

Fluid handling

Products

EcoFlow – fluid regulation for paint process systems

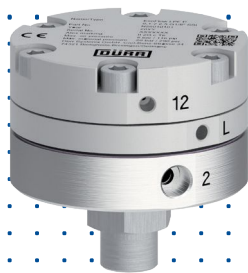
Pressure relief valves – protection device against pressure peaks

Agitators – manual air operated agitators

Filters – low and high pressure material filters

Pressure gauges – vertical, horizontal, bottom or back connection fluid pressure gauges

Hoses & Fittings – air or fluid hoses and fittings



Pressure regulators

Fluid regulation for paint process systems

Product families

EcoFlow HPF – high pressure flow regulators

EcoFlow HPR – high pressure return regulators **EcoFlow IPF** – low

pressure flow regulators **EcoFlow IPR** – low pressure return regulators



EcoFlow HPF

High pressure flow regulators

The EcoFlow HPF is a high pressure flow regulator designed to maintain downstream pressure in fluid supply systems. By controlling the media pressure to the required working pressure, connected applicators are protected against pressure surge and pulsation from the material supply, while maintaining the required pressure and flow characteristics for the application process. Typically handled materials are high viscose fluids such as mastics, sealers, pastes, adhesives or glues.



PRODUCT LINE			
	EcoFlow HPF P 310 5 G3/4" ALU	EcoFlow HPF P 310 5 G3/4" SST G1/2"	EcoFlow HPF P 310 5 G3/4" SST G1/2"
Part No.	N26070021	N26230002	N26230003
Operation	Pneumatical	Pneumatical	Pneumatical
Connector inlet / outlet	G3/4" (female)	G3/4" (female)	G3/4" (female)
Connector air	Push-in 6 mm	Push-in 6 mm	G1/8"
Max. fluid pressure	310 bar (4,495 psi)	350 bar (4,495 psi)	350 bar (4,495 psi)
Control range of flow rate	20-310 bar (290-4,495 psi)	20-310 bar (290-4,495 psi)	20 - 310 bar (290-4,495 psi)
Max. flow rate	5.0 l/min (1.32 gal/min)	5.0 l/min (1.32 gal/min)	5 l/min (1.32 gal/min)
Material housing	Aluminium	Stainless steel	Stainless steel
Parts contacted by media	Aluminium	Stainless steel	Stainless steel
Field of use	Sealing, gluing	Sealing, gluing	Paint



	High pressure regulator 200bar P	High pressure regulator flow pne- um. 150bar	High pressure regulator 320bar P
Part No.	N26070029	N26070044	N26070027
Operation	Pneumatical	Pneumatical	Pneumatical
Connector inlet / outlet	G3/4" (female)	G3/4" (female)	G3/4" (female)
Connector air	G1/4" (female)	G1/4" (female)	G1/4" (female)
Max. fluid pressure	360 bar (5,220 psi)	360 bar	360 bar (5,220 psi)
Control range of flow rate	40-200 bar (580-2,900 psi)	20-150 bar (290-2,150 psi)	40-320 bar (580-4,641 psi)
Max. flow rate	18.0 l/min (4,75 gal/min)	43 l/min	43.0 l/min (11.36 gal/min)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Field of use	Paint	Paint	Paint

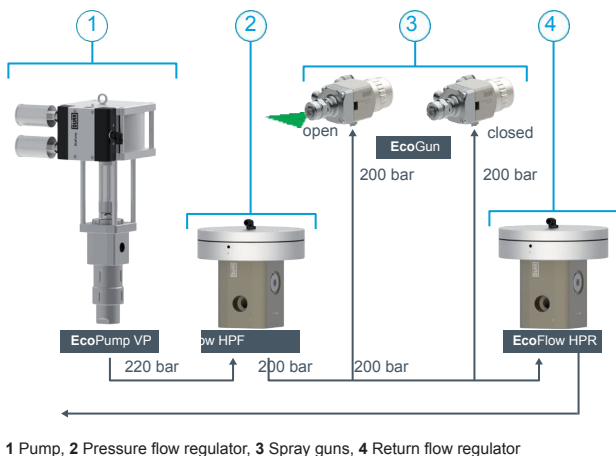
EcoFlow HPF

High pressure flow regulators



PRODUCT LINE			
	High pressure regulator 270bar M	High pressure regulator 200bar M	High pressure regulator 150 15 G 3/8"
Part No.	N26070028	N26070030	N26070034
Operation	Manual	Manual	Manual
Connector inlet / outlet	G3/8" (female)	G3/8" female	G3/8" (female)
Connector air	None	none	none
Max. fluid pressure	270 bar (3,915 psi)	360 bar (5,220 psi)	250 bar
Control range of flow rate	90-270 bar (1,305-3,915 psi)	90-200 bar (1,305-2,900 psi)	15-150 bar (215-2,150 psi)
Max. flow rate	14.8 l/min (3.26 gal/min)	14.8 l/min (3.26 gal/min)	14,8 l/min (3.26 gal/min)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Field of use	Paint	Paint	Paint

TECHNICAL ILLUSTRATION



CUSTOMER BENEFITS

- ➔ large regulation range at high flow rate
- Pneumatic or manual variant available
- Sensitive precision control
- Excellent dynamics during pressure changes
- 100% tight sealing function
- Compact dimensions
- High performance diaphragm
- Easy to maintain
- Tested according to Dürr quality standards

EcoFlow HPR

High pressure return regulators

The **EcoFlow HPR** is a high pressure return regulator designed to maintain consistent back pressure in fluid supply systems. By controlling the fluid pressure to the required working pressure, applicators are protected against pressure surge and pulsation from the material supply, while maintaining the required flow characteristics for the application process. The **EcoFlow HPR** is easy to maintain with a 100% tight sealing function and compact dimensions. Typically handled materials are high viscous fluids such as mastics, sealers, pastes, adhesives or glues.



PRODUCT LINE					
	EcoFlow HPR P 310 20 G3/4" ALU	High pressure regulator return 360bar P	High pressure regu- lator return 270bar	High pressure regu- lator return 150bar	High pressure regu- lator return 100bar
Part No.	N26240001	N26170009	N26170010	N26070045	N26070043
Operation	Pneumatical	Pneumatical	Manual	Manual	Pneumatical
Connector inlet / outlet	G3/4" (female)	G3/4" (female)	G3/8" (female)	G3/8" (female)	G3/4" (female)
Connector air	Push-in 6 mm	G1/4" (female)	none	none	G1/4" (female)
Max. fluid pressure	310 bar (4,495 psi)	300 bar (4,350 psi)	270 bar (3,915 psi)	150 bar	120 bar
Control range of flow rate	20-310 bar (290-4,495 psi)	10-300 bar (145-4,350 psi)	90-270 bar (1,305-3,915 psi)	15-150 bar (215-2,150 psi)	10-100 bar (145-1,450 psi)
Max. flow rate	20 l/min (5.28 gal/min)	43 l/min (11.36 gal/min)	23.4 l/min (6.18 gal/min)	23,4 l/min (6.18 gal/min)	43 l/min (11.36 gal/min)
Material housing	Aluminium	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Aluminium	Stainless steel	Stainless steel	Stainless steel	Stainless steel

CUSTOMER BENEFITS



large regulation range at high flow rate

Pneumatic variant available

Precision control

Excellent dynamics during pressure changes

Easy to maintain

100% tight sealing function

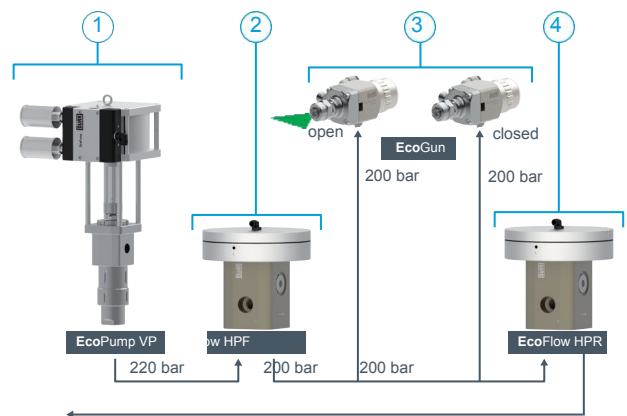
Compact dimensions

High performance diaphragm

low weight

Tested according to Dürr quality standards

CONNECTION SCHEME



1 Pump, 2 Pressure flow regulator, 3 Spray guns, 4 Return flow regulator

EcoFlow LPF

Low pressure flow regulators

The **EcoFlow LPF** is a low pressure flow regulator designed to maintain downstream pressure in fluid supply systems. By controlling the fluid pressure to the required working pressure, applicator equipment is protected against pressure surge and pulsation from the material supply, while maintaining the required flow characteristics for the application process. Typically handled materials are water and solvent-borne paints, varnishes, enamels and lacquers.



PRODUCT LINE			
	EcoFlow LPF P 7 2.5 G1/8" SST	EcoFlow LPF M 9 2.5 G1/8" SST	EcoFlow LPF M 15 8 G3/8" SST G1/8"
Part No.	N26010101	N26010068	N26210005
Operation	Pneumatic	Manual	Manual
Connector inlet / outlet	G1/8" (female/male)	G1/8" (female/male)	G3/8" (female)
Connector air	M5	None	None
Max. fluid pressure	20.0 bar (290 psi)	20.0 bar (290 psi)	16.0 bar (232 psi)
Control range of flow rate	1.0-7.0 bar (15-102 psi)	0.5-9.0 bar (7-131 psi)	0.5-15.0 bar (7-218 psi)
Max. flow rate	2.5 l/min (0.66 gal/m)	2.5 l/min (0.66 gal/m)	8.0 l/min (2.11 gal/m)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Pressure gauge	None	None	Optional (G1/8") *



	EcoFlow LPF M 5 8 G3/8" SST G1/8"	EcoFlow LPF P 5 8 G3/8" SST G1/8"	EcoFlow LPF P 15 8 G3/8" SST G1/8"
Part No.	N26210006	N26210007	N26210008
Operation	Manual	Pneumatic	Pneumatic
Connector inlet / outlet	G3/8" (female)	G3/8" (female)	G3/8" (female)
Connector air	None	Push-in 6 mm	Push-in 6 mm
Max. fluid pressure	10.0 bar (145 psi)	8.0 bar (116 psi)	16.0 bar (232 psi)
Control range of flow rate	0.5-5.0 bar (7-73 psi)	0.5-5.0 bar (7-73 psi)	0.5-15.0 bar (7-218 psi)
Max. flow rate	8.0 l/min (2.11 gal/m)	8.0 l/min (2.11 gal/m)	8.0 l/min (2.11 gal/m)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Pressure gauge	Optional (G1/8") *	Optional (G1/8") *	Optional (G1/8") *

* See pressure gauge range on [page no. 114](#)

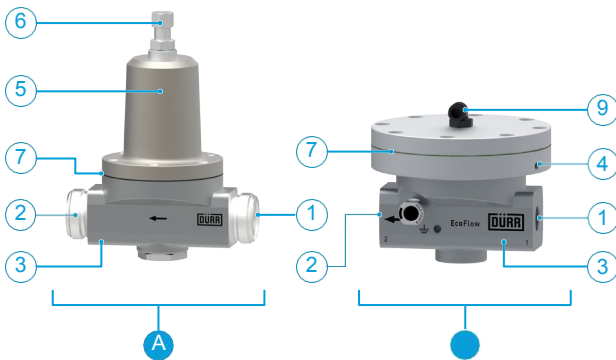
EcoFlow LPF

Low pressure flow regulators



PRODUCT LINE			
	Low pressure regulator flow man.10bar	Low pressure regulator flow manuell 20ba	Low pressure regulator flow pneum.10bar
Part No.	N26070038	N26070040	N26070041
Operation	Manual	Manual	Pneumatical
Connector inlet / outlet	G3/8" (female)	G3/8" (female)	G3/8" (female)
Connector air	—	—	G1/4" (female)
Max. fluid pressure	40 bar	40 bar	40 bar
Control range of flow rate	1-10 bar (1.5-145 psi)	1-20 bar (1.5-290 psi)	1-10 bar (1.5-145 psi)
Max. flow rate	4 l/min (1.05 gal/m)	4 l/min (1.05 gal/m)	4 l/min (1.05 gal/m)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Pressure gauge	Optional	Optional	Optional

TECHNICAL ILLUSTRATION



A Manual pressure regulators, B Pneumatic pressure regulators
 1 Material inlet, 2 Material outlet, 3 Regulator housing, 4 Ventilation and leakage bore, 5 Regulator cap, 6 Adjusting screw, 7 Spacer ring, 8 Control air connection

CUSTOMER BENEFITS

- ➔ Precision control
- Excellent dynamics during pressure changes
- 100% tight sealing function
- Compact dimensions
- High performance diaphragm
- Easy to maintain
- Tested according to Dürr quality standards

FUNCTIONAL PRINCIPLE

Pressure regulators are either used to limit the pressure of the paint after the regulator (flow regulators) or to maintain a certain pressure level before the regulator (return regulators). In flow regulators either a spring or compressed air on a diaphragm holds a valve open. If a pressure higher than the force of the springs operates on a diaphragm, the valve starts to close and reduces the pressure. In return regulators, the spring holds the valve closed until the pressure on the inlet of the regulator exceeds the force of the spring. The valve starts to open, paint flows and the pressure before the regulator decreases.

EcoFlow LPR

Low pressure return regulators

The **EcoFlow IPR** is a low pressure return regulator that has been designed to maintain consistent back pressure in fluid supply systems. By controlling the fluid pressure to the required working pressure, applicators are protected against pressure surge and pulsation from the material supply, while perfect flow characteristics for the application process are ensured. **EcoFlow IPR** is easy to maintain with a 100% tight sealing function and compact dimensions. Typically handled materials are water and solvent-borne paints, varnishes, enamels and lacquers.



PRODUCT LINE			
	EcoFlow LPR PS 16 15 DN25 SST	EcoFlow LPR PS 16 25 DN25 SST	EcoFlow LPR PS 16 30 G3/4" SST
Part No.	N26220008	N26220009	N26220010
Operation	Pneumatical	Pneumatical	Pneumatical
Connector inlet / outlet	EcoTube DN25 (male)	EcoTube DN25 (male)	G3/4" (female)
Connector air	Push-in 6 mm	Push-in 6 mm	Push-in 6 mm
Max. fluid pressure	16 bar (232 psi)	16 bar (232 psi)	16 bar (232 psi)
Control range of flow rate	1.0-14.0 bar (15-203 psi)	1.0-14.0 bar (15-203 psi)	1.0-14.0 bar (15-203 psi)
Max. flow rate	15 l/min (3.96 gal/m)	25 l/min (6.6 gal/m)	30 l/min (7.93 gal/m)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Pressure gauge	None	None	None



	EcoFlow LPR M 14 30 G3/4" SST	Low pressure regulator return 20 bar LPR M	Low pressure regulator return pneum.10bar
Part No.	N26220006	N26120092	N26070039
Operation	Manual	Manual	Manual
Connector inlet / outlet	G3/4" (female)	G3/8" (female)	G3/8" (female)
Connector air	—	—	—
Max. fluid pressure	16 bar (232 psi)	20 bar (290 psi)	10 bar (145 psi)
Control range of flow rate	1.0-14.0 bar (15-203 psi)	1.0-20 bar (15-290 psi)	1-10 bar (1.5-145 psi)
Max. flow rate	30 l/min (7.93 gal/min)	15 l/min (3.96 gal/min)	15 l/min (3.96 gal/min)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Pressure gauge	None	Optional (G1/8")	Optional

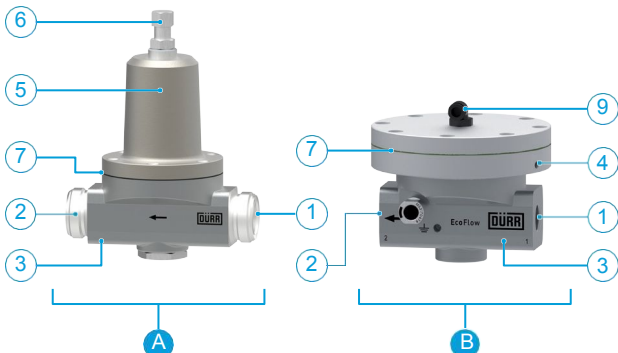
EcoFlow LPR

Low pressure return regulators



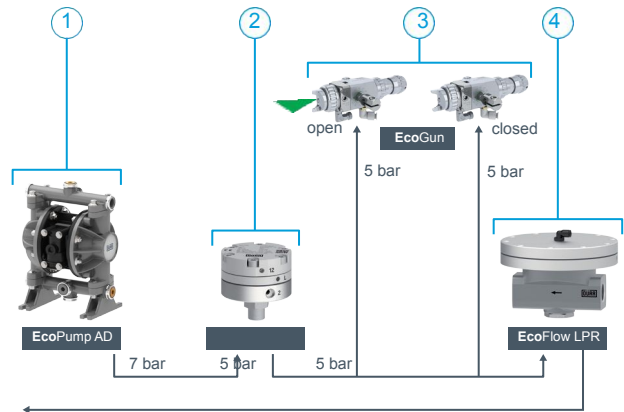
PRODUCT LINE			
	Low pressure regulator return pneum.10bar	EcoFlow LPR M 14 15 DN25 SST	EcoFlow LPR M 14 25 DN25 SST
Part No.	N26070042	N26220004	N26220005
Operation	Pneumatical	Manual	Manual
Connector inlet / outlet	G3/8" (female)	EcoTube DN25 (male)	EcoTube DN25 (male)
Connector air	G1/4" (female)	—	—
Max. fluid pressure	10 bar (145 psi)	16 bar (232 psi)	16 bar (232 psi)
Control range of flow rate	0.6-10 bar (1-145 psi)	1.0-14.0 bar (15-203 psi)	1.0-14.0 bar (15-203 psi)
Max. flow rate	15 l/min (3.96 gal/m)	15 l/min (3.96 gal/min)	25 l/min (6.6 gal/min)
Material housing	Stainless steel	Stainless steel	Stainless steel
Parts contacted by media	Stainless steel	Stainless steel	Stainless steel
Pressure gauge	Optional	None	None

TECHNICAL ILLUSTRATION



A Manual pressure regulators, **B** Pneumatic pressure regulators
 1 Material inlet, 2 Material outlet, 3 Regulator housing, 4 Ventilation and leakage bore, 5 Regulator cap, 6 Adjusting screw, 7 Spacer ring, 8 Control air connection

CONNECTION SCHEME



1 Pump, 2 Pressure flow regulator, 3 Spray guns, 4 Return flow regulator

CUSTOMER BENEFITS

- Precision control
- Excellent dynamics during pressure changes
- 100% tight sealing function
- Compact dimensions
- High performance diaphragm
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