

VTI

Ventil Technik GmbH



AIRcontrol

EFV: Excess Flow Valve

More Safety in the field of breathing protection



Accessories for
breathing application
200 and 300 bar



FIREcontrol



TECHcontrol



MEDcontrol



AUTOMOTIVE

Description

Functional description:

During handling it may happen that a filled cylinder falls down and all of a sudden allows the complete cylinder contents to discharge, either via an unintentional opening or a broken-off valve. The thrust of escaping gas can cause the pressurized cylinder to propel around and in worst case injure people.

The installation of the EFV can prevent the sometimes fatal outcome of such incidents. When the cylinder content is suddenly released the EFV reduces the flow and thereby prevents that the cylinder is propelling around, a simple but nonetheless effective solution to protect life!

Characteristics at a glance:

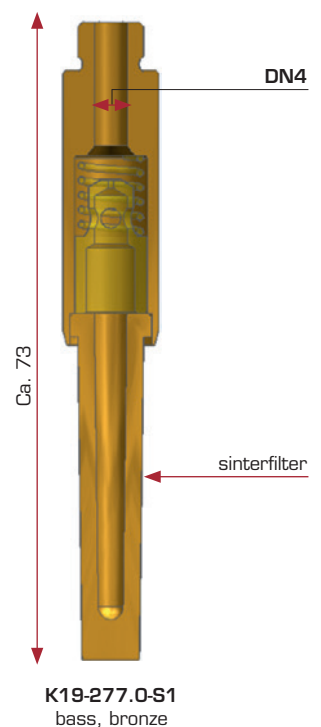
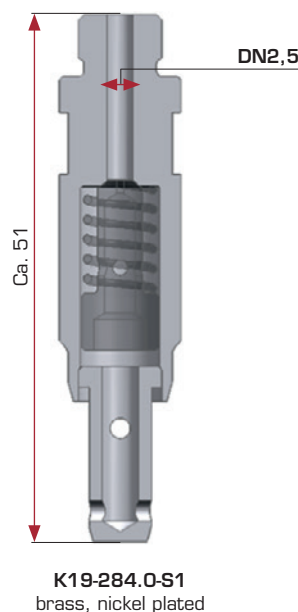
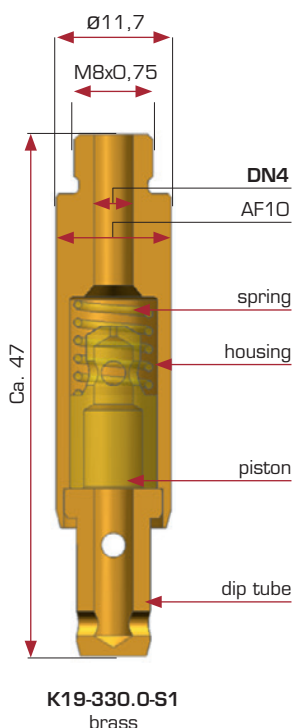
- prevents recoil / repulsion
- also activates when valve is opened quickly and unintentionally
- tested and approved by our Notified Body – BAM (Federal Institute for Material Research and Testing) in Berlin
- suitable for working pressure 200 and 300 bar
- available with sinterfilter or dip tube
- flow at activated mode reduced to 950 to 1400 l/min. - depending on valve geometry and EFV execution
- suitable for all valves from:
VTI, Dräger, Interspiro, MSA and Scott (all manufactured by VTI)
- not suitable for quick filling of emergency systems (rescue cushions)

Installation:

Torque EFV with 10 Nm using a torque wrench AF10

Note:

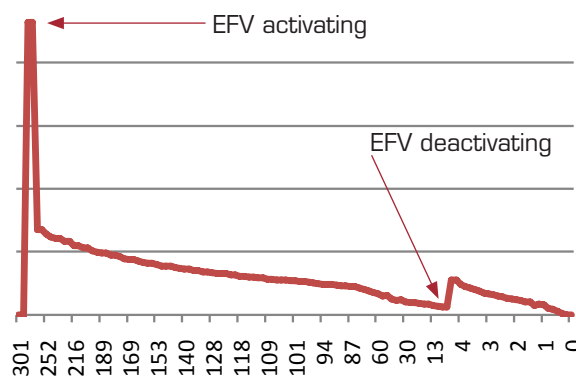
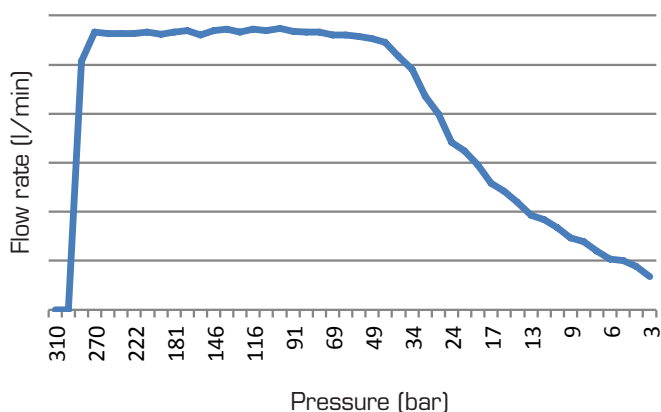
It is mandatory to carry out a visual inspection of the EFV latest after a 5 year service, e.g. during recertification of the cylinder. Replace the EFV in case you detect damages and / or contamination!



Performance



Flow chart 300 bar



Maximum flowrate without EFV

After opening the valve, the gas exhausts with a maximum flowrate up to 20.000 l/min. and even exceeding.
The flow decreases after a while due to the pressure loss.
A cylinder not fastened would propel around (see picture).

Flow rate when EFV is activated

After a split second with maximum flow the EFV activates and by that means reduces the flow down to maximum 1400 l/min. The cylinder does not propel around (see picture).



You can find the complete video of the EFV demonstration at: <http://www.vti.de/en/products/aircontrol.html>

Average Flowrate with activated EFV

valve type \ EFV type	K19-277.0		K19-330.0		K19-284.0	
	max.	min.	max.	min.	max.	min.
K44-XX	1300 l/min	80 l/min	1300 l/min	130 l/min	1300 l/min	150 l/min
K36-XX	1100 l/min	80 l/min	1180 l/min	130 l/min	1300 l/min	150 l/min
K632-3X	950 l/min	80 l/min	1330 l/min	130 l/min	1350 l/min	150 l/min
K632-4X	1080 l/min	80 l/min	1200 l/min	130 l/min	1290 l/min	150 l/min
K632-6X	1060 l/min	80 l/min	1390 l/min	130 l/min	1310 l/min	150 l/min
K632-9X	1050 l/min	80 l/min	1400 l/min	130 l/min	1310 l/min	150 l/min

Certified Quality

- Quality Management System acc. to DIN EN ISO 9001:2008
- π (pi) – approval acc. to Transportable Pressure Equipment Directive (TPED) 2010/35/EU
- Quality Management System acc. to EN ISO 13485:2003 for Medical device manufacturer (CE approval)
- Quality Management System acc. to Annex II of the European Medical Device Directive (MDD) 93/42/EEC
- Quality Management System acc. to ISO / TS16949:2009
- Authorization Certificate for the in-house inspection service acc. to Directive 2010/35/EU

Team AIRcontrol

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We focus on high quality and excellent service.

Made in Germany

