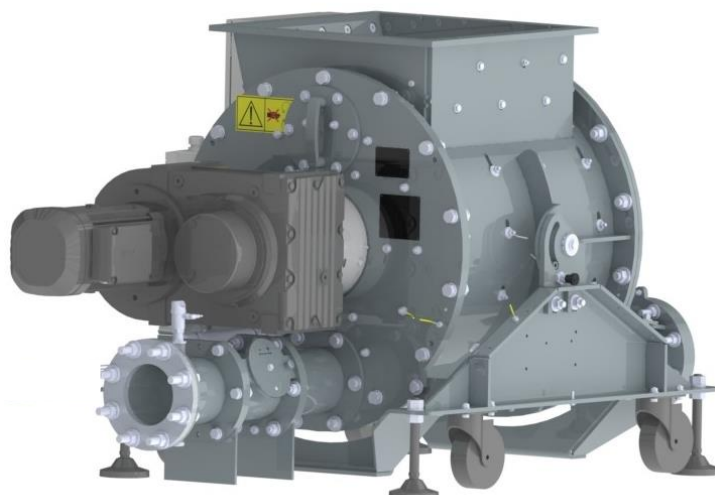


# MultiCell AF 07/15/20 Blow-through rotary valve

- Slide-in seal
- Options for soft or hard sealing
- Wear protection on flat flanges and cylindrical body
- Variable nozzles
- Efficient discharge through starwheel and trough design
- Cleaning knife
- Comprehensive maintenance concept
- TorqLOC® drive concept



## Application

The **MultiCell AF Blow-Through Rotary Valve** has been specifically designed and developed for the in-line feeding of non-homogeneous alternative fuels into pneumatic conveying systems used in the cement, lime, gypsum, and power industries.

With its robust design and reliable performance, the **MultiCell AF** is capable of handling a wide variety of alternative fuels, including shredded plastics, foil chips, conditioned sewage sludge, wood chips and sawdust, palm kernel shells, rice husks, animal meal, as well as various mixed combinations.

**EU Qualification /**  
**ATEX Directive 2014/34/EU:**  
 1/2D Ex h IIC T130 °C Da/Db  
 2/2G Ex h IIB T4 Gb/Gb

## Design

A robust and compact design ensures high efficiency and energy savings. While wear cannot be avoided entirely, it can be minimized. Therefore, the key factors considered in the design are maintainability and optimized flow for efficient chamber emptying.

A major role is played by the slide-in seal concept (available in hard or soft versions) and the rotatable body around the transverse axis, which allows for easy removal of the starwheel when replacing high-resistance wear parts such as the cylindrical body lining and/or flange lining.

Operation is further simplified by adjustable nozzles, which allow setting the desired backpressure without disassembling any components. To minimize blockages in the inlet area, a tooth-shaped cleaning knife directs hanging material onto the starwheel blades, ensuring it is conveyed into the chamber and reducing cutting resistance.

## Operation

The **MultiCell AF** is used as a feeding device for the direct introduction of non-homogeneous alternative fuels into pneumatic conveying lines at pressures of up to 350 mbar.

The optimized geometry of the inlet, chambers, conveying channel, and outlet ensures efficient material flow into the pneumatic conveying line, resulting in a high material-to-air conveying ratio.

## Mechatronics

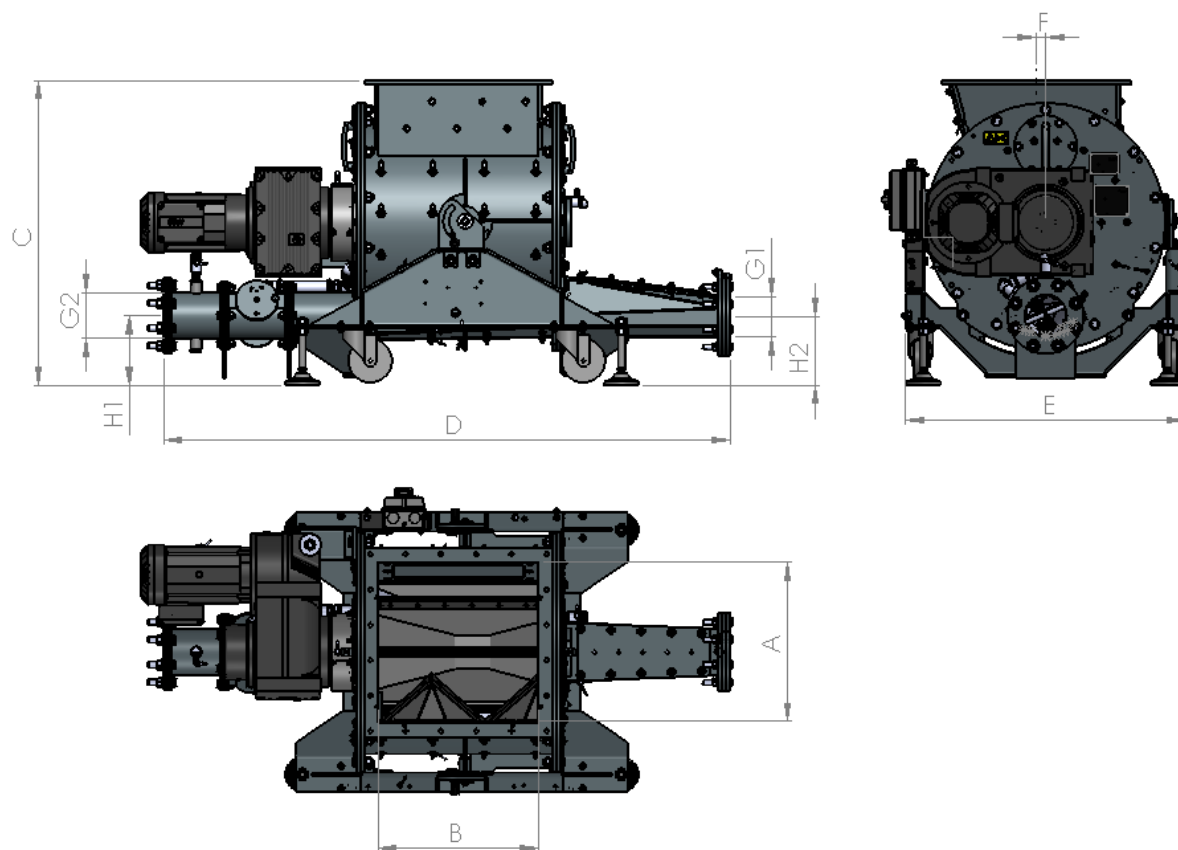
Full sensor and control functions are available for system integration on both the carrier air and material flow sides. In the event of a starwheel blockage caused by an operating fault (e.g., overfilling in the infeed area), the system automatically initiates reverse mode. If a blockage occurs, the upstream device is stopped and the starwheel is automatically reversed and restarted up to three times.

## General data

Model	MultiCell AF 7	MultiCell AF 15	MultiCell AF 20
Max gravimetric feederate [t/h]	9	20	25
Max. volumetric feederate [m <sup>3</sup> /h]	70	150	200
Nominal/maximal particle size 2D 1-3% [mm]	30/60	60/80	80/150
Rated speed [min <sup>-1</sup> ]	19	16	13
Number of chambers	10	10	12
Electric motor [kW]	5,5	7,5	9,2
Approx. weight [kg]	1650	2400	3600
Weight of 10bar version [kg]	1650	2400	3600
Recommended height of chute [mm]	900±100	1000±100	1000±100
Maximum backpressure design [mbar]	350	350	350
Nozzle adjustability range [m <sup>3</sup> /h]	1000-2000	2000-4000	3500-6000
Max. leakage air [Nm <sup>3</sup> /h at 350 mbar back pressure hard seal/soft seal]	400/200	850/600	1000/800
Nozzle pressure loss recommendation [mbar]			
RDF, Fluff [recommended hard seal]	150-200	150-200	150-200
Rice Husk [recommended soft seal]	100-150	100-150	100-150

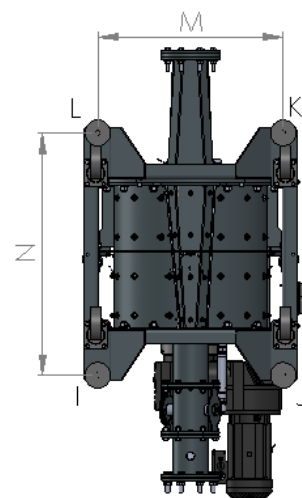
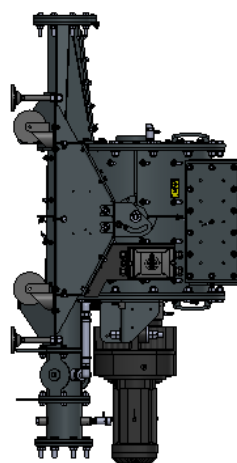
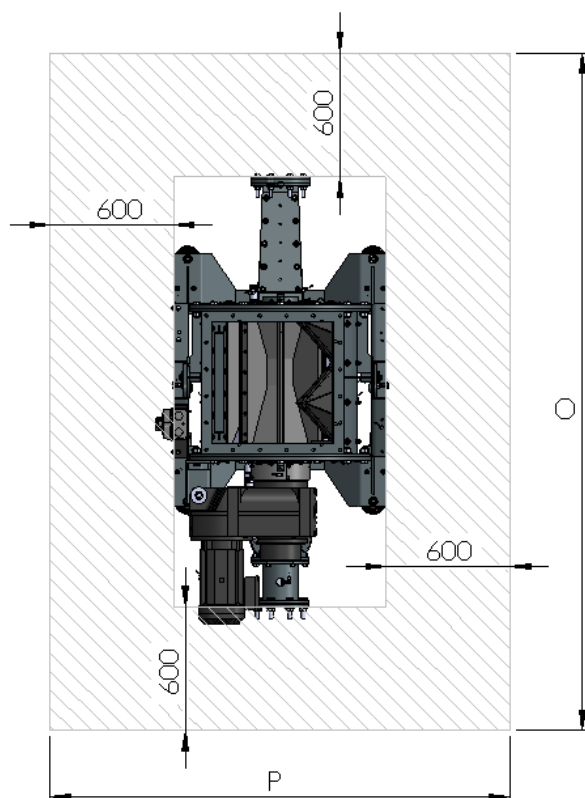
## General dimensions

Model	A	B	C	D	E	F	G1	G2	H1	H2
MultiCell AF 7	500	590	1120	2086	1030	35	DN 100-150	DN 150	255	245
MultiCell AF 15	744	590	1460	2086	1330	37	DN 175-250	DN 200	300	290
MultiCell AF 20	880	690	1770	2291	1570	61	DN 250-300	DN 250	385	385



## Maintenance area & load

	Load [N]				Dimensions [mm]		Recommended maintenance area [mm]	
Model	I	J	K	L	M	N	O	P
MultiCell AF 7	4500	5500	3500	3000	900	1175	2300	3240
MultiCell AF 15	7000	8000	5500	5000	1200	1175	2740	3340
MultiCell AF 20	11300	12540	7710	6920	1400	1315	2740	3440



Qlar Europe GmbH  
Pallaswiesenstr. 100  
64293 Darmstadt, Germany  
T: +49 61 51-15 31 0  
F: +49 61 51-15 31 66  
sales-eu@qlar.com

Qlar Czech s.r.o.  
Průmyslová 484, Hala DC3  
252 61 Jeneč, Czech Republic  
Tel: +420 233 094 111  
PCZ-Sales@qlar.com



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