SK INDUSTRIES

Powering Performance in Every Rotation

# Rotary Airlock Valve

SK INDUSTRIES

About Us

Running a successful business since 2008

Established in 2008, SK INDUSTRIES has grown into a trusted name among Rotary Airlock Valve Manufacturer in India. From humble beginnings as a small manufacturing unit with just one model of rotary airlock valve, we've evolved into a company recognized for engineering precision, manufacturing excellence, and customer-centric values.

We specialize in designing and producing high-quality rotary valves tailored to suit various industrial needs. Whether you're in pharmaceuticals, cement, food processing, or chemicals, our valves are built to deliver reliable, efficient, and durable performance.

What sets us apart is our unwavering commitment to innovation, customization, and global quality standards. All our products are crafted with meticulous attention to detail and a readaptable based on individuall applications.

OVERALL DIMENSION OF ROTARY AIRLOCK VALVE
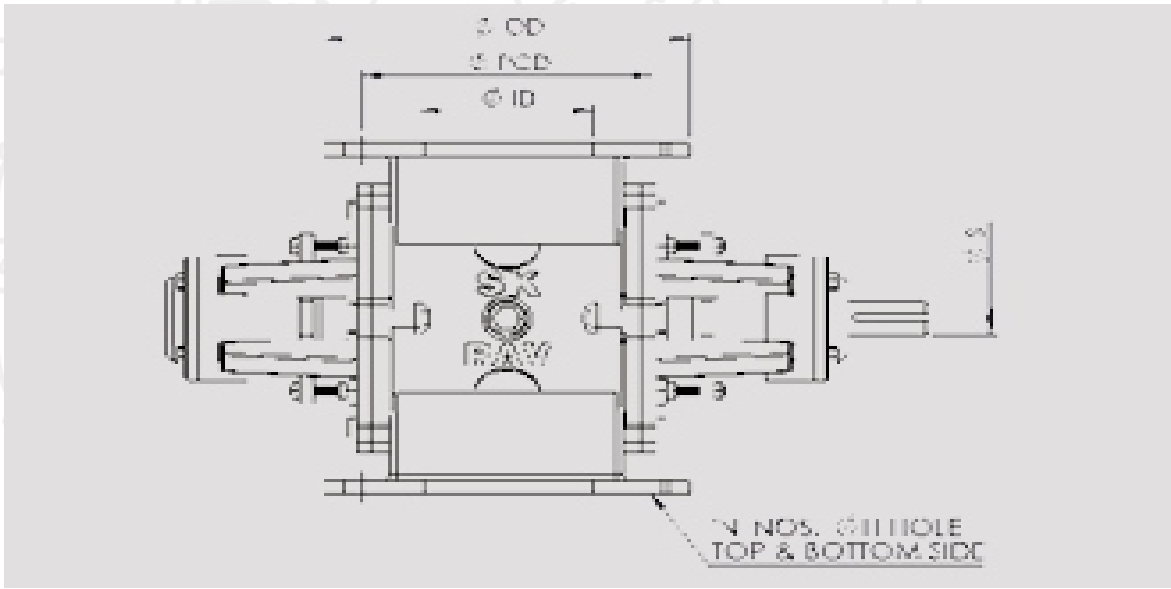
MODEL	FLANGE OD (ØOD)	FLANGE ID (ØID)	PCD (ØP)	NOS (N)	HOLE DIA (ØH)	SHAFT DIA (ØS)	GEARED MOTOR
RAV 100 (R-Series)	Ø210	Ø100	Ø180	6	1/2" Tap	Ø27	0.5 HP
RAV 100 (SQ-Series)	200 x 200	100 x 100	Ø190	8	1/2" Tap	Ø27	0.5 HP
RAV 150 (R-Series)	Ø245	Ø150	Ø210	6	1/2" Tap	Ø28	0.5 HP
RAV 150 (SQ-Series)	235 x 235	150 x 150	Ø235	8	Ø14.5	Ø28	0.5 HP
RAV 200 (R-Series)	Ø280	Ø200	Ø250	6	1/2" Tap	Ø32	1 HP
RAV 200 (SQ-Series)	310 x 310	200 x 200	Ø298	8	Ø14.5	Ø32	1 HP
RAV 250 (SQ-Series)	380 x 380	250 x 250	Ø370	8	Ø14.5	Ø40	2 HP
RAV 300 (SQ-Series)	450 x 450	300 x 300	Ø450	8	Ø18	Ø40	2 HP

ALL DIMENSION ARE IN MM UNLESS SPECIFIED

R-SERIES ROTARY AIR LOCK VALVE

We are offering our clients with CI Rotary Air Lock Valve. The offered valve is designed with precision with the aid of modern machinery and technology installed at our end.

Size	4", 6", 8", 10", 12"
Intel/Outlet	Round
Type	Chian Drive & Direct mounting
Feature	Seamless Finish
	Sturdy Design

SQ-SERIES ROTARY AIR LOCK VALVE

We are offering our clients with CI Rotary Air Lock Valve. The offered valve is designed with precision with the aid of modern machinery and technology installed at our end.

Size	4", 6", 8", 10", 12"
Intel/Outlet	Square
Type	Chian Drive & Direct mounting
Feature	Seamless Finish
	Sturdy Design

M-SERIES ROTARY AIR LOCK VALVE

We are offering our clients with MS Rotary Air Lock Valve. Using Mild steel and basic materials in the manufacturing process.
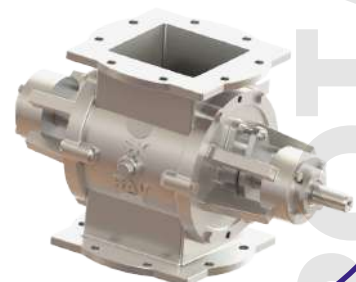
Size	4", 6", 8", 10", 12"
Intel/Outlet	Square & Round
Type	Chian Drive & Direct mounting
Feature	Sturdy construction
	High performance
	Minimal maintenance

S-SERIES ROTARY AIR LOCK VALVE

We are offering our clients with SS Rotary Air Lock Valve. Using stainless steel and basic materials in the manufacturing process.

Size	4", 6", 8", 10", 12"
Intel/Outlet	Square & Round
Type	Chian Drive & Direct mounting
Feature	Resistant to corrosion
	Smooth & high functionality
	High e翻 c i ency

CHAIN DRIVE ROTARY AIR LOCK VALVE

We are offering our clients with MS Rotary Air Lock Valve. Using Mild steel and basic materials in the manufacturing process

|	
size	4", 6", 8", 10", 12", 16"
Inlet/outlet	Square & Round
Type	Chain Drive
Feature	Sturdy Construction High Performance Minimal maintenance

S-SERIES ROTARY AIR LOCK VALVE

We are offering our clients with SS Rotary Air Lock Valve. Using Stainless steel and basic materials in the manufacturing process.

size	4", 6", 8", 10", 12", 16"
Inlet/outlet	Square & Round
Type	Direct mounting Resistant to corrosion
Feature	Smooth & high functionality High efficiency
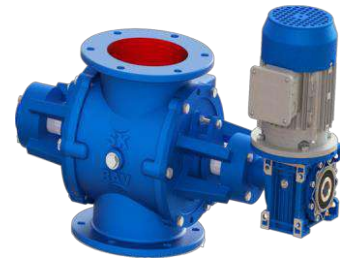
ROTARY AIRLOCK VALVES
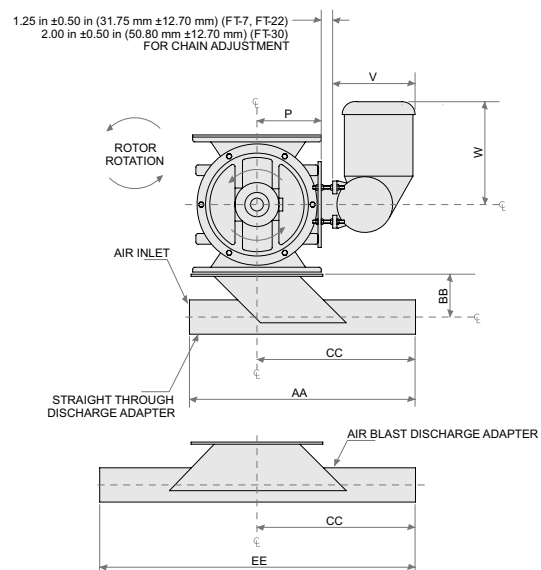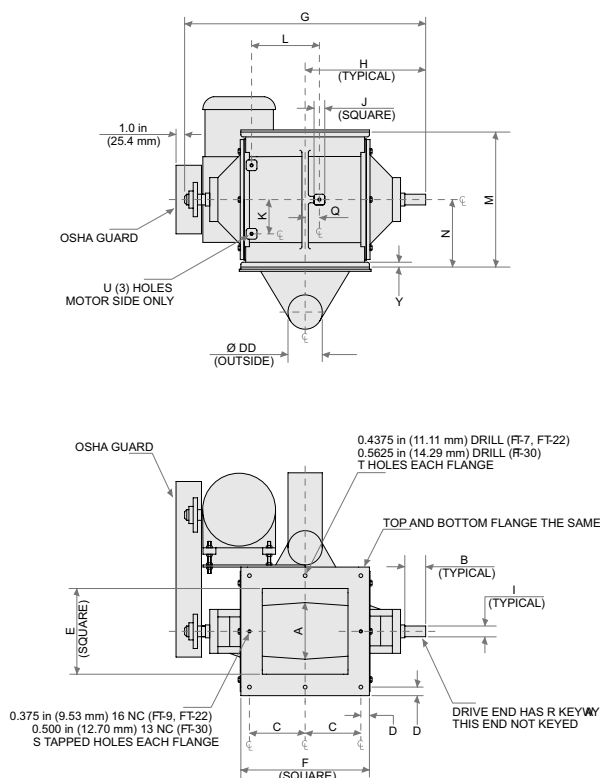
NOTE:
CENTER MOTOR-MOUNTING HOLE IS NOT ALWAYS IN CENTER OF CYLINDER HOUSING (FT-7, FT-11, FT-14, FT-18) SEE DIMENSION Q FOR OFFSET DISTANCE
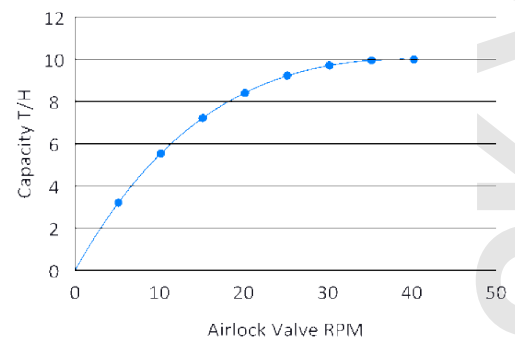
ROTARY AIRLOCK VALVE CAPACITY

The capacity calculation of a RAV to achieve a given throughput is a function of the RAV diameter, its target rotation speed and the nature of the product,
- The bigger the RAV, the higher will be the capacity.
- A higher rotation speed generally means more throughput but the throughput will cease to increase past a certain speed
- The more fluid is the powder, the higher will be the throughput, there again too light products will create a limitation in throughput at a certain rotation speed
Throughput can be estimated from supplier's abascus, but the knowledge of the product will be a key input.

Important notice: the airlock rotary valve throughput is not linear. The throughput ceases to increase or can even decrease past a certain speed. It can be due to different causes, mainly it will be due to the reduced time for the pockets to be filled and empties. With light powder, the degassing of the pockets when returning to the low-pressure side will prevent the powder to flow in the pocket, this phenomenon will be increased by the pressure drop through the valve and can be mitigated thanks to a proper venting system of the pockets. For cohesive materials it will be di翻 cult to flow in and di翻 cult to flow out from the pocket in the discharge zone.

Typical capacity graph of airlock rotary valve

 Airlock Rotary Valve capacity calculation :

$$m = V_{pocket}.n_{pocket}.N.\rho.\eta.60$$

Where,

m = capacity in Kg/hour
V_{pocket} = volume of one pocket in liters
n_{pocket} = number of pockets
N = rotation speed in rpm
ρ = bulk powder density in kg/m³
η = filling rate (70%)

Typical rotation speed for correctly sized airlock rotary valve : 20 rpm

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