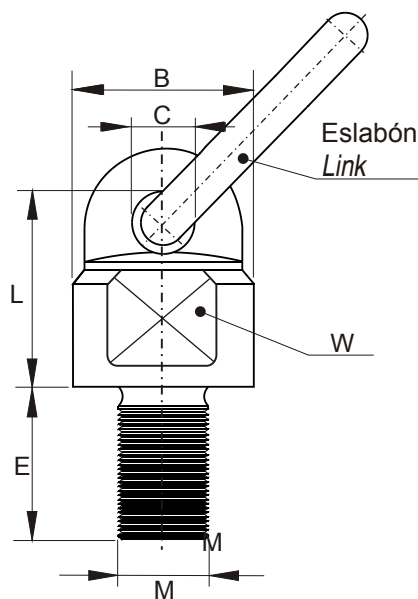
**MATERIAL :** Acero de forja. / *Forged Steel.*

<b>D</b>	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>E</b>	Carga Max en Kgs. <i>Maximum load Kgs.</i>	<b>DIN580</b>	<b>DIN582</b>
M- 8	20	20	36	8	15	8.5	18	140	*	*
M-10	25	25	45	10	18	10	22	230	*	*
M-12	30	30	54	12	22	11	28	340	*	*
M-14	30	30	54	12	22	11	28	340	*	*
M-16	35	35	63	14	28	13	30	700	*	*
M-18	35	35	63	14	28	13	30	900	*	*
M-20	40	40	72	16	30	16	35	1200	*	*
M-22	40	40	72	16	30	16	35	1500	*	*
M-24	50	50	90	20	38	20	45	1800	*	*
M-27	50	50	90	20	38	20	45	2200	*	*
M-30	65	60	108	24	45	25	55	3600	*	*
M-36	75	70	126	28	56	30	65	5100	*	*
M-42	85	80	144	32	65	35	75	7000	*	*
M-48	100	90	166	38	70	40	85	8600	*	*
M-56	110	100	184	42	78	45	95	11500	*	*

**FORMA DE PEDIDO / ORDER FORM :** D - DIN580 O OR DIN582.

## CANCAMO GIRATORIO

## REVOLVING EYE BOLT



Coefficiente de seguridad contra rotura 4 en todas las direcciones de las fuerzas. Giro de 360°.

Giro máximo de la anilla : 180°

Security coefficient against break 4 in all strength directions. 360° rotation.

Maximum ring rotation: 180°

Carga de trabajo en toneladas Working load in tones	Peso en Kg Weight in Kg	Eslabon oval mm. Oval ring mm.	B	C	M	E	W	L
0,5	0,30	Ø13x 55x30	36	14	M12	18	30	40
1,12	0,34	Ø13x 55x30	36	14	M16	20	30	40
2	1,04	Ø16x 70x34	49	19	M20	30	41	56
3,15	1,40	Ø18x 85x40	57	20	M24	30	46	61
5,3	2,20	Ø20x 85x40	66	24	M30	35	55	83
8 *	3,50	Ø22x115x50	80	27	M30	35	65	88
10 *	3,70	Ø22x115x50	80	27	M36	50	65	88
15 *	6,80	Ø26x140x65	104	32	M45	60	80	107
Medidas espaciales sobre pedido / Special sizes under request.								
20	14,20	Ø36x170x75	129	45	M64	110	105	150
25	14,80	Ø36x170x75	129	45	M80	150	105	150
30	22,50	Ø40x170x80	148	50	M90	150	115	172

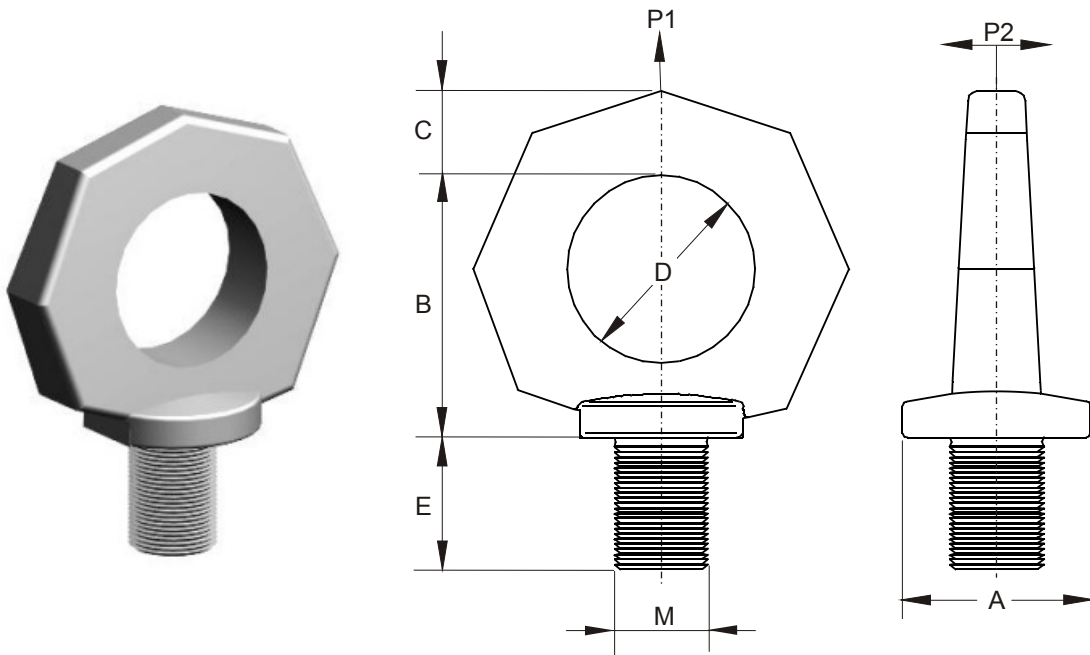
Otras medidas especiales: M14 - M39 - M42 - M48 - M52 - M56 - M60

Other special sizes: M14 - M39 - M42 - M48 - M52 - M56 - M60

\* En caso de uso incorrecto, la carga de trabajo debe reducirse a 1 tonelada.

\* If not use correctly, work load must be reduced to 1 tone.

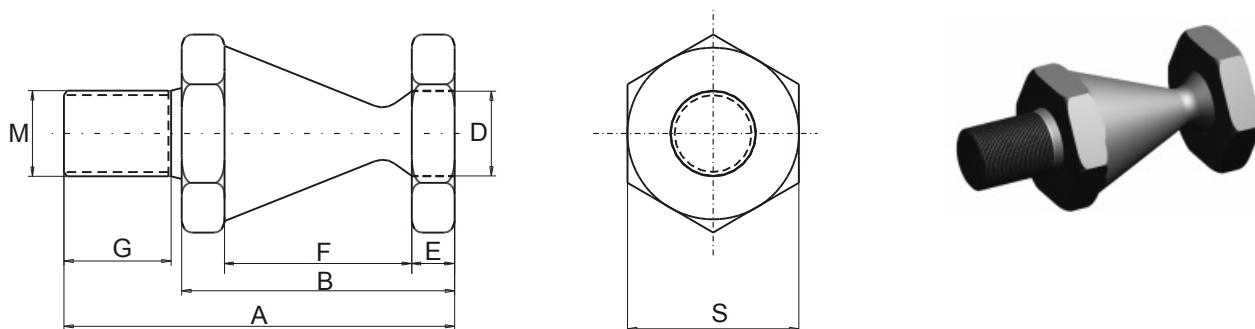
**FORMA DE PEDIDO / ORDER FORM : M**

**CANCAMO “ RUD “**  
**“ RUD “ EYE BOLT**
**421**

**MATERIAL :** Acero 1.6541 forjado / 1.6541 Forged steel.

M	P1 (Kg.)	P2 (Kg.)	B	C	E	D	A	Peso Weight
M.6	400	100	35	10	12	25	25	0,1
M.8	800	200						
M.10	1.000	250			15			
M.12	1.600	400	41	12	18	30	30	0,2
M.14	3.000	750	48	14	21	35	35	0,25
M.16	4.000	1.000	48	16	24			0,3
M.20	6.000	1.500	55	20	30	40	40	0,45
M.24	8.000	2.000	70		36	50	50	0,7
M.30	12.000	3.000	85	24	45	60	60	1,6
M.36	16.000	4.000	130	43	54	90	100	6,0
M.42	24.000	6.000	130	43	63	90	100	6,2
M.48	32.000	8.000			68			6,4

**FORMA DE PEDIDO / ORDER FORM : M**

LIFTING STUD “ ET1 “



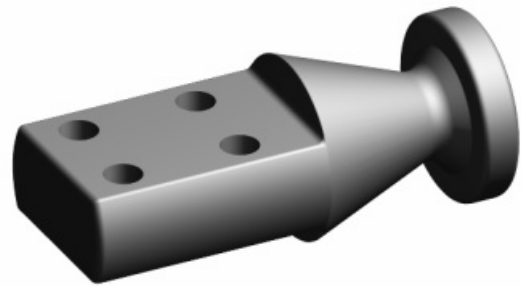
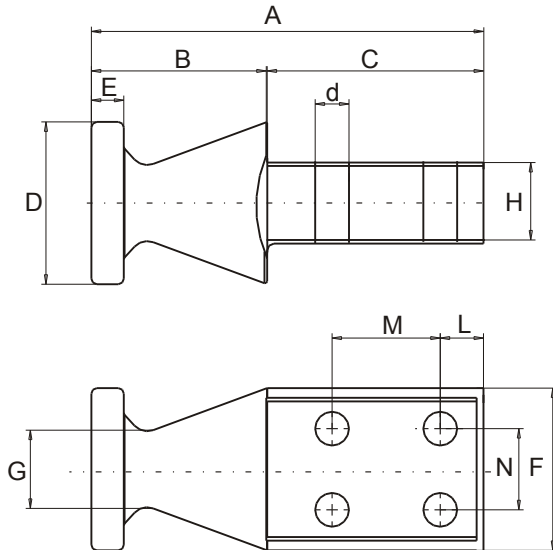
**MATERIAL** : F1140 pavonado. / F1140

M	S	D	A	B	E	F	G	Kg.
16	32	16	76	51	8	35	20	100
20	41	20	90	60	10	40	25	150

**FORMA DE PEDIDO / ORDER FORM** : ET1/M.

**ELEMENTOS FORJADOS DE TRANSPORTE “ ET2 “**  
**LIFTING STUD “ ET2 “**

**418**

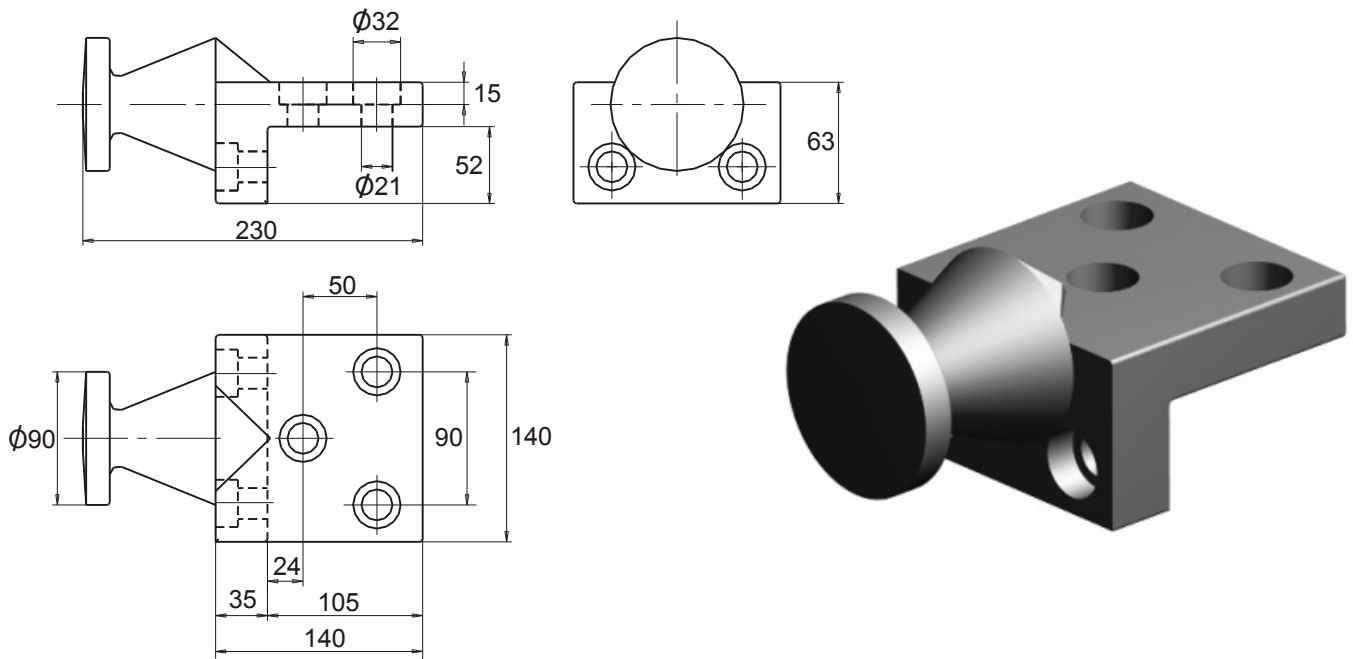


**MATERIAL:** Acero forjado pavonado. / *Forged steel.*

<b>D</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>L</b>	<b>M</b>	<b>N</b>	<b>d</b>	<b>Kg.</b>
<b>38</b>	115	52	63	38	16	12	13	30	20	10.5	150
<b>50</b>	120	50	70	50	18	20	15	35	25	10.5	300
<b>60</b>	145	65	80	60	22	30	16	40	30	12.5	600
<b>70</b>	155	65	90	70	30	30	20	40	34	16.5	1000
<b>80</b>	165	65	100	80	37	40	20	50	40	16.5	1500
<b>100</b>	195	75	120	100	50	40	38	52	55	20.5	2000

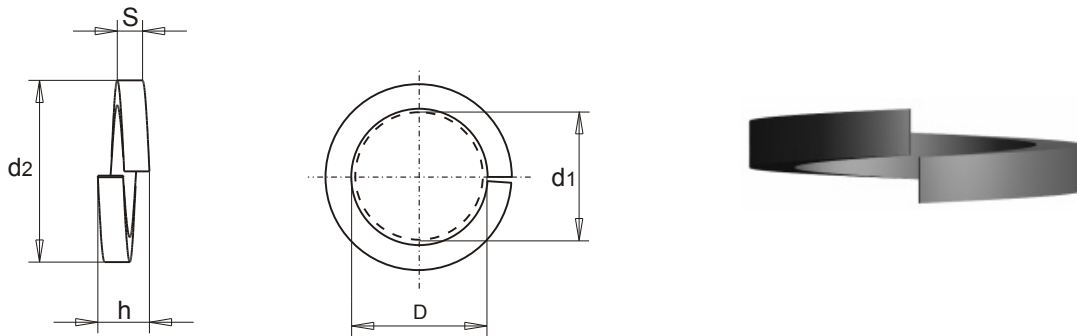
**FORMA DE PEDIDO / ORDER FORM : ET2/D.**

## LIFTING STUD “ ET3 “



**MATERIAL :** Acero forjado pavonado. / *Forged steel.*

**FORMA DE PEDIDO / ORDER FORM :** ET3.

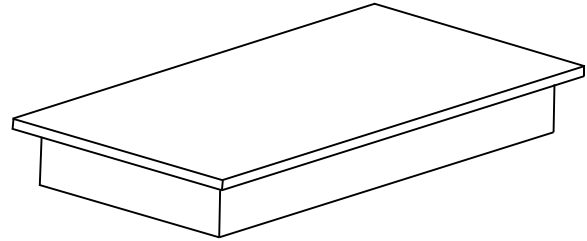
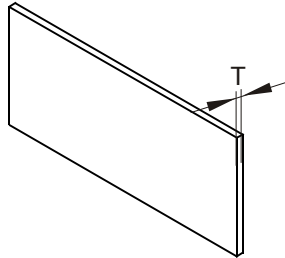
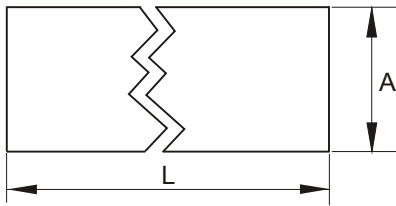
**ARANDELA GROWER DIN 7980**  
**GROWER RING DIN 7980**
**416**

**MATERIAL:** 100-120 Kp/mm<sup>2</sup>.

<b>D</b>	<b>h</b>	<b>d1</b>	<b>d2</b>	<b>S</b>
4	2,4-2,83	4.1	7	1.2
5	3,2-3,78	5.1	8.8	1.6
6	3,2-3,78	6.1	9.9	1.6
8	4-4,78	8.1	12.7	2
10	5-5,9	10.2	16	2.5
12	5-5,9	12.2	18	2.5
16	7-8,25	16.2	24.4	2.5

**FORMA DE PEDIDO / ORDER FORM : D.**

CINTA DE PRECISION EN ESTUCHE

CASE GAUGED STRIP BAND

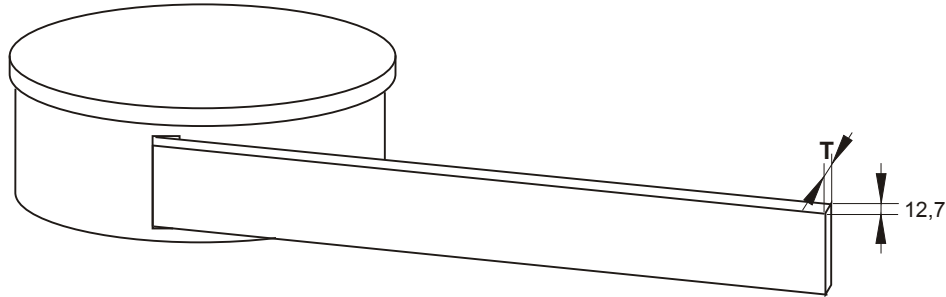


**MATERIAL :** 1.1274 Acero Carbono / Carbon Steel  
1.4310 Acero Inoxidable / Stainless Steel

T	Tol.	Resist.	A x L			
			25x300	50x300	100x500	150x500
Material			1.1274	1.1274	1.4310	1.4310
Nº Hojas Nº of Strips			10	10	5	5
0.01	±0.002	1.600 - 1.800	*	*		
0.02			*	*	*	
0.025						*
0.03			*	*		
0.04			*	*		
0.05	±0.003	1.400 - 1.600	*	*	*	*
0.06			*	*		
0.07			*	*		
0.075						*
0.08			*	*		
0.09	±0.004	1.400 - 1.600	*	*		
0.10			*	*	*	*
0.12				*		
0.15			*	*	*	*
0.18				*		
0.20	±0.006	1.400 - 1.600	*	*	*	*
0.25			*	*	*	*
0.30			*	*	*	*
0.35				*	*	*
0.40			*	*	*	*
0.45				*	*	*

T	Tol.	Resist.	A x L			
			25x300	50x300	100x500	150x500
Material			1.1274	1.1274	1.4310	1.4310
Nº Hojas Nº of Strips			10	10	5	5
0.50	±0.010	1.600 - 1.800	*	*	*	*
0.55					*	
0.60			*	*	*	*
0.65					*	
0.70			*	*	*	*
0.75	±0.012	1.400 - 1.600			*	
0.80			*	*	*	*
0.85					*	
0.90			*	*	*	*
0.95					*	
1.00	±0.013	1.400 - 1.600	*	*	*	*
1.10					*	
1.20					*	
1.30					*	
1.40					*	
1.50	±0.020	1.400 - 1.600			*	
1.60					*	
1.70					*	
1.80					*	
1.90					*	
2.00					*	

FORMA DE PEDIDO / ORDER FORM : T x A x L x Material

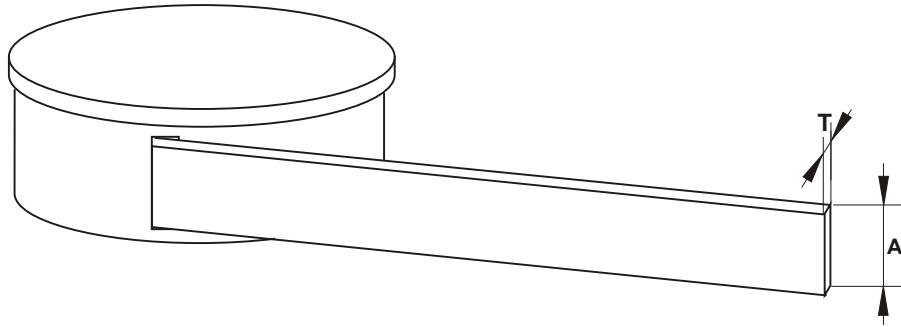
**CINTA DE PRECISION EN ROLLO**  
**SPOOLED GAUGED STRIP**
**423**

**MATERIAL :** 1.1274 Acero Carbono / *Carbon Steel*  
 1.4310 Acero Inoxidable / *Stainless Steel*

T	Tol.	Resist.	L			
			1m.	2m.	5m.	10m.
Material			1.1274	1.1274	1.4310	1.1274
0.005	±0.002 - 0.003	2.000 - 2.200	*	*	*	*
0.01			*	*	*	*
0.02			*	*	*	*
0.03			*	*	*	*
0.04			*	*	*	*
0.05			*	*	*	*
0.06	±0.003 - 0.004	2.000 - 2.200	*	*	*	*
0.07			*	*	*	*
0.08			*	*	*	*
0.09			*	*	*	*
0.10			*	*	*	*
0.12	±0.004 - 0.007	1.400 - 1.600	*	*	*	*
0.15			*	*	*	*
0.18			*	*	*	*
0.20			*	*	*	*
0.25			*	*	*	*
0.30			*	*	*	*
0.35	±0.007 - 0.010	1.400 - 1.600	*	*	*	*
0.40			*	*	*	*
0.45			*	*	*	*
0.50			*	*	*	*

T	Tol.	Resist.	L			
			1m.	2m.	5m.	10m.
Material			1.1274	1.1274	1.4310	1.1274
0.55	±0.0010	1.600 - 1.800	*	*	*	*
0.60			*	*	*	*
0.65			*	*	*	*
0.70			*	*	*	*
0.75			*	*	*	*
0.80			±0.013	1.400 - 1.600	*	*
0.85	*	*			*	*
0.90	*	*			*	*
0.95	*	*			*	*
1.00	*	*			*	*
1.10	±0.017	1.400 - 1.600	*	*	*	*
1.20			*	*	*	*
1.30			*	*	*	*
1.40			*	*	*	*
1.50			*	*	*	*
1.60			±0.020	1.400 - 1.600	*	*
1.70	*	*			*	*
1.80	*	*			*	*
1.90	*	*			*	*
2.00	*	*			*	*

**FORMA DE PEDIDO / ORDER FORM : T x L x Material**

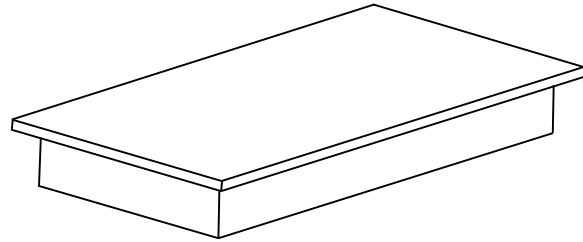
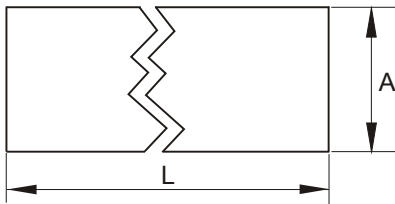
VARIABLE WIDTH SPOOLED GAUGED STRIP



1.1274 Acero Carbono / Carbon Steel  
**MATERIAL :** 1.4310 Acero Inoxidable / Stainless Steel  
 Latón / Brass

T	Tol.	Resist.	L	A					150	305
				6	25	50	100	150		
Material				1.1274	1.1274	1.4310	1.4310	1.4310	Latón Brass	Latón Brass
0.01	±0.002 - 0.003	2.000 - 2.200	5.000		*	*				
0.02				*	*	*				
0.025							*	*		
0.03				*	*					
0.04				*	*					
0.05				*	*	*	*	*	*	
0.06	±0.003 - 0.004	2.000 - 2.200	5.000		*	*				
0.07				*	*					
0.075							*	*		
0.08				*	*					
0.09				*	*					
0.10				*	*	*	*	*	*	
0.12	±0.007 - 0.010	1.400 - 1.600	5.000		*	*				
0.15				*	*	*	*	*	*	
0.18							*	*		
0.20				*	*	*	*	*	*	*
0.25				*	*	*	*	*	*	*
0.30	±0.010 - 0.010	1.400 - 1.600	5.000		*	*				
0.35				*	*	*	*	*	*	
0.40				*	*	*	*	*	*	*
0.45							*	*		
0.50				*	*	*	*	*	*	*
0.55	±0.010	1.600 - 1.800	5.000		*	*				
0.60				*	*	*	*	*	*	
0.65							*	*		
0.70				*	*	*	*	*	*	*
0.75							*	*		
0.80	±0.013	1.400 - 1.600	5.000		*	*				
0.85				*	*	*	*	*	*	
0.90				*	*	*	*	*	*	*
0.95							*	*		
1.00				*	*	*	*	*	*	*

FORMA DE PEDIDO / ORDER FORM : T x A x Material

**SURTIDO DE CINTA DE PRECISION  
SELECTION OF GAUGED STRIP**
**425**


1.1274 Acero Carbono / Carbon Steel

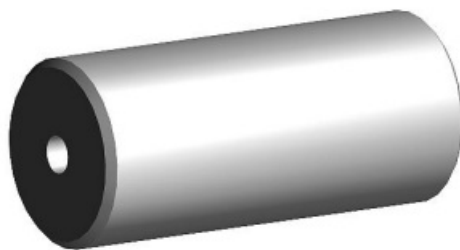
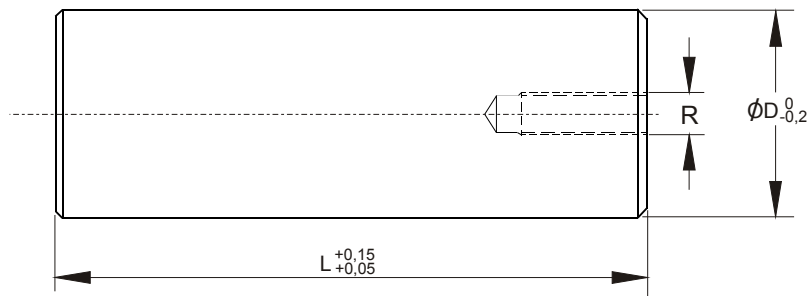
**MATERIAL :** 1.4310 Acero Inoxidable / Stainless Steel

Latón / Brass

A x L	n° Hojas Nr. Strips	Material	Contenido / Content
100x500	9	1.4310	0.02/0.05/0.10/0.15/0.20/0.30/0.40/0.50/1.00
100x500	11	1.4310	0.02/0.05/0.10/0.15/0.20/0.25/0.30 0.35/0.40/0.45
100x500	11	1.4310	0.50/0.55/0.60/0.65/0.70/0.75/0.80 0.85/0.90/0.95/1.00
150x500	10	1.4310	0.025/0.05/0.075/0.10/0.15/0.20/0.25 0.30/0.40/0.50
150x500	10	Latón Brass	0.025/0.05/0.075/0.10/0.15/0.20/0.25 0.30/0.40/0.50
25x300	21	1.1274	0.01/0.02/0.03/0.04/0.05/0.06/0.07/0.08/0.09 0.10/0.15/0.20/0.25/0.30/0.40/0.50/0.60/0.70 0.80/0.90/1.00
50x300	25	1.1274	0.01/0.02/0.03/0.04/0.05/0.06/0.07/0.08/0.09 0.10/0.12/0.15/0.18/0.20/0.25/0.30/0.35/0.40 0.45/0.50/0.60/0.70/0.80/0.90/1.00
50x300	23	1.1274	0.03/0.04/0.05/0.06/0.07/0.08/0.09/0.10/0.12 0.15/0.18/0.20/0.25/0.30/0.35/0.40/0.45/0.50 0.60/0.70/0.80/0.90/1.00
50x300	11	1.1274	0.02/0.03/0.05/0.10/0.15/0.20/0.25/0.30/0.40 0.50/1.00

**FORMA DE PEDIDO / ORDER FORM : A x L x Material**

SUPPORT PILLAR



**MATERIAL** : Acero para trabajo en frío / Alloy cold formed steel

D	R	L						
		50	60	70	90	110	120	150
30	M10	*	*	*	*	*		
40	M10	*	*	*	*	*		
50	M10	*	*	*	*	*		
60	M12		*	*	*	*	*	
80	M12			*	*	*	*	*
100	M16			*	*	*	*	*

**FORMA DE PEDIDO / ORDER FORM** : CA / D x L.