



**BRUDERER UK Ltd** is the market leader in not only high speed precision stamping presses, but also a wide range of other products, which included the full range of FIBRO gas springs and accessories; these products are widely regarded as the best in the world.

Suppliers will always tell you “their product is the best” but a lot do not tell you about the benefits of their product that back up their claims.

As a market leader, we believe in backing up any claims made regarding the products and services we promote, allowing you the end user to make a clear and informed choice when selecting a critical part for your tooling requirements. Therefore, we would like to highlight the following features which make FIBRO gas springs the best on the market.

## FIBRO - 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 the safest on the market.

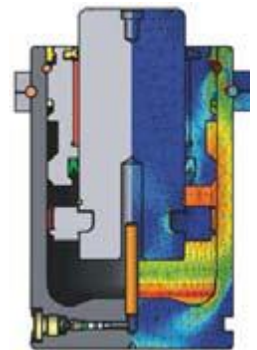
## FIBRO safety features 1)



### PED approval for 2 million strokes

FIBRO gas springs are developed, manufactured and tested for 2 million full strokes\* in accordance with DGRL97/23/EG. 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.

\* Unless specified otherwise on the spring



**The benefit for you:** ► Guaranteed safety and reliability for the entire service life of the spring

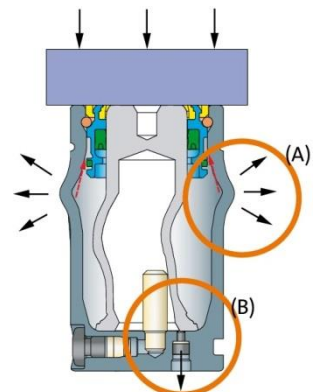
Repair kits and qualified training sessions available through FIBRO Service offer increased effectiveness and process reliability.



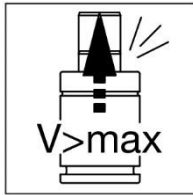
### Over-stroke protection

Conventional gas springs can burst in the event of an over-extended stroke. If this happens, parts flying around can become dangerous projectiles.

FIBRO gas springs are different: in the event of an over-stroke 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.



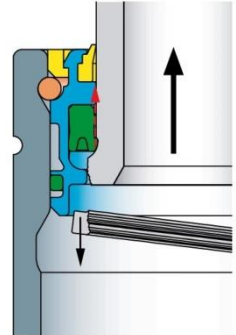
**The benefit for you:** ► No risk of parts flying around in the event of an over-stroke



### Return stroke protection

A particularly dangerous situation can arise with conventional gas springs if tool components become jammed and the pressure on the compressed piston rod is then abruptly released: in this case, the piston rod is then fired out of the cylinder like a missile.

**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.



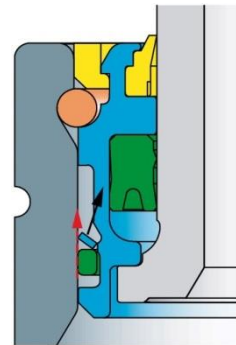
**The benefit for you:** ► No risk of a piston rod firing out if the return stroke is too fast



### Over-pressure protection

Conventional gas springs can burst if the internal pressure rises above a maximum permitted value. If this happens, parts flying around can become dangerous projectiles.

**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:** ► No risk of bursting parts in the event of overpressure

1) Not all the safety features mentioned here have been implemented 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.

## FIBRO reliability features

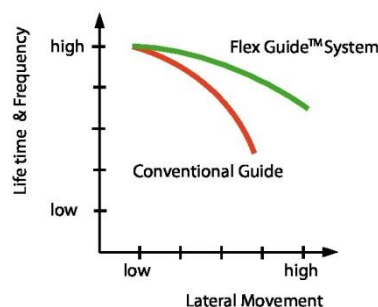
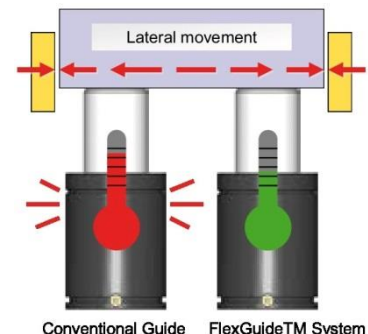


### Flexible guides: The Flex Guide™ System

The Flex Guide™ System is a flexible guide in the gas spring which absorbs lateral movements of the piston rod. It minimises friction and lowers the operating temperature.

**The benefits for you:**

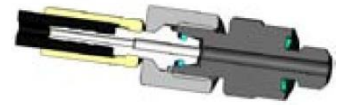
- Extended service life
- Increased stroke frequency, i.e. more strokes per minute





## Safe hose connections: The Dual Seal™ System

The FIBRO Dual Seal™ System combines a metal seal with a soft elastomer seal. On hose connection systems, the system provides two leak-tight connections and prevents rotation.



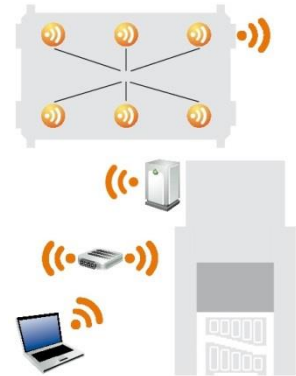
### The benefits for you:

- ▶ Leak-tight connection, even under vibrations
- ▶ High process reliability
- ▶ Minimised tool down time
- ▶ Simple installation thanks to anti-rotation function



## Wireless monitoring: The Wireless Pressure Monitoring (WPM) System

The optional Wireless Pressure Monitoring System (WPM) (patent pending) wirelessly monitors the pressure and temperature of FIBRO gas springs. Before a defective part is produced, the press operator receives a message from the WPM and can take appropriate action.



### The benefits for you:

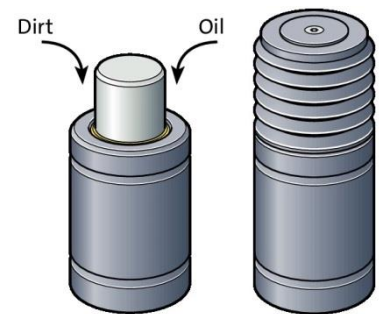
- ▶ Preventative quality assurance
- ▶ High process reliability
- ▶ Minimised tool down time
- ▶ Reduced maintenance and costs

Potential faults are individually displayed. As a result, service intervals can be extended. Maintenance and repair costs are reduced.



## Protected piston rods: FIBRO Concertina Shrouds

The FIBRO Piston Rod Protection (patent pending) reliably protects the piston rods in gas springs against dirt, oil and emulsion. In this way, the system prevents damage to the piston rod surface and leaks at internal seals.



### The benefit for you:

- ▶ Significantly longer service life for gas springs under harsh operating conditions

For more information regarding the full range of FIBRO gas springs and accessories, please contact our Luton sales office:

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