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#### **Function**

LIFT&HOLD gas springs are hydropneumatic devices that help us to lift, lower, adjust, move, counterbalance the weights easily or without any effort.

It consists of a chrome plated or nitrocarburized steel piston rod, oil and pressurized nitrogen gas sealed in the painted steel cylinder.

Internal gas pressure increases as piston rod moves into the cylinder (compression). This internal pressure has an actuating effect on the cross sectional area of the piston rod.

This pressure on the sectional area of the piston rod forces the piston rod to move out of the cylinder (extension).

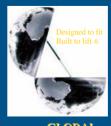
Piston rod extension dampens on a specified point according to the quantity of oil filled in. On the other hand oil lubricates the piston and sealing set to work smoothly for many years.

#### **Advantages**

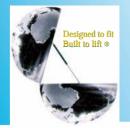
- >> Hydraulic or dynamic damping in the end of its movement.
- **>>|** Easy and smooth lifting, lowering, moving, adjusting.
- Wide application possibilites due to wide range of end fittings.
- **>>** Maintenance free. No need for greasing or lubrication.
- **>>** Adjustable spring characteristics.

#### **Applications**

LIFT&HOLD gas springs have a very wide range of application area such as automotive, furniture, building, machine industry, hospital beds, medical equipments etc...

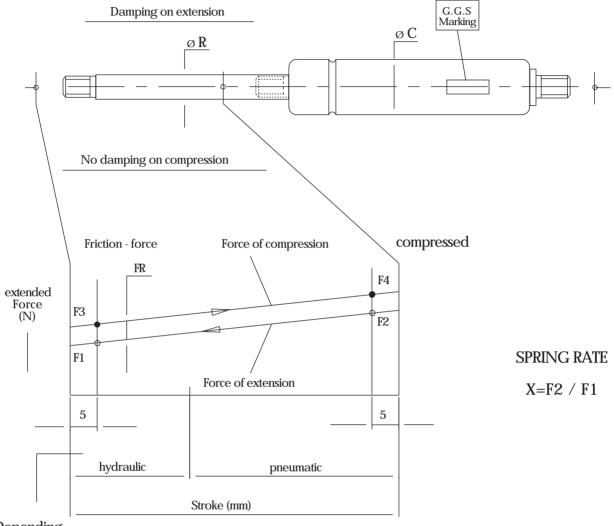


## GLH-T



### TECHNICAL INFORMATION

GLOBAL GAS SPRINGS



Depending upon installation	FORCE DIAGRAM
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Туре	ø R	ø C	F1 (Newton)		Max. Stroke	X	FR Max.
	(mm)	(mm)	Min.	Max.	(mm)		(Newton)
GLH-TC	6	15	50	400	150	1.30	50
GLH-TD	8	18	100	750	250	1.35	60
GLH-TE	10	21	150	1150	500	1.40	80
GLH-TG	14	27	500	2100	500	1.40	80

### Unless otherwise specified;

Cylinder : Black painted steel cylinder. (High corrosion resistance)

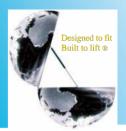
Rod : Hard chrome plated

Ends : Threaded

Working temperature : min. -30 °C / max. +80 °C Hydraulic damping : According to G.G.S. standards Extension speed : According to G.G.S. standards

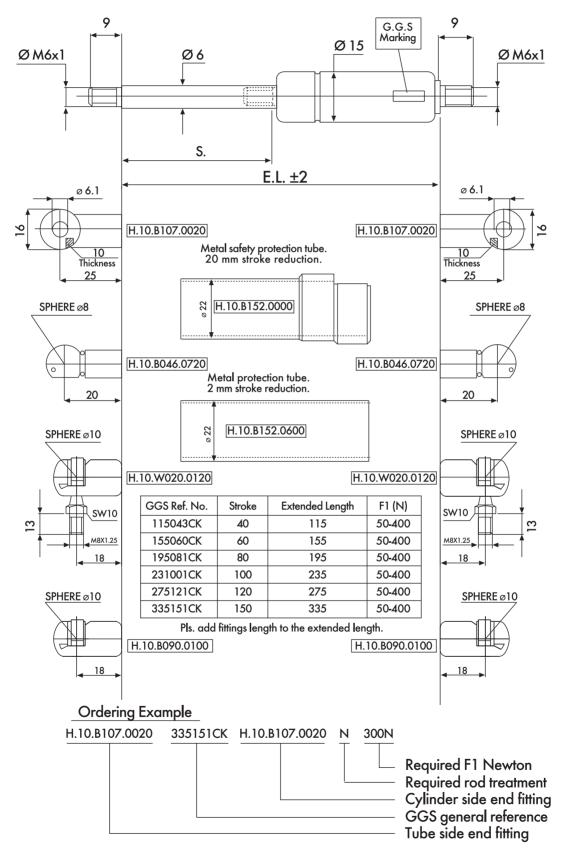
Dimensions in mm / We reserve the right to make modifications.

### **GLH-TC**



### ASSEMBLY PROGRAMME

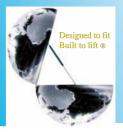
GLOBAL GAS SPRINGS



Drawings are for guidence only. Do not scale.

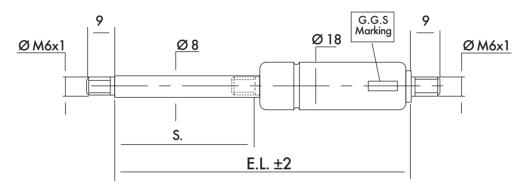
For further assembly possibilites, please see our wide range of Connect & Hold end fittings.

### **GLH-TD**



### Lift & Hold gas springs with threaded ends

GLOBAL GAS SPRINGS



Dimensions in mm / We reserve the right to make modifications.

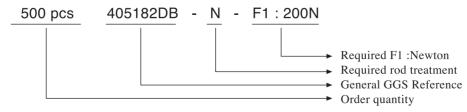
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
165062DB	60	165	100 - 750
205082DB	80	205	100 - 750
245102DB	100	245	100 - 750
285122DB	120	285	100 - 750
325142DB	140	325	100 - 750
365162DB	160	365	100 - 750
405182DB	180	405	100 - 750
445202DB	200	445	100 - 750
485222DB	220	485	100 - 750
545252DB	250	545	100 - 750

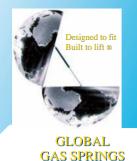
#### Standard GLH-TD:

- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Threaded Rod: Threaded
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

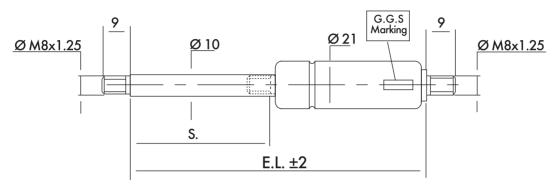
### Ordering example:





### **GLH-TE**

Lift & Hold gas springs with threaded ends



Dimensions in mm / We reserve the right to make modifications.

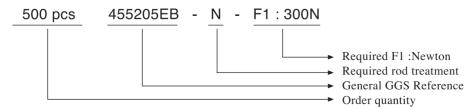
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
255105EB	100	255	150 - 1150
355155EB	150	355	150 - 1150
455205EB	200	455	150 - 1150
555255EB	250	555	150 - 1150
655305EB	300	655	150 - 1150
755355EB	350	755	150 - 1150
855405EB	400	855	150 - 1150
1055502EB	500	1055	150 - 1150

#### Standard GLH-TE:

- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Threaded Rod: Threaded
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

#### Ordering example:

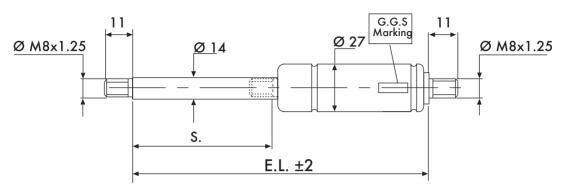


### **GLH-TG**



Lift & Hold gas springs with threaded ends





Dimensions in mm / We reserve the right to make modifications.

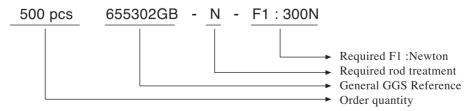
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
255102GB	100	255	500 - 2100
355152GB	150	355	500 - 2100
455202GB	200	455	500 - 2100
555252GB	250	555	500 - 2100
655302GB	300	655	500 - 2100
755352GB	350	755	500 - 2100
855402GB	400	855	500 - 2100
955452GB	450	955	500 - 2100
1055502GB	500	1055	500 - 2100

#### Standard GLH-TG:

- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Threaded Rod: Threaded
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

### Ordering example:

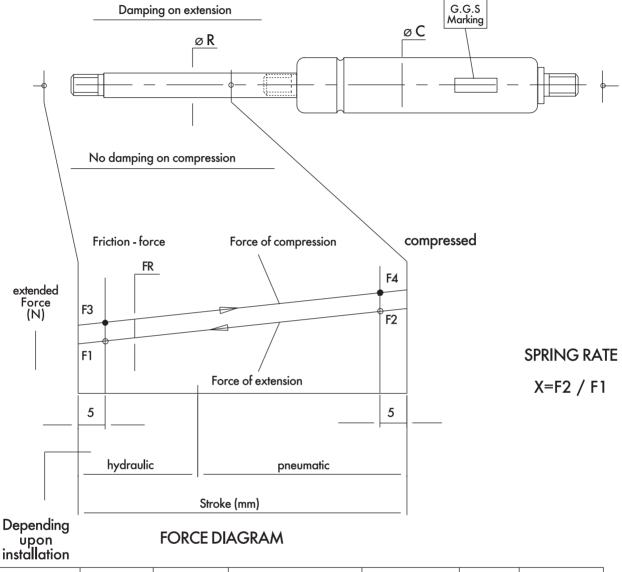


### **GLH-T**

# Designed to fit Built to lift ®

### TECHNICAL INFORMATION

GLOBAL GAS SPRINGS



Туре	ø R	ø C	F1 (Newton)		Max. Stroke	X	FR Max.
	(mm)	(mm)	Min.	Max.	(mm)	≈	(Newton)
GLH-TC	6	15	50	400	150	1.30	50
GLH-TD	8	18	100	750	250	1.35	60
GLH-TE	10	21	150	1150	500	1.40	80
GLH-TG	14	27	500	2100	500	1.40	80

### Unless otherwise specified;

Cylinder : Black painted steel cylinder. (High corrosion resistance)

Rod : Hard chrome plated

Ends : Threaded

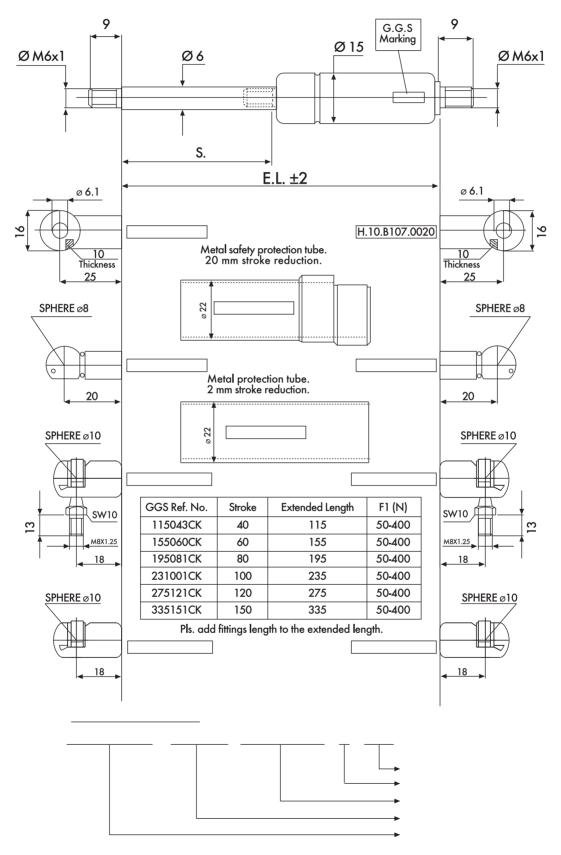
Working temperature : min. -30 °C / max. +80 °C Hydraulic damping : According to G.G.S. standards Extension speed : According to G.G.S. standards

Dimensions in mm / We reserve the right to make modifications.

## **GLH-TC**



### ASSEMBLY PROGRAMME



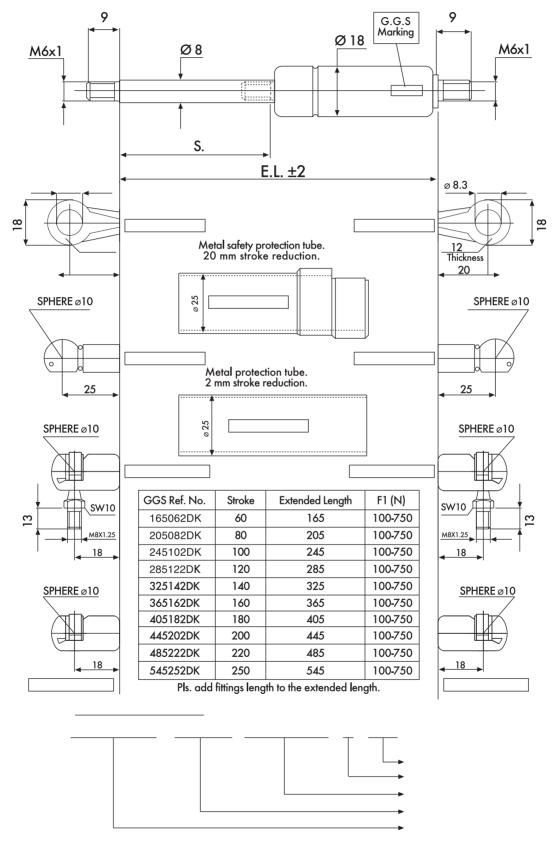
Drawings are for guidence only. Do not scale.

For further assembly possibilites, please see our wide range of Connect & Hold end fittings.



### **GLH-TD**

### ASSEMBLY PROGRAMME



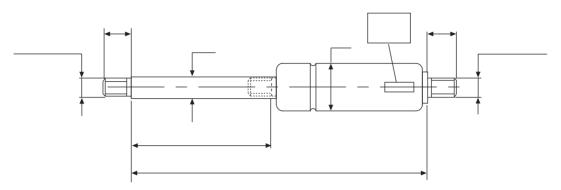
Drawings are for guidence only. Do not scale.

For further assembly possibilites, please see our wide range of Connect & Hold end fittings.



### **GLH-TE**

Lift & Hold gas springs with threaded ends



Dimensions in mm / We reserve the right to make modifications.

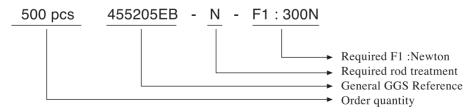
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
255105EB	100	255	150 - 1150
355155EB	150	355	150 - 1150
455205EB	200	455	150 - 1150
555255EB	250	555	150 - 1150
655305EB	300	655	150 - 1150
755355EB	350	755	150 - 1150
855405EB	400	855	150 - 1150
1055502EB	500	1055	150 - 1150

#### Standard GLH-TE:

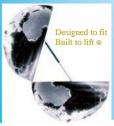
- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Threaded Rod: Threaded
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

Ordering example:

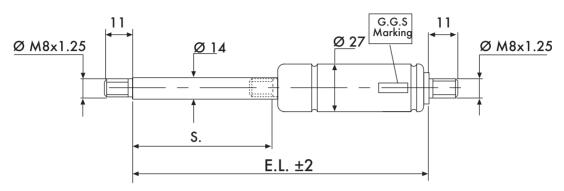


### **GLH-TG**



Lift & Hold gas springs with threaded ends





Dimensions in mm / We reserve the right to make modifications.

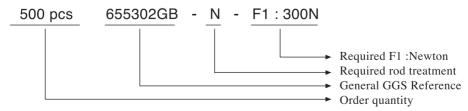
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
255102GB	100	255	500 - 2100
355152GB	150	355	500 - 2100
455202GB	200	455	500 - 2100
555252GB	250	555	500 - 2100
655302GB	300	655	500 - 2100
755352GB	350	755	500 - 2100
855402GB	400	855	500 - 2100
955452GB	450	955	500 - 2100
1055502GB	500	1055	500 - 2100

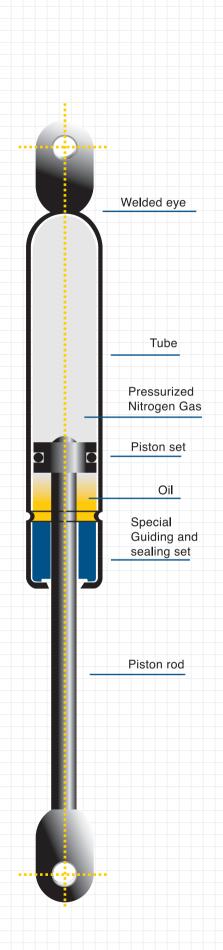
#### Standard GLH-TG:

- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Threaded Rod: Threaded
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

### Ordering example:





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#### **Function**

LIFT&HOLD gas springs are hydropneumatic devices that help us to lift, lower, adjust, move, counterbalance the weights easily or without any effort.

It consists of a chrome plated or nitrocarburized steel piston rod, oil and pressurized nitrogen gas sealed in the painted steel cylinder.

Internal gas pressure increases as piston rod moves into the cylinder (compression). This internal pressure has an actuating effect on the cross sectional area of the piston rod.

This pressure on the sectional area of the piston rod forces the piston rod to move out of the cylinder (extension).

Piston rod extension dampens on a specified point according to the quantity of oil filled in. On the other hand oil lubricates the piston and sealing set to work smoothly for many years.

#### Advantages

- **>>!** Hydraulic or dynamic damping in the end of its movement.
- **>>** Easy and smooth lifting, lowering, moving, adjusting.
- **>>** Maintenance free. No need for greasing or lubrication.
- **>>** Adjustable spring characteristics.

#### **Applications**

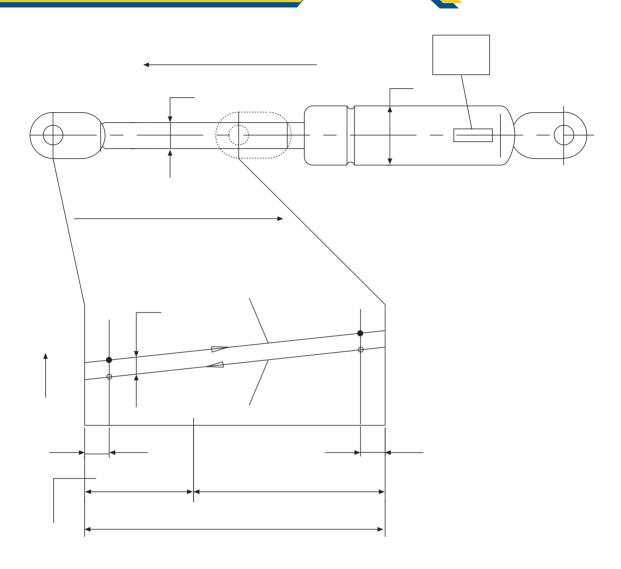
LIFT&HOLD gas springs have a very wide range of application area such as automotive, furniture, building, machine industry, hospital beds, medical equipments etc...



### **GLH-W**



### TECHNICAL INFORMATION



Туре	ø R	ø C	F1 (N	Newton)	Max. Stroke	X	FR Max.
	(mm)	(mm)	Min.	Max.	(mm)	≈	(Newton)
GLH-WC	6	15	50	400	150	1.30	50
GLH-WD	8	18	100	750	250	1.35	60
GLH-WE	10	21	150	1150	400	1.40	80

### Unless otherwise specified;

Cylinder : Black painted steel cylinder.

Rod : Hard chrome plated

Ends : Welded eyes

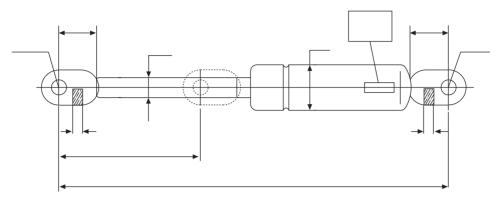
Working temperature : min. -30 °C / max. +80 °C Hydraulic damping : According to G.G.S. standards Extension speed : According to G.G.S. standards

Dimensions in mm / We reserve the right to make modifications.



### **GLH-WC**

Lift & Hold gas springs with welded ends



Dimensions in mm / We reserve the right to make modifications.

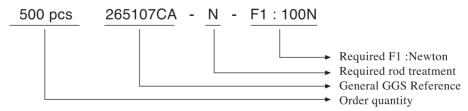
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
095020CA	20	95	50 - 400
145047CA	40	145	50 - 400
185066CA	60	185	50 - 400
225087CA	80	225	50 - 400
265107CA	100	265	50 - 400
305126CA	120	305	50 - 400
365157CA	150	365	50 - 350

#### Standard GLH-WC:

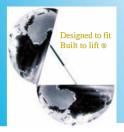
- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Welded eye Rod: Welded eye
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

#### Ordering example:

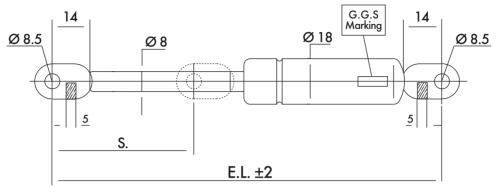


### **GLH-WD**



Lift & Hold gas springs with welded ends

GLOBAL GAS SPRINGS



Dimensions in mm / We reserve the right to make modifications.

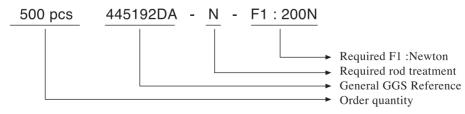
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
205072DA	60	205	100 - 750
245092DA	80	245	100 - 750
285112DA	100	285	100 - 750
325132DA	120	325	100 - 750
365152DA	140	365	100 - 750
405172DA	160	405	100 - 750
445192DA	180	445	100 - 750
485212DA	200	485	100 - 750
525232DA	220	525	100 - 750
585262DA	250	585	100 - 750

#### Standard GLH-WD:

- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Welded eye Rod: Welded eye
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

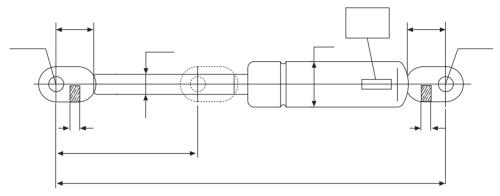
Ordering example:





### **GLH-WE**

Lift & Hold gas springs with welded ends



Dimensions in mm / We reserve the right to make modifications.

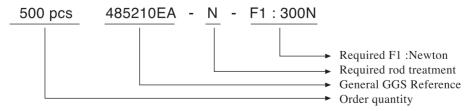
GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
285110EA	100	285	150 - 1150
385160EA	150	385	150 - 1150
485210EA	200	485	150 - 1150
585260EA	250	585	150 - 1150
685310EA	300	685	150 - 1150
785360EA	350	785	150 - 1150
885410EA	400	885	150 - 1150

#### Standard GLH-WE:

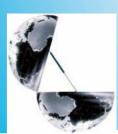
- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End fittings Cylinder: Welded eye Rod: Welded eye
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

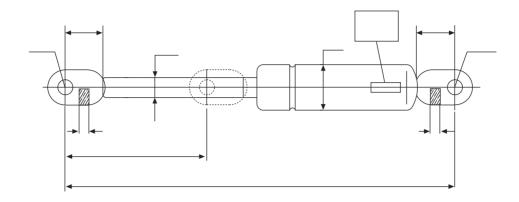
### Ordering example:



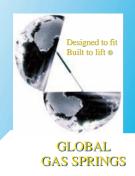
# GLH-W



### ENQUIRY DESIGN FORM

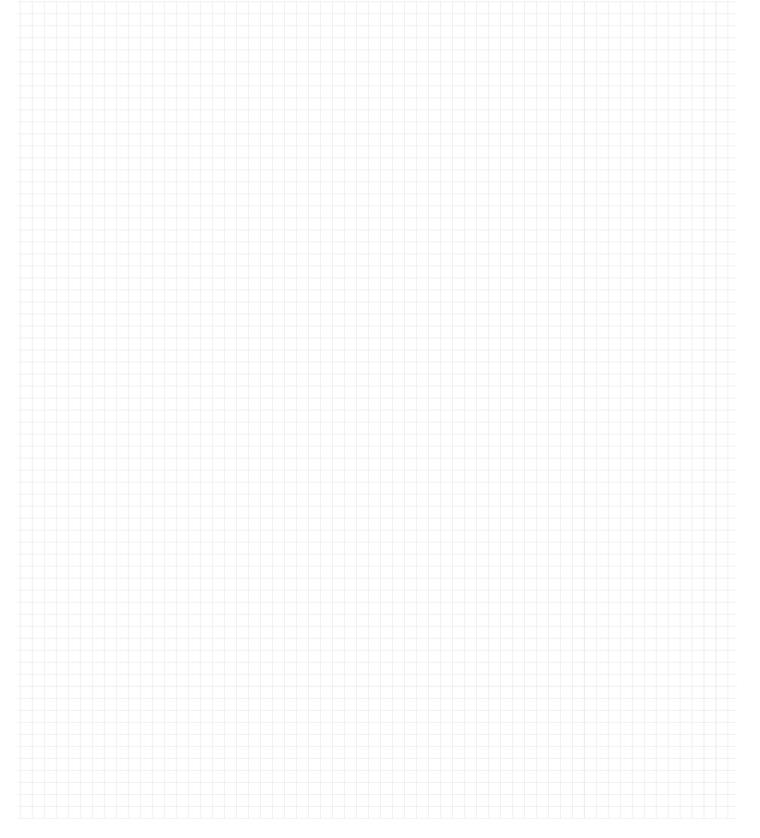


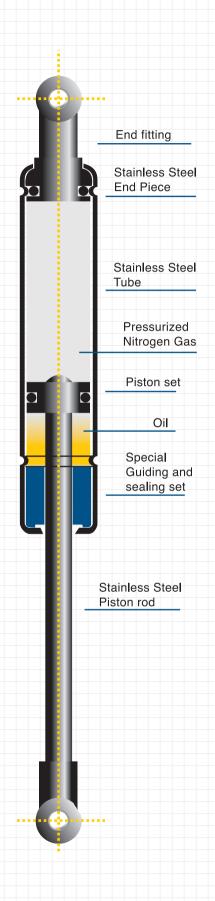
Company name	:	Extended Length (E.L.)	):	mm
Address	:	Stroke (S.)	:	-
Contact Person Telephone no	:	Rod end fitting	b t://_	Øh
Fax no	:	Tube end fitting	://_	
e-mail	:	Rod (ØR)	: Ø	
web	:	Tube (ØC)	: Ø	
Annual purchase qty	:	Rod plating	:	
Target price	:	Tube painting (colour)	):	
Req. Ship. date	:	F1 (Newton)	:N	
Shipment terms	:	Oil (cc)	:	
Payment terms	:	Marking	:	
Imp.Note				



# GLH-W

## NOTES





# STANLES HOLD

#### **Function**

STAINLIFT&HOLD gas springs are hydropneumatic devices that help us to lift, lower, adjust, move, counterbalance the weights easily or without any effort.

It consists of a chrome plated stainless steel piston rod, oil and pressurized nitrogen gas sealed in the stainless steel cylinder.

Internal gas pressure increases as piston rod moves into the cylinder (compression). This internal pressure has an actuating effect on the cross sectional area of the piston rod.

This pressure on the sectional area of the piston rod forces the piston rod to move out of the cylinder (extension).

Piston rod extension dampens on a specified point according to the quantity of oil filled in. On the other hand oil lubricates the piston and sealing set to work smoothly for many years.

#### **Advantages**

- **>>1** Easy and smooth lifting, lowering, moving, adjusting in heavy corrosive environments.
- >> Hydraulic or dynamic damping in the end of its movement.
- >> Wide application possibilities due to wide range of end fittings.
- **>> I** Maintenance free. No need for greasing or lubrication.
- **>>** Adjustable spring characteristics.

#### **Applications**

STAINLIFT&HOLD gas springs are used in heavy corrosive environments in order to allow long life of the product. Main application are such as boat, yacht building, food processing and medical industry.

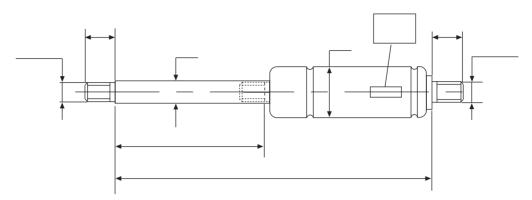


GLOBAL GAS SPRINGS



### **GSH-TC**

Stainlift & Hold gas springs with threaded ends



Dimensions in mm / We reserve the right to make modifications.

GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
125041CF	40	125	50 - 400
165061CF	60	165	50 - 400
205081CF	80	205	50 - 400
245101CF	100	245	50 - 400
285121CF	120	285	50 - 400
345151CF	150	345	50 - 400

#### Standard GSH-TC:

Cylinder
 Rod
 4: 304 stainless steel
 4: 304 stainless steel
 6: 316 stainless steel
 6: 316 stainless steel

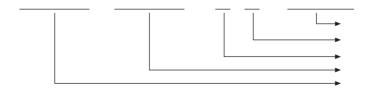
• End fittings Cylinder: Threaded Rod: Threaded

• Working temperature range min. -30 °C / max. +80 °C

- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

How to order a Global Gas Spring for the first time:

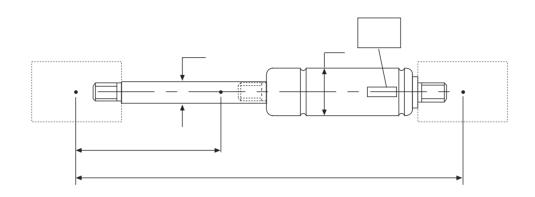
Ordering example:



# GSH-T



### **ENQUIRY DESIGN FORM**

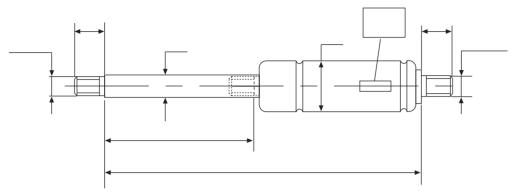


Company name	:	Extended Length (E.L.)	:	mm
Address	:	Stroke (S.)	:	
		Rod end fitting ref. Pls. sellect one of GGS Connect & Hold fo	:r your application	
Contact Person	:	Tube end fitting ref. Pls. sellect one of GGS Connect & Hold fo	:r your application	
Telephone no	:	Rod (ØR)	: Ø	
Fax no	:	Tube (∅C)	: Ø	
e-mail	:	Rod plating	:	
web	:	Tube painting (colour)	:	
Annual purchase qty	:	F1 (Newton)	:N	
Target price	:	Oil (cc)	:	
Req. Ship. date	:	Marking	:	
Shipment terms	:			
Payment terms	:			
Imp.Note				

### **GSH-TD**



Stainlift & Hold gas springs with threaded ends



Dimensions in mm / We reserve the right to make modifications.

GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
170060DF	60	170	100 - 750
210080DF	80	210	100 - 750
250100DF	100	250	100 - 750
290120DF	120	290	100 - 750
330140DF	140	330	100 - 750
370140DF	160	370	100 - 750
410180DF	180	410	100 - 750
450200DF	200	450	100 - 750
490220DF	220	490	100 - 750
550250DF	250	550	100 - 750

#### Standard GSH-TD:

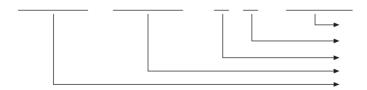
Cylinder
Rod
4: 304 stainless steel
6: 316 stainless steel
6: 316 stainless steel
6: 316 stainless steel

• End fittings Cylinder: Threaded Rod: Threaded

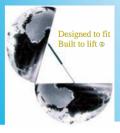
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- · Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

Ordering example:

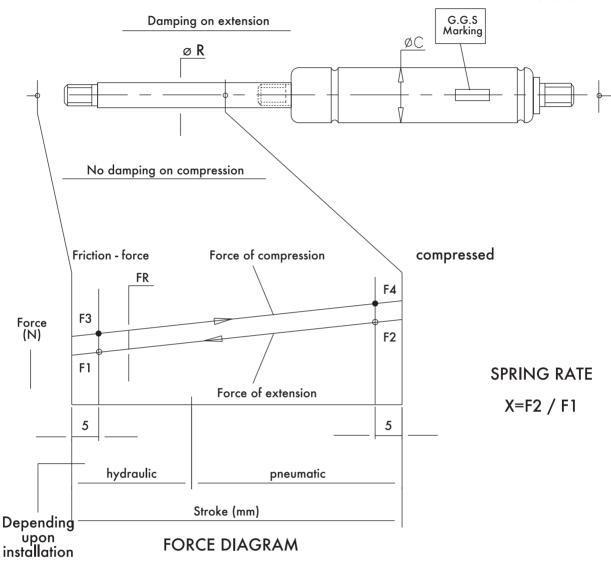


### GSH-T



### TECHNICAL INFORMATION





Туре	ø R (mm)	ø C (mm)	F1 (N Min.	ewton) Max.	Max. Stroke (mm)	X ≈	FR Max. (Newton)
GSH-TC	6	15	50	400	150	1.30	50
GSH-TD	8	18	100	750	250	1.35	60
GSH-TE	10	21	150	1150	500	1.40	80

### Unless otherwise specified;

Cylinder : 316 grade stainless steel Rod : 304 grade stainless steel

Ends : Threaded

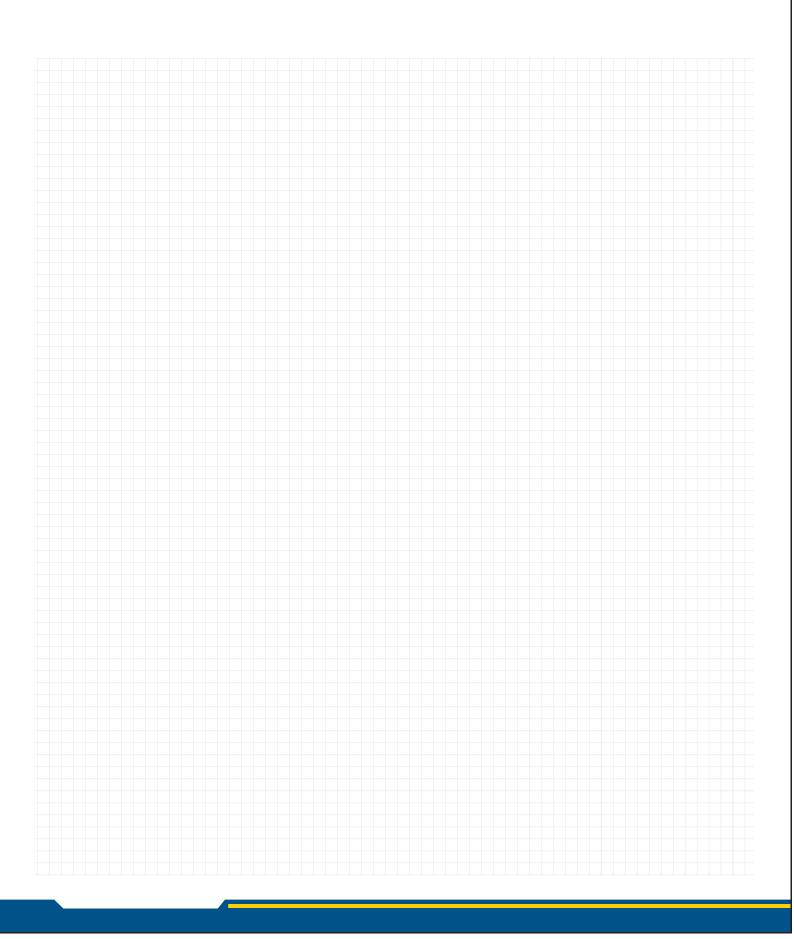
Working temperature : min. -30 °C / max. +80 °C Hydraulic damping : According to G.G.S. standards Extension speed : According to G.G.S. standards

Dimensions in mm / We reserve the right to make modifications.



# GSH-T

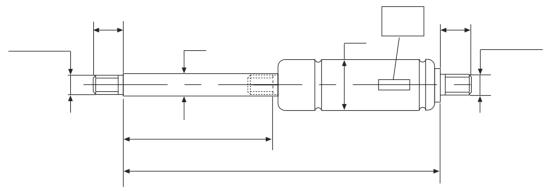
## NOTES





### **GSH-TE**

Stainlift & Hold gas springs with threaded ends



Dimensions in mm / We reserve the right to make modifications.

GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
255101EF	100	255	150 - 1150
355151EF	150	355	150 - 1150
455201EF	200	455	150 - 1150
555251EF	250	555	150 - 1150
655301EF	300	655	150 - 1150
755351EF	350	755	150 - 1150
855401EF	400	855	150 - 1150
1055501EF	500	1055	150 - 1150

### Standard GSH-TE:

Cylinder
Rod
4: 304 stainless steel
6: 316 stainless steel
6: 316 stainless steel
6: 316 stainless steel

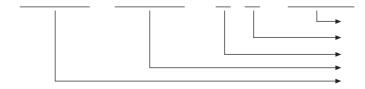
• End fittings Cylinder: Threaded Rod: Threaded

Working temperature range min. -30 °C / max. +80 °C

- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- Global Gas Springs should be stored and installed rod downwards.

How to order a Global Gas Spring for the first time :

Ordering example:

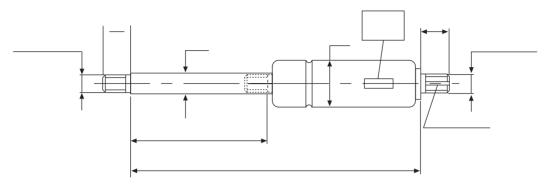




### **GAH-TE**

Adjust & Hold gas springs

with gas release valve



Dimensions in mm / We reserve the right to make modifications.

GGS Ref. No.	S. Stroke Hub Course	E.L. Extended Length Ausgesch Länge Longueur Sortie	F1 (N)
260102EH	100	260	150 - 1150
360152EH	150	360	150 - 1150
460202EH	200	460	150 - 1150
560252EH	250	560	150 - 1150
660302EH	300	660	150 - 1150
760352EH	350	760	150 - 1150
860402EH	400	860	150 - 1150
1060502EH	500	1060	150 - 1150

#### Standard GAH-TE:

- Black painted cylinder (High corrosion resistance)
- Rod surface treatment K: Hard chrome plated N: Black nitrocarburization
- End Cylinder: Threaded (with gas release valve) Rod: Threaded
- Working temperature range min. -30 °C / max. +80 °C
- The technical specifications and design of the gas spring should be matched to the respective application and gas springs should be installed properly.
- Global Gas Springs should be stored and installed rod downwards.

### How to order a Global Gas Spring for the first time:

### Ordering example:

