

RF 20/40

Data sheet

Kongskilde Rotary Vales, type RF are suitable for feeding materials either into a pressure or vacuum pneumatic system or as a feed to a subsequent process.

The Rotary Valves are commonly used in system handling granulates, (granules, pellets, flakes, small molded products etc.).

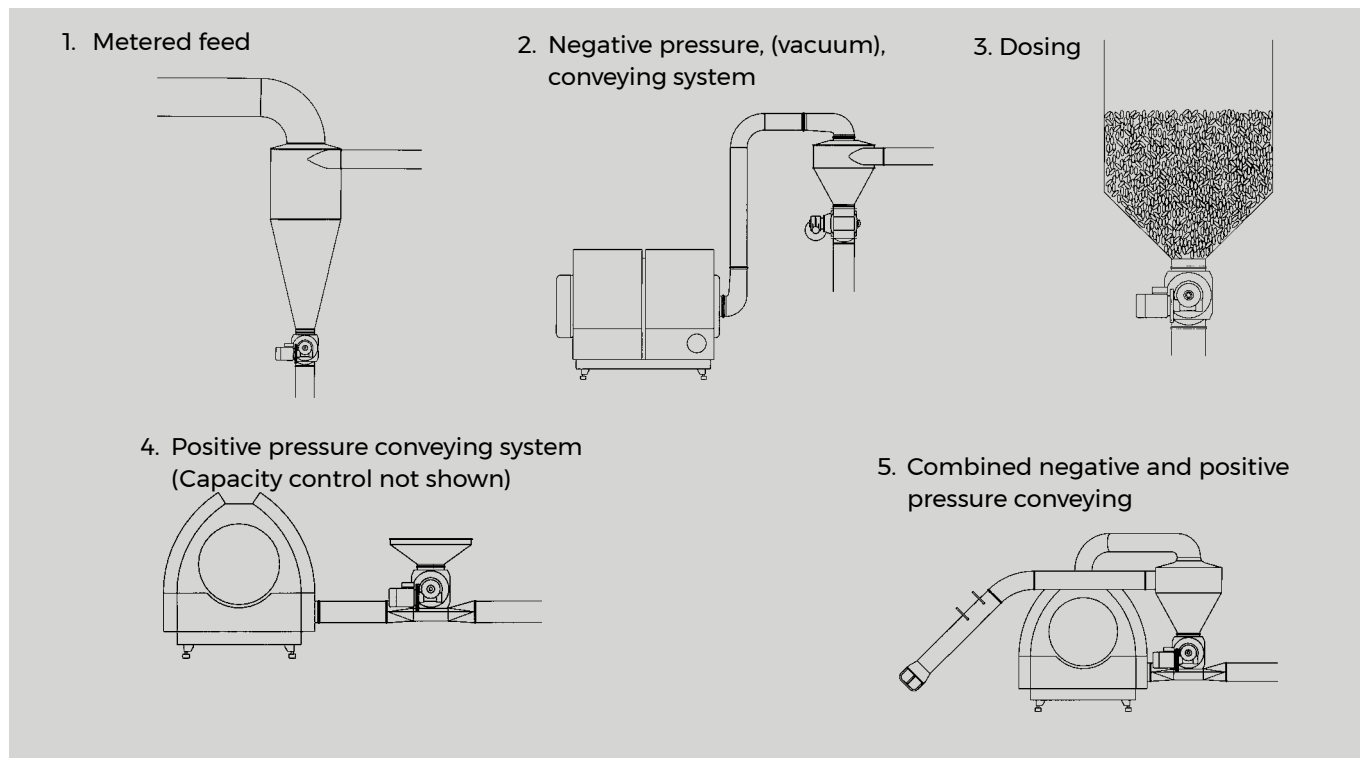
The design of the Rotary Valves ensures minimal air losses when introducing products into a pressurized conveying line.

Kongsildes Rotary Vales types RF have a slow rotating rotor which has 6 pockets. Each of the rotor blades are mounted with a wear resistant polyurethane blade, which forms an airtight seal against the precision made valve housing which prevent any material from jamming the rotor.

RF Rotary Valves are suitable for many different applications involving the controlled delivery of material to a pneumatic conveying system or production process. (The models are shown with optional accessories).



Typical applications:



Two sizes and three versions

Kongskilde can offer 2 sizes of the RF Rotary Valve. The size of valve needed depends on each individual system requirement.

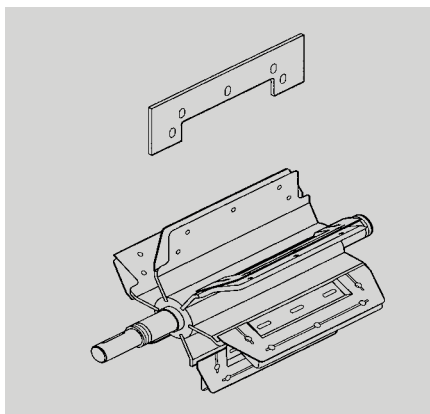
The RF Rotary Valve can be delivered in an "E" version with vertical inlet and outlet which enables the RF Rotary Valve to be mounted under a cyclone, hopper or similar.

A "D" version of the RF Rotary Valve can be delivered with a horizontal blow through bottom that enables the valve to be used directly in combination with a Kongskilde high pressure blower to pneumatically blow the material away from the valve to a designated position.

In applications where the dust content is high such as in rubber granulate, recycled material and similar Kongskilde can offer a "S" version of the RF Rotary Valves. The "S" version of the rotary valves is equipped with an extra sealing, which protects the mechanical parts against buildup of dust.

RF Rotor

The RF Rotor is designed to handle both pellet and grinded materials from example a grinder or similar. Flexible polyurethane blades are fitted to create the seal on 3 sides of the rotor blades. The design ensures that even thin material such as flakes cannot build up between the housing and the rotor and thereby ensures that that the material will not block the rotor.



Technical data

As standard the RF 20 Rotary Valve is available with any one of five gear motors. The gearing selected should match the application to ensure optimal operation.

For the RF 40 Rotary Valve a selection of 3 different gear motors is available.

Using an AC Drive in combination with the RF 20 and RF 40, any rotor speed can be obtained.

All RF Rotary Valves are delivered with life time greased bearings.

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Rotary Valve rpm	Ratio	Motor kW	Motor	Motor rpm	Weight in kg w/motor
70	1:20	0.75	IEC 80 B5	1400	40
56	1:25	0.75	IEC 80 B5	1400	40
47	1:30	0.75	IEC 80 B5	1400	40
35	1:40	0.55	IEC 80 B5	1400	36
20	1:60	0.37	IEC 80 B5	1400	36

RF 40

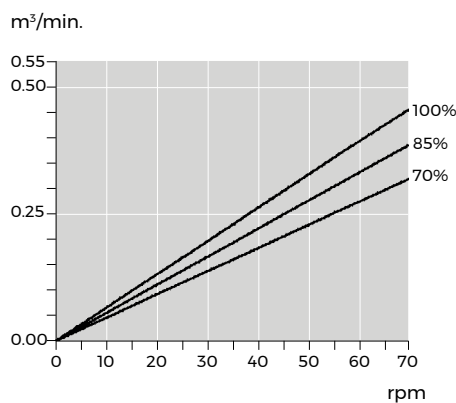
Rotary Valve rpm	Ratio	Motor kW	Motor	Motor rpm	Weight in kg w/motor
56	1:25	1.5	IEC 90 B5	1400	95
35	1:40	1.1	IEC 90 B5	1400	92

Capacity

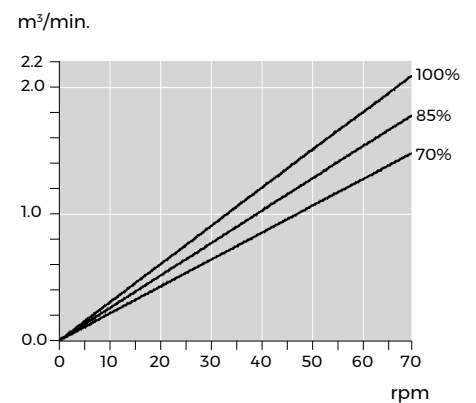
The degree to which each chamber of the rotary valve will be filled will depend upon material density. As a guideline a chamber will be 85% filled if the material is a free-flowing granulate with a bulk density of 670kg/m³. Filling efficiency increases as rpm decrease.

Valve capacity is reduced when handling light, less free-flowing materials. For such applications Kongskilde recommends a maximum rotor speed of 56 rpm.

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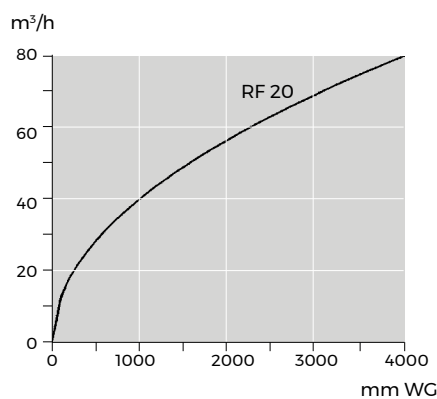


Leakage Curves

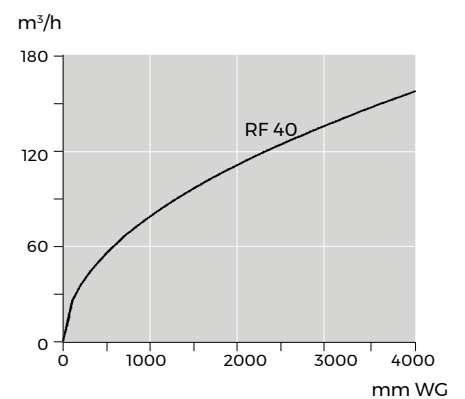
Kongskilde Rotary Valves are carefully designed to minimise air leakage, but this can never be avoided completely, due to the pressure differential across the valve. On the outlet side compressed air will flow into the valve chambers, and escape on the inlet side. This resultant air stream can severely restrict material flow if the valve inlet is sealed to the feed line.

Please ask Kongskilde for further details.

RF 20

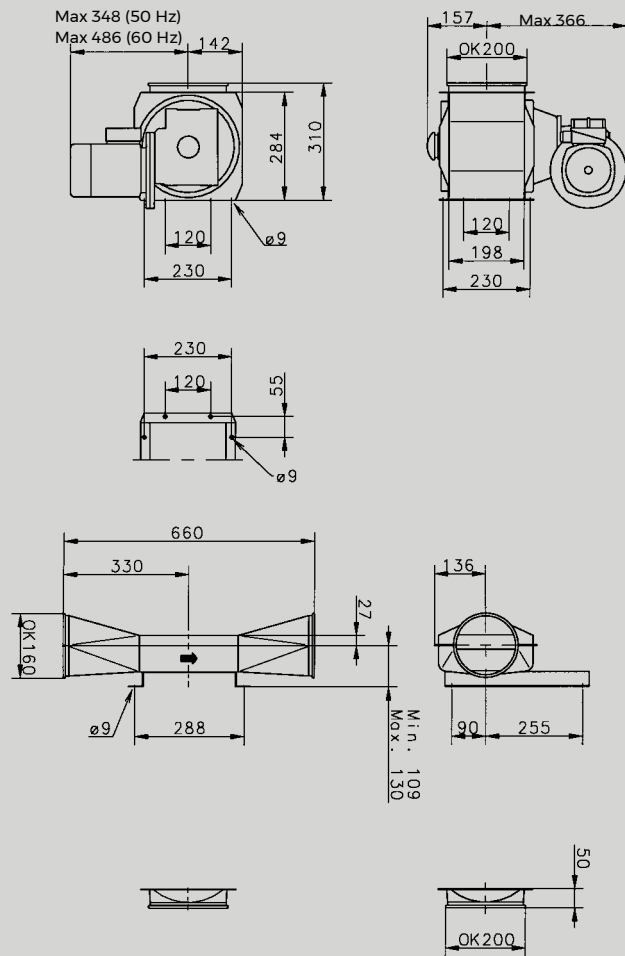


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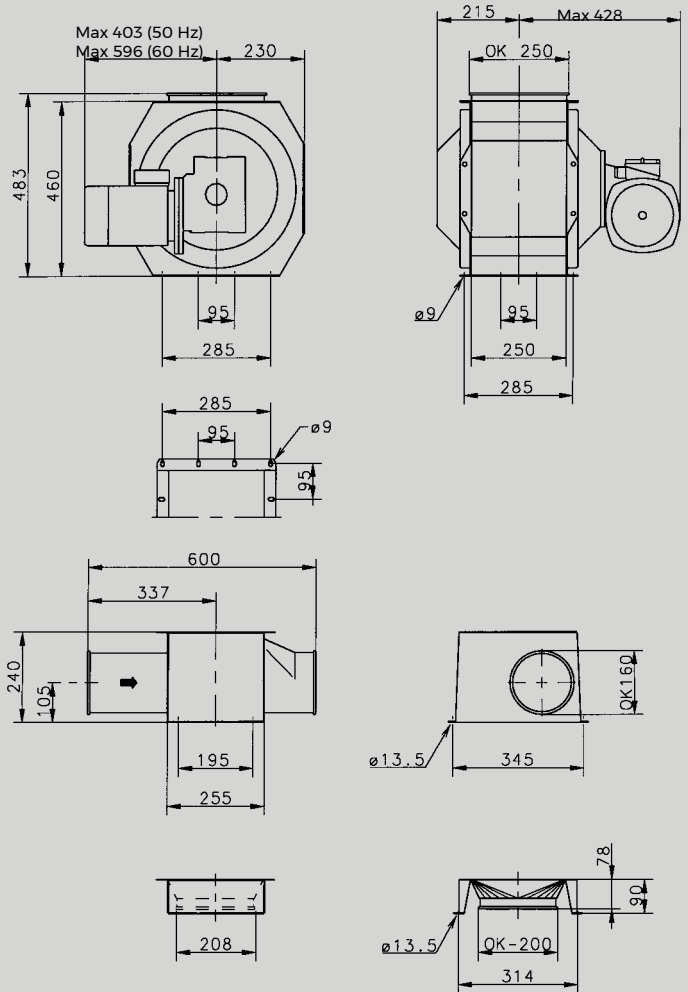
Dimensions

RF 20



1. RF 20
2. Outlet, horizontal connection
3. Outlet, vertical connection

RF 40



1. RF 40
2. Outlet, horizontal connection
3. Outlet, vertical connection

RF 20/40 accessories include an inlet hopper with shutter.
Please do not hesitate to contact Kongskilde for further information.