
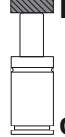


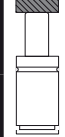
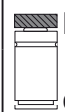

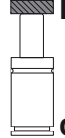
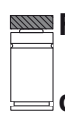



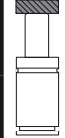
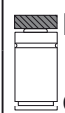
# COLOR CODE: MINI GAS SPRINGS


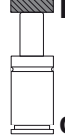




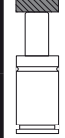
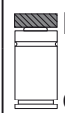
AFB V2	COLOR				
		bar	psi	daN	daN
AFB 13 050 V2	Green	45	650	13	20
AFB 25 050 V2	Blue	90	1305	25	40
AFB 38 050 V2	Red	135	1960	38	60
AFB 50 050 V2	Yellow	180	2610	50	80
AFB XX 050 V2	Black	20-180	290-2610	6 - 50	9 - 80


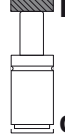

AFH V1	COLOR				
		bar	psi	daN	daN
AFH 18 050 V1	Green	35	510	18	35
AFH 35 050 V1	Blue	70	1015	35	70
AFH 50 050 V1	Red	100	1450	50	100
AFH 70 050 V1	Yellow	140	2030	70	140
AFH XX 050 V1	Black	20-180	290-2610	10 - 90	20 - 180


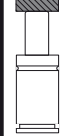
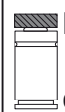
AFJ V1	COLOR				
		bar	psi	daN	daN
AFJ 30 050 V1	Green	60	870	30	40
AFJ 50 050 V1	Blue	100	1450	50	70
AFJ 70 050 V1	Red	140	2030	70	95
AFJ 90 050 V1	Yellow	180	2610	90	120
AFJ XX 050 V1	Black	20-180	290-2610	10 - 90	13 - 120


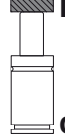

AFK V1	COLOR				
		bar	psi	daN	daN
AFK 25 050 V1	Green	40	580	25	35
AFK 50 050 V1	Blue	80	1160	50	70
AFK 75 050 V1	Red	120	1740	75	105
AFK 100 050 V1	Yellow	160	2320	100	140
AFK XXX 050 V1	Black	20-160	290-2320	13 - 100	18 - 140

AFD V1	COLOR				
		bar	psi	daN	daN
AFD 50 050 V1	Green	45	650	50	70
AFD 100 050 V1	Blue	90	1305	100	140
AFD 150 050 V1	Red	135	1960	150	210
AFD 200 050 V1	Yellow	180	2610	200	280
AFD XXX 050 V1	Black	20-180	290-2610	23 - 200	32 - 280

AFC	COLOR				
		bar	psi	daN	daN
AFC 50 050	Green	45	650	50	75
AFC 100 050	Blue	90	1305	100	155
AFC 150 050	Red	135	1960	150	230
AFC 200 050	Yellow	180	2610	200	305
AFC XXX 050	Black	20-180	290-2610	23 - 200	35 - 305

AFNA	COLOR				
		bar	psi	daN	daN
AFNA 50 050	Green	45	650	50	75
AFNA 100 050	Blue	90	1305	100	155
AFNA 150 050	Red	135	1960	150	230
AFNA 200 050	Yellow	180	2610	200	305
AFNA XXX 050	Black	20-180	290-2610	23 - 200	35 - 305

AF V1	COLOR				
		bar	psi	daN	daN
AF 50 050 V1	Green	45	650	50	70
AF 100 050 V1	Blue	90	1305	100	135
AF 150 050 V1	Red	135	1960	150	205
AF 200 050 V1	Yellow	180	2610	200	270
AF XXX 050 V1	Black	20-180	290-2610	23 - 200	30 - 270

AFT V1	COLOR				
		bar	psi	daN	daN
AFT 80 050 V1	Green	40	580	80	135
AFT 160 050 V1	Blue	80	1160	160	265
AFT 240 050 V1	Red	120	1740	240	400
AFT 310 050 V1	Yellow	155	2450	310	515
AFT XXX 050 V1	Black	20-180	290-2610	40 - 360	65 - 600

- Adaptable version that can be charged between Pmin and Pmax.
- Anpassbare Version, die mit verschiedenen Drücken zwischen Pmin und Pmax befüllt werden kann.
- Version adaptable pouvant être chargée entre Pmin et Pmax.
- Versione adattabile che può essere caricata tra Pmin e Pmax.
- Versión adaptable que puede ser cargada entre Pmin y Pmax.
- Versão personalizável que pode ser carregada entre Pmin e Pmax.



# COLOR CODE: MINI GAS SPRINGS

## ORDER EXAMPLE

2 www.azolgas.com Service in Motion Tel. +34 945290010

### AFB V2

Mini

CODE	S (mm)	L1 ±0.25 (mm)	L (mm)	Kg
AFB ... 007 V2	7	58	49	0.03
AFB ... 010 V2	10	62	52	0.03
AFB ... 012 V2	12.7	67.4	54.7	0.03
AFB ... 015 V2	15	72	57	0.04
AFB ... 019 V2	19	80	61	0.04
AFB ... 025 V2	25	92	67	0.04
AFB ... 038 V2	38	118	80	0.05
AFB ... 050 V2	50	142	92	0.06
AFB ... 063 V2	63.5	172	108.5	0.06
AFB ... 075 V2	75	195	120	0.07
AFB ... 080 V2	80	205	125	0.07

CODE	COLOR	bar	psi	F <sub>0</sub> daN	F <sub>1</sub> daN
AFB 13 050 V2	Green	45	650	13	20
AFB 25 050 V2	Blue	90	1305	25	40
AFB 38 050 V2	Red	135	1960	38	60
AFB 50 050 V2	Yellow	180	2610	50	80
AFB XX 050 V2	Black	20-180	290-2610	6 - 50	9 - 80

ENG ORDER, DEU BESTELLUNG, FRA COMMANDE, ITA ORDINE, ESP PEDIDO, POR PEDIDO

AFB 50 50

AFB 50 050 V2

Max S/min

N <sub>2</sub>	S <sub>max</sub> < 90%	V <sub>max</sub> 1,6 m/s	bar psi (20°C)	bar psi (20°C)	°C °F (20°C)	°C °F (176)
			20 290	180 2610	0 32	80 176

AFB V2	COLOR	psi bar		F <sub>0</sub> daN	F <sub>1</sub> daN
		bar	psi	daN	daN
AFB 13 050 V2	Green	45	650	13	20
AFB 25 050 V2	Blue	90	1305	25	40
AFB 38 050 V2	Red	135	1960	38	60
AFB 50 050 V2	Yellow	180	2610	50	80
AFB XX 050 V2	Black	20-180	290-2610	6 - 50	9 - 80

ENG ORDER, DEU BESTELLUNG, FRA COMMANDE, ITA ORDINE, ESP PEDIDO, POR PEDIDO

AFB 50 50

AFB 50 050 V2 (YELLOW)

AFB 6 - 50 50

AFB XX 050 V2 (BLACK)

**BLACK:** Force to be specified by the customer. Delivered pre-charged at 20 bar.

## BODY MARK

NC.051.00.00000.050.2  
AFB 050 V2  
215025247 NOT REPAIR  
97/23CE art.3.3 Made in Spain (EU)  
PMAx 180 bar/2610 psi N2 at 20°C  
TS 0 / 80° C PS 0 / 373 bar  
www.azolgas.com

WARNING! - HIGH PRESSURE Exhaust gas before servicing.  
ACHTUNG! - HOHER DRUCK Nicht öffnen wenn unter Druck.  
ATTENTION! - HAUTE PRESSION Décharger avant toute manipulation.  
ATTENZIONE! - ALTA PRESSION Scaricare prima di ogni manipolazione.  
ATENCIÓN! - ALTA PRESION Descargar antes de cualquier manipulación.

AFB 50 50

AFB 38 050 V2

AFB V2	COLOR	psi bar		F <sub>0</sub> daN	F <sub>1</sub> daN
		bar	psi	daN	daN
AFB 13 050 V2	Green	45	650	13	20
AFB 25 050 V2	Blue	90	1305	25	40
AFB 38 050 V2	Red	135	1960	38	60
AFB 50 050 V2	Yellow	180	2610	50	80
AFB XX 050 V2	Black	20-180	290-2610	6 - 50	9 - 80

ENG ORDER, DEU BESTELLUNG, FRA COMMANDE, ITA ORDINE, ESP PEDIDO, POR PEDIDO

AFB 38 50

AFB 38 050 V2

MINI gas springs series the force is defined by colored label.

MINI gas springs series only the model and stroke are engraved on the body (not the force).

# SELF-CONTAINED AND HOSED



## NOT TO BE HOSED

ORDER	S (mm)	L1 (mm)	L (mm)	kg
AFJ-007 V1	7	56	49	0,07
AFJ-010 V1	10	62	52	0,09
AFJ-012 V1	12,7	67,4	54,7	0,08
AFJ-015 V1	15	72	57	0,08
AFJ-020 V1	20	82	67	0,10
AFJ-025 V1	25	116	80	0,11
AFJ-030 V1	30	142	92	0,12
AFJ-040 V1	40	172	108,5	0,14
AFJ-050 V1	50	205	125	0,16
AFJ-060 V1	60	235	145	0,18
AFJ-075 V1	75	295	170	0,21

## TO BE HOSED

ORDER	S (mm)	L1 (mm)	L (mm)	kg
AG 750 012	12,7	120,4	107,7	1,27
AG 750 015	15	145	120	1,37
AG 750 020	20	171	133	1,48
AG 750 025	25	195	144	1,59
AG 750 030	30	222	158,5	1,69
AG 750 040	40	255	177	1,83
AG 750 050	50	295	195	1,99
AG 750 060	60	345	220	2,19
AG 750 075	75	415	255	2,48
AG 750 090	90	485	295	2,81
AG 750 105	105	545	345	3,22
AG 750 120	120	605	395	3,63

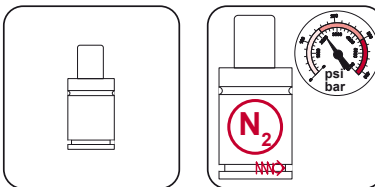
Most of gas springs can be used as hosed, but some of them cannot be hosed.

On each catalogue sheet (lower right side) can be checked if gas springs are able to be used as hosed (e.g. 600-CP) or not (e.g. X).

## TO BE HOSED

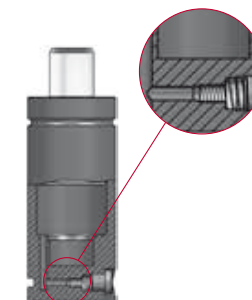
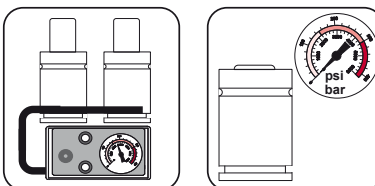
## FOR SELF-CONTAINED USE

AG 750 050



## FOR HOSED USE

AG-H 750 050



The gas springs able to be hosed may be ordered as self-contained use (if nothing is specified) or as hosed use (just by adding -H to the gas spring standard model).

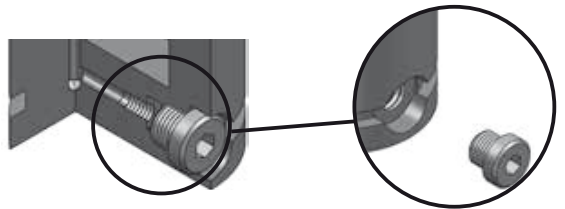
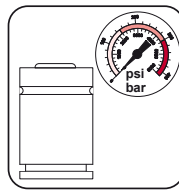
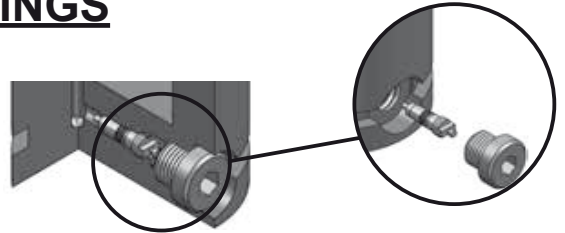
- for a self-contained use (when nothing is specified) are supplied charged to the initial pressure.
- for a hosed use (when -H is added to standard model) are supplied discharged and without the filling valve.



# SELF-CONTAINED AND HOSED

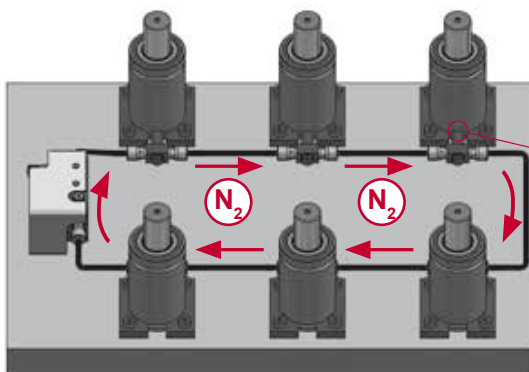
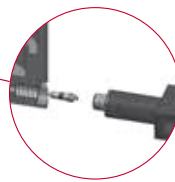
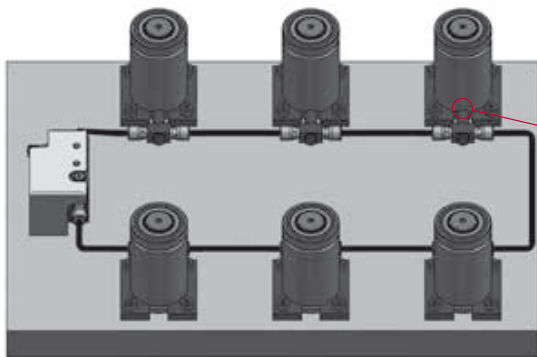
## SELF-CONTAINED OR HOSED GAS SPRINGS

CODE					
		bar	psi	daN	daN
AG 750 050		150	2175	740	1100
AG-H 750 050		0	0	---	---



	ENG	Self-contained gas spring	Gas spring delivered charged (with filling valve)
	DEU	Autonome Gasdruckfeder	Befüllte Gasdruckfeder (mit Ventil)
	FRA	Ressort à gaz autonome	Ressort à gaz fourni chargé (avec valve de charge)
	ITA	Cilindro ad azoto autonomo	Cilindro fornito carico (con valvola di carico)
	ESP	Cilindro de gas autónomo	Cilindro de gas suministrado cargado (con válvula de carga)
	POR	Cilindro de gas autónomo	Cilindro de gás fornecido carregado (com válvula de carga)

	ENG	Ready to be holed	Gas spring delivered unfilled (without filling valve)
	DEU	Fertig zum Verschlauchen	Drucklose Gasdruckfeder (ohne Ventil)
	FRA	Prêt à être relié	Ressort à gaz fourni non chargé (sans valve de charge)
	ITA	Pronto per essere collegato	Cilindro fornito scarico (senza valvola di carico)
	ESP	Preparado para conexión	Cilindro de gas suministrado descargado (sin válvula de carga)
	POR	Pronto a ser interligado	Cilindro de gás fornecido descarregado (sem válvula de carga)







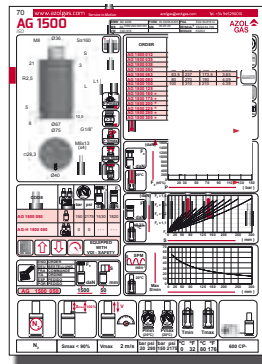
When the pressure pushes the filling valve it opens and let the flow of gas, but when there is no pressure pushing the filling valve, it keep closed and do not allow the exit of gas.  
 Warning: if the filling valve is installed into the gas springs, the gas springs are not linked each other into a circuit and cannot be charged through the control panel, it is necessary to remove the filling valve from the gas springs in order to keep N2 pressure through the circuit.

# SAFETY-VDI



## GAS SPRINGS EQUIPPED WITH VDI-SAFETY

MODEL	SAFETY-VDI			
				
AFJ V1				
AFC				
AG 150				
AG 250				
AG 500				
AG 750				
AG 1500				
AG 3000				
AG 5000				
AG 7500				
AG 10000				
CD 300 V1				
CD 500 V1				
CD 700				
CD 1000 V1				
CD 1500 V2				
CD 2400				
CD 4200				
CD 6600				
CD 9600				
CD 18500				
CW 170 V1				
CW 320 V1				
CW 350 V1				
CW 500 V1				
CW 750 V1				
CW 1000 V2				
CW 1500 V1				
CW 2400 V1				
CW 4200 V1				
CW 6600				
CW 9500				
CW 11800				
CW 20000				




Over-Speed safety



Over-Stroke safety

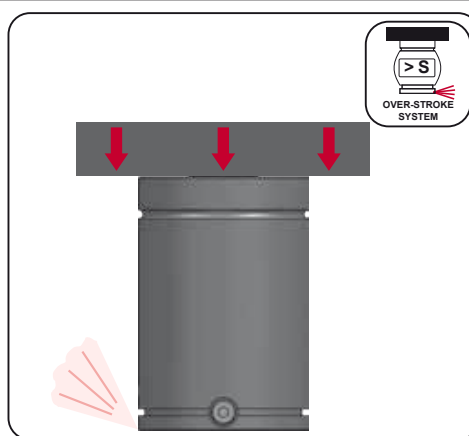
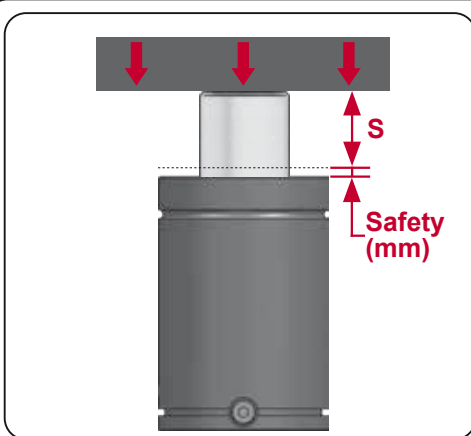


Over-Pressure safety

**VDI 3003**  **WARNING! EQUIPPED WITH VDI-SAFETY**  
 CAUTION: EXCEEDING NOMINAL STROKE WILL DISCHARGE GAS SPRING



**VDI-SAFETY**  
  
 NC.060.10.10000.300  
 AG 10000 300  
 215025247  
 KIT-05JC000-□□□  
 C€0053 TEST - 344 bar  
 CAT III Vol. 7.58L  
 Made in Spain (EU)  
 PMAX 150 bar/2175 psi N2 at 20°C  
 TS 0 / 80°C PS 0 / 241 bar  
 www.azolgas.com



In the event of exceeding the maximum allowable stroke, over-stroke safety system prevents projection of parts under pressure and discharge the pressure completely in a controlled way. Over-stroke safety system enables the use of 100% of total nominal stroke (S).

Check if exceeded the maximum allowed stroke.

Once activated, the over-stroke safety system prevents the reuse or refill of gas spring.

Remove the gas spring and recycle components according to the environmental regulation of the country where the gas springs are used.

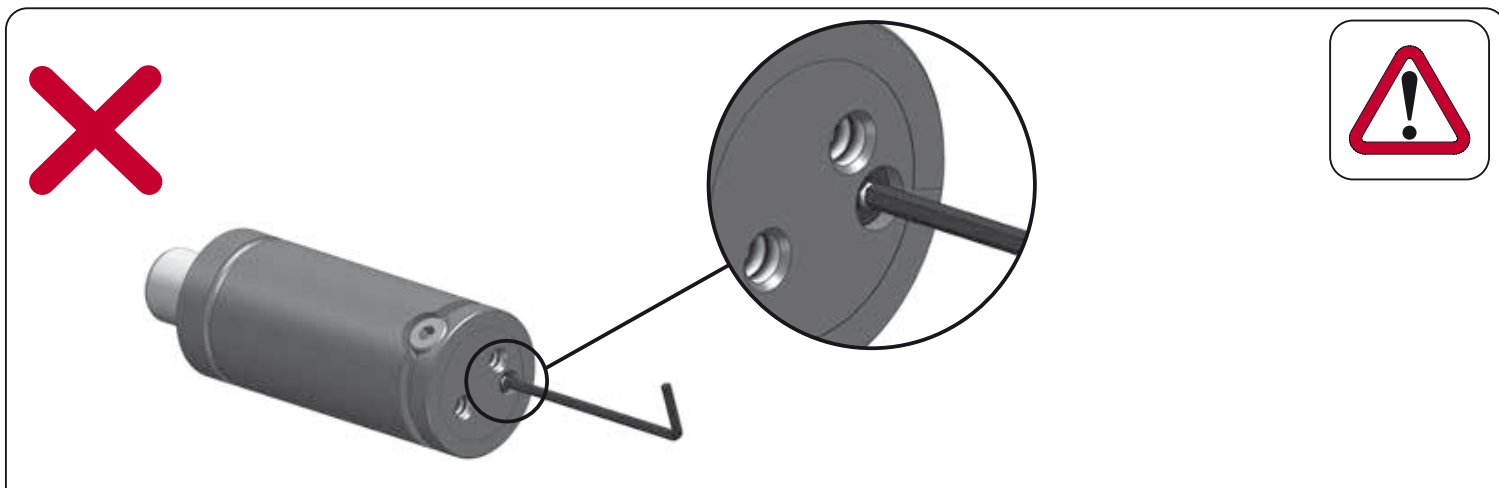


# SAFETY-VDI



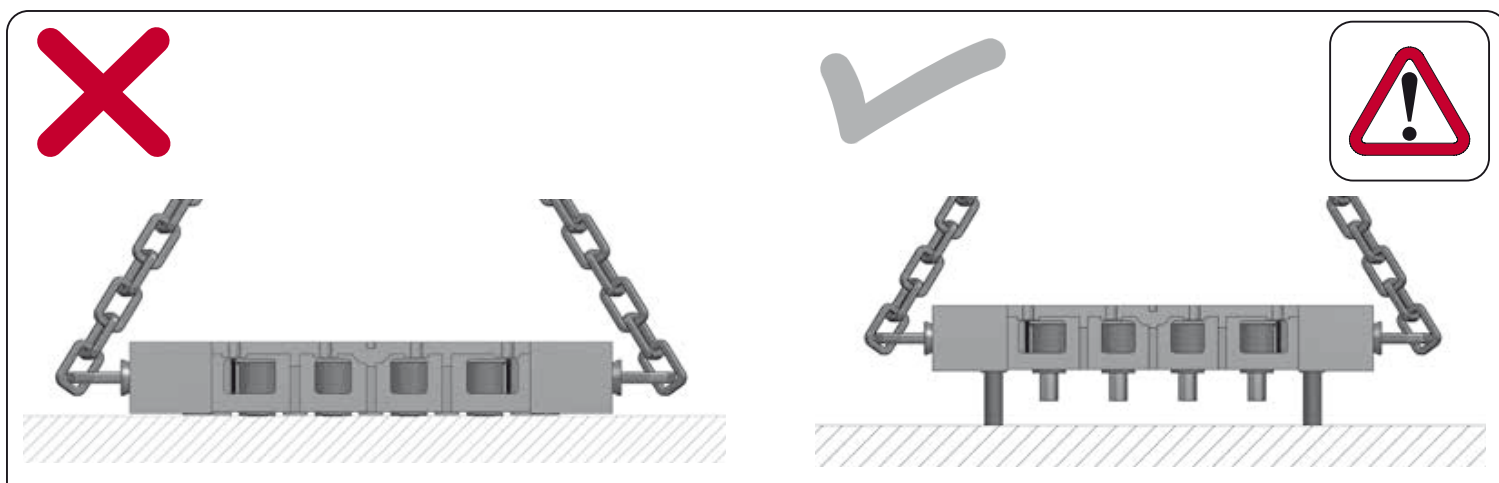
**WARNING IN REPAIR OPERATIONS:**  
Once the gas spring is fully discharged, push down the piston rod by hand, never using a tool.

In some gas springs series, should the piston rod is pushed down over the nominal stroke (S) the over-stroke safety device would be activated.



**WARNING IN GAS SPRING MANIPULATION:**  
Over-stroke safety is protected to prevent its manipulation.

Do not manipulate over-stroke safety, manipulating over-stroke safety can result in high safety risk, failure of gas spring and personal injury.



**WARNING IN TOOL MAINTENANCE:**  
When handling the tool do not support the weight of the tool over the gas springs, if so the gas spring over-stroke safety will be activated.

# REPAIR KIT



**KIT C-XXXXXXX**

**KIT S-XXXXXXX**

The Repair KIT includes the seals, the lubricating oil and the operating instructions.

Example of Repair KIT (only seals): KIT S-05JC000

Example of Repair KIT (cartridge): KIT C-05JC000

When repairing gas springs keep in mind environment by recycling components according to the regulation of the country where used.

### SEAL KIT

**KIT S-XXXXXXX**

Part	Description	Quantity
1	Wiper	1
2	Guide	1
3	O.Ring Protector	1
4	O.ring	1
5	Gasket Protector	1
6	Gasket	1
7	Filling valve	1
	Oil bottle	1
	Operating instructions	1

### CARTRIDGE KIT

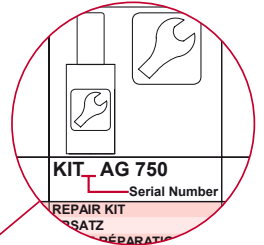
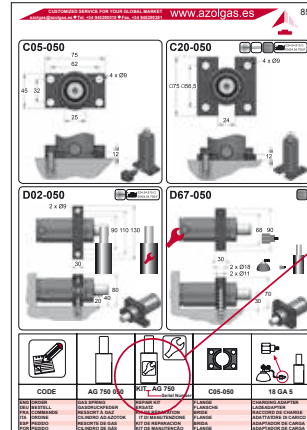
**KIT C-XXXXXXX**

Part	Description	Quantity
1	Cartridge	1
2	Filling valve	1
	Oil bottle	1
	Operating instructions	1

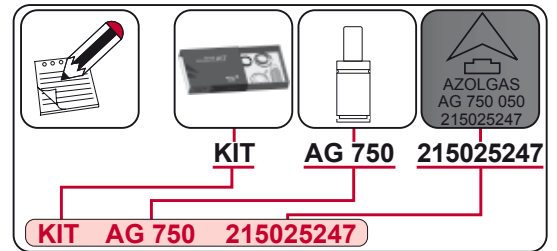


# REPAIR KIT

## HOW TO ORDER KIT REPAIR (OLD VERSION)

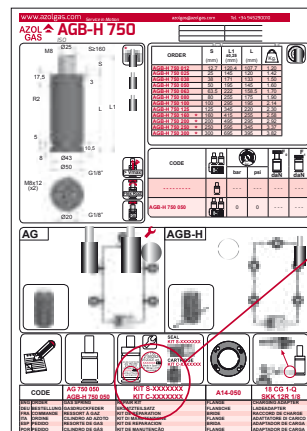
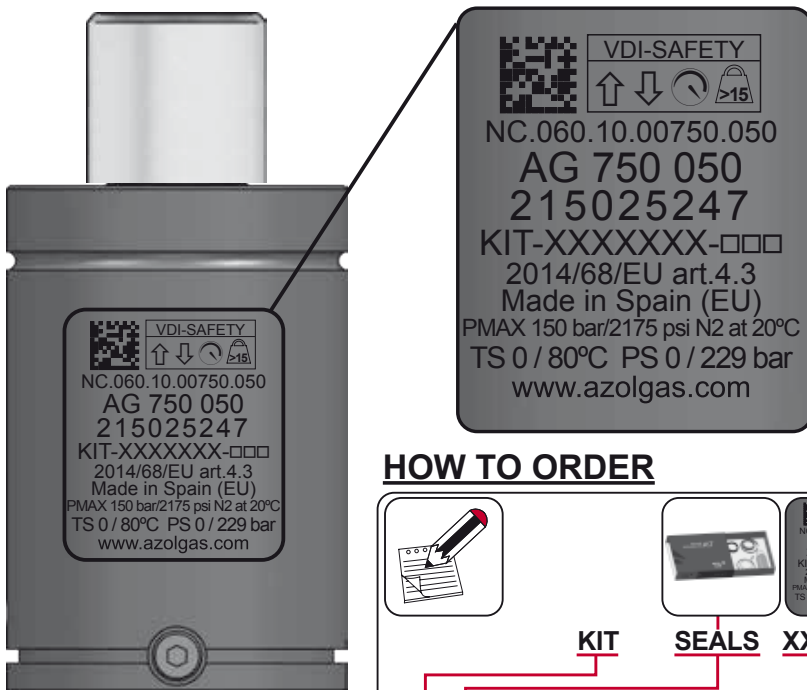


## HOW TO ORDER

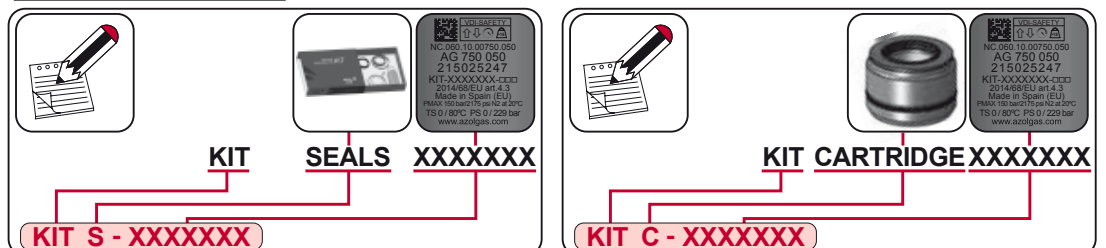


Should the gas spring be marked a serial number on the body (e.g. 215025247), the way to order the kit repair is as follows: KIT – gas spring model – serial number.

## HOW TO ORDER KIT REPAIR (NEW VERSION)



## HOW TO ORDER



Should the gas spring be marked a serial number on the body (e.g. 215025247), but additionally it has engraved the word KIT with an associated kit repair number (e.g. KIT 1234567), the way to order the kit repair is as follows: KIT – serial number of the kit repair engraved – S (only seals) or KIT – serial number of the kit repair engraved – C (cartridge). □□□ are used to mark repairs (e.g. X□□).



# MARKING GAS SPRING



**1**

NC.060.10.10000.300  
**AG 10000 300**  
**215025247**  
 KIT-05JC000-□□□  
 C€0053 TEST - 344 bar  
 CAT III Vol. 7.58L  
 Made in Spain (EU)  
 PMAX 150 bar/2175 psi N2 at 20°C  
 TS 0 / 80°C PS 0 / 241 bar  
 www.azolgas.com

**VDI-SAFETY**

- Vmax ↑ (over-speed safety device)
- Smax ↓ (over-stroke safety device)
- Pmax ↻ (over-pressure safety device)
- Warning weight > 15 kg. >15

**2**

NC.060.10.10000.300  
**AG 10000 300**  
**215025247**  
 KIT-05JC000-□□□  
 C€0053 TEST - 344 bar  
 CAT III Vol. 7.58L  
 Made in Spain (EU)  
 PMAX 150 bar/2175 psi N2 at 20°C  
 TS 0 / 80°C PS 0 / 241 bar  
 www.azolgas.com

NITROCYL part number.  
 AZOLGAS part number.

**3**

NC.060.10.10000.300  
**AG 10000 300**  
**215025247**  
 KIT-05JC000-□□□  
 C€0053 TEST - 344 bar  
 CAT III Vol. 7.58L  
 Made in Spain (EU)  
 PMAX 150 bar/2175 psi N2 at 20°C  
 TS 0 / 80°C PS 0 / 241 bar  
 www.azolgas.com

Data Matrix (serial number).

**4**

NC.060.10.10000.300  
**AG 10000 300**  
**215025247**  
**KIT-05JC000-□□□**  
 C€0053 TEST - 344 bar  
 CAT III Vol. 7.58L  
 Made in Spain (EU)  
 PMAX 150 bar/2175 psi N2 at 20°C  
 TS 0 / 80°C PS 0 / 241 bar  
 www.azolgas.com

Repair KIT.  
 The Repair KIT code engraved on the body identifies each gas spring with its corresponding Repair KIT.

**5**

NC.060.10.10000.300  
**AG 10000 300**  
**215025247**  
 KIT-05JC000-□□□  
**C€0053** TEST - 344 bar  
**CAT III** Vol. 7.58L  
 Made in Spain (EU)  
 PMAX 150 bar/2175 psi N2 at 20°C  
 TS 0 / 80°C PS 0 / 241 bar  
 www.azolgas.com

Marking PED 2014/68/EU:  
 -Article 4.3  
 -Category I  
 -Category II  
 -Category III-IV



# MARKING GAS SPRING

6



Marking of Test Pressure and gas volume (only for gas springs under Category III-IV).

7



Country of origin.

8



PMAx: maximum charging pressure on gas spring at 20°C.

9



Operating temperature 0-80°C.

10



Design pressure.

11



Marking from manufacturer.

