

COMPRESSED-AIR SPRINGS AS PER VW STANDARD



PED
2014/68/EU

COMPRESSED-AIR SPRINGS AS PER VW STANDARD

The compressed-air springs 2491.12. can be used as an alternative to gas springs, spiral compression springs and polyurethane springs as well as for the lower pressure on the press side.

ADVANTAGES OF THE FIBRO COMPRESSED-AIR SPRINGS:

- High initial force (compared to polyurethane springs) with low pressure increase
- Short, compact design
- Long service life
- No settling behaviour (fatigue)
- Long stroke lengths
- Low maintenance

The compressed-air springs are connected to the operating compressed air system (filtered compressed air) via a regulator valve. Due to the connection to the continuous compressed air supply, any leaks will be compensated automatically. In this way, the compressed-air springs always operate at an optimum output and at minimal maintenance and cost.

OPERATING PRINCIPLE

When the piston rod is activated, the compressed air in the spring will be compressed. Due to the regulator valve, it is not pushed back into the compressed air system. During the downward stroke, the pressure in the spring increases and a force increase occurs. When the compressed-air spring is disconnected from the compressed air system, the regulator valve opens and the compressed air escapes from the spring.

Caution:

Compressed-air springs must only be put into operation in combination with a regulator valve!

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NOTE:

Initial spring force at max. 8 bar is
400 daN

Order no. for spare parts kit:
2491.12.00400

CAUTION:

Compressed-air springs must only be put into operation in combination with a regulator valve!

Pressure medium: Air

Max. filling pressure: 8 bar

Min. filling pressure: 2 bar

Working temperature: 0 °C to +80 °C

Temperature related

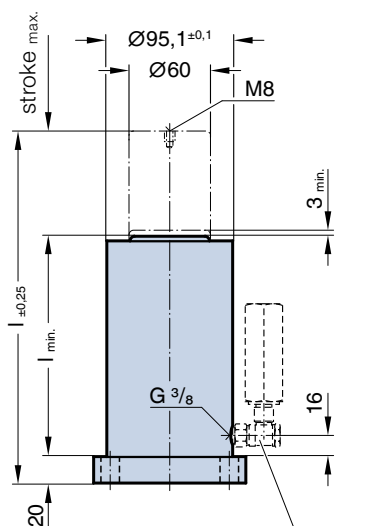
force increase: $\pm 0,3\%/^{\circ}\text{C}$

Recommended max.

strokes/min.: 40 (at 20 °C)

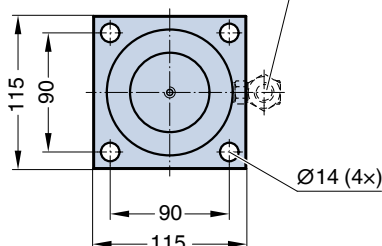
Max. stroke speed: 1,5 m/s (at a max.
filling pressure of
5.5 bar)

2491.12.00400.□□□.110



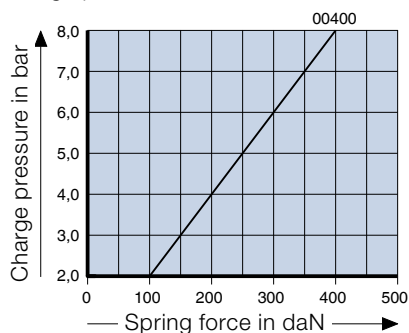
Order separately:

Regulator valve and connection
type, see page 6/7

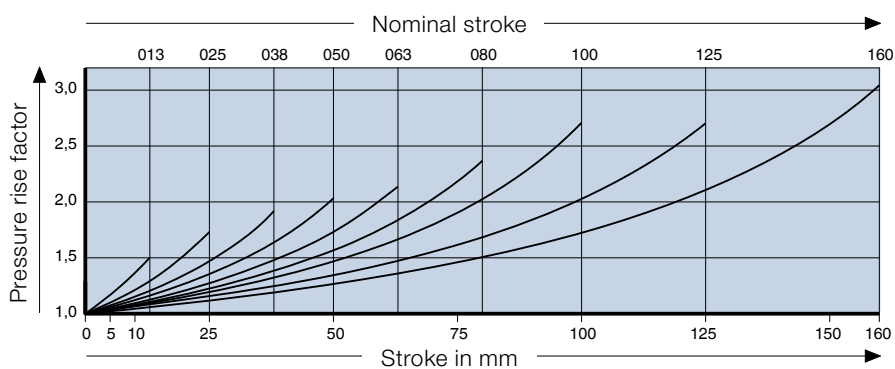


Order no.	stroke max.	l min.	l
2491.12.00400.013.110	13	99	132
2491.12.00400.025.110	25	111	156
2491.12.00400.038.110	38	124	182
2491.12.00400.050.110	50	136	206
2491.12.00400.063.110	63	149	232
2491.12.00400.080.110	80	166	266
2491.12.00400.100.110	100	186	306
2491.12.00400.125.110	125	211	356
2491.12.00400.160.110	160	246	426

Initial spring force depending on the
charge pressure



Stroke related pressure rise graph



COMPRESSED-AIR SPRINGS AS PER VW STANDARD



2491.12.00650.□□□.110

NOTE:

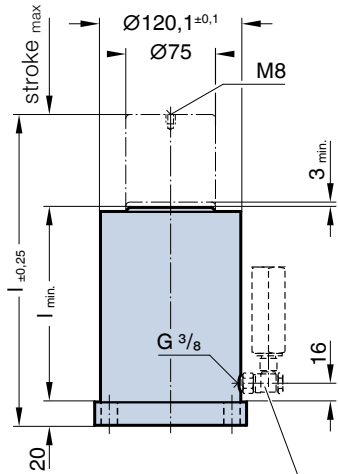
Initial spring force at max. 8 bar is 650 daN

Order no. for spare parts kit:
2491.12.00650

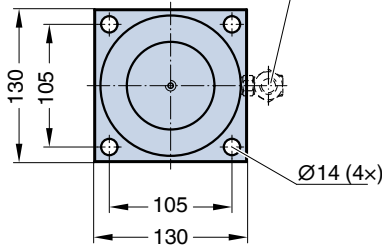
CAUTION:

Compressed-air springs must only be put into operation in combination with a regulator valve!

- Pressure medium: Air
- Max. filling pressure: 8 bar
- Min. filling pressure: 2 bar
- Working temperature: 0 °C to +80 °C
- Temperature related force increase: ±0,3%/°C
- Recommended max. strokes/min.: 40 (at 20 °C)
- Max. stroke speed: 1,5 m/s (at a max. filling pressure of 5.5 bar)

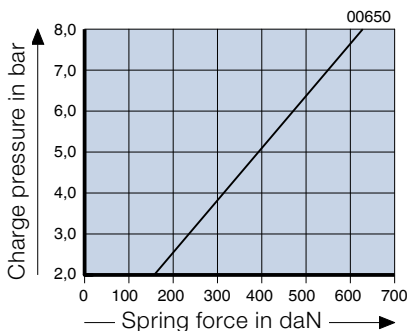


Order separately:
Regulator valve and connection type, see page 6/7

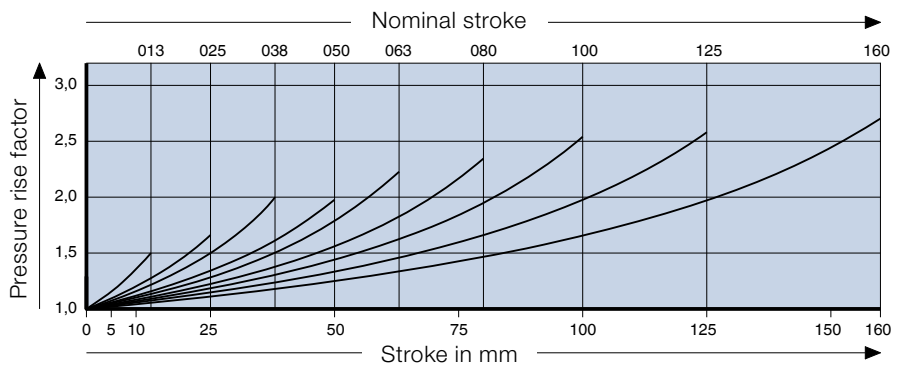


Order no.	stroke max	l min.	l
2491.12.00650 .013 .110	13	99	132
2491.12.00650 .025 .110	25	111	156
2491.12.00650 .038 .110	38	124	182
2491.12.00650 .050 .110	50	136	206
2491.12.00650 .063 .110	63	149	232
2491.12.00650 .080 .110	80	166	266
2491.12.00650 .100 .110	100	186	306
2491.12.00650 .125 .110	125	211	356
2491.12.00650 .160 .110	160	246	426

Initial spring force depending on the charge pressure



Stroke related pressure rise graph



COMPRESSED-AIR SPRINGS AS PER VW STANDARD

NOTE:

Initial spring force at max. 8 bar is
1400 daN

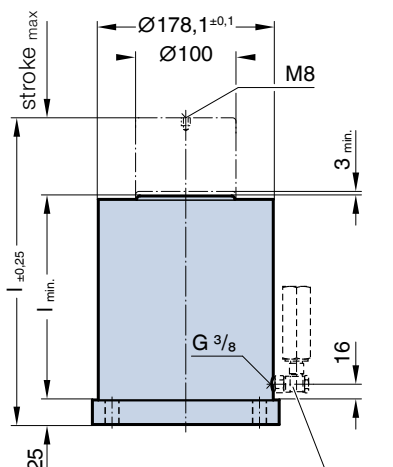
Order no. for spare parts kit:
2491.12.01400

CAUTION:

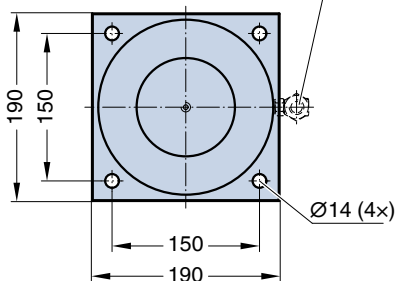
Compressed-air springs must only be put into operation in combination with a regulator valve!

Pressure medium: Air
 Max. filling pressure: 8 bar
 Min. filling pressure: 2 bar
 Working temperature: 0 °C to +80 °C
 Temperature related force increase: $\pm 0,3\%/^{\circ}\text{C}$
 Recommended max. strokes/min.: 40 (at 20 °C)
 Max. stroke speed: 1,5 m/s (at a max. filling pressure of 5.5 bar)

2491.12.01400.□□□.110

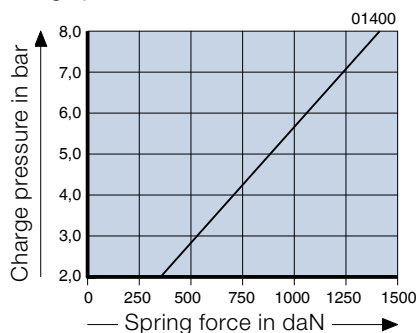


Order separately:
Regulator valve and connection type, see page 6/7

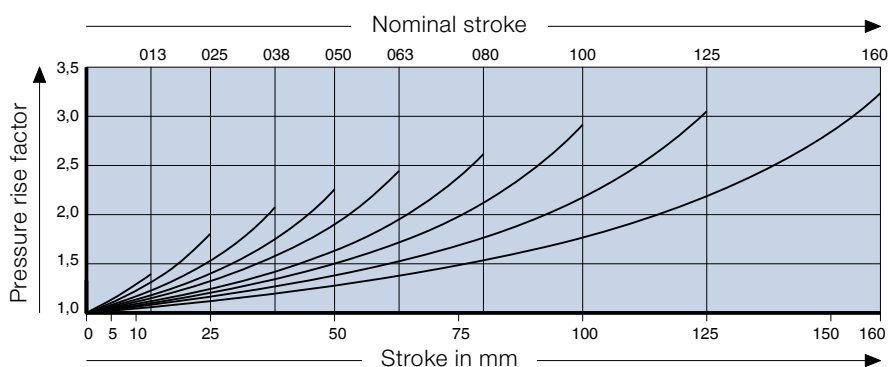


Order no.	stroke max	l _{min.}	l
2491.12.01400 .013 .110	13	140	178
2491.12.01400 .025 .110	25	152	202
2491.12.01400 .038 .110	38	165	228
2491.12.01400 .050 .110	50	177	252
2491.12.01400 .063 .110	63	190	278
2491.12.01400 .080 .110	80	207	312
2491.12.01400 .100 .110	100	227	352
2491.12.01400 .125 .110	125	252	402
2491.12.01400 .160 .110	160	287	472

Initial spring force depending on the charge pressure

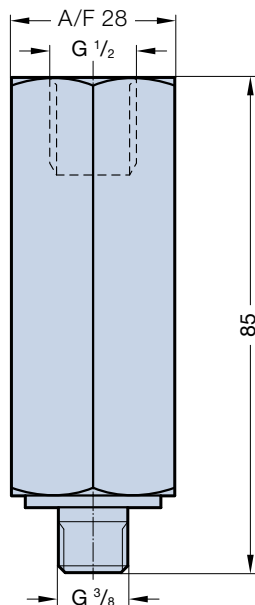


Stroke related pressure rise graph



COMPRESSED-AIR SPRINGS ACCESSORIES

REGULATOR VALVE 2491.12.1001



DESCRIPTION:

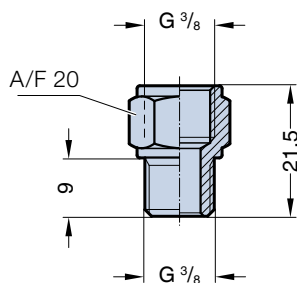
The regulator valve has two functions: filling and releasing of compressed air. The valve operates as a filling valve as soon as the compressed-air spring is connected to the compressed air system.

I.e., the regulator valve releases compressed air into the spring until the internal pressure of the spring is equal to the supply pressure. Once the continuous compressed air supply is disconnected, the regulator valve opens and releases the compressed air.

If the interior pressure increases considerably (approx. 28 bar), an overpressure function in the regulator valve will be activated. The regulator valve opens and the excess pressure is released into the open. An inadmissible increase can be caused, for example, by the accumulation of condensation water in the spring.

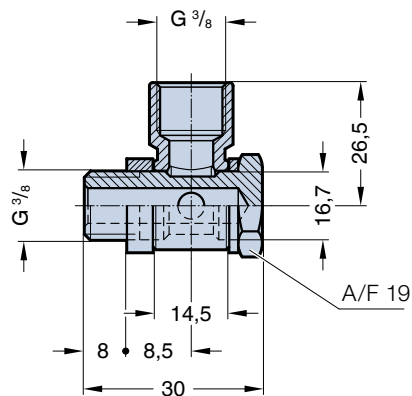
2491.00.43.01.01

Straight connection $G^{3/8}$ for regulator valve



2491.00.43.02.02

Angle connection $G^{3/8}$ for regulator valve, rotating



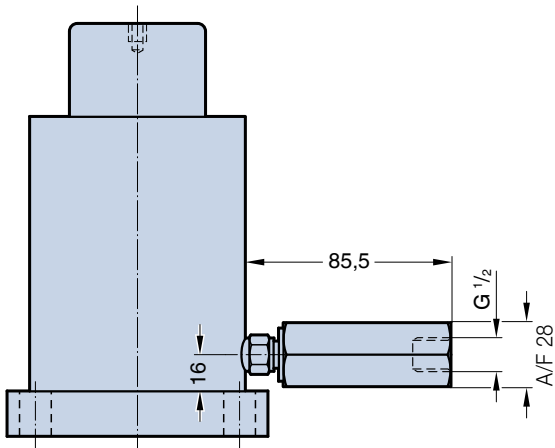
COMPRESSED-AIR SPRINGS ACCESSORIES

APPLICATION OPTION

Order separately:

2491.12.1001 Regulator valve

2491.00.43.01.01 Straight connection G $\frac{3}{8}$ for regulator valve



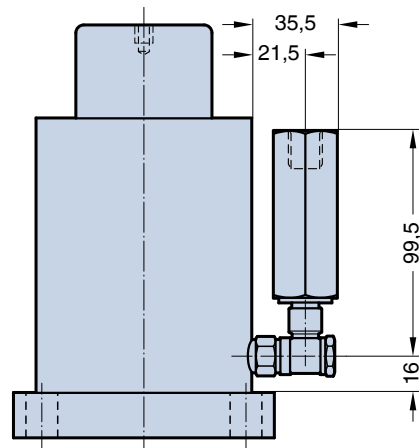
APPLICATION OPTION

Order separately:

2491.12.1001 Regulator valve

2491.00.43.02.02 Angle connection G $\frac{3}{8}$

2491.00.43.01.01 Straight connection G $\frac{3}{8}$ for regulator valve



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