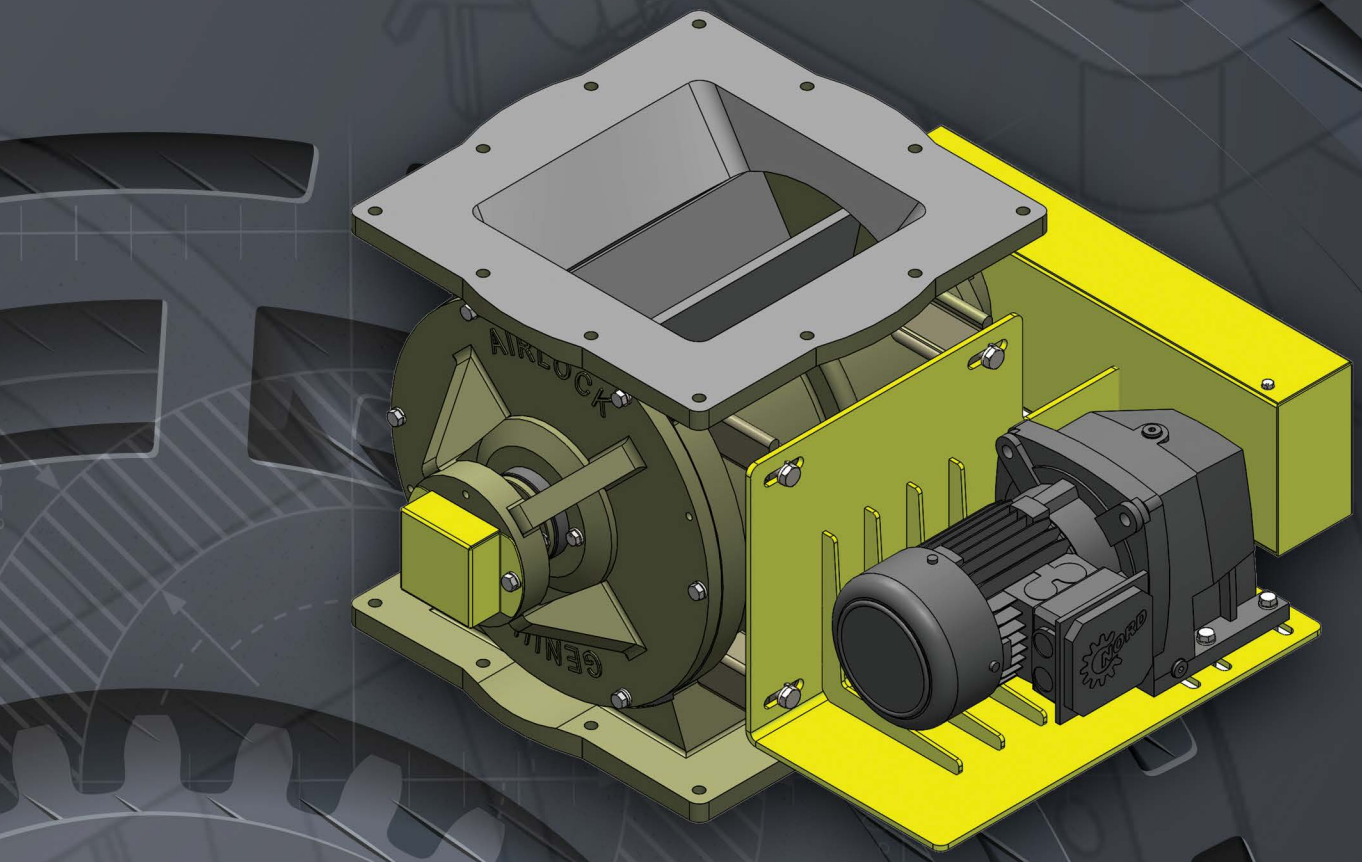
AIRLOCK GENIUS
THOUGHT TO CONCLUSION

GENIUSLY THOUGHT, EXPERTLY ENGINEERED & PRECISELY MANUFACTURED

ROTARY AIRLOCK VALVE — HEAVY DUTY UNIVERSAL SERIES



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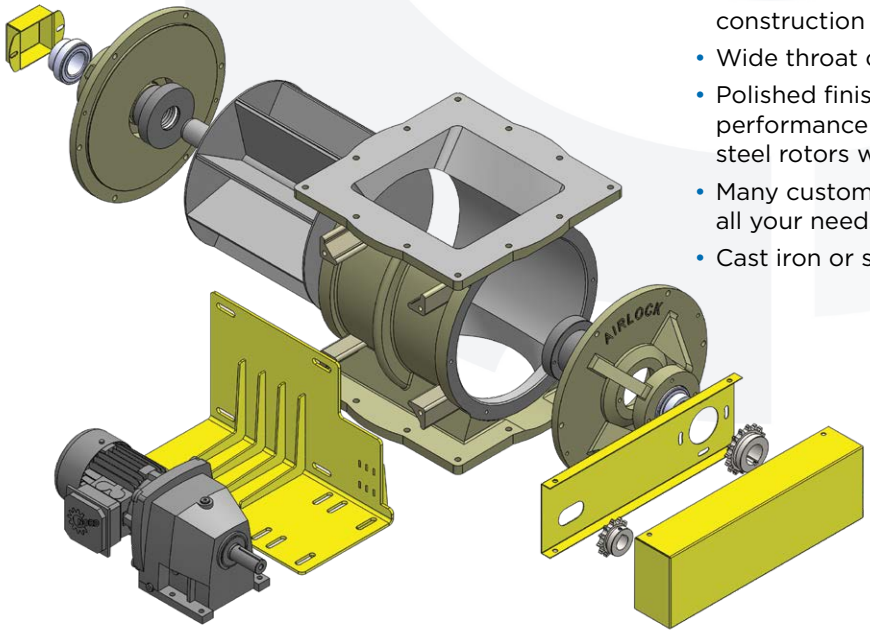
GENIUS PERFORMANCE FEATURES

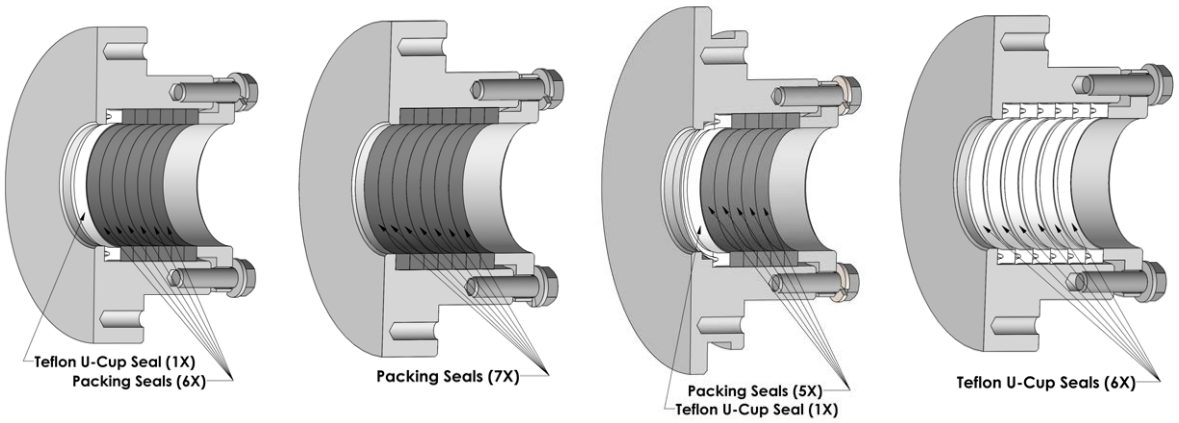
- Standard heavy duty airlock combines benefits of multiple series of airlocks available in market
- Available in 6” to 16” valve sizes
- Precision CNC machined components with nominal gap of 0.002” to 0.004”
- Accommodates square and round flanges



- Hybri-Seal® assembly with series of teflon seals and standard packing seals improving sealing performance up to 10X
- Outboard sealed bearings
- Excellent performance up to 700˚F
- High quality TEFC powertrain with chain drive
- Advanced engineering analysis rendering rugged construction for higher pressure applications
- Wide throat opening for high pocket filling efficiency
- Polished finish on rotor shaft to enhance sealing performance and seal life Standard 8 vanes mild steel rotors with over-designed shaft for rigidity
- Many custom options available to meet all your needs
- Cast iron or stainless steel construction

SHAFT SEALS

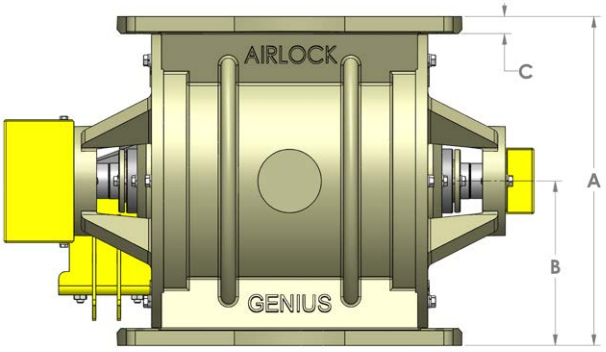
Hybri-Seal® is the sealing mechanism containing a standalone cartridge assembled in each cover plate. Depending on the application of airlock, customer can choose from different types of cartridges (shown in figures below) that provides a combination of packing seals and high strength U-cup lip seals with an option for air purge to enhance sealing performance of airlock. Numbers of seals arranged in cartridge is almost twice as many as provided in other airlocks along with polished shaft helps achieve increased life for seals.

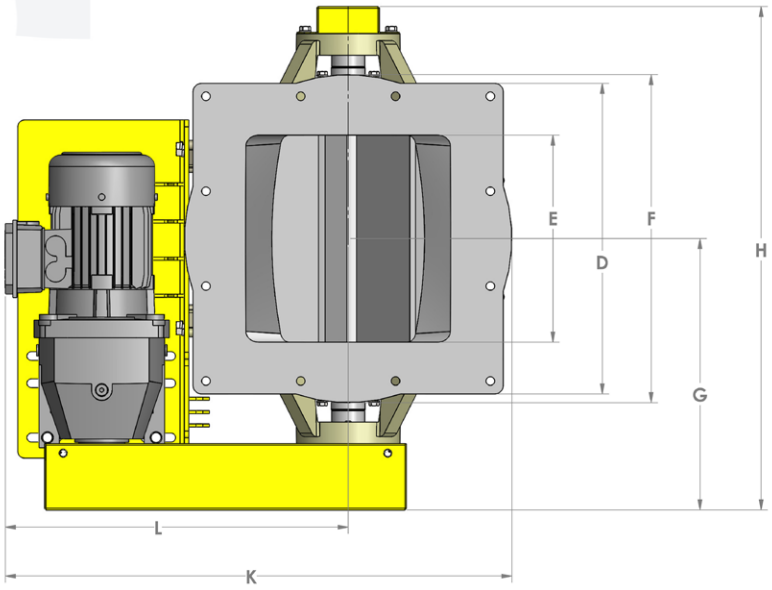


GENIUS OPTIONS

- Air purge kit
- Body vents for pressurized applications
- Electronic overload protection from rotor seizure
- Zero speed switch
- Variable frequency drive (VFD) for precision speed control
- Digital speed display
- Shaft seal cartridge options – Hybri-Seal®
- Hard-chrome, nickel or ceramic plating of internal parts
- Different types of rotors such as wipers, closed end, stainless steel, etc
- V Plow inlets for plastic pellet applications.
- Outlet finger guards
- Temperature corrected parts for higher temperature applications
- Custom drive packages
- Custom fabricated accessories as per customer drawings

VALVE DIMENSIONS





VALVE SIZE	A	B	C	D	E	F	G	H	K	L	HP
6	254.0	127.0	12.3	254	152	279	261	498	498	359	0.5
8	304.8	152.4	18.0	305	203	343	319	559	617	446	1
10	381.0	190.5	23.0	381	254	406	372	656	671	468	1
12	460.4	230.2	23.4	457	305	483	439	778	748	507	1.5
14	520.4	260.2	23.6	483	358	534	470	869	824	557	2
16	581.0	290.5	24.4	559	408	597	495	923	886	588	2

(Dimensions are in millimeters)

VALVE SELECTION GUIDELINE

The valve capacity for any given valve size listed in following table is based on assumption of 80% pocket fillage. In practice, this can vary based on the material to be processed (product characteristics), pressure differential at valve, RPM of the valve and feeding method as all of them affect the valve throughput efficiency.

EXAMPLE:

Customer requirements: 10 *Tons/Hr.*
Product density: 50 *Lbs/Cubic Feet*

Volume capacity required: $\frac{10 \times 2000\ Lbs./Hr.}{50\ Lbs./Cubic\ Feet} = 400\ Cubic\ Feet/Hr.$

From the Valve capacity chart below, customer can choose 10 inch valve size with 15 RPM yielding 418 Cubic Feet/Hr. Customer can also choose higher capacity valve with lower RPM depending upon customer's other requirements.

To ensure proper selection of the airlock size, speed and other configurations, please fill out the data application sheet or talk to our application engineer.

Airlock Valve Capacity @ 80% Pocket Fill*							
Valve Size		6	8	10	12	14	16
Cubic Feet / Rev.		0.12	0.25	0.46	0.89	1.30	2.00
Valve Capacity in Cubic Feet/Hr.							
Valve RPM	10	74	151	279	533	782	1202
	11	81	166	307	586	860	1322
	12	89	181	335	640	939	1442
	13	96	196	363	693	1017	1562
	14	104	211	391	746	1095	1682
	15	111	226	418	799	1173	1802
	16	119	241	446	853	1252	1923
	17	126	256	474	906	1330	2043
	18	133	271	502	959	1408	2163
	19	141	286	530	1013	1486	2283
	20	148	301	558	1066	1564	2403
	21	156	316	586	1119	1643	2523
	22	163	331	614	1172	1721	2643
	23	170	347	642	1226	1799	2764
	24	178	362	670	1279	1877	2884
	25	185	377	697	1332	1956	3004
	26	193	392	725	1386	2034	3124
	27	200	407	753	1439	2112	3244
	28	207	422	781	1492	2190	3364
	29	215	437	809	1546	2269	3485
	30	222	452	837	1599	2347	3605

*Actual pocket fillage varies based on application. For optimum selection, please contact us; For feeding applications, 10 to 15 RPM generally provides most uniform discharge of product at greater fill efficiency