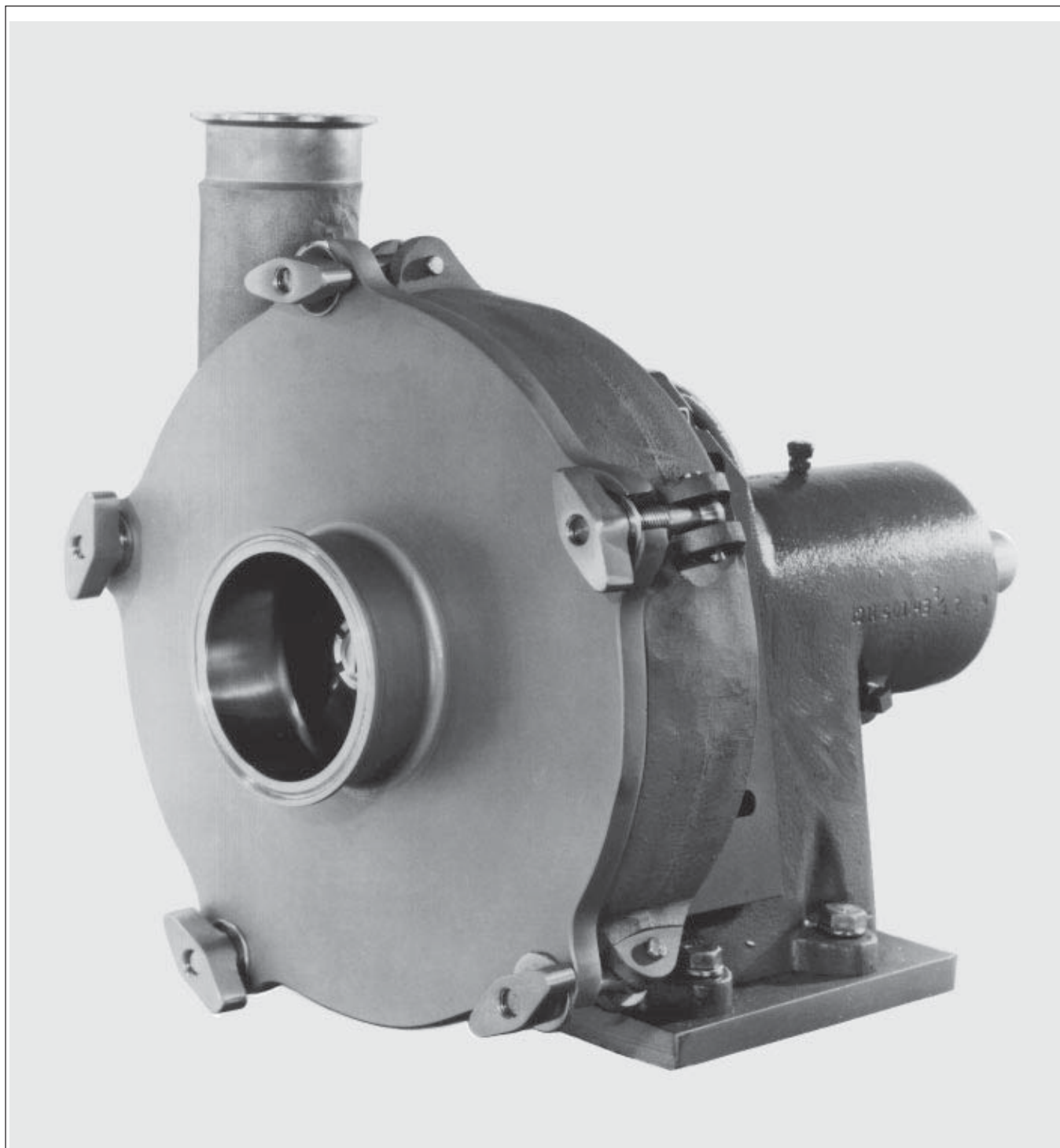




# TRI-CLOVER® EH Series Centrifugal



**CSI**  
417.831.1411  
csidesigns.com



**Tri-Clover Inc.**

# Pumps you can depend on to meet your special pumping requirements.

These high capacity, low shear pumps are available in three models with five different seals, and your choice of Tri-Clamp®, Bevel Seat or Flanged Connections.

Tri-Clover EH Series base-mounted centrifugal pumps have been designed and built to give years of trouble-free, dependable service. All wetted parts are cast type 316L SS which provides maximum corrosion resistance. EH casing and front cover are furnished with polished ID finish providing a sanitary environment, and glass beaded OD as standard. In addition, the casing cover is held on by heavy duty bolts. This enables the pump to withstand stresses from misalignment or shock pressures in your system.

Our one-piece “bow-tie” impeller design is ideal for delicate products including latex, whole vegetables, protein slurries and enzymes. The impeller gently scoops your product through the pump instead of beating it. This means less foaming and no compromises with product integrity.

The impeller is securely attached to the threaded shaft by means of a lock nut / cotter pin retainer design. However, when necessary, the impeller can be easily removed without the use of special tools, making any cleaning almost effortless.

## Seal Selection

Your choice of five different seal types to meet your application.

### **Seal #D - Carbon Rotary**

The Type D seal utilizes the hydraulic pressure developed by the pump to achieve the sealing action. This process or product pressure is evenly exerted against an “O” ring contained in a groove in the seal ring. The pressure forces the “O” ring against the face of the collar, providing a static seal, eliminating product leakage along the shaft.

Typical applications include: dairy products, cream style corn, tomatoes, beverages, etc. Also applicable for acid cleaning solutions and detergents.

### **Seal #E - Water Cooled Rotary**

The Type E seal is fully contained within a stuffing box. Its double end design permits the sealant to be controlled to the drain. This seal uses the same hydraulic balance as the Type D seal described above.

Ideal for slurries, heavy duty vacuum applications (to 28" Hg), tacky products or products at temperatures up to and exceeding 212°F.

## Seal #A - Packing Gland

This is a compressed type seal, utilizing a stuffing box, split gland and rings of square cross-section packing. Sealing is accomplished by axially compressing the packing rings in the stuffing box through use of the split gland. Compression is achieved by tightening the two hex nuts that hold the gland to the stuffing box. When tightened, the nuts force the gland into the stuffing box, and compress the packing. As the packing is compressed, the packing rings flow outward to seal against the bore of the stuffing box, and inward to seal against the pump shaft.

This seal is recommended for chemical processing applications of nonabrasive and nonabrasive / non-congealing products.

## Seal #C - Packing Gland With Water

The Type C seal is similar to the Type A in many ways. The basic difference is that a lantern ring and flush passage are incorporated into the packing and stuffing box allowing the contact area between the pump shaft and packing rings to be flushed.

It can be applied in vacuum installations over 20" Hg and in systems pumping hot liquids over 212°F, or tacky products.

## Seal #B - Latex

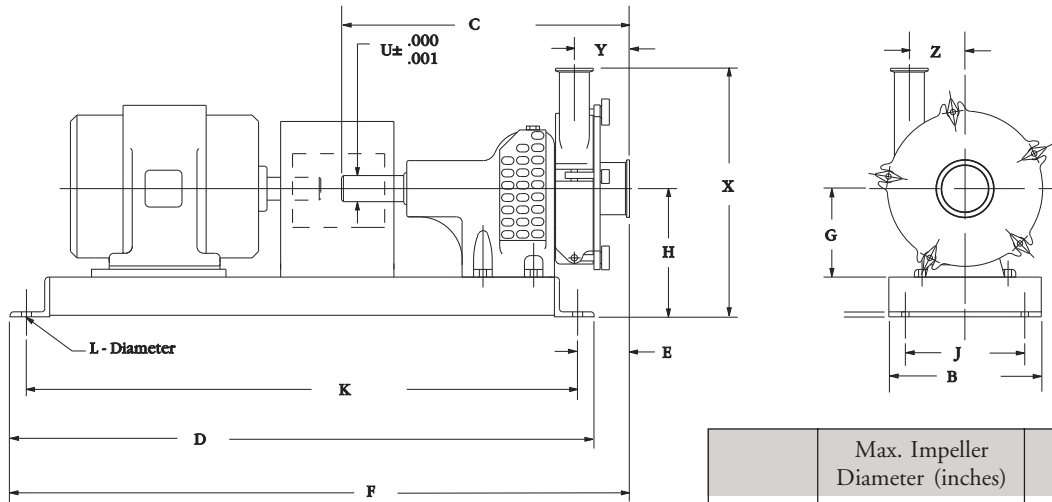
The Type B seal is similar to the Type C except the lantern ring is located further from the pump casing. In other words, the Type B has a greater number of packing rings between the lantern ring and the casing than does the Type C.

This seal is ideal for latex and similar products where a reduction of flush fluid leakage into the product being pumped is important to minimize product dilution.

# Dimensions

Dimensions are approximate and for guidance only. On applications where exact dimensions are required, request a certified print from Tri-Clover. Keyslot Information: Model 2EBH - "A" Woodruff Key  $\frac{1}{4}$ " wide. Model 3EH - "B" Woodruff Key  $\frac{5}{16}$ " wide. Model 4EH - "C" Woodruff Key  $\frac{3}{8}$ " wide.

- ❶ Tri-Clamp® Connections    ❷ Threaded Bevel Seat Connections
- ❸ A.S.A. 150# Raised Face Flanged Connections.



	Max. Impeller Diameter (inches)	Max. Capacity (at 1750 rpm)
2EBH	8 <sup>1</sup> / <sub>8</sub>	to 75' Hd, 200 gpm
3EH	11 <sup>1</sup> / <sub>4</sub>	to 145' Hd, 600 gpm
4EH	13 <sup>9</sup> / <sub>16</sub>	to 194' Hd, 1000 gpm

## 2EBH

## 3EH

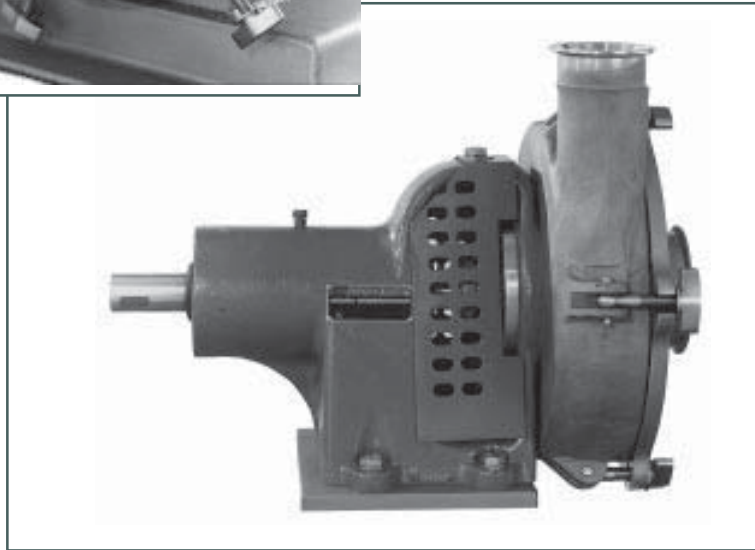
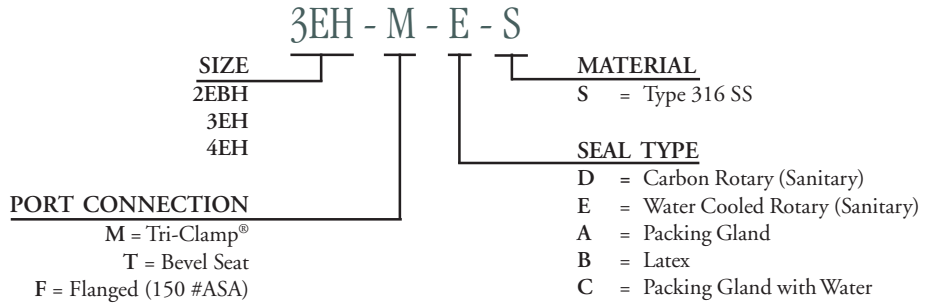
## 4EH

	2EBH				3EH				4EH				
	56	143T 145T	182T 184T	213T 215T	254T 256T	213T 215T	254T 256T	284T 286T	324T	254T 256T	284T 286T	324T 326T	364T
E❶	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	3 <sup>11</sup> / <sub>32</sub>	4 <sup>3</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>8</sub>
E❷	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>1</sup> / <sub>2</sub>	2 <sup>7</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	3 <sup>17</sup> / <sub>32</sub>	3 <sup>11</sup> / <sub>32</sub>	4 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>	4 <sup>5</sup> / <sub>16</sub>
E❸	3 <sup>7</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	3 <sup>13</sup> / <sub>16</sub>	4 <sup>3</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>32</sub>	4 <sup>15</sup> / <sub>32</sub>	4 <sup>9</sup> / <sub>32</sub>	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>	4 <sup>1</sup> / <sub>4</sub>
F❶	32 <sup>1</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>4</sub>	33 <sup>3</sup> / <sub>4</sub>	41 <sup>1</sup> / <sub>4</sub>	43 <sup>5</sup> / <sub>8</sub>	41 <sup>29</sup> / <sub>32</sub>	46 <sup>9</sup> / <sub>32</sub>	46 <sup>9</sup> / <sub>32</sub>	52 <sup>9</sup> / <sub>32</sub>	50 <sup>3</sup> / <sub>16</sub>	54 <sup>3</sup> / <sub>16</sub>	54 <sup>3</sup> / <sub>16</sub>	64 <sup>3</sup> / <sub>16</sub>
F❷	32 <sup>1</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>4</sub>	33 <sup>3</sup> / <sub>4</sub>	41 <sup>1</sup> / <sub>4</sub>	43 <sup>5</sup> / <sub>8</sub>	41 <sup>29</sup> / <sub>32</sub>	46 <sup>9</sup> / <sub>32</sub>	46 <sup>9</sup> / <sub>32</sub>	52 <sup>9</sup> / <sub>32</sub>	50 <sup>1</sup> / <sub>4</sub>	54 <sup>1</sup> / <sub>4</sub>	54 <sup>1</sup> / <sub>4</sub>	64 <sup>1</sup> / <sub>4</sub>
F❸	33 <sup>3</sup> / <sub>16</sub>	33 <sup>3</sup> / <sub>16</sub>	34 <sup>11</sup> / <sub>16</sub>	42 <sup>3</sup> / <sub>16</sub>	44 <sup>9</sup> / <sub>16</sub>	42 <sup>27</sup> / <sub>32</sub>	47 <sup>7</sup> / <sub>32</sub>	47 <sup>7</sup> / <sub>32</sub>	53 <sup>7</sup> / <sub>32</sub>	50 <sup>3</sup> / <sub>16</sub>	54 <sup>3</sup> / <sub>16</sub>	54 <sup>3</sup> / <sub>16</sub>	64 <sup>3</sup> / <sub>16</sub>
H	9	9	9	9	9 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	10	12	14	14	14	13
J	8	8	8	10	12 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>2</sub>	14	13	15	14	18	18	20
K	28 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>	30	37 <sup>1</sup> / <sub>2</sub>	39 <sup>1</sup> / <sub>2</sub>	37 <sup>1</sup> / <sub>2</sub>	41 <sup>1</sup> / <sub>2</sub>	41 <sup>1</sup> / <sub>2</sub>	47 <sup>7</sup> / <sub>8</sub>	44 <sup>7</sup> / <sub>8</sub>	48 <sup>7</sup> / <sub>8</sub>	48 <sup>7</sup> / <sub>8</sub>	58 <sup>7</sup> / <sub>8</sub>
L	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>
B	10 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>4</sub>	15 <sup>1</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	17 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	23 <sup>3</sup> / <sub>4</sub>
D	31	31	32 <sup>1</sup> / <sub>2</sub>	40	42	40	44	44	50	47	51	51	61
G	6	6	6	6	6 <sup>1</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>4</sub>	7	8	9	9	9	9

	Inlet	Outlet	C❶	C❷	C❸	Y❶	Y❷	Y❸	X❶	X❷	X❸	Z	U
2EBH	3	2	16 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	17 <sup>7</sup> / <sub>16</sub>	3 <sup>11</sup> / <sub>32</sub>	3 <sup>11</sup> / <sub>32</sub>	4 <sup>9</sup> / <sub>32</sub>	6 <sup>1</sup> / <sub>2</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>1</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>
3EH	4	3	20 <sup>11</sup> / <sub>32</sub>	20 <sup>11</sup> / <sub>32</sub>	21 <sup>7</sup> / <sub>32</sub>	3 <sup>27</sup> / <sub>32</sub>	3 <sup>27</sup> / <sub>32</sub>	4 <sup>23</sup> / <sub>32</sub>	9 <sup>1</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>4</sub>	10 <sup>3</sup> / <sub>16</sub>	4 <sup>17</sup> / <sub>32</sub>	1 <sup>3</sup> / <sub>8</sub>
4EH	6	4	25 <sup>11</sup> / <sub>32</sub>	25 <sup>9</sup> / <sub>32</sub>	25 <sup>7</sup> / <sub>32</sub>	4 <sup>29</sup> / <sub>32</sub>	4 <sup>27</sup> / <sub>32</sub>	4 <sup>25</sup> / <sub>32</sub>	10 <sup>7</sup> / <sub>8</sub>	10 <sup>13</sup> / <sub>32</sub>	10 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>4</sub>	1 <sup>11</sup> / <sub>16</sub>

# Ordering Information

A sample part number for a Tri-Clover EH Centrifugal Pump is shown below. The model describes the pump only. The base, motor, coupling and coupling guard, etc. must be specified separately.



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*\*Distribution Centers in Union City, California and Memphis, Tennessee*

In addition to manufacturing the most complete line of stainless steel flow control products and components, Tri-Clover provides the most complete, up-to-date and comprehensive literature to assist you in ordering and specifying them:

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### Tri-Clover Inc.

9201 Wilmot Road  
Kenosha, Wisconsin 53141-1413  
414-694-5511  
FAX: 414-694-7104  
International Sales: 414-697-3170  
FAX: 414-694-8188

Tri-Clover Canada  
101 Milner Avenue  
Scarborough, Ontario M1S 4S6  
416-299-5490  
FAX: 416-299-5095

Tri-Clover Mexico  
Recursos Petroleros No. 7  
Fracc. Ind. La Loma  
54060 Tlalnepantla, Edo. de Mexico  
PHONE: 52-5-397-0601 FAX: 52-5-362-3246



**CSI**  
417.831.1411  
csidesigns.com

