

## INTRODUCTION TO CONSTANT LEVEL LUBRICATION

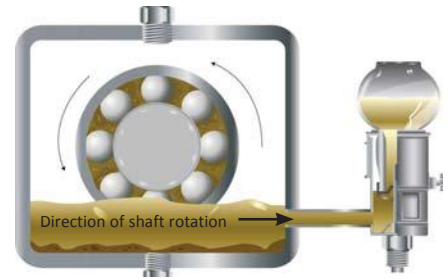
Constant level oilers are designed to maintain a predetermined oil level in a sump, which is necessary for proper lubrication. If the oil level were to drop below this point, the depleted oil would automatically be replenished by the lubricator, returning it to its original level. With the use of constant level oilers, maintenance efficiencies can be increased, while minimizing maintenance costs, and the loss of production time.

The majority of constant level oilers available are adjustable, allowing for use in many applications. However, there are oilers available that do not allow for fluid level adjustability, eliminating potential installation errors. Typically, constant level oilers are mounted on the side of the equipment facing the direction of shaft rotation. Some oilers allow for bottom mounting, on the oil sump, which prevents the oiler from misfeeding during applications that contain currents and turbulence formed by slinger rings, discs, and high rotating speeds.

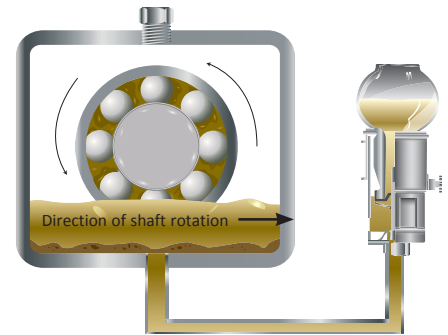
In most cases constant level oilers are vented to the outside atmosphere to work properly. Since these oilers are vented to the atmosphere, especially in harsh, dirty environments, contaminants are allowed to enter the lubricating oil. These contaminants are in the forms of moisture and/or particulate which are extremely damaging to oil and equipment life.

In order to combat the potential for oil contamination, the closed system oiler was developed. These oilers are effective in minimizing and eliminating the ingress of contaminants into the oil sump, especially in dirty environments. Some closed system oilers contain a pressure balancing line, which is connected from the headspace of the oil sump to an air chamber built into the surge body of the oiler. This air chamber is sealed from the outside atmosphere in order to prevent the ingress of contaminants. Additional types of closed system oilers are available that mount directly on the centerline of the oil level to be maintained. The exchange of air between the oil sump and the oiler is at the oilers base, which is mounted directly to the oil sump.

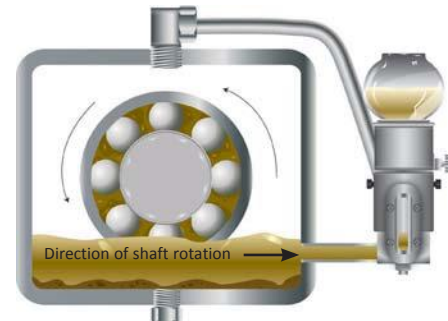
Several different types of constant level oilers are available to meet specific application needs, whether it is vented or non-vented, adjustable or nonadjustable they are an easy and effective method of maintaining proper oil level in equipment.



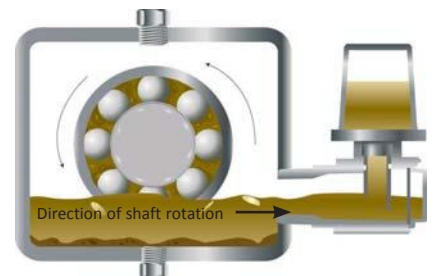
Vented constant level oiler with side connection



Vented constant level oiler with bottom connection



Closed system oiler with pressure balancing line



Closed system oiler mounted on center line of desired oil level



# OPTO-MATIC® CONSTANT LEVEL OILERS



Opto-Matic Oilers provide an inexpensive method to automatically maintain a constant level of oil in a pump bearing housing, gear box, or other oil sump applications. Throughout processing industries, the Opto-Matic Oiler is the industry standard. Different reservoir capacities allow use in many applications.

Stainless steel models provide long life in corrosive environments in the chemical, pulp and paper, and mining industries.

## FEATURES

- One piece glass reservoir ensures proper constant level function. Compared to competitive models, there is no possibility of air leakage that would cause overflowing of the bearing housing.
- Adjustable level setting allows use in many applications
- Multiple air vent slots provide for proper functioning at all times
- Large surge chamber helps prevent overflow of oil during machine start-up or shut-down
- Side and bottom connections for simplified installation

## WIRE GUARDS

Wire guards are ordered separately and are customer installed.

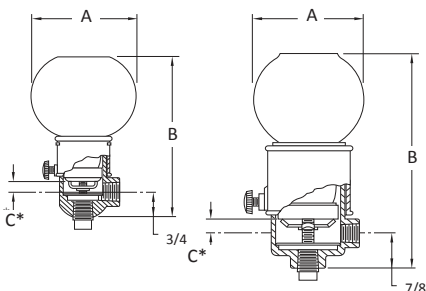


| Model No. Standard | Model No. Stainless Steel | Description     |
|--------------------|---------------------------|-----------------|
| 30012              | —                         | 2-1/2 oz. Guard |
| 30013              | 30313                     | 4 oz. Guard     |
| 30016              | 30315                     | 8 oz. Guard     |
| 30020              | 30320                     | 16 oz. Guard    |

## SPECIFICATIONS

|                      | Standard               | 316 Stainless Steel |
|----------------------|------------------------|---------------------|
| Max. Operating Temp. | 250°F Continuous       |                     |
| Reservoir            | One-Piece Glass Bottle |                     |
| Casting              | Zinc                   | 316 Stainless       |
| Finish               | Zinc/Chromate Plate    | Passivated          |
| Internal Parts       | Zinc Plated Steel      |                     |
| O-ring               | Viton®                 |                     |

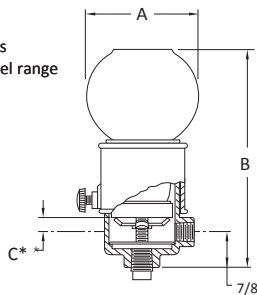
Viton® is a registered trademark of Du Pont Dow Elastomers.



No. 30002 Standard

No. 30003, 30005, and 30010 Standard

\* "C" dimensions represent oil level range



Connection Side and Bottom Stainless Steel

## SELECTION CHART—STANDARD

| Model No. | Capacity  | Connection (NPT) | Dimensions (in.) |         |         |        |        |
|-----------|-----------|------------------|------------------|---------|---------|--------|--------|
|           |           |                  | A                | B Min.  | B Max.  | C Min. | C Max. |
| 30002     | 2-1/2 oz. | 1/4              | 2-1/2            | 3-15/16 | 4-1/4   | 11/32  | 9/16   |
| 30003     | 4 oz.     | 1/4              | 2-11/16          | 5       | 5-3/4   | 9/32   | 1      |
| 30005     | 8 oz.     | 1/4              | 3-3/16           | 5-15/16 | 6-11/16 | 9/32   | 1      |
| 30010     | 16 oz.    | 1/4              | 4-1/8            | 6-13/16 | 7-9/16  | 9/32   | 1      |

\* Metric thread sizes available. Add "-M" to part number for 1/4 BSPT connection port.

## SELECTION CHART—316 STAINLESS STEEL

| Model No. With Side & Bottom Connect | Capacity | Connection (NPT) | Dimensions (in.) |         |         |        |        |
|--------------------------------------|----------|------------------|------------------|---------|---------|--------|--------|
|                                      |          |                  | A                | B Min.  | B Max.  | C Min. | C Max. |
| 30213                                | 4 oz.    | 1/4              | 2-11/16          | 4-15/16 | 5-11/16 | 9/32   | 1      |
| 30215                                | 8 oz.    | 1/4              | 3-3/16           | 5-7/8   | 6-5/8   | 9/32   | 1      |
| 30220                                | 16 oz.   | 1/4              | 4-1/8            | 6-3/4   | 7-1/2   | 9/32   | 1      |

\* Metric thread sizes available. Add "-M" to part number for 1/4 BSPT connection port.

See Spectrum Opto-Matic Collars on page H10 for color coding options.



# OPTO-MATIC® CONSTANT LEVEL OILERS

Opto-Matic Oilers provide a constant level of oil in a pump bearing housing, gear box, or other oil sump applications. Different reservoir capacities allow use in many applications.

“LS”, “EH”, and “EHB” models have a large surge chamber to minimize potential of leakage during oil surge conditions.

## FEATURES

- High strength, transparent, ribbed plastic reservoir provides long life and impact resistance
- Adjustable level setting allows use in many applications
- Multiple air vent slots provide for proper functioning at all times
- Large surge chamber (LS, EH, and EHB models) prevents overflow of oil during machine start-up or shut-down
- Side and bottom connections for simplified installation



## SPECIFICATIONS

|                      |                    |
|----------------------|--------------------|
| Max. Operating Temp. | 165°F Continuous   |
| Reservoir            | Butyrate Plastic   |
| Casting              | Zinc Die Cast      |
| Finish               | Bright Zinc Plated |
| Internal Parts       | Zinc Plated Steel  |

## SELECTION CHART—E, EB

| Model No. |       | Capacity | Connection (NPT) | Dimensions (in.) |         |        |        |        |
|-----------|-------|----------|------------------|------------------|---------|--------|--------|--------|
| E         | EB    |          |                  | A                | B Min.  | B Max. | C Min. | C Max. |
| 30052     | 30062 | 2 oz.    | 1/4              | 1-15/16          | 3-7/8   | 4-3/8  | 1/4    | 3/4    |
| 30054     | 30064 | 4 oz.    | 1/4              | 2-5/16           | 4-9/16  | 5-1/16 | 1/4    | 3/4    |
| 30058     | 30068 | 8 oz.    | 1/4              | 2-5/8            | 5-11/16 | 6-3/16 | 1/4    | 3/4    |

\* Metric thread sizes available. Add “-M” to part number for 1/4 BSPT connection port.

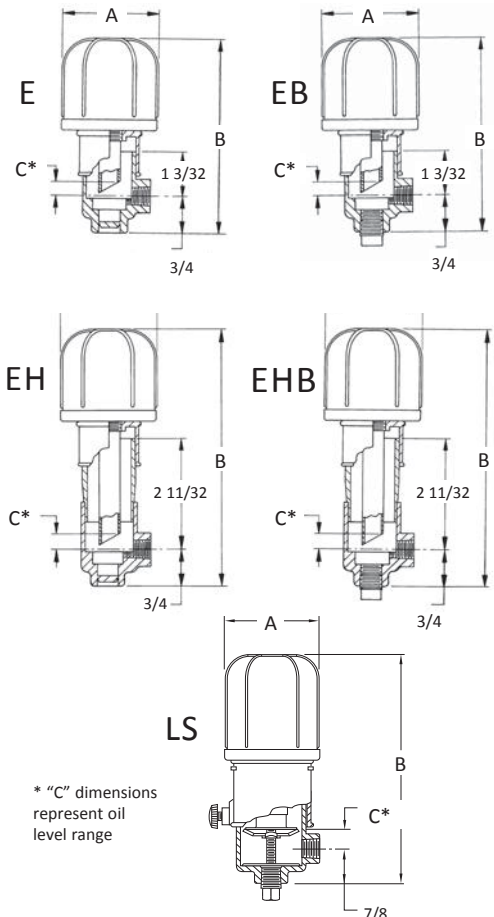
## SELECTION CHART—EH, EHB (large surge chamber)

| Model No. |       | Capacity | Connection (NPT) | Dimensions (in.) |         |        |        |        |
|-----------|-------|----------|------------------|------------------|---------|--------|--------|--------|
| EH        | EHB   |          |                  | A                | B Min.  | B Max. | C Min. | C Max. |
| 30072     | 30082 | 2 oz.    | 1/4              | 1-15/16          | 5       | 5-1/2  | 1/4    | 3/4    |
| 30074     | 30084 | 4 oz.    | 1/4              | 2-5/16           | 5-11/16 | 6-3/16 | 1/4    | 3/4    |
| 30078     | 30088 | 8 oz.    | 1/4              | 2-5/8            | 6-13/16 | 7-5/16 | 1/4    | 3/4    |

## SELECTION CHART—LS (large surge chamber)

| Model No. |        | Capacity | Connection (NPT) | Dimensions (in.) |        |        |   |  |
|-----------|--------|----------|------------------|------------------|--------|--------|---|--|
| A         | B Min. |          |                  | B Max.           | C Min. | C Max. |   |  |
| 30024     | 4 oz.  | 1/4      | 2-5/16           | 5-7/16           | 6-3/16 | 9/32   | 1 |  |
| 30028     | 8 oz.  | 1/4      | 2-5/8            | 6-9/16           | 7-5/16 | 9/32   | 1 |  |

\* Metric thread sizes available. Add “-M” to part number for 1/4 BSPT connection port.



See Spectrum Opto-Matic Collars on page H10 for color coding options.