



## FOR C.E.M.A. STANDARD AND METRIC SCREW CONVEYORS

### What is MECO's HB Seal Model?

The MECO HB seal model is the best choice in sealing technology for screw conveyors. The HB model uses full contact, soft face mechanical shaft sealing technology, sized for C.E.M.A. and metric standards. The HB Seal model provides the superior performance, durability and quality of workmanship that are hallmarks of MECO's many other highly-regarded custom seals.

Economically priced HB Seal models will be available for delivery in 1 to 3 days. Seals for alternate shaft sizes will also be available as custom orders. MECO's first rate customer service is provided for each HB Seal model sold.

### When are HB Seals the Best Option?

MECO HB Seal model is ideal for screw conveyors, small blenders, bucket elevators, scrolls & similar rotating equipment used in bulk process industries. The HB Seal model is used on horizontal, inclined and vertical shafts for unsplit installations.

### How Does the HB Seal Model Work?

The HB Seal replaces standard waste pack housings. It is made with a heavy, metal or reinforced nylon housing that cannot be crushed by an over-tightened flange bearing. Two replaceable stainless steel stationary seal faces attach to the seal housing. Inside is a rotating seal face assembly, consisting of replaceable rotors and drive elastomer. The elastomer and rotors interlock, forming an air and watertight seal. The low friction rotating seal faces are at right angles to the shaft and in full contact with the stationary seal faces.

The HB Seal cavity is charged with low-pressure air or gas, which acts as a barrier fluid to provide pneumatic seal face loading. This is a simple and effective way to check installation integrity and monitor seal performance. HB Seals are manufactured to exacting standards, which ensure parallelism and flatness to maximize product containment and minimize barrier gas consumption.



**CUSTOM-ENGINEERED SHAFT SEALS**

*Manufactured by*

**WOODEX Bearing Company, Inc.**

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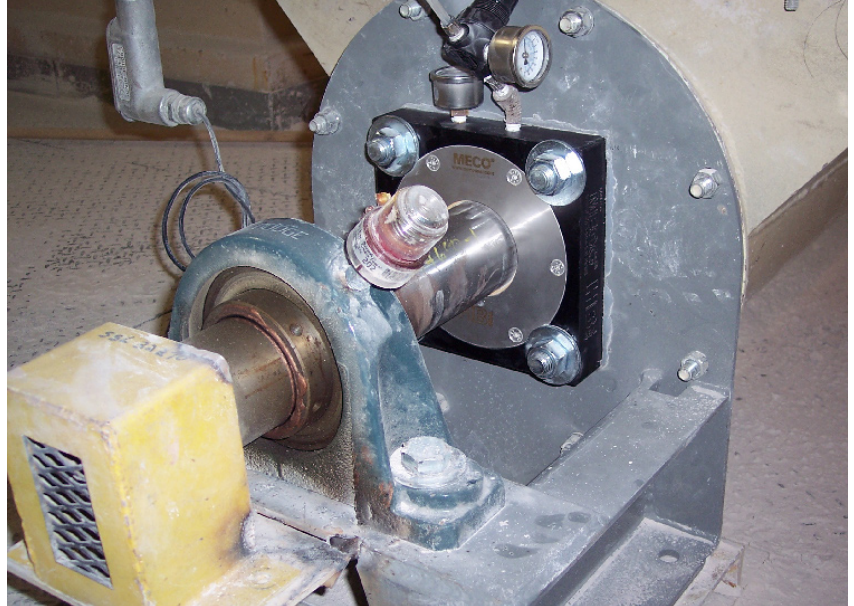
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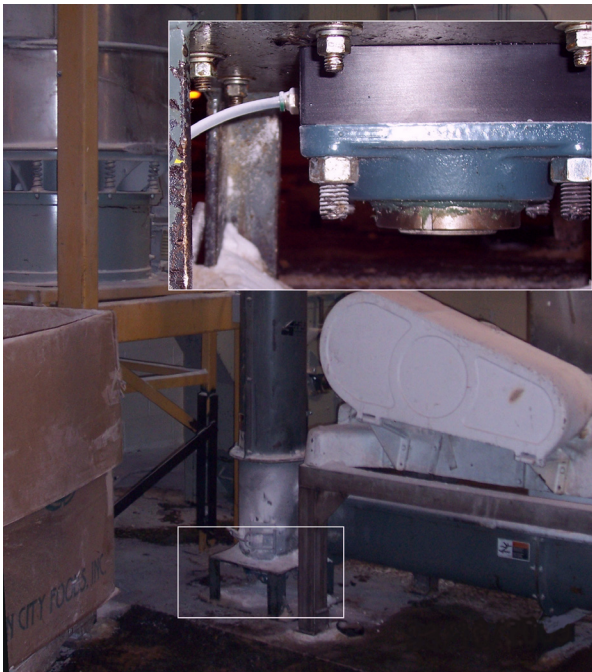
## STANDARD - AND MORE

The HB Seal is stocked in twelve, standard inch and metric sizes, listed on the facing page.

The HB's housing design, however, can accommodate non-standard shaft sizes. Any of the five housing sizes can be fitted with alternate seal parts in a relatively short time, allowing HB seals to be applied to other shaft diameters.



*3" HB seal, mounted on a horizontal gypsum feeder*



*Inset: 2" HB seal installed on vertical sugar screw  
- seal installed in highlighted area of main photo.*

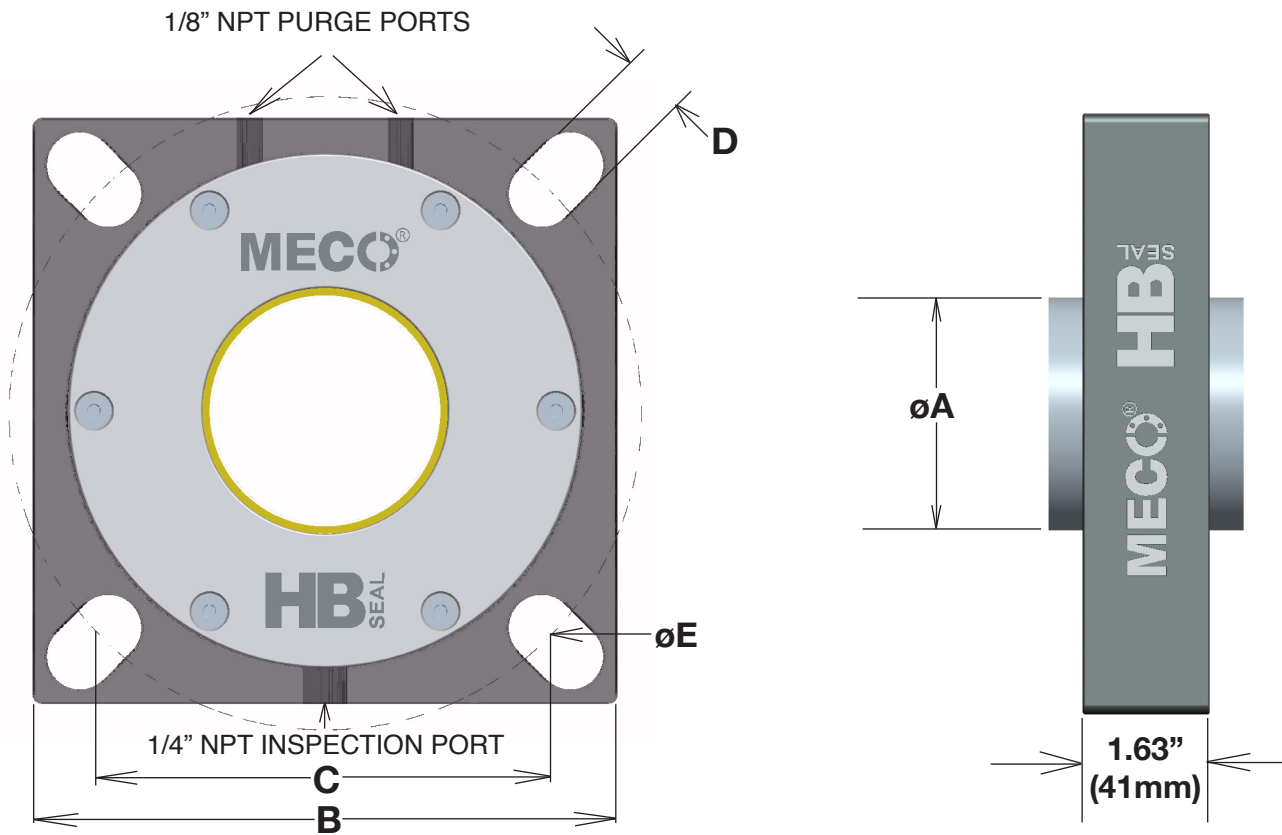
## REBUILDING

The HB Seal's rugged housing is designed for long life. Any of the three housing materials allow the seal to be rebuilt many times, replacing only the wear materials.

Economical, unsplit rebuild kits consisting of replacement rotors and drive elastomer are maintained in-stock for immediate shipment.

In cases where it is difficult to remove the bearing or drive, convenient, fully-split rebuild kits can be made to order and shipped in just a few days.

Like MECO's custom seals, the HB allows you to predict maintenance requirements, and plan accordingly.



**C.E.M.A. Standard Sizes (Inches)**

CEMA Part #	øA shaft	B	C MIN	C MAX	D	øE MIN	øE MAX
HBZ1WA150	1.50	5.38	4.00	4.38	5/8	5.65	6.19
HBZ2WA200	2.00	6.50	4.38	5.38	3/4	6.19	7.60
HBZ3WA244	2.44	7.38	5.13	6.25	3/4	7.25	8.84
HBZ4WA300	3.00	7.75	5.75	6.50	7/8	8.12	9.19
HBZ5WA344	3.44	9.25	6.75	8.00	7/8	9.55	11.31

**METRIC Standard Sizes (millimetres)**

Metric Part #	øA shaft	B	C MIN	C MAX	D	øE MIN	øE MAX
HBZ1WA158	40	137	102	111	16	144	157
HBZ2WA197	50	165	111	137	19	157	193
HBZ2WA217	55	165	111	137	19	157	193
HBZ3WA256	65	187	130	159	19	184	225
HBZ4WA295	75	197	146	165	22	206	233
HBZ5WA335	85	235	171	203	22	243	287
HBZ5WA354	90	235	171	203	22	243	287

**HB Z 1 W A 150**      **Part Number Decoder**

User options in **Red**

Shaft Diameter - Integer & 1st 2 decimals, in Inches (from chart)

Rotor Material - A = MECO3000 (standard); Custom options available

Elastomer - **Choose 1: W = FDA White Silicone; V = Viton**

Housing Size: 1, 2, 3, 4 or 5

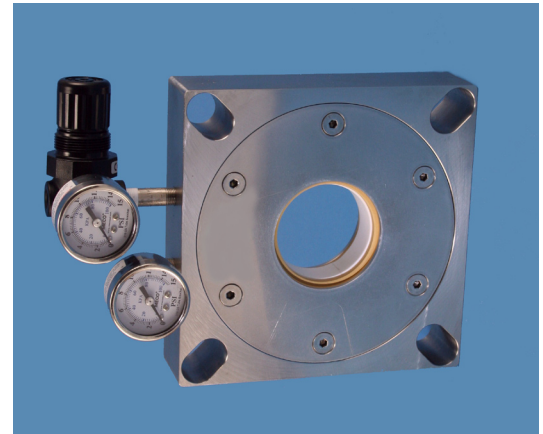
Housing Material - **Choose 1: Z = Anodized Aluminum; S = 316L Stainless; P = FDA Nylon**



**C.E.M.A. & Metric Standard Screw Conveyor Seals**

MECO Seal's renowned quality is now available in an economical seal, standardized for screw conveyor shafts. A choice of three housing materials and two elastomer materials ensure compatibility with most processes.

Five C.E.M.A. standard and seven metric standard sizes are available from stock. Other, non-standard shaft sizes can be manufactured with slightly longer lead times.



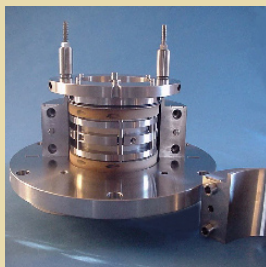
<b>General Operating Guidelines</b>	<b>HBZ - Aluminum Housing</b>	<b>HBP - Nylon Housing</b>	<b>HBS - 316L Stainless Housing</b>
Process Temperature Range	-60 to 500° F (-50 to 260° C)	35 to 200° F (-50 to 94° C)	-60 to 500° F (-50 to 260° C)
Process Pressure Range	Vacuum to 30 psig (210 kPa)	Vacuum to 15 psig (105kPa)	Vacuum to 30 psig (210 kPa)
Shaft Speeds	to 250 RPM	to 150 RPM	to 200 RPM
Axial Shaft Motion	1/64" (0,5mm)		
Total Indicator Runout (T.I.R.)	1/4" (6mm)		
Gradual Thermal Growth Allowed	1/2" (12mm)		
Barrier Gas/Fluid	Air or N2 (Water flush/CIP Capability)		
Average Barrier Gas Consumption	1/4 scfm (7 litres/minute)		
<i>Results may vary with operating conditions - please call for discussion.</i>			



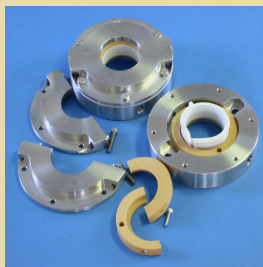
**CUSTOM-ENGINEERED SHAFT SEALS**

*Your best choice for full contact, soft-face shaft sealing technology.*

Below are a few examples of other, fully-split MECO seal models.



**Ex-PAC Model**  
Reactor Vessels  
Dryers  
Extruders



**AH Model**  
Blenders  
Screw Conveyors  
Tight Spaces



**OFS Model**  
Top & Side-Entry  
Solvents  
Purge-Free



**EA Model**  
Abrasive Slurries  
Adjustable on-the-Fly  
Large Diameters

*- Manufactured by Woodex Bearing Company, Inc. -*

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