Gasfedern

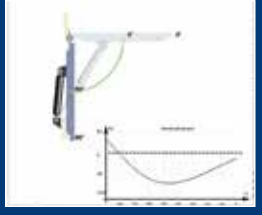
Gas Springs

Ressorts à Gaz

Molle a Gas

Resortes a Gas

ONLINE
Berechnung / Calculation
+ 2D / 3D CAD Download



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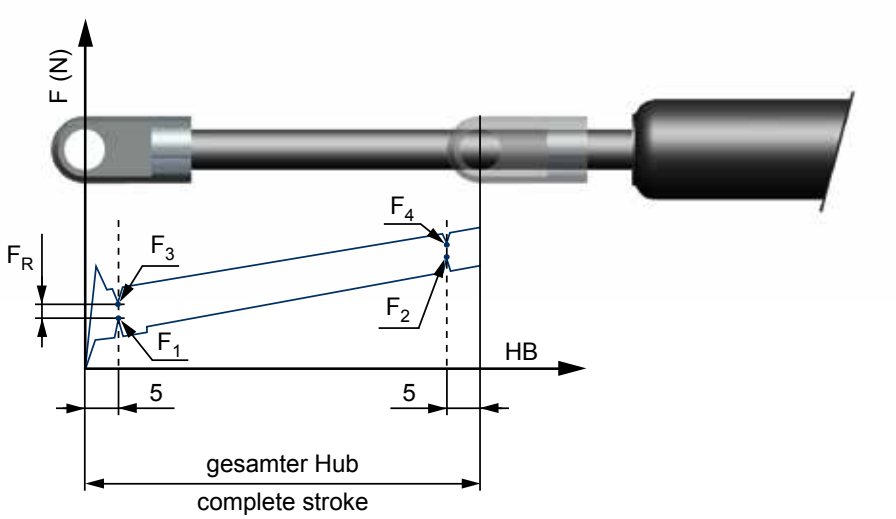
Kraftverlauf · Force Diagram

Forces · Andamento della forza · Evolución de la fuerza



D Kraftverlauf

Die theoretische Ausschubkraft ergibt sich aus Fülldruck x Querschnittsfläche der Kolbenstange. Weforma Gasfedern werden nach Kundenwunsch auf einen bestimmten Druck (Ausschubkraft F_1) gefüllt. Die Ausschubkraft bezieht sich immer auf den Wert F_1, gemessen bei 20°C ± 2°C und bei nach unten weisender Kolbenstange.

F_1 = Ausschubkraft bei ausgefahrener Kolbenstange
F_2 = Ausschubkraft bei eingefahrener Kolbenstange
F_3 = Einschubkraft bei ausgefahrener Kolbenstange
F_4 = Einschubkraft bei eingefahrener Kolbenstange
F_R = Reibungskraft

GB Force Diagram

The theoretical extension force is the result of the filling pressure multiplied by the cross-sectional area of the piston rod. Weforma gas springs are filled to a pressure determined in accordance with the customer's requirements (extension force F_1). The extension force always refers to the value F_1, measured at 20°C ± 2°C and with a downwards facing piston rod.

F_1 = extension force with extended piston rod
F_2 = extension force with compressed piston rod
F_3 = insertion force with extended piston rod
F_4 = insertion force with compressed piston rod
F_R = frictional force

F Forces

La force d'extension théorique est calculée en multipliant la pression de remplissage par la superficie de section de la tige de piston. Les ressorts à gaz Weforma sont remplis à une pression définie selon les souhaits du client (force d'extension F_1). La force d'extension se rapporte toujours à la valeur F_1, mesurée à 20°C ± 2°C et avec une tige de piston dirigée vers le bas.

F_1 = Force d'extension avec tige de piston sortie
F_2 = Force d'extension avec tige de piston rentrée
F_3 = Force de compression avec tige de piston sortie
F_4 = Force de compression avec tige de piston rentrée
F_R = Force de frottement

I Andamento della forza

La forza di espulsione è uguale alla pressione di riempimento moltiplicata per la superficie della sezione dell'stelo del pistone. Le molle a gas Weforma vengono caricate a una determinata pressione (forza di espulsione F_1) secondo le esigenze del cliente. La forza di espulsione si riferisce sempre al valore F_1, misurato a 20°C ± 2°C con stelo del pistone rivolta verso il basso.

F_1 = Forza di espulsione con stelo del pistone estratta
F_2 = Forza di espulsione con stelo del pistone retratta
F_3 = Forza di inserimento con stelo del pistone estratta
F_4 = Forza di inserimento con stelo del pistone retratta
F_R = Forza d'attrito

E Evolución de la fuerza

La fuerza de extracción teórica resulta de la presión de llenado multiplicada por la superficie trasversal de la biela. Los resortes de gas Weforma son rellenados a una presión determinada, por petición del cliente (fuerza de extracción F_1). La fuerza de extracción se basa siempre en el valor F_1, medido a 20°C ± 2°C y con la biela yendo hacia abajo.

F_1 = Fuerza de extracción con la vástago del émbolo extendida
F_2 = Fuerza de extracción con la vástago del émbolo contraida
F_3 = Fuerza de inserción con la vástago del émbolo extendida
F_4 = Fuerza de inserción con la vástago del émbolo contraida
F_R = Fuerza de fricción

	Progression* ca. %
WM-G-8	28
WM-G-10	20
WM-G-12	21
WM-G-15	27
WM-G-19	33
WM-G-22	39
WM-G-28	52
WM-G-40	45
WM-G-70	25
WM-GZ-19	20
WM-GZ-28	65

*Progression: linearer Kraftanstieg beim Einfahren bzw. Ausfahren , bemessen von der Nennkraft über den gesamten Hub. Die aufgeführten Werte sind beeinflußbar.

*Progression: linear force increase during extension or compression, measured by the nominal force over the entire stroke. The listed values can be influenced.

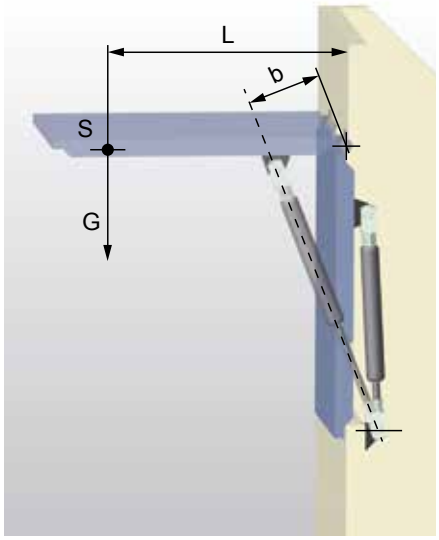
*Progression : augmentation linéaire de la force lors de la rentrée ou de la sortie, calculée à partir de la force nominale sur l'ensemble de la course. Les valeurs spécifiées sont soumises à influences.

*Progressione: incremento lineare della forza durante la ritrazione o l'estrazione, misurato dalla forza nominale su tutta la corsa. I valori riportati sono influenzabili.

*Progresión: aumento lineal de la fuerza al entrar o salir, medido de la fuerza nominal sobre todo el desplazamiento. Los valores indicados se pueden ver influidos.

Berechnung · Selection

Donnees de base ▪ Dati di base ▪ Cálculo



D AUSWAHL

Für die Auswahl bzw. Bestellung sind folgende Angaben notwendig:

S	Schwerpunkt
G	Gewicht der Klappe in N (ca. Kp x 10)
b	Kraftarm (entspricht ca. 85% des erforderlichen Hubs)
X	Anzahl der Federn (in der Regel 2 Stück, pro Klappenseite eine Feder)
L	Radius

Hinweis

Als zulässige Ausschub-Krafttoleranz gilt allgemein +40N - 20N oder ± 5-7%.

Physikalisch bedingt ist die Kraft einer Gasfeder temperaturabhängig. Sie ändert sich je 10°C um ca. 3,3% (Basis +20°C).

GB SELECTION

For the selection and/or order the following information is required:

S	Centre of gravity
G	Weight of the lid in N (ca. Kp x 10)
b	Lever arm of a force (correlates to approx. 85% of the required stroke)
X	Number of springs (as a rule 2 pieces, one spring each side of the lid)
L	Radius

Note

In general the permitted extended force tolerances are +40N - 20N or ± 5-7%.

The force of a gas spring is physically dependant on temperature. It varies by approx. 3.3% (basis +20°C) per 10°C.

F SÉLECTION

Pour la sélection et/ou la commande, nous avons besoin des informations suivantes:

S	Point de gravité
G	Poids du capot en N (ca. Kp x 10)
b	Bras de force (correspond à env. 85 % de la course nécessaire)
X	Nombre de ressorts (2 en général, un ressort par côté de clapet)
L	Rayon

Remarque

La tolérance en termes de force d'extension généralement admissible est de +40N - 20N ou ± 5-7%.

Physiquement, la force d'un ressort à gaz dépend de la température. Elle est modifiée d'env. 3,3 % tous les 10°C (température de base +20°C).

I SELEZIONE

Per la selezione e/o l'eventuale ordine, sono richieste le seguenti informazioni:

S	Baricentro
G	Peso della ribalta in N (ca. Kp x 10)
b	Braccio di forza (corrisponde a ca. l'85% della corsa necessaria)
X	Numero di molle (di norma 2, una molla per ogni lato della ribalta)
L	Raggio

Nota

In generale, la tolleranza ammessa per la forza di espulsione è pari a +40N - 20N o ± 5-7%.

Per ragioni fisiche la forza di una molla a gas dipende dalla temperatura. Ogni 10°C varia del 3,3% ca. (base +20°C).

E SELECCIÓN

Para la selección o el pedido son necesarios los siguientes datos:

S	Centro de gravedad
G	Peso de la compuerta en N (ca. Kp x 10)
b	Brazo de la fuerza (corresponde a aprox. 85% del desplazamiento necesario)
X	Número de resortes (por lo general 2 uds, por lado de compuerta de un resorte)
L	Radio

Observación

Se considera por lo general la tolerancia de la fuerza de extracción permitida +40N - 20N o ± 5-7%.

Físicamente la fuerza de un resorte de gas depende de la temperatura. Se modifica por cada 10°C aprox. 3,3% (base +20°C).

Bestellbeispiel • Ordering Information • Exemple de commande
Esempio d'ordinazione • Ejemplo de pedido

WM-G-19-100-K2G4-XXXXX-XXXX

WM-G	Gasdruckfedern ▪ Gas Springs ▪ Ressorts à Gaz ▪ Molle a Gas ▪ Resortes a Gas Compresion
WM-GZ	Gaszugfedern ▪ Gas traction springs ▪ Ressort à gaz de traction Molle a gas di trazione ▪ Resortes a Gas Tracción
WM-GVA	Gasfedern Edelstahl ▪ Stainless Steel Gas Springs ▪ Ressorts à gaz acier inoxydable Molle a gas acciaio inox ▪ Resortes a Gas acero inoxidable
19	19mm Durchmesser ▪ 19mm diameter ▪ 19mm diamètre ▪ 19mm diametro ▪ 19 mm de diámetro
100	Hub ▪ Stroke ▪ Course ▪ Corsa ▪ Carrera
K0G0	Gewinde ▪ Thread ▪ Filetage ▪ Filettatura ▪ Rosca
K2	Kolbenstange - Winkelgelenk ▪ Piston rod - Angle joint ▪ Tige de piston - Joint à angle Stelo del pistone - Snodo angolare ▪ Vástago del émbolo - charnela articulada
G4	Gehäuse - Gelenkkopf ▪ Housing - Spherical end bearing ▪ Corps - Joint articulé ▪ Corpo - Forcella snodata ▪ Carcasa - charnela macho articulada
Code	Code wird von Weforma bei Bestellung vergeben ▪ Code is assigned by Weforma Code est attribué par Weforma ▪ Codice assegnato dal Weforma ▪ Código es asignado por Weforma

ONLINE Berechnung und Konfigurator
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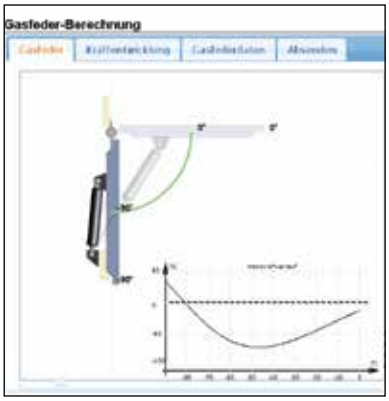


Gasdruckfedern · Gas Springs

Ressorts à Gaz · Molle a Gas · Resortes a Gas Compresion

D

- **Hohe Korrosionsbeständigkeit**
  - Gehäuse: pulverbeschichtet (WM-G 8: Messing)
  - Kolbenstange: keramisch beschichtet oder hartverchromt
- **Minimale Reibungswerte für niedrigste Ausschubkräfte**
- **Integrierte Fettkammer und Gleitlager**
- Niedrige Losbrechkraft
- Einbaulage: beliebig
- Wartungsfrei und einbaufertig
- Temperaturbereich: -30°C – +80°C, optional: -45°C – +200°C
- RoHS konform Richtlinie 2002/95/EG
- Ausschubkraft muss bei Bestellung angegeben werden

GB

- **High corrosion resistance**
  - Housing: powder coated (WM-G 8: brass)
  - Piston rod: ceramic coated or hard chrome-plated
- **Minimal friction coefficient to achieve the lowest extension forces**
- **Integrated grease chamber and sliding bearing**
- Lower breakaway force
- Installation position: any
- Maintenance-free and ready for installation
- Temperature: -30°C – +80°C, optional: -45°C – +200°C
- RoHS compliant Directive 2002/95/EC
- Extension force must be stated on ordering.

F

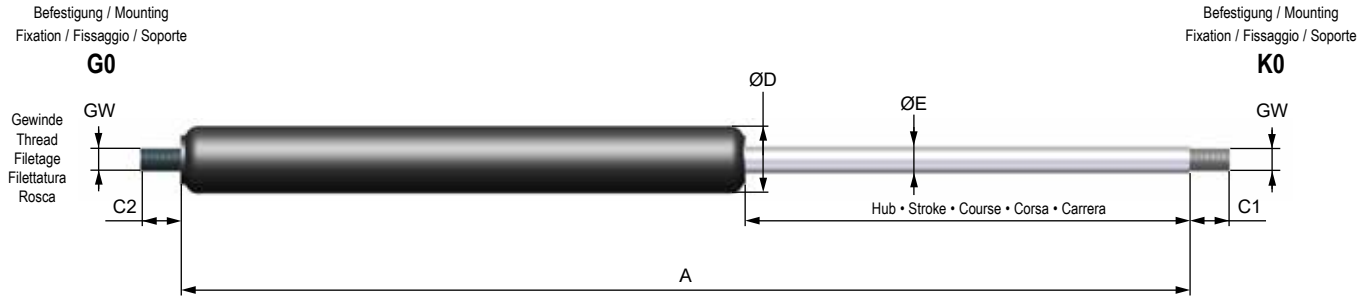
- **Résistance élevée à la corrosion**
  - Corps : peinture à la poudre (WM-G 8 : laiton)
  - Tige de piston: revêtement céramique ou chrome dur
- **Valeurs de frottement minimales pour atteindre les plus faibles forces d'extension**
- **Chambre de lubrification et palier lisse intégrés**
- Faible force de rupture
- Position de montage: au choix
- Sans maintenance et prêt à monter
- Températures: -30°C – +80°C, en option: -45°C – +200°C
- RoHS compliantes Directive 2002/95/EC
- L'effort de tarage doit être précisé lors de la commande

I

- **Elevata resistenza alla corrosione**
  - Corpo: rivestimento in polvere (WM-G 8: ottone)
  - Stelo del pistone: rivestimento ceramico o cromo duro
- **Valori d'attrito ridotti per ottenere forze d'espulsione minime**
- **Camera di lubrificazione e cuscinetti a strisciamento integrati**
- Forza di spunto ridotta
- Posizione di montaggio: a scelta
- Senza manutenzione e pronte per il montaggio
- Temperatura: -30°C - +80°C, opzionale: -45°C - +200°C
- RoHS compliante Direttiva 2002/95/EC
- La forza di espulsione deve essere indicata quando si effettua l'ordine

E

- **Alta resistencia a la corrosión**
  - Carcasa: recubrimiento en polvo (WM-G 8: latón)
  - Vástago del émbolo: revestimiento cerámico o cromado duro
- **Valores de fricción mínimos para conseguir las menores fuerzas de extracción**
- **Cámara de grasa y cojinetes deslizantes integrados**
- Fuerza de arranque baja
- Posición de montaje: cualquiera
- Sin mantenimiento y listo para ser montado
- Temperaturas: -30°C – +80°C, opcional: -45°C – +200°C
- RoHS y que cumplan Directiva 2002/95/CE
- Debe indicarse la fuerza de extensión en el pedido



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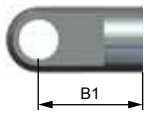
Esempio d'ordinazione: pagina: 213 • Ejemplo de pedido: página 213

1 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho

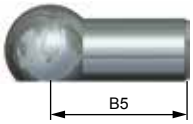


2 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada

3 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra

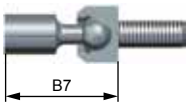
4 Gelenkkopf • Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada

5 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



6 **nur G**
only G
Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

7 Gelenkschraube • Ball joints
Inline rotule • Snodo Sferico Assiale
Línea de rótulas

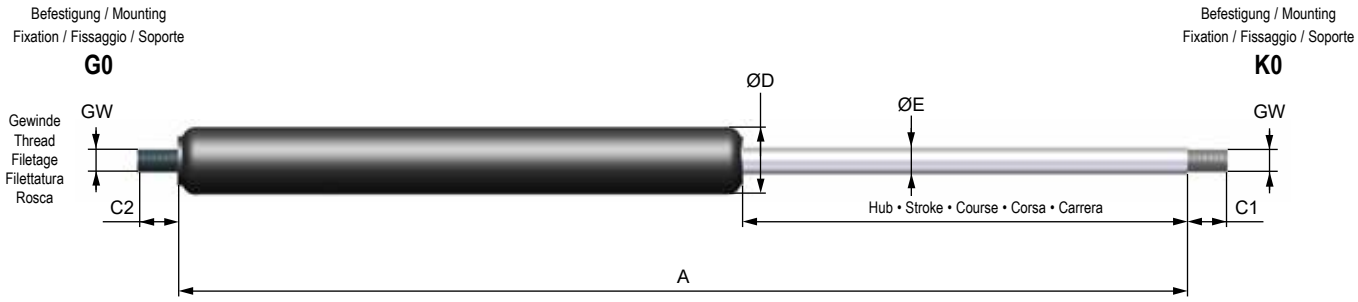


8 Schutzrohr • Protection tube
Tube de protection
Tubo di protezione
Tubo de protección

ABMESSUNGEN ▪ DIMENSIONS ▪ DIMENSIONI ▪ DIMENSIONES

	ø D	Hub ▪ Stroke Course ▪ Corsa Carrera	Kraft ▪ Force Force ▪ Forza Fuerza		Kraft bei eingefahrener Kolbenstange Force with compressed piston rod*	A	B1	B2	B3	B4	B5	B6	B7	C1	C2	ø E	GW
	mm	mm	N min.	N max.	N max.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
WM-G-8-20	8	20	10	100	128	72	11	18	16	21	18	-	-	4	4	3	M3
WM-G-8-30	8	30	10	100	128	92	11	18	16	21	18	-	-	4	4	3	M3
WM-G-8-40	8	40	10	100	128	112	11	18	16	21	18	-	-	4	4	3	M3
WM-G-8-50	8	50	10	100	128	132	11	18	16	21	18	-	-	4	4	3	M3
WM-G-8-60	8	60	10	100	128	152	11	18	16	21	18	-	-	4	4	3	M3
WM-G-8-80	8	80	10	100	128	192	11	18	16	21	18	-	-	4	4	3	M3
WM-G-10-20	10	20	10	100	120	72	11	18	16	21	18	-	-	4	4	3	M3
WM-G-10-30	10	30	10	100	120	92	11	18	16	21	18	-	-	4	4	3	M3
WM-G-10-40	10	40	10	100	120	112	11	18	16	21	18	-	-	4	4	3	M3
WM-G-10-50	10	50	10	100	120	132	11	18	16	21	18	-	-	4	4	3	M3
WM-G-10-60	10	60	10	100	120	152	11	18	16	21	18	-	-	4	4	3	M3
WM-G-10-80	10	80	10	100	120	192	11	18	16	21	18	-	-	4	4	3	M3
WM-G-12-20	12	20	10	180	218	72	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-30	12	30	10	180	218	92	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-40	12	40	10	180	218	112	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-50	12	50	10	180	218	132	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-60	12	60	10	180	218	152	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-80	12	80	10	150	218	192	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-100	12	100	10	150	218	232	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-120	12	120	10	120	218	272	12	18	16	12	18	5	-	5	5	4	M4
WM-G-12-150	12	150	10	100	218	332	12	18	16	12	18	5	-	5	5	4	M4
WM-G-15-20	15	20	20	400	508	67	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-40	15	40	20	400	508	107	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-50	15	50	20	400	508	127	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-60	15	60	20	400	508	147	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-80	15	80	20	400	508	187	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-100	15	100	20	400	508	227	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-120	15	120	20	400	508	267	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-150	15	150	20	400	508	327	16	22	20	30	22	5	28	5	5	6	M5
WM-G-15-200	15	200	20	350	508	427	16	22	20	30	22	5	28	5	5	6	M5

* Force avec tige de piston rentrée ▪ Forza con stelo del pistone retratta ▪ Fuerza con vástago del émbolo introducida



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Esempio d'ordinazione: pagina: 213 • Ejemplo de pedido: página 213

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Tête de chape (male)
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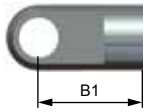

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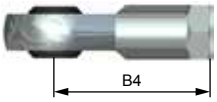

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Coussinet sphérique
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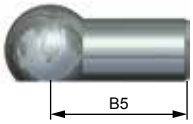

6 Ablaßschraube • Release screw
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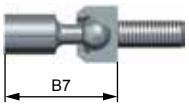
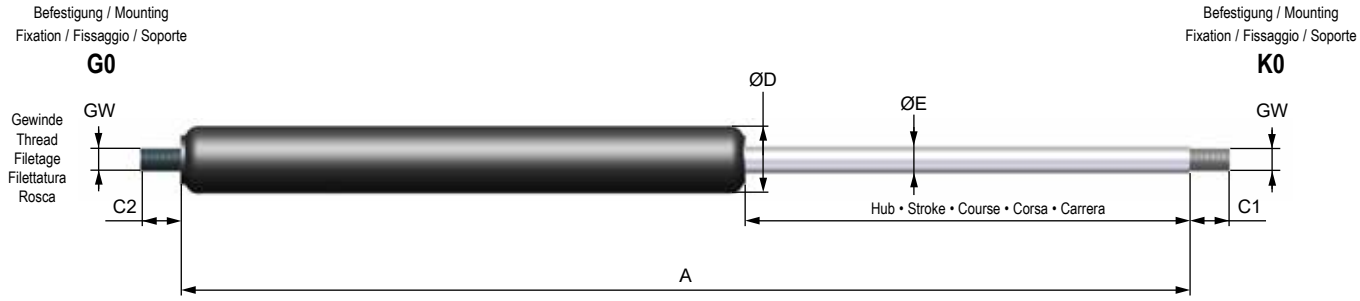


8 Schutzrohr • Protection tube
Tube de protection
Tubo di protezione
Tubo de protección

ABMESSUNGEN ▪ DIMENSIONS ▪ DIMENSIONI ▪ DIMENSIONES

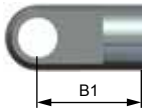
	ø D	Hub ▪ Stroke Course ▪ Corsa Carrera	Kraft ▪ Force Force ▪ Forza Fuerza		Kraft bei eingefahrener Kolbenstange Force with compressed piston rod*	A	B1	B2	B3	B4	B5	B6	B7	C1	C2	ø E	GW
	mm	mm	N min.	N max.	N max.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
WM-G-19-50	19	50	50	700	931	164	20	30	32	36	30	8	31	9	8	8	M8
WM-G-19-100	19	100	50	700	931	264	20	30	32	36	30	8	31	9	8	8	M8
WM-G-19-150	19	150	50	700	931	364	20	30	32	36	30	8	31	9	8	8	M8
WM-G-19-200	19	200	50	700	931	464	20	30	32	36	30	8	31	9	8	8	M8
WM-G-19-250	19	250	50	600	931	564	20	30	32	36	30	8	31	9	8	8	M8
WM-G-19-300	19	300	50	450	931	664	20	30	32	36	30	8	31	9	8	8	M8
WM-G-22-50	22	50	80	1300	1807	164	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-100	22	100	80	1300	1807	264	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-150	22	150	80	1300	1807	364	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-200	22	200	80	1300	1807	464	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-250	22	250	80	1300	1807	564	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-300	22	300	80	1100	1807	664	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-350	22	350	80	850	1807	764	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-400	22	400	80	650	1807	864	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-450	22	450	80	550	1807	964	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-500	22	500	80	450	1807	1064	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-550	22	550	80	400	1807	1164	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-600	22	600	80	350	1807	1264	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-650	22	650	80	300	1807	1364	20	30	32	36	30	8	31	9	8	10	M8
WM-G-22-700	22	700	80	250	1807	1464	20	30	32	36	30	8	31	9	8	10	M8
WM-G-28-100	28	100	150	2500	3800	262	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-150	28	150	150	2500	3800	362	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-200	28	200	150	2500	3800	462	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-250	28	250	150	2500	3800	562	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-300	28	300	150	2500	3800	662	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-350	28	350	150	2500	3800	762	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-400	28	400	150	2400	3800	862	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-450	28	450	150	1950	3800	962	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-500	28	500	150	1600	3800	1062	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-550	28	550	150	1350	3800	1162	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-600	28	600	150	1150	3800	1262	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-650	28	650	150	1000	3800	1362	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-700	28	700	150	900	3800	1462	25	35	40	43	35	13	-	9	13	14	M10
WM-G-28-750	28	750	150	800	3800	1562	25	35	40	43	35	13	-	9	13	14	M10

* Force avec tige de piston rentrée • Forza con stelo del pistone retratta • Fuerza con vástago del émbolo introducida



Bestellbeispiel: Seite 213 ▪ Ordering Information: Page 213 ▪ Exemple de commande: page: 213
Esempio d'ordinazione: pagina: 213 ▪ Ejemplo de pedido: página 213

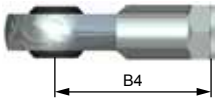
1 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



2 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada

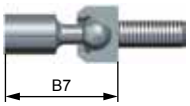
3 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra

4 Gelenkkopf • Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



6 nur G / only G
Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

7 Gelenkschraube • Ball joints
Inline rotule • Snodo Sferico Assiale
Línea de rótulas



8 Schutzrohr • Protection tube
Tube de protection
Tubo di protezione
Tubo de protección

ABMESSUNGEN ▪ DIMENSIONS ▪ DIMENSIONI ▪ DIMENSIONES

	ø D	Hub ▪ Stroke Course ▪ Corsa Carrera	Kraft ▪ Force Force ▪ Forza Fuerza		Kraft bei eingefahrener Kolbenstange Force with compressed piston rod*	A	B1	B2	B3	B4	B6	B7	C1	C2	ø E	GW
	mm	mm	N min.	N max.	N max.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
WM-G-40-100	40	100	500	5000	7250	317	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-150	40	150	500	5000	7250	417	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-200	40	200	500	5000	7250	517	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-300	40	300	500	5000	7250	717	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-400	40	400	500	5000	7250	917	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-500	40	500	500	5000	7250	1117	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-600	40	600	500	4150	7250	1317	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-800	40	800	500	2550	7250	1717	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-40-1000	40	1000	500	1700	7250	2117	40	45	56	57	15	-	15	15	20	M14x1,5
WM-G-70-100	70	100	2000	12000	15000	320	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-200	70	200	2000	12000	15000	520	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-300	70	300	2000	12000	15000	720	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-400	70	400	2000	12000	15000	920	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-500	70	500	2000	12000	15000	1120	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-600	70	600	2000	12000	15000	1320	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-700	70	700	2000	12000	15000	1520	-	-	100	94	-	-	35	35	30	M24x2,0
WM-G-70-800	70	800	2000	11550	15000	1720	-	-	100	94	-	-	35	35	30	M24x2,0

* Force avec tige de piston rentrée ▪ Forza con stelo del pistone retratta ▪ Fuerza con vástago del émbolo introducida

WM-G-28: Höhere Ausschubkräfte bis 6400 N mit Elasto-Fluid Feder WES-G möglich: Seite 154
WM-G-28: Higher extension forces up to 6400 N possible using Elasto-Fluid-Springs WES-G: Page 154

Edelstahl Gasfedern · Stainless Steel Gas Springs

Ressorts à gaz acier inoxydable · Molle a gas acciaio inox

Resortes a Gas acero inoxidable

D

Material	**Gehäuse, Kolbenstange hochwertiges Niro Material (V4A, AISI Nr 316L)**
Einbaulage	Empfehlung: Kolbenstange nach unten
Füllmedium	Stickstoff-Öl
Temperaturbereich	-30°C – +80°C
RoHS konform	Richtlinie 2002/95/EG
Einsatzgebiete	**Lebensmittelindustrie, Chemie, Seewasser**

GB

Material	**Housing, Piston rod high-quality stainless steel (V4A, AISI No. 316L)**
Installation position	Recommendation: piston rod downwards
Filling medium	Nitrogen oil
Temperature	-30°C – +80°C
RoHS compliant	Directive 2002/95/EC
Applications	**Food industry, Chemicals, Seawater**

F

Matériau	**Corps, Tige de piston Niro de qualité supérieure (V4A, AISI Nr 316L)**
Position de montage	Recommandation : tige de piston vers le bas
Liquide de remplissage	Azote-huile
Températures	-30°C – +80°C
RoHS compliantes	Directive 2002/95/EC
Applications	**Industrie alimentaire, chimie, eaux de mer**

I

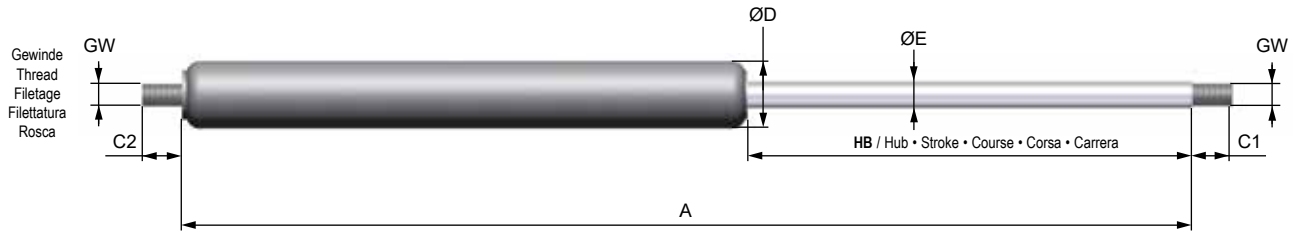
Materiale	**Corpo, Stelo del pistone Inossidabile di alta qualità (V4A, num. AISI 316L)**
Posizione di montaggio	Consiglio: stelo del pistone rivolta verso il basso
Fluido di riempimento	Azoto-olio
Temperatura	-30°C – +80°C
RoHS compliante	Direttiva 2002/95/CE
Applicazioni	**Industria alimentare, chimica, acqua di mare**

E

Material	**Carcasa, Vástago del émbolo Inoxidable de alta calidad (V4A, AISI Nº 316L)**
Posición de montaje	Recomendación: vástago del émbolo hacia abajo
Medio de relleno	Aceite de nitrógeno
Temperaturas	-30°C – +80°C
RoHS y que cumplan	Directiva 2002/95/CE
Aplicaciones	**Industria alimentaria, industria química, agua marina**

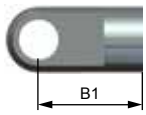
Befestigung / Mounting
Fixation / Fissaggio / Soporte
G0

Befestigung / Mounting
Fixation / Fissaggio / Soporte
K0



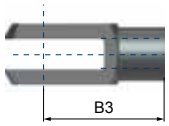
Bestellbeispiel: Seite 213 • Ordering Information: Page 213 • Exemple de commande: page: 213
Esempio d'ordinazione: pagina: 213 • Ejemplo de pedido: página 213

1 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



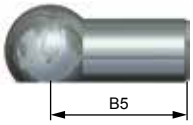
2 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada

3 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



4 Gelenkkopf • Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada

5 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



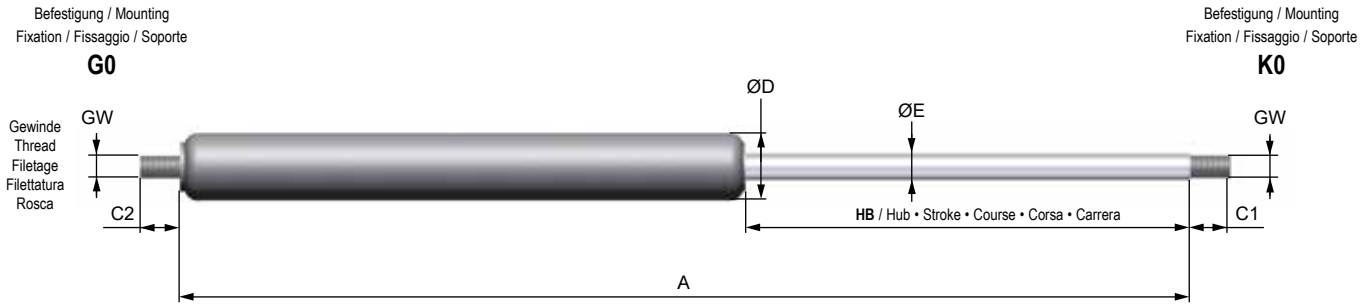
6 **nur G only G**
Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

ABMESSUNGEN ▪ DIMENSIONS ▪ DIMENSIONI ▪ DIMENSIONES

	ø D	Hub ▪ Stroke Course ▪ Corsa Carrera	Kraft ▪ Force Force ▪ Forza Fuerza		Kraft bei eingefahrener Kolbenstange Force with compressed piston rod*	A	B1	B2	B3	B4	B5	B6	C1	C2	ø E	GW
	mm	mm	N min.	N max.	N max.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
WM-GVA-15-20	15	20	20	400	508	67	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-40	15	40	20	400	508	107	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-50	15	50	20	400	508	127	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-60	15	60	20	400	508	147	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-80	15	80	20	400	508	187	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-100	15	100	20	400	508	227	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-120	15	120	20	400	508	267	16	-	-	-	-	5	5	5	6	M5
WM-GVA-15-150	15	150	20	400	508	327	16	-	-	-	-	5	5	5	6	M5
WM-GVA-19-50	19	50	50	700	931	164	20	30	32	36	30	8	9	8	8	M8
WM-GVA-19-100	19	100	50	700	931	264	20	30	32	36	30	8	9	8	8	M8
WM-GVA-19-150	19	150	50	700	931	364	20	30	32	36	30	8	9	8	8	M8
WM-GVA-19-200	19	200	50	700	931	464	20	30	32	36	30	8	9	8	8	M8
WM-GVA-19-250	19	250	50	600	931	564	20	30	32	36	30	8	9	8	8	M8
WM-GVA-19-300	19	300	50	450	931	664	20	30	32	36	30	8	9	8	8	M8
WM-GVA-22-50	22	50	100	1200	1807	164	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-100	22	100	100	1200	1807	264	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-150	22	150	100	1200	1807	364	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-200	22	200	100	1200	1807	464	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-250	22	250	100	1200	1807	564	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-300	22	300	100	1100	1807	664	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-350	22	350	100	850	1807	764	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-400	22	400	100	650	1807	864	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-450	22	450	100	550	1807	964	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-500	22	500	100	450	1807	1064	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-550	22	550	100	400	1807	1164	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-600	22	600	100	350	1807	1264	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-650	22	650	100	300	1807	1364	20	30	32	36	30	10	9	8	10	M8
WM-GVA-22-700	22	700	100	250	1807	1464	20	30	32	36	30	10	9	8	10	M8

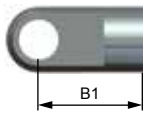
* Force avec tige de piston rentrée ▪ Forza con stelo del pistone retratta ▪ Fuerza con vástago del émbolo introducida

WM-GVA



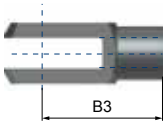
Bestellbeispiel: Seite 213 ▪ Ordering Information: Page 213 ▪ Exemple de commande: page: 213
Esempio d'ordinazione: pagina: 213 ▪ Ejemplo de pedido: página 213

1 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



2 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada

3 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



4 Gelenkkopf • Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada

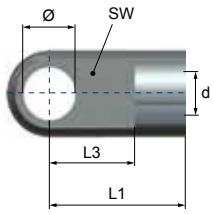
6 **nur G** **only G** Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

ABMESSUNGEN ▪ DIMENSIONS ▪ DIMENSIONI ▪ DIMENSIONES

	ø D	Hub ▪ Stroke Course ▪ Corsa Carrera	Kraft ▪ Force Force ▪ Forza Fuerza		Kraft bei eingefahrener Kolbenstange Force with compressed piston rod*	A	B1	B2	B3	B4	B6	C1	C2	ø E	GW
	mm	mm	N min.	N max.	N max.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
WM-GVA-28-100	28	100	150	2500	3800	262	25	35	40	43	13	9	13	14	M10
WM-GVA-28-150	28	150	150	2500	3800	362	25	35	40	43	13	9	13	14	M10
WM-GVA-28-200	28	200	150	2500	3800	462	25	35	40	43	13	9	13	14	M10
WM-GVA-28-250	28	250	150	2500	3800	562	25	35	40	43	13	9	13	14	M10
WM-GVA-28-300	28	300	150	2500	3800	662	25	35	40	43	13	9	13	14	M10
WM-GVA-28-350	28	350	150	2500	3800	762	25	35	40	43	13	9	13	14	M10
WM-GVA-28-400	28	400	150	2400	3800	862	25	35	40	43	13	9	13	14	M10
WM-GVA-28-450	28	450	150	1950	3800	962	25	35	40	43	13	9	13	14	M10
WM-GVA-28-500	28	500	150	1600	3800	1062	25	35	40	43	13	9	13	14	M10
WM-GVA-28-550	28	550	150	1350	3800	1162	25	35	40	43	13	9	13	14	M10
WM-GVA-28-600	28	600	150	1150	3800	1262	25	35	40	43	13	9	13	14	M10
WM-GVA-28-650	28	650	150	1000	3800	1362	25	35	40	43	13	9	13	14	M10
WM-GVA-40-100	40	100	500	5000	7250	317	40	45	-	-	15	15	15	20	M14x1,5
WM-GVA-40-150	40	150	500	5000	7250	417	40	45	-	-	15	15	15	20	M14x1,5
WM-GVA-40-200	40	200	500	5000	7250	517	40	45	-	-	15	15	15	20	M14x1,5
WM-GVA-40-300	40	300	500	5000	7250	717	40	45	-	-	15	15	15	20	M14x1,5
WM-GVA-40-400	40	400	500	5000	7250	917	40	45	-	-	15	15	15	20	M14x1,5
WM-GVA-40-500	40	500	500	5000	7250	1117	40	45	-	-	15	15	15	20	M14x1,5
WM-GVA-40-600	40	600	500	4150	7250	1317	40	45	-	-	15	15	15	20	M14x1,5

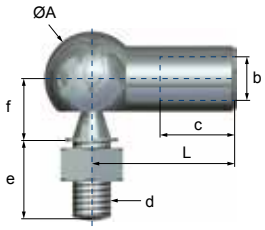
* Force avec tige de piston rentrée ▪ Forza con stelo del pistone retratta ▪ Fuerza con vástago del émbolo introducida

1 Gelenkauge • Male rod clevis • Tête de chape (male)
Attacco a cerniera maschio • Charnela macho



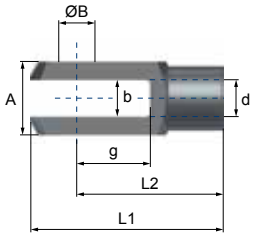
SW	Ø	L1	L3	d	Code	max. N
3	6,2	16	9	M5	1-M5-VA	490
10	8,2	20	20	M8	1-M8-VA	1560
12	8,2	25	12	M10	1-M10-VA	3800
14	14,2	40	20	M14x1,5	1-M14-VA	7000

2 Winkelgelenk • Angle joint • Joint à angle • Snodo angolare • Charnela articulada



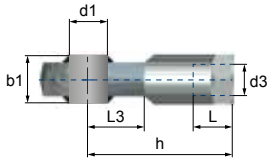
AØ	L	b	c	d	e	f	Code	max. N
13	30	M8	14,5	M8	16,5	13	2-M8-VA	1140
16	35	M10	15,5	M10	20	16	2-M10-VA	1750
19	45	M14x1,5	20	M14x1,5	28	20	2-M14-VA	3200

3 Gabelkopf • Female rod clevis • Embout à rotule (femelle)
Forcella femmina • Charnela hembra



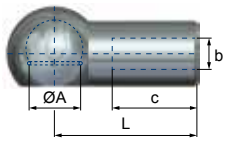
A	ØB	b	g	L1	L2	d	Code	max. N
16	8	8	16	42	32	M8	3-M8-VA	1560
20	10	10	20	52	40	M10	3-M10-VA	3800

4 Gelenkkopf • Spherical end bearing • Joint articulé
Forcella snodata • Charnela macho articulada



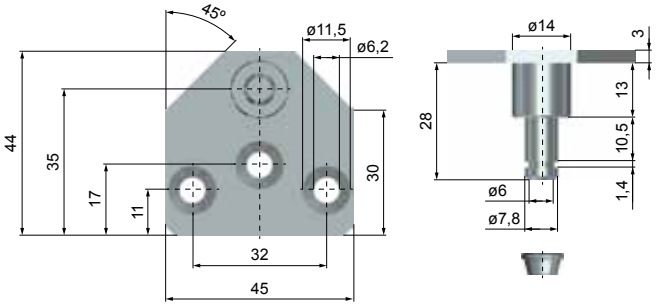
b1	d1	d3	L	L3	h	Code	max. N
8	8	M8	16	12	36	4-M8-VA	1560
9	10	M10	20	13	43	4-M10-VA	3800

5 Kugelpfanne • Ball joint housing • Coussinet sphérique
Cuscinetto sferico • Cojinete esférico

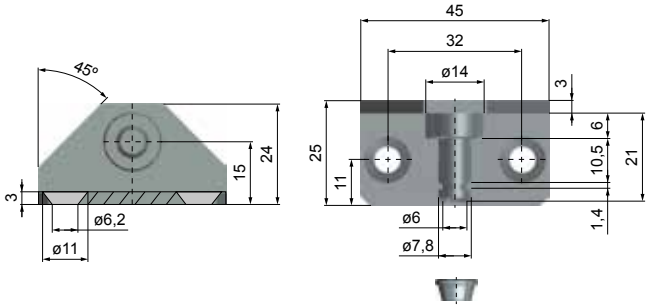


A	L	b	c	Code	max. N
10	19	M8	10	5-M8-2-VA	1140
13	30	M8	14	5-M8-VA	1140

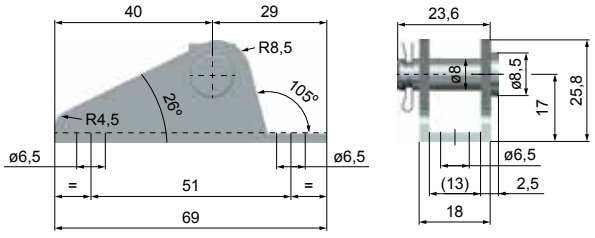
20-VA (für / for 1-M8-VA, 4-M8-VA)



21-VA (für / for 1-M8-VA, 4-M8-VA)



25-VA (für / for 1-M8-VA, 1-M10-VA, 4-M8-VA)



Gaszugfedern · Gas traction springs
Ressorts à gaz de traction · Molle a gas di trazione
Resortes a gas tracción

D

- **Hohe Korrosionsbeständigkeit**
  - Gehäuse: pulverbeschichtet
  - Kolbenstange: keramisch beschichtet
- **Minimale Reibungswerte für niedrigste Ausschubkräfte**
- **Integrierte Fettkammer und Gleitlager**
- Niedrige Losbrechkraft
- Einbaulage: beliebig
- Wartungsfrei und einbaufertig
- Temperaturbereich: -30°C – +80°C, optional: -45°C – +200°C
- RoHS konform Richtlinie 2002/95/EG
- Einzugkraft muss bei Bestellung angegeben werden

GB

- **High corrosion resistance**
  - Housing: powder coated
  - Piston rod: ceramic coated
- **Minimal friction coefficient to achieve the lowest extension forces**
- **Integrated grease chamber and sliding bearing**
- Lower breakaway force
- Installation position: any
- Maintenance-free and ready for installation
- Temperature: -30°C – +80°C, optional: -45°C – +200°C
- RoHS compliant Directive 2002/95/EC
- Pull-in force must be stated on ordering.

F

- **Résistance élevée à la corrosion**
  - Corps : peinture à la poudre
  - Tige de piston: revêtement céramique
- **Valeurs de frottement minimales pour atteindre les plus faibles forces d'extension**
- **Chambre de lubrification et palier lisse intégrés**
- Faible force de rupture
- Position de montage : au choix
- Sans maintenance et prêt à monter
- Températures: -30°C – +80°C, en option: -45°C – +200°C
- RoHS compliantes Directive 2002/95/EC
- L'effort d'amortissement doit être précisé lors de la commande

I

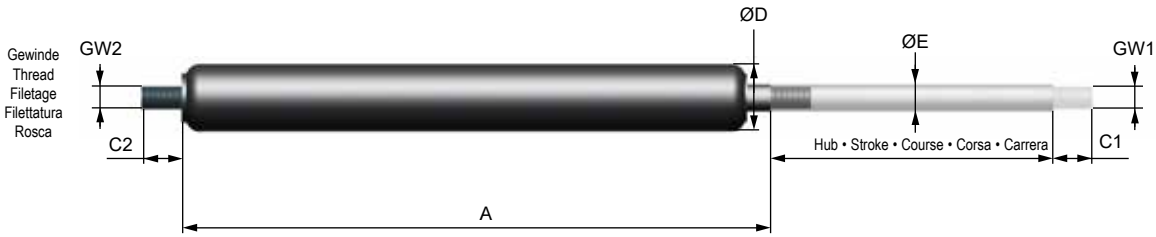
- **Elevata resistenza alla corrosione**
  - Corpo: rivestimento in polvere
  - Stelo del pistone: rivestimento ceramico
- **Valori d'attrito ridotti per ottenere forze d'espulsione minime**
- **Camera di lubrificazione e cuscinetti a strisciamento integrati**
- Forza di spunto ridotta
- Posizione di montaggio: a scelta
- Senza manutenzione e pronte per il montaggio
- Temperatura: -20°C - +80°C, opzionale: -45°C - +200°C
- RoHS compliante Direttiva 2002/95/EC
- La forza di inserimento deve essere indicata quando si effettua l'ordine

E

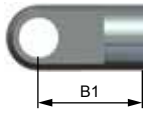
- **Alta resistencia a la corrosión**
  - Carcasa: recubrimiento en polvo
  - Vástago del émbolo: revestimiento cerámico
- **Valores de fricción mínimos para conseguir las menores fuerzas de extracción**
- **Cámara de grasa y cojinetes deslizantes integrados**
- Fuerza de arranque baja
- Posición de montaje: cualquiera
- Sin mantenimiento y listo para ser montado
- Temperaturas: -30°C – +80°C, opcional: -45°C – +200°C
- RoHS y que cumplan Directiva 2002/95/CE
- Debe indicarse la fuerza de inserción en el pedido

Befestigung / Mounting
Fixation / Fissaggio / Soporte
G0

Befestigung / Mounting
Fixation / Fissaggio / Soporte
K0

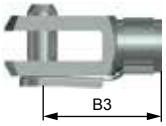


1 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho

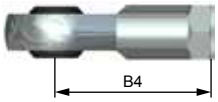


2 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada

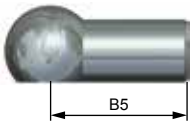
3 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



4 Gelenkkopf • Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



5 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



6 **nur G only G** Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

8 Schutzrohr • Protection tube
Tube de protection
Tubo di protezione
Tubo de protección

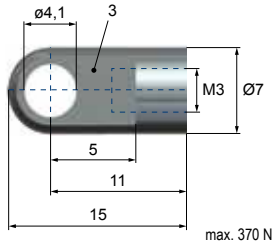
ABMESSUNGEN ▪ DIMENSIONS ▪ DIMENSIONI ▪ DIMENSIONES

	ø D	Hub ▪ Stroke Course ▪ Corsa Carrera	Kraft ▪ Force Force ▪ Forza Fuerza		Kraft bei ausgezogener Kolbenstange Force with extended piston rod*	A	B1	B2	B3	B4	B5	B6	C1	C2	ø E	GW1	GW2
	mm	mm	N min.	N max.	N max.	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
WM-GZ-19-30	19	30	30	300	360	112	20	30	32	36	30	5	10	8	6	M8	M8
WM-GZ-19-50	19	50	30	300	360	132	20	30	32	36	30	5	10	8	6	M8	M8
WM-GZ-19-100	19	100	30	300	360	182	20	30	32	36	30	5	10	8	6	M8	M8
WM-GZ-19-150	19	150	30	300	360	232	20	30	32	36	30	5	10	8	6	M8	M8
WM-GZ-19-200	19	200	30	300	360	282	20	30	32	36	30	5	10	8	6	M8	M8
WM-GZ-28-30	28	30	150	1200	1980	130	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-50	28	50	150	1200	1980	150	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-100	28	100	150	1200	1980	200	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-150	28	150	150	1200	1980	250	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-200	28	200	150	1200	1980	300	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-250	28	250	150	1200	1980	350	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-300	28	300	150	1200	1980	400	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-350	28	350	150	1200	1980	450	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-400	28	400	150	1200	1980	500	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-450	28	450	150	1200	1980	550	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-500	28	500	150	1200	1980	600	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-550	28	550	150	1200	1980	650	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-600	28	600	150	1200	1980	700	25	35	40	43	35	12	9	9	10	M10	M10
WM-GZ-28-650	28	650	150	1200	1980	750	25	35	40	43	35	12	9	9	10	M10	M10

* Force avec tige de piston sortie ▪ Forza con stelo del pistone estratta ▪ Fuerza con vástago del émbolo extendida

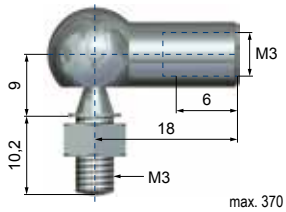
M3

1-M3 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



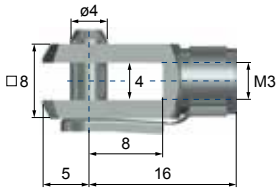
max. 370 N

2-M3 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada



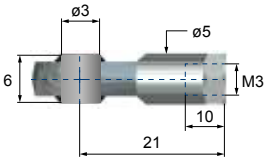
max. 370 N

3-M3 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



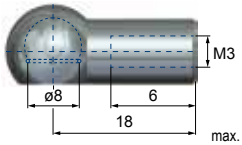
max. 370 N

4-M3 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



max. 370 N

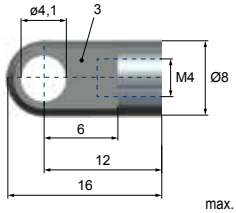
5-M3 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



max. 370 N

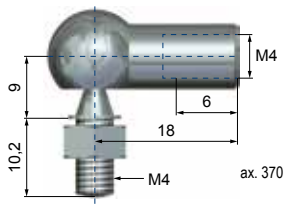
M4

1-M4 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



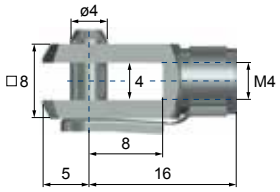
max. 370 N

2-M4 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada



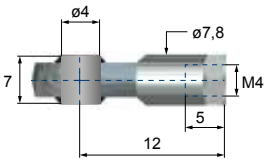
ax. 370 N

3-M4 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



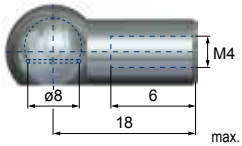
max. 370 N

4-M4 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



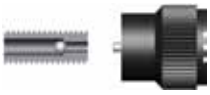
max. 370 N

5-M4 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



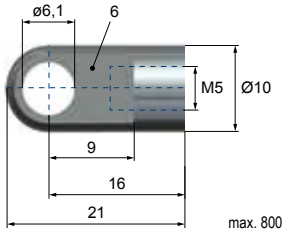
max. 370 N

6-M4 Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado



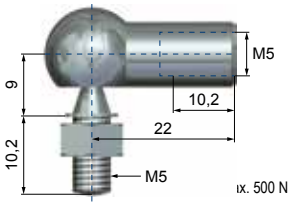
M5

1-M5 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



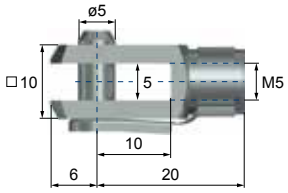
max. 800 N

2-M5 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada



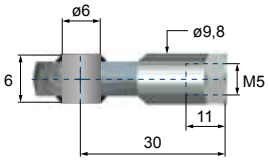
IX. 500 N

3-M5 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



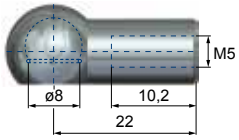
max. 800 N

4-M5 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



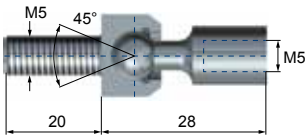
max. 800 N

5-M5 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



max. 500 N

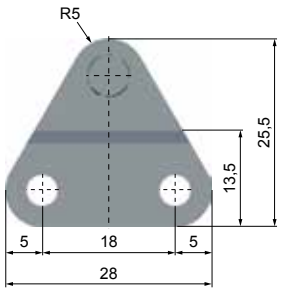
7-M5 Gelenkschraube • Ball joints
Inline rotule • Snodo Sferico Assiale
Línea de rótulas

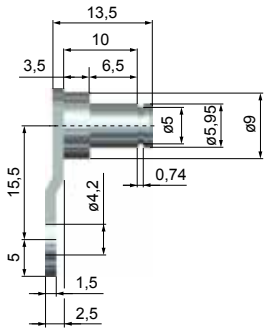


max. 500 N

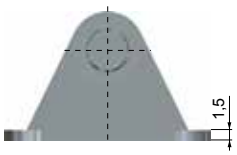
6-15-M5 Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

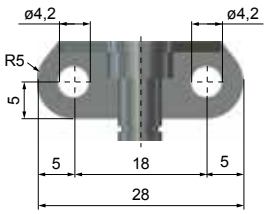
26 (für / for 1-M5, 4-M5)

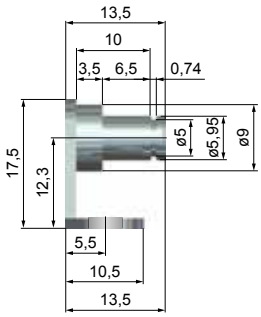




29 (für / for 1-M5, 4-M5)

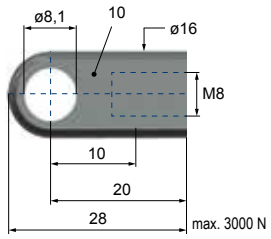




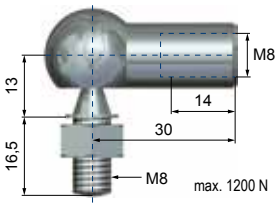


M8

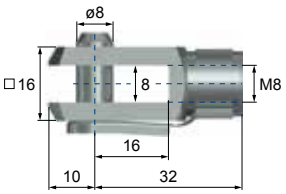
1-M8 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



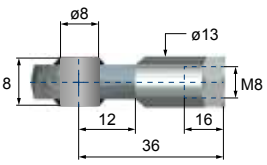
2-M8 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada



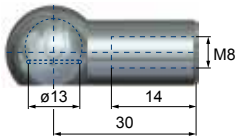
3-M8 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



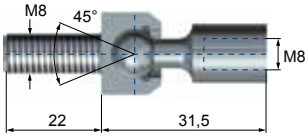
4-M8 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



5-M8 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico

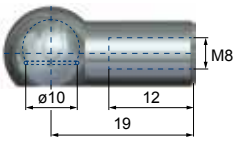


7-M8 Gelenkschraube • Ball joints
Inline rotule • Snodo Sferico Assiale
Línea de rótulas

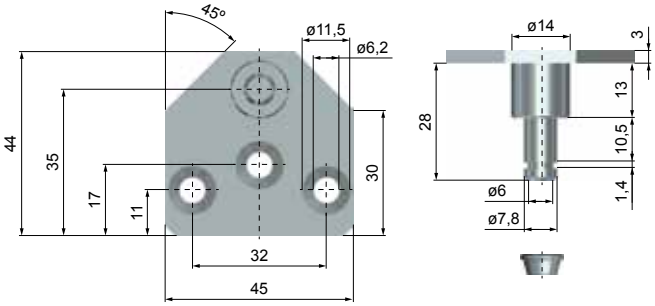


6-22-M8 Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

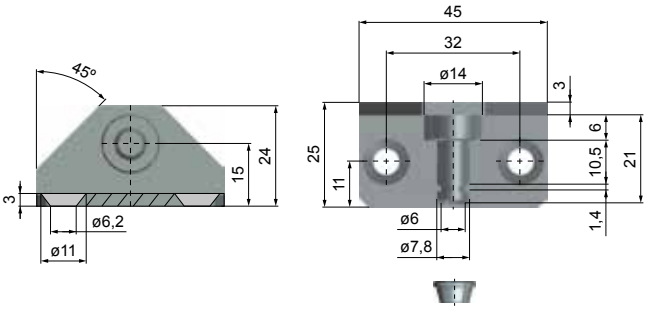
5-2-M8 Kugelpfanne
Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



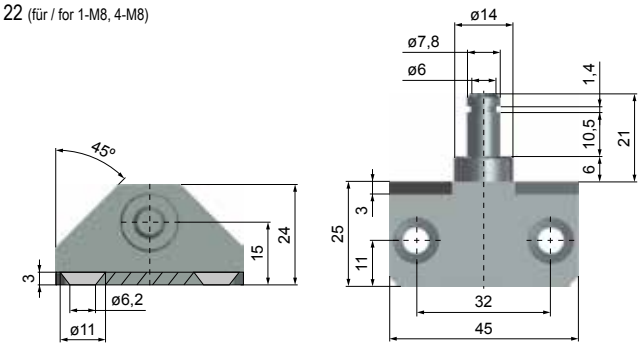
20 (für / for 1-M8, 4-M8)



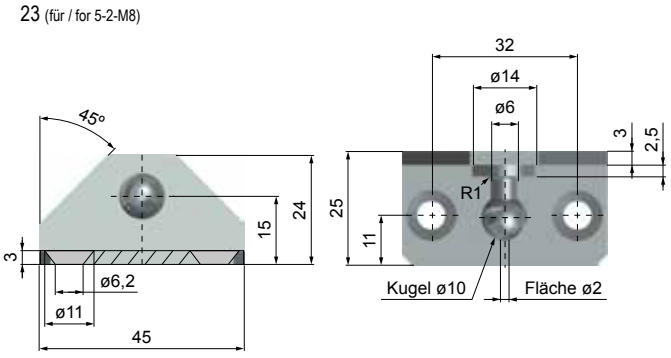
21 (für / for 1-M8, 4-M8)



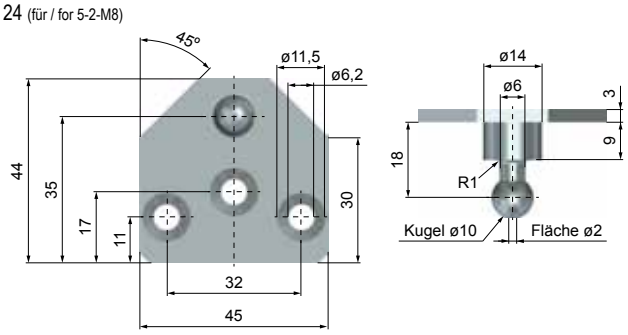
22 (für / for 1-M8, 4-M8)



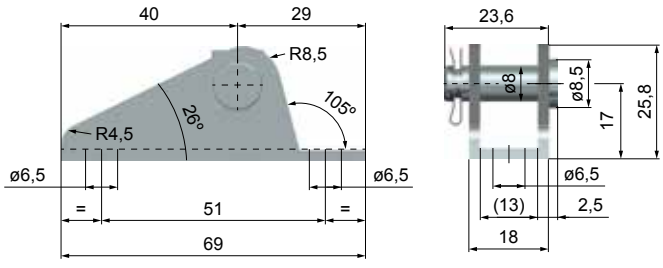
23 (für / for 5-2-M8)



24 (für / for 5-2-M8)

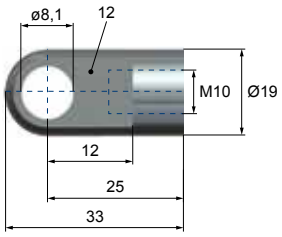


25 (für / for 1-M8, 4-M8)



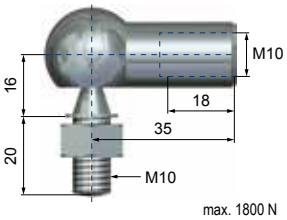
M10

1-M10 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



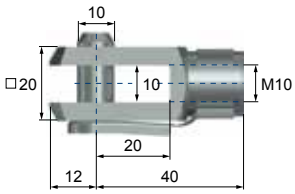
max. 10000 N

2-M10 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada



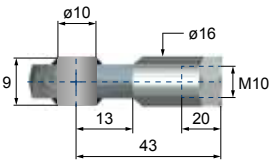
max. 1800 N

3-M10 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



max. 10000 N

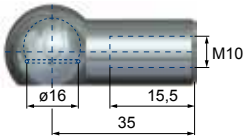
4-M10 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



max. 10000 N

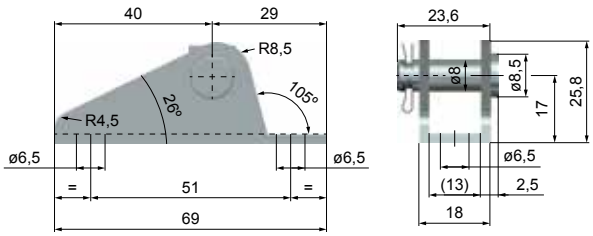
6-28-M10 Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

5-M10 Kugelpfanne • Ball joint housing
Coussinet sphérique
Cuscinetto sferico
Cojinete esférico



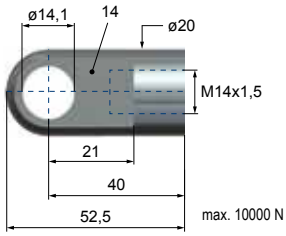
max. 10000 N

25 (für / for 1-M10)



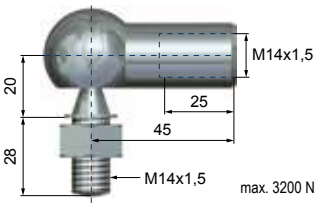
M14x1,5

1-M14 Gelenkauge • Male rod clevis
Tête de chape (male)
Attacco a cerniera maschio
Charnela macho



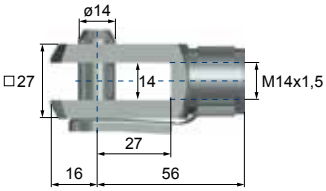
max. 10000 N

2-M14 Winkelgelenk • Angle joint
Joint à angle • Snodo angolare
Charnela articulada



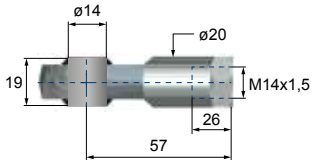
max. 3200 N

3-M14 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



max. 10000 N

4-M14 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada

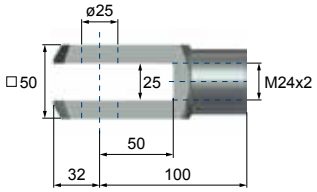


max. 10000 N

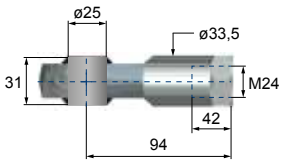
6-40-M14 Ablaßschraube • Release screw
Vis de purge • Tappo di scarico
Tornillo de vaciado

M24x2

3-M24 Gabelkopf • Female rod clevis
Embout à rotule (femelle)
Forcella femmina
Charnela hembra



4-M24 Gelenkkopf
Spherical end bearing
Joint articulé • Forcella snodata
Charnela macho articulada



max. 50000 N

Gasfeder-Füllkoffer ▪ Gas spring Refilling Kit

Gasfeder-Füllkoffer zum füllen und anpassen von Gasfedern vor Ort. Der Koffer enthält alle Füllglocken und Ablaßschrauben. Der Füllkoffer ist passend für 200 bar Stickstoff-Flaschen mit Gewinde W24,32x1/14". Stickstoff ist im Lieferumfang nicht enthalten.

The gas spring refilling kit allows to fill or adjust gas springs on site. The kit contains all necessary filling bells and release screws for our product range. The refilling kit is equipped for 200 bar nitrogen bottles with thread W24,32x1/14"
Nitrogen is not included.

Gasfeder-Ablasskoffer ▪ Gas Spring Release Kit

Gasfeder-Ablasskoffer zum kontrollierten Ablassen von Stickstoff bei Gasfedern. Der Koffer enthält alle notwendigen Ablass-Schrauben und einen Manometer zum Prüfen des verbleibenden Drucks in der Gasfeder.

Gas spring release kit for controlled discharge of nitrogen in gas springs. The kit contains all necessary release screws and a pressure gauge to control the remaining pressure in the gas spring.

Gasfeder Füllstand ▪ Gas Spring Filling Station

Gasfeder Füllstand zum Füllen von Gasfedern (außer WM-G-70).
Der Füllstand wird inklusiver aller Fülladapter geliefert.
Stickstoff ist im Lieferumfang nicht enthalten.

Gas spring filling station to fill gas springs (except WM-G-70).
All necessary filling adapters are included.
Nitrogen is not included.