

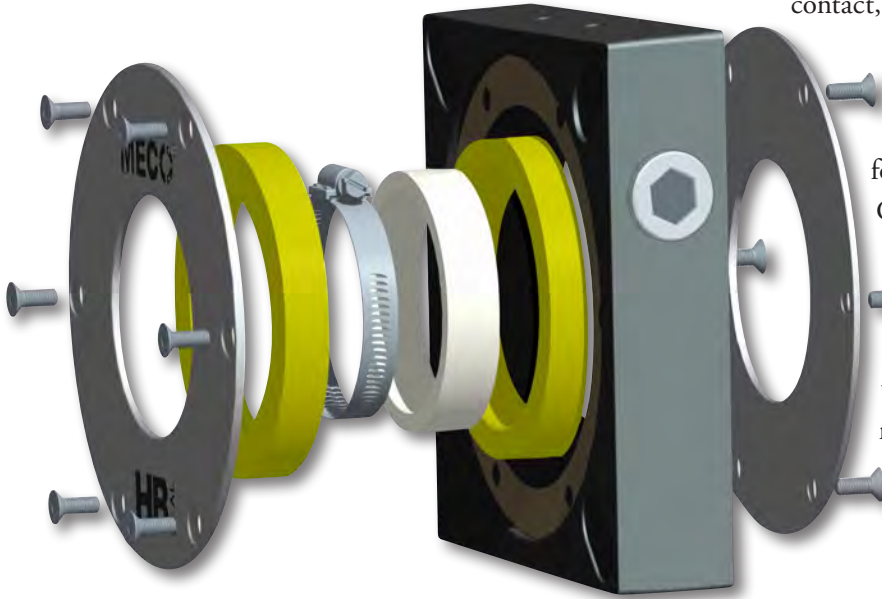
### WHAT IS MECO'S HC SEAL MODEL?

The MECO HC seal model is the best air-free choice in sealing technology for screw conveyors . The HC model is a full-

contact, soft-face mechanical shaft seal, using an elastomer drive to rotate bearing-grade, polymeric seal faces against fixed, stainless steel seal faces. The various seal assemblies are sized for equipment following standards of the Conveyor Equipment Manufacturers Association (C.E.M.A.) and their metric equivalents.

The HC Seal model provides the superior performance, durability and quality of workmanship that are hallmarks of MECO's many other highly-regarded custom seals.

MECO's first-rate customer service is provided for each HC seal sold.



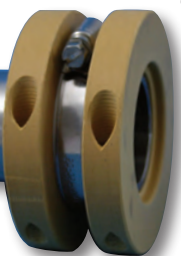
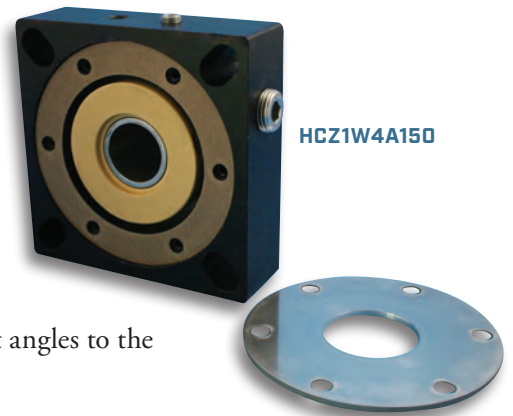
### WHEN ARE HC SEALS THE BEST OPTION?

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

### HOW DOES THE HC SEAL MODEL WORK?

The HC Seal replaces standard waste pack housings. It is made with a heavy, metal or FDA 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.

Around the driving elastomer is a stainless steel hose clamp to provide seal face loading. The seal is vented to atmosphere at an effective location to monitor seal performance.



HC ROTORS, ELASTOMER AND CLAMP.

## MECO ENGINEERED SHAFT SEALS

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*Using the Meco HC seal model offers an air free sealing answer to the question, “What is a better approach than using a waste pack housing or stuffing box for shaft sealing on screw conveyors?”*

#### WHAT SIZES ARE AVAILABLE?

The HC model seal is stocked in 6 standard inch and 10 metric sizes. These 16 seals can be easily converted for other shaft sizes and all fit within the 6 stocked housing (HSG) sizes. This allows the HC model seals to be sized for shaft diameters 5.07” (129mm) and smaller. See the Stocked HSG# Chart on Page 3 for maximum shaft size for each of the six housings.

#### WHAT CONSTRUCTION IS AVAILABLE?

The HC seal’s rugged housing options are designed for long life. You may choose from three stock housing materials: FDA Nylon, Anodized Aluminum or 316L SS. Three elastomer materials, Viton®, FDA white silicone or EPDM, ensure compatibility with nearly all applications. The standard stators are type 304 stainless steel. The standard rotors are MECO3000, a high-performance, bearing grade, polymer- filled PTFE with FDA approval. No abrasive filler material is added to MECO3000.



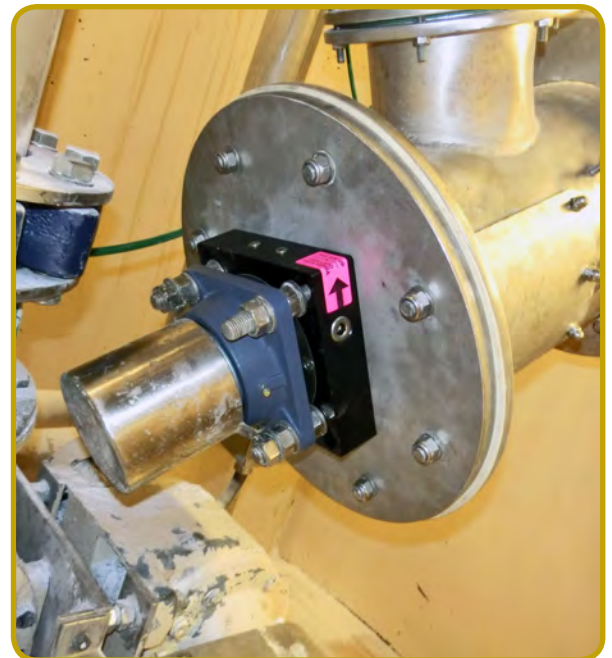
**HCZ1W4A119** SEAL, INSTALLED ON A **30MM** SHAFT ON A SUGAR MILL.

MECO3120, a white, FDA approved, ceramic filled, PTFE is available as an option for processes where maximum wear resistance is needed.

Any of the components may be individually replaced. 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 are available.

Since Woodex’s MECO Seal division manufactures many custom shaft seals, we have the capability to fabricate from any material when required. See Sizing Chart on next page for dimensional information.

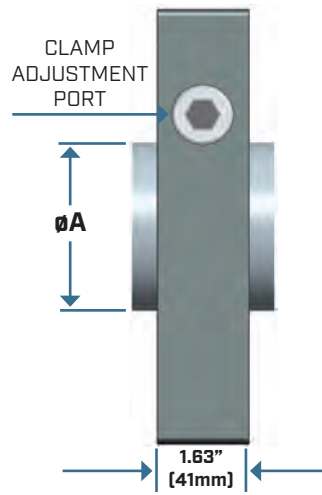
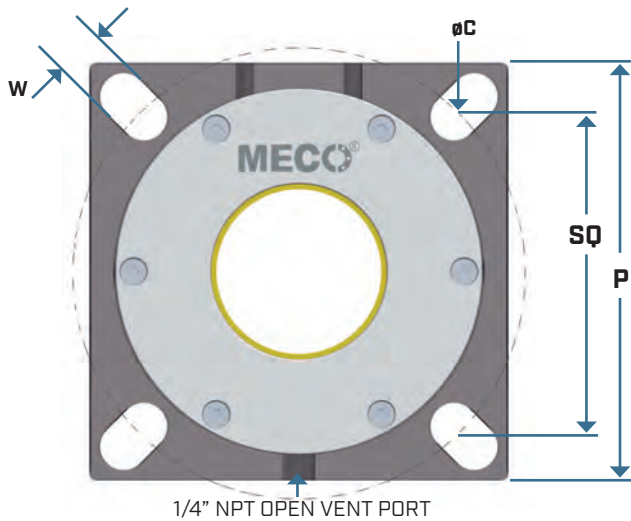
Viton® is a registered trademark of E.I. Dupont de Nemours & Company



**HCZ1W4A157** SEAL INSTALLED ON A **40MM** SHAFT ON AN INCLINED SCREW CONVEYOR.

**MECO HC model is available solid, with split internal rotating parts optional.**

# HC SEAL SIZING CHART



## Stocked HSG#

Each MECO HC Seal housing can accommodate optional shafts up to these limits:

HSG #	Max. Shaft ø
1	1.77"/45mm
2	2.24"/57mm
3	2.63"/67mm
4	3.62"/92mm
5	4.07"/103mm
6	5.07"/129mm

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

CEMA Part #	øA shaft	P	HSG #	SQ MIN	SQ MAX	W	øC MIN	øC MAX
HCZ1W4A150	1.50	5.38	1	4.00	4.38	5/8	5.65	6.19
HCZ2W4A200	2.00	6.50	2	4.38	5.38	3/4	6.19	7.60
HCZ3W4A244	2.44	7.38	3	5.13	6.25	3/4	7.25	8.84
HCZ4W4A300	3.00	7.75	4	5.75	6.50	7/8	8.12	9.19
HCZ5W4A344	3.44	9.25	5	6.75	8.00	7/8	9.55	11.31
HCZ6W4A444	4.44	10.88	6	7.75	8.75	7/8	10.96	12.38

### METRIC Standard Sizes (millimeters)

Metric Part #	øA shaft	P	HSG #	SQ MIN	SQ MAX	W	øC MIN	øC MAX
HCZ1W4A157/177	40/45	137	1	102	111	16	144	157
HCZ2W4A197/217	50/55	165	2	111	137	19	157	193
HCZ3W4A236/256	60/65	187	3	130	159	19	184	225
HCZ4W4A276	70	197	4	146	165	22	206	233
HCZ4W4A295	75	197	4	146	165	22	206	233
HCZ4W4A315	80	197	4	146	165	22	206	233
HCZ5W4A335	85	235	5	171	203	22	243	287
HCZ5W4A354	90	235	5	171	203	22	243	287
HCZ6W4A394	100	276	6	197	222	24	278	314
HCZ6W4A433	110	276	6	197	222	24	278	314

HC Z 5 W 4 A 354

## PART NUMBER DECODER

Shaft Diameter - Integer & 1st 2 decimals, in Inches

Rotor Material - A = MECO3000 FDA PTFE (recommended) F = UHMW B = 3120

Stator Material - 4 = Type 304 Stainless; 6 = Type 316L Stainless

Elastomer - Choose 1: W = FDA White Silicone; V = Viton® E = EPDM

Housing (HSG)#: 1, 2, 3, 4, 5 or 6

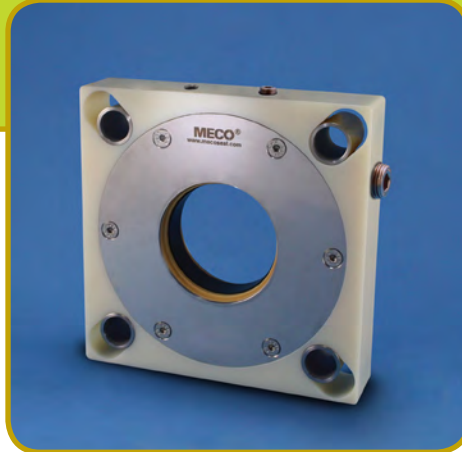
Housing Material - Choose 1: Z = Anodized Aluminum; S = 316L Stainless; P = FDA Nylon

Model - HC with Hose Clamp

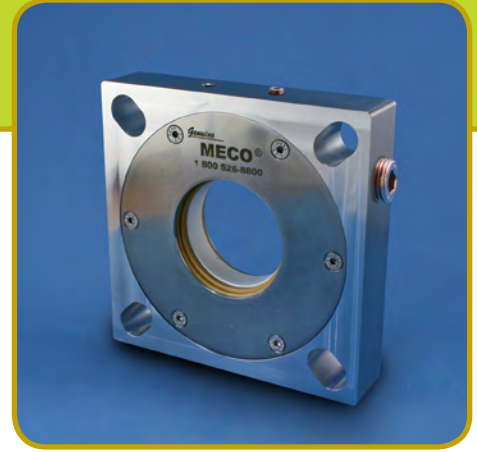
# MECO HC



**HCZ - Anodized Aluminum**



**HCP - FDA Nylon**



**HCS - 316L Stainless Steel**

Rotor Material	Process Conditions	HCZ - Anodized Alum. Housing	HCP - FDA Nylon Housing	HCS - 316L Stainless Housing
MECO3000 (recommended)	TEMPERATURE	-60 to 500°F (-50 to 260°C)	-35 to 200°F (-37 to 94°C)	-60 to 500°F (-50 to 260°C)
	PRESSURE	Vacuum to 10 psig (70 kPa)	Vacuum to 10 psig (70 kPa)	Vacuum to 10 psig (70 kPa)
	SPEED	to 150 RPM	to 100 RPM	to 150 RPM
UHMW	TEMPERATURE	-178 to 135°F (-117 to 57°C)	-35 to 135°F (-37 to 57°C)	-178 to 135°F (-117 to 57°C)
	PRESSURE	Vacuum to 5 psig (35 kPa)	Vacuum to 5 psig (35 kPa)	Vacuum to 5 psig (35 kPa)
	SPEED	to 50 RPM	to 50 RPM	to 50 RPM

*Results may vary with operating conditions and shaft  $\varnothing$  - please call for discussion.*

<b>Mechanical Capabilities:</b>	1/64" Axial Motion	<b>Silicone elastomer</b> -178 to 500°F (-117 to 260° C)
	1/4" T.I.R. Runout	<b>Viton elastomer</b> -75 to 450°F (-59 to 232° C)
	1/2" Thermal Growth	<b>EPDM elastomer</b> -70 to 325°F (-56 to 163°C)

*Results may vary with operating conditions and shaft  $\varnothing$  - please call for discussion.*

**MECO's design staff or your local distributor can help tailor the HC to your individual needs.**  
Below are a few examples of other **MECO** seal models.



**Split OFS Model**

- Top and Side Entry
- Solvents
- Air Free



**EA Model**

- Abrasive Slurries
- Adjustable on-the-Fly
- Large Diameters



**MB Model**

- Air locks
- Rotary Feeders



**EP Model**

- Reactor Vessels
- Dryers
- Extruders



**AH Model**

- Blenders
- Screw Conveyors
- Tight Spaces

**Distributed by:**

