

# OPTIMUM SAFETY FOR TOOLS AND OPERATORS **FIBRO GAS SPRINGS – THE SAFER CHOICE**



for  
2 Million strokes





FIBRO GmbH - Normalien - Standard Parts  
D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.06600.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 60-0 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.09500.075**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 9500 daN  
PED-geprüft für 2.000.000 Hübe bei voller Hubauslastung  
PED approved for 2.000.000 strokes at full stroke load  
Gasdruckfeder - Warnung! Nicht öffnen - hoher Druck; Fülldruck max. 150 bar. Bitte Bedienungsanleitung beachten!  
Gas spring - Warning! Do not open - high pressure; fill-g pressure max. 150 bar. Please follow instructions for use!  
Resort à gaz - Attention! Ne pas ouvrir - haute pression; pression de remplissage max. 15 MPa. Veuillez observer les instructions d'emploi.  
Molle a gas - Attenzione! Non aprire - pressione alta massima; pressione di riempimento max. 150 bar. Si prega di osservare le istruzioni per l'uso.  
Muelle de gas - Atención! No abrir - alta presión; cargado a max. 150 bar. Por favor observar las instrucciones.

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Bestell-Nr. / Order No. **2487.12.20000.075**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 20000 daN  
PED-geprüft für 2.000.000 Hübe bei voller Hubauslastung  
PED approved for 2.000.000 strokes at full stroke load  
Gasdruckfeder - Warnung! Nicht öffnen - hoher Druck; Fülldruck max. 150 bar. Bitte Bedienungsanleitung beachten!  
Gas spring - Warning! Do not open - high pressure; fill-g pressure max. 150 bar. Please follow instructions for use!  
Resort à gaz - Attention! Ne pas ouvrir - haute pression; pression de remplissage max. 15 MPa. Veuillez observer les instructions d'emploi.  
Molle a gas - Attenzione! Non aprire - pressione alta massima; pressione di riempimento max. 150 bar. Si prega di osservare le istruzioni per l'uso.  
Muelle de gas - Atención! No abrir - alta presión; cargado a max. 150 bar. Por favor observar las instrucciones.

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.04200.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 4200 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.00500.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 500 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.00750.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 750 daN

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Bestell-Nr. / Order No. **2487.12.01000.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 1000 daN

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Bestell-Nr. / Order No. **2487.12.01500.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 1500 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.02400.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 2400 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.00170.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 170 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.00320.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 320 daN

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D-74855 Hasmersheim - Tel. +49(0) 6266-73-0\* - Fax +49(0) 6266-73-23\*  
Bestell-Nr. / Order No. **2487.12.00350.063**  
Fülldruck / Filling pressure: 150 bar  
Federkraft / Spring Force: 350 daN

# FIBRO GAS SPRINGS

## THE SAFER CHOICE

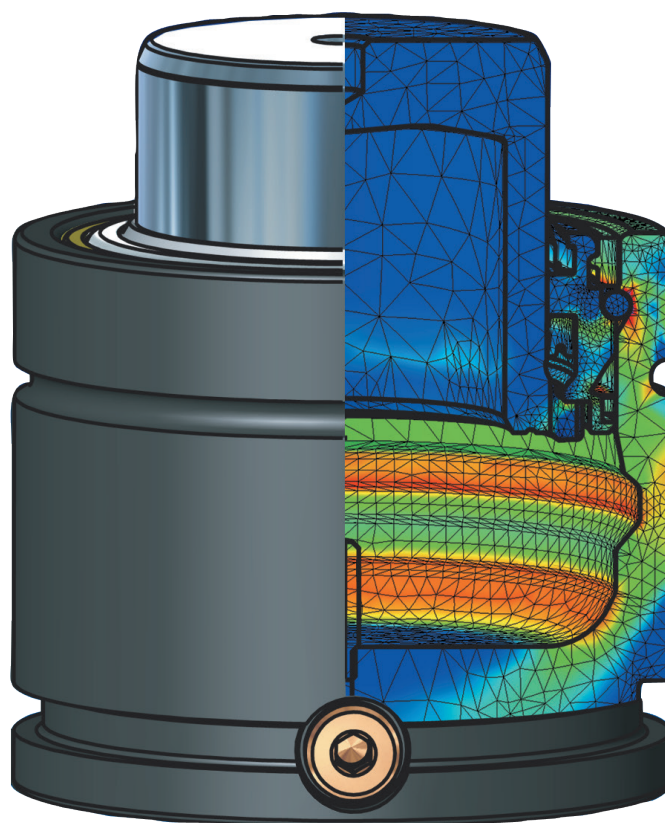
AT FIBRO, SAFETY AND RELIABILITY ARE PARAMOUNT. PARTICULARLY WHEN IT COMES TO OUR GAS SPRINGS. WITH THEIR UNIQUE RANGE OF SAFETY FEATURES, FIBRO GAS SPRINGS ARE ONE OF THE SAFEST ON THE MARKET.

THE SAFETY FEATURES MENTIONED HERE HAVE BEEN IMPLEMENTED – WITH FEW EXCEPTIONS – ON ALL FIBRO GAS SPRINGS.

PLEASE REFER TO THE RELEVANT DATA SHEETS TO CHECK THE CURRENT SAFETY EQUIPMENT WHICH IS PROVIDED WITH THE GAS SPRING YOU ARE INTERESTED IN, OR CONTACT FIBRO GMBH DIRECTLY FOR MORE INFORMATION.

AFTER A PROTECTION FUNCTION IS TRIGGERED, THE SPRING CANNOT BE REPAIRED AND CAN NO LONGER BE USED. IT MUST BE REPLACED COMPLETELY.

FOR THE SAFE HANDLING OF GAS SPRINGS AND OTHER NITROGEN PRODUCTS, THE SAFETY REGULATIONS MUST BE OBSERVED. MAINTENANCE WORK ON THE PRODUCT MAY ONLY BE DONE, IF NITROGEN GAS IS NO LONGER CONTAINED IN THE GAS SPRING.



# THE SAFER CHOICE

## SAFETY FEATURES



PED APPROVAL FOR 2 MILLION STROKES

FIBRO gas springs are developed, manufactured and tested for a minimum of 2 million\* full strokes in accordance with PED 2014/68/EU. The springs deliver this

full performance at the maximum permissible limits in terms of filling pressure and operating temperature – even when combined with any of the various mounting types available.

\* Calculation value for durability

### THE BENEFIT FOR YOU:

- Guaranteed safety and reliability for the entire service life of the spring

Repair kits and qualified training sessions available through FIBRO Service offer increased effectiveness and process reliability.

Normalien · Standard Parts · DE-74855 Hassmersheim **FIBRO**

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Bestell-Nr.: **2480.13.05000.050**

Order-No.: **2480.13.05000.050**

Fülldruck: **150 bar** Federkraft: **5000 daN**

Filling pressure: **150 bar** Spring Force: **5000 daN**

PED-zugelassen für 2.000.000 Hübe bei voller Hubauslastung.  
 PED-approved for 2,000,000 strokes at full stroke load.

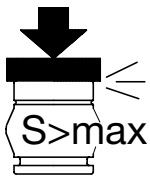
**Gasdruckfeder – Warnung!** Nicht öffnen - hoher Druck; Fülldruck max. 150 bar. Bitte Bedienungsanleitung beachten!

**Gas Spring – Warning!** Do not open-high pressure; filling pressure max. 150 bar. Please follow instructions for use!

**Ressort à gaz – Attention!** Ne pas ouvrir - haute pression de remplissage max. 15 MPa. Veuillez observer les instructions de l'emploi!

**Molle a gas – Attenzione!** Non aprire ad alta pressione max. 150 bar. Si prenda le dovute precauzioni.

**¡Muelle de gas – Atención!** No abrir a alta presión max. 150 bar. ¡Por favor observar las instrucciones de uso!



### OVERSTROKE PROTECTION

Conventional gas springs may burst in the event of an over-extended stroke. Components may come loose and be ejected.

### FIBRO GAS SPRINGS ARE DIFFERENT:

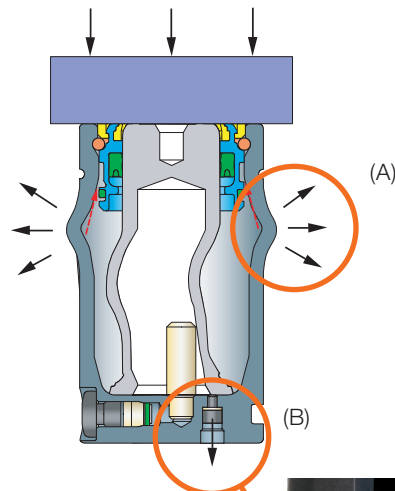
in the event of an overstroke and depending on the spring type the patented protection system will ensure that either the cylinder wall of the gas spring is deformed in a predefined manner (A) or the piston rod destroys a rupture bolt in the floor of the cylinder (B), thereby allowing the gas to escape into the atmosphere.

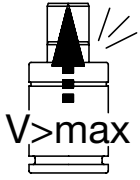
### THE BENEFIT FOR YOU:

- Safe working environment and reduced risk of damage to the tool

### POSSIBLE CAUSES OF TRIGGERING:

Lack of stroke limitations in the tool/machine and placing the piston rods under a load (e.g. sheet-metal holder, slide reset, etc.), double sheet, incorrect installation position, etc.





#### RETURN STROKE PROTECTION

If, for any reason, tool components should get stuck and the piston rod should be freely released from its compressed position, conventional gas springs may pose a safety risk as the piston may not

be retained in the gas spring.

#### FIBRO GAS SPRINGS ARE DIFFERENT:

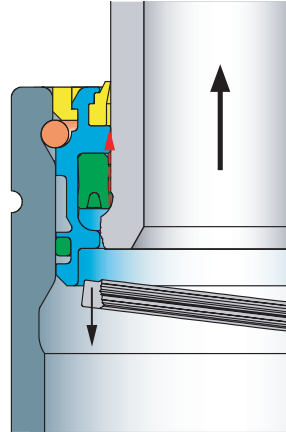
Special guides and a patented safety stop in the piston rods ensure your safety. If the speed is too high during the return stroke, the collar on the piston rod will automatically break. The integrated safety stop then destroys the seal, which allows the gas to escape into the atmosphere and the gas spring to become depressurised.

#### THE BENEFIT FOR YOU:

- Safe working environment and reduced risk of damage to the tool

#### POSSIBLE CAUSES OF TRIGGERING:

Sudden loosening of jammed components, such as sheet-metal holder, slide, ejector, scraper function, etc.



#### OVERPRESSURE PROTECTION

Conventional gas springs can burst if the internal pressure rises above a maximum permitted value. This may pose a safety risk for operators and tools.

#### FIBRO GAS SPRINGS ARE DIFFERENT:

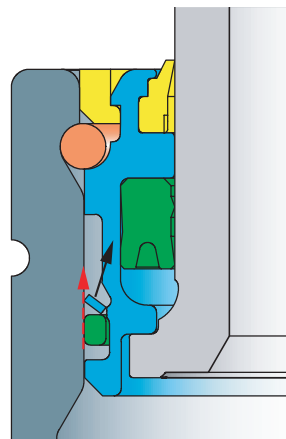
if the pressure rises above the maximum permitted value, the safety collar on the sealing set is automatically destroyed. The gas then escapes into the atmosphere and the gas spring is depressurised.

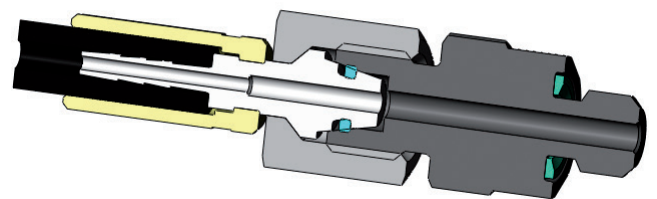
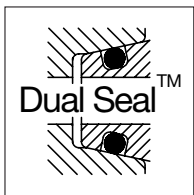
#### THE BENEFIT FOR YOU:

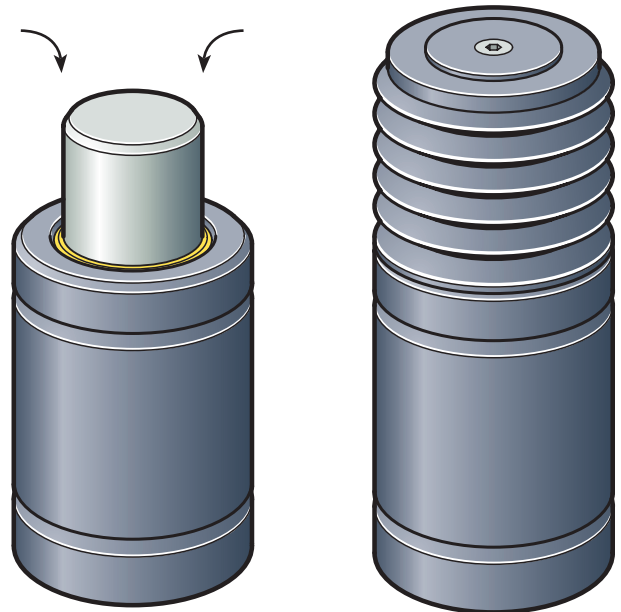
- Safe working environment and reduced risk of damage to the tool

#### POSSIBLE CAUSES OF TRIGGERING:

Incorrect filling (max. filling pressure 150 or 180 bar, nitrogen), infed of liquid operating material, etc.







## FIBRO GMBH

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info@fibro.de

## THE LÄPPLE GROUP

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LÄPPLE AUTOMOTIVE  
FIBRO  
FIBRO LÄPPLE TECHNOLOGY  
LÄPPLE AUS- UND WEITERBILDUNG

## LOCATIONS

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### FIBRO INDIA

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