

Droup Through Rotary Valves



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INTRODUCTION

The prime function of a rotary valve is to regulate the flow from one chamber to another while maintaining a good airlock condition. The product is mainly in dry powder or granular form.

In the dust filtration field good airlocks are essential on cyclone and bag filter applications in order that the manufacturer's quoted high dust collection efficiencies can be maintained. Airlocks are also important in the pneumatic conveying industry, where product is regulated into a high pressure conveying line while minimising air leakage.

With SPY there are no double standards, all our standard valves are precision machined for close tolerances and minimal eccentricities. Pressure differentials to 20psi and temperatures to 750°C. We have made specials to handle pressures to 350psi.

STANDARD FEATURES

- Maximum number of blades in contact with body at one time without affecting throughput.
- Good throat opening at valve entry allowing high pocket filling efficiency.
- Minimum clearance at rotor tips and sides with body.
- Robust body adequately stiffened to prevent distortion.
- Heavy shaft diameters minimising deflection.
- Outboard bearings for non-contamination.
- Packing gland type seals.
- Maximising valve speed to 25 rpm -prolonging life, ensuring good throughput.
- Precision machining of components.

SPECIFICATION

Bodies

Cast Iron, Stainless Steel or Aluminium precision bored.

End Covers

Cast Iron, Stainless Steel or Aluminium spigot located in body for concentricity.

Rotor

Fabricated Mild or Stainless Steel.

Bearings

Sealed-for -life-ball type rigged outboard.

Shaft Seal

Gland type with PTFE packing.

Drive

TEFC geared motor unit side wall mounted to valve body and complete with taper lock sprocketchain drive all in an enclosed guard.

OPTIONS

- Quick Release Rotors
- Direct Coupled Drives
- Air Purge Glands
- Body Vents
- Vent Boxes
- Dropout Boxes
- V.S. Drives
- Speed Switches
- Flameproof Motors
- Shear Plate Deflectors
- Electroless Nickel Plating
- Hard Chrome Internals etc.

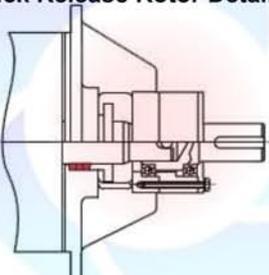
Round Rotary Valve



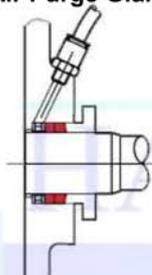
Square Rotary Valve



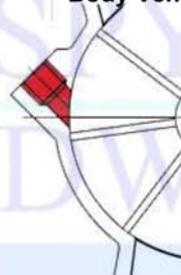
Quick Release Rotor Detail



Air Purge Gland



Body Vent



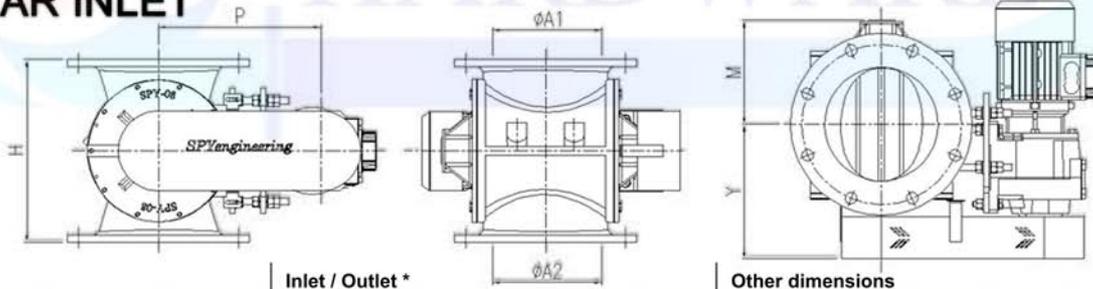
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Planning-in detail for general guidance only

(To cover safety aspects ask for our safety leaflets)

Drillings are SPY standards. Variations can be made.

CIRCULAR INLET



ROUND	Inlet / Outlet *			Other dimensions							
	Model	l / rev	A1/A2 (DIN)	A1/A2 (ANSI)	$\phi A1$	$\phi A2$	H	P**	Y	M	Application (G/M) KW
	SRD-150	3.5	DN150	6	150	150	300	265	250	200	0.4
	SRD-200	6	DN200	8	200	200	320	310	300	180	0.4-0.75
	SRD-250	12	DN250	10	250	250	400	350	400	200	0.75
	SRD-300	23	DN300	12	300	300	500	440	380	215	0.75-1.5
	SRD-350	41	DN350	14	350	350	550	550	650	300	1.5-2.2
	SRD-400	79	DN400	16	400	400	650	550	500	250	2.2
	SRD-450	100	DN450	18	450	450	650	575	500	275	2.2
	SRD-500	115	DN500	20	500	500	750	605	595	465	3.7
	SRD-600	140	DN600	22	600	600	800	650	600	450	3.7

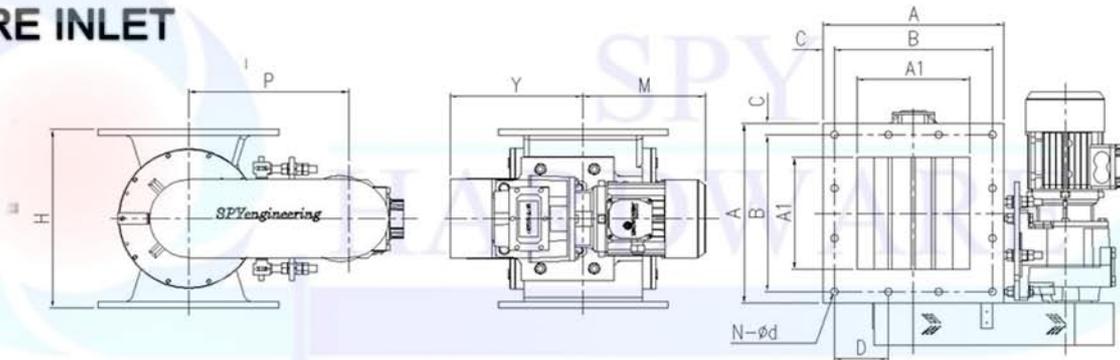
Dimensions in mm

* drilled according to DIN PN10 vs ANSI 150 lbs or JIS 10K

** Dimensions may vary depending on installed drive

Subject to modifications

SQUARE INLET



SQUARE	Inlet / Outlet			Other dimensions										
	Model	l / rev	A	A1	B	C	D	N	ϕd	H	P**	Y	M	Application (G/M) KW
	SSQ-150	3.5	250	150	210	20	70	12	11	300	265	250	200	0.4
	SSQ-200	6	300	200	270	15	90	12	12.5	320	310	300	180	0.4-0.75
	SSQ-250	12	370	250	300	35	100	12	15	400	350	400	200	0.75
	SSQ-300	23	430	300	380	25	95	16	20	500	440	380	215	0.75-1.5
	SSQ-350	41	480	350	420	30	105	16	20	550	550	650	300	1.5-2.2
	SSQ-400	79	550	400	500	27.5	125	16	20	650	550	500	250	2.2
	SSQ-450	100	600	450	520	40	130	16	20	650	575	500	275	2.2
	SSQ-500	115	685	500	630	27.5	126	20	22	750	605	595	465	3.7
	SSQ-600	140	790	600	725	32.5	145	20	25	800	650	600	450	3.7

** Dimensions may vary depending on installed driv

Subject to modifications

SPY manufactures and casts other valve sizes with rectangular & other non-standard inlets. If you are looking for something considered special it may be in our library of valves.

Rotary Airlocks



Rotary Air Lock / Rotary Valve

SPY produce Rotary of Sturdy design, Which require a minimum of maintenance. SPY Rotary valve are available in difference Execution, adapted to the specific Product to be handled.

SPY design the Rotary Valve are supplied With extended bearing, but they are also Available with alternative types of sealing. The Ideal rotary valve also flexible for pneumatic-Transport system and Dosing system.

Execution of Rotor Blades



- A. Rotor blade with Vulkollan wear rubber and steel-edge protection
- B. Firm blade with Vulkollan wear rubber
- C. Firm blade
- D. Firm blade, chamfered at the top of the blade
- E. Firm blade, chamfered on all sides
- F. Rotor blade with lamella of hardened steel

Alternative Material Choice

Valve housing Cast iron, hard-chromed cast iron,
and end covers : stainless steel AISI 304/306, or
aluminium
Rotor : St37, St 37 with Vulkollan wear
rubber, stainless steel AISI
304/316, or stainless AISI 304/316
with Vulkollan were rubber

Description

The rotary Valves are Danish manufacture and distinguish themselves by great reliability in service, and the possibility of combining materials as well as the design of rotor blades and stuffing boxes. The valves are available with or without geared motors, possibly with chain drive. Several types of rotary valves can be driven direct by means of a hydraulic motor.