

# Outboard Bearing Rotary Valves (OBRV)

formerly a  
**SEMCO, Inc.**  
product



The MAC Outboard Bearing Rotary Valve (OBRV) is a high efficiency airlock with minimum leakage blow-back. Its outboard bearings provide the airlock with maximum bearing support.

The OBRV contains shaft braided packing seals that are most frequently used where product contact could damage the seals and cause bearing failure.

## Features

- Rugged construction
- High efficiency
- Outboard bearing design offers maximum bearing support
- Minimum leakage blow-back
- Precision machining of component with NC equipment
- Variety of rotor configurations
- Packing glands inside the housing end plates to seal the cavity from the bearings
- Bearings are fitted around the shaft ends in a separate cavity away from the valve body end plates with locking collar to hold the shaft in proper end-to-end alignment.
- MAC white paint

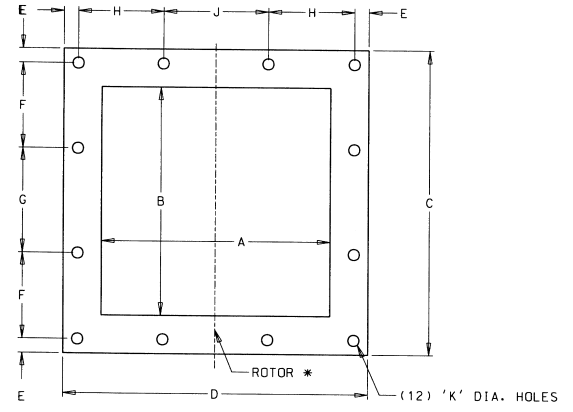
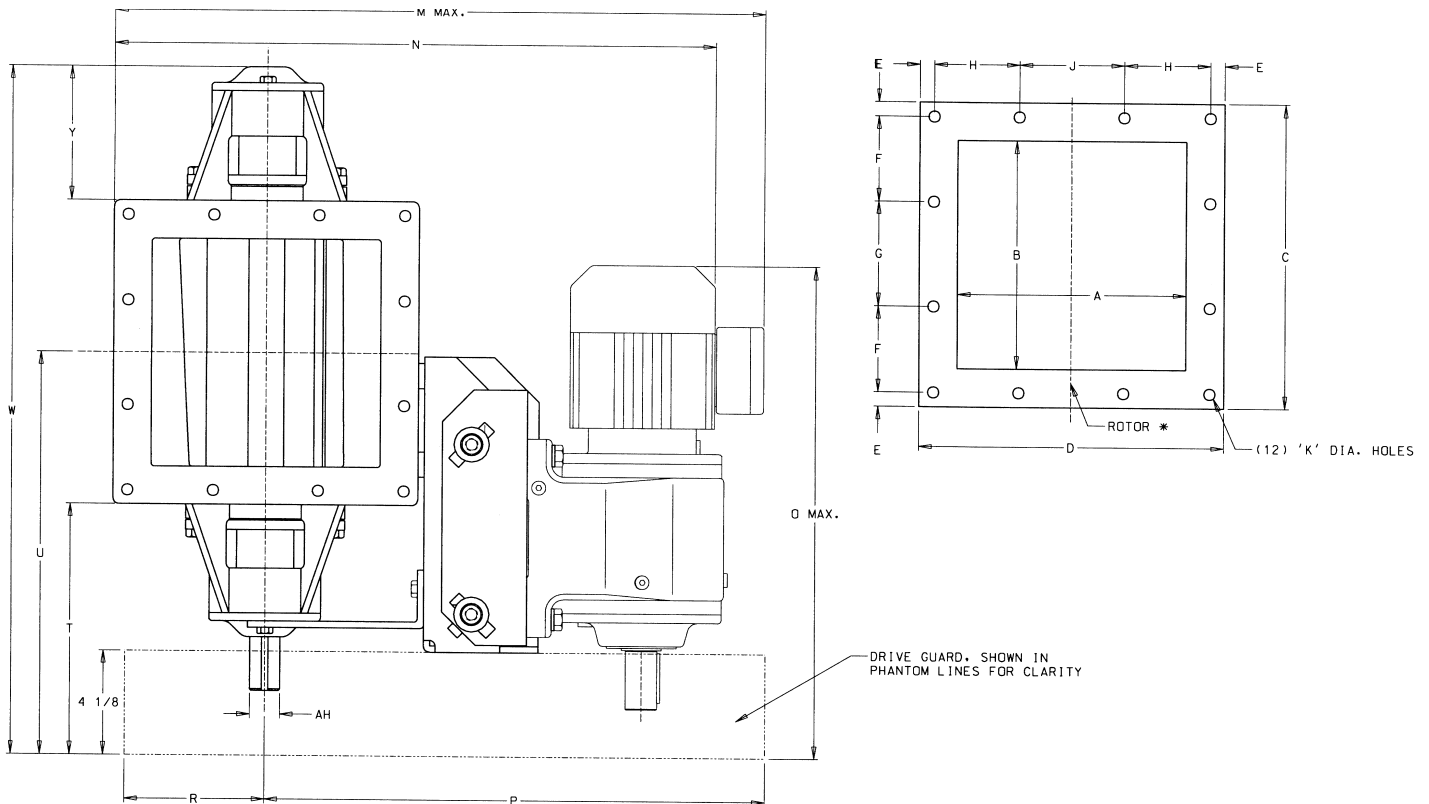
## Options:

- Motion indicator
- Variable speed drives
- Seal purge
- End plate purge (closed end rotors only)
- Hard chrome plated

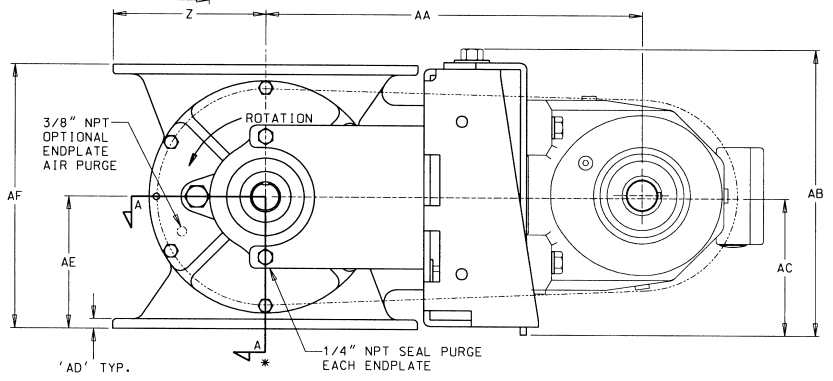
## Construction (material designation- housing/end plates/rotor)

	CI/CI/CS	CI/CI/SS	SS/SS/SS	AL/AL/SS
<b>Housing</b>	Gray Iron Class 30 Rectangular inlet/outlet flanges	Gray Iron Class 30 Rectangular inlet/outlet flanges	Cast Alloy CF8 (304 SS) Rectangular inlet/outlet flanges	Aluminum Alloy 356-T6 Hard anodized Rectangular inlet/outlet flanges
<b>End Plates</b>	Gray Iron Class 30 Outboard bearing design	Gray Iron Class 30 Outboard bearing design	Cast Alloy CF8 (304 SS) Outboard bearing design	Aluminum Alloy 356-T6 Hard anodized Outboard bearing design
<b>Max. Pressure Rating</b>	15 PSI	15 PSI	15 PSI	15 PSI
<b>Standard Rotor</b>	Carbon Steel c1018 CRS 8 vanes* open adjustable beveled tip rotor	304 Stainless Steel 8 vanes* open adjustable beveled tip rotor	304 Stainless Steel 8 vanes* open adjustable beveled tip rotor	304 Stainless Steel 8 vanes* open adjustable beveled tip rotor
<b>Available Rotor Options</b>	Fixed tips-must be speci- fied-square or beveled with 1/8" land Closed end rotor Filled pocket rotor Smooth pocket rotor Urethane flex tip rotor Teflon adjustable tip rotor	Fixed tips-must be speci- fied-square or beveled with 1/8" land Closed end rotor Filled pocket rotor Smooth pocket rotor Urethane flex tip rotor Teflon adjustable tip rotor	Fixed tips-must be speci- fied-square or beveled with 1/8" land Closed end rotor Filled pocket rotor Smooth pocket rotor Urethane flex tip rotor Teflon adjustable tip rotor	Fixed tips-must be speci- fied-square or beveled with 1/8" land Closed end rotor Filled pocket rotor Smooth pocket rotor Urethane flex tip rotor Teflon adjustable tip rotor

(\*OBRV-02 has 6 vanes)



Dimensions are for an OBRV with a parallel drive, please consult your MAC Sales Representative for dimensions on bare OBRV airlocks.



**Dimensions (IN.)**

MODEL	A	B	C	D	E	F	G	H	J	K
OBRV - 02	9	9	12	12	9/16	3 3/8	4 1/8	3 3/8	4 1/8	7/16
OBRV - 04	10	11	14 3/4	13 3/4	5/8	4 1/2	4 1/2	4 1/8	4 1/4	7/16
OBRV - 08	12	12	16 1/2	16 1/2	3/4	5	5	5	5	9/16
OBRV - 12	14	15 1/4	19 3/4	18 1/2	3/4	6 1/4	5 3/4	5 5/8	5 3/4	9/16

**Dimensions (IN.)**

MODEL	M	N	O	P	R	T	U	W	Y	Z
OBRV - 02	25 5/16	23 3/8	25 1/2	19 11/16	5 1/2	9 15/16	15 15/16	27 3/16	5 1/4	6
OBRV - 04	26 15/16	24 3/8	26 1/4	19 9/16	5 1/2	9 13/16	17 3/16	29 13/16	5 1/4	6 7/8
OBRV - 08	30 1/4	28 1/16	28 3/8	20 7/16	6 11/16	9 3/4	18	31 3/8	5 3/8	8 1/4
OBRV - 12	33 3/8	30 7/8	28 3/8	22 1/2	7 7/16	9 5/8	19 1/2	34 13/16	5 7/16	9 1/4

**Dimensions (IN.)**

MODEL	AA	AB	AC	AD	AE	AF	AH	CFR	APPROX. GREY IRON	WT. (LBS.) ALUMINUM	304 S.S.	MOTOR (HP)	NUMBER OF ROTOR VANES
OBRV - 02	14 13/16	11 1/8	5 3/8	3/8	5 3/16	10 3/8	1 3/4	.20	240	190	240	1/2	6
OBRV - 04	14 11/16	11 1/8	5 1/4	1/2	6 5/8	13 1/4	1 7/16	.40	365	265	365	3/4 OR 1	8
OBRV - 08	16 15/16	11 1/8	5 3/8	5/8	7 7/8	15 1/4	1 7/16	.80	515	345	515	1 OR 1 1/2	8
OBRV - 12	17 3/4	15 1/2	7 9/16	5/8	8 7/8	17 3/4	1 3/4	1.20	675	430	675	1 OR 1 1/2	8