

# DEEP BED GRAVITY FILTER (DBGF)

PRODUCT  
BULLETIN



## EFFICIENT SOLUTION CLARIFICATION THROUGH DEEP BED GRAVITY FILTRATION

Many industrial processes liquids become contaminated with various solids, debris or swarf causing detrimental effects to the process involved. The Filtertech model DBGF Deep Bed Gravity Filter provides effective deep bed gravity filtration to remove these contaminants. The model DBGF can be easily retrofitted for use in numerous applications as either a stand alone filter or as part of a complete engineered filtration system. The Model DBGF is available in various sizes and materials of construction to meet your application requirements.



Model DBGF-120 complete with patented labyrinth side seals and sloped bottom collection pan.

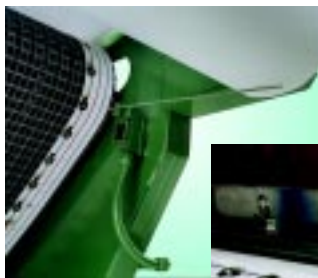
### EQUIPMENT FEATURES

#### Standard Features

- Weldment constructed of 3/16" thick (5 mm) material in hot rolled steel, Corten® steel or stainless steel.
- 1/2 Hp shear pin protected media drive motor.
- Fully supported heavy duty flat wire belt conveyor.
- Individual clean outlet and overflow connections.
- Low velocity inlet header submerged within the liquid pool.
- Deep Filter Bed (24" static head).
- Heavy duty index switch with micro cam adjustment.
- Patented positive labyrinth side seals.
- Extended dewatering zone.
- Sloped bottom internal collection pan.
- Full Covers.
- End of media sensor.

#### Optional Features

- Epoxy coated wetted surface construction.
- Corten® steel wetted surface construction.
- 304 Stainless steel wetted surface construction.
- 316 Stainless steel wetted surface construction.
- Media rewriter/sludge separator.
- Oil decantation trough.
- Precoat zone.



End of Media Alarm Switch.

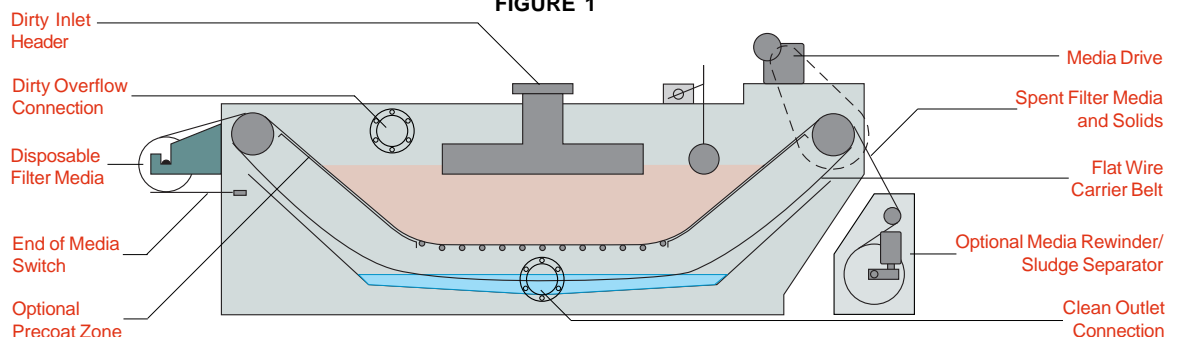
Patented labyrinth side seal design.



Low velocity inlet distribution header.



MODEL DBGF  
FIGURE 1



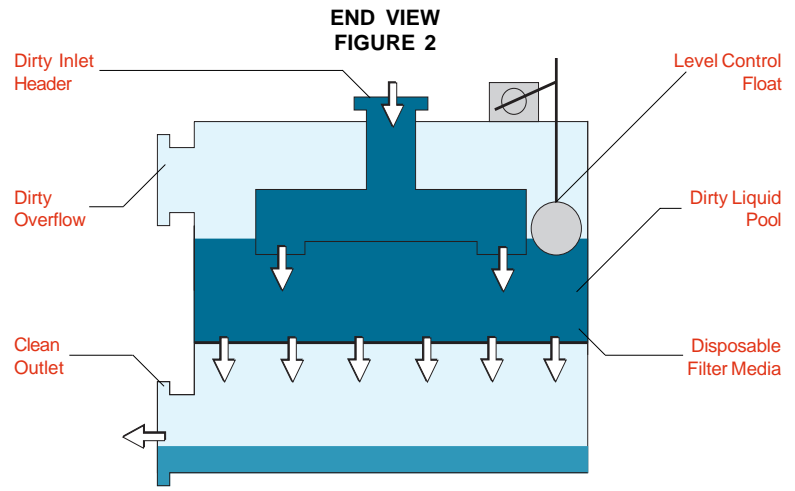
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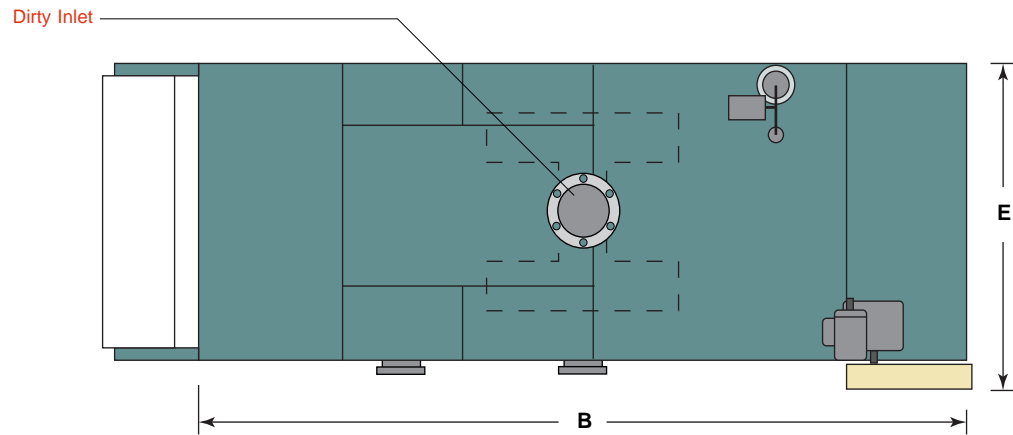
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## THEORY OF OPERATION

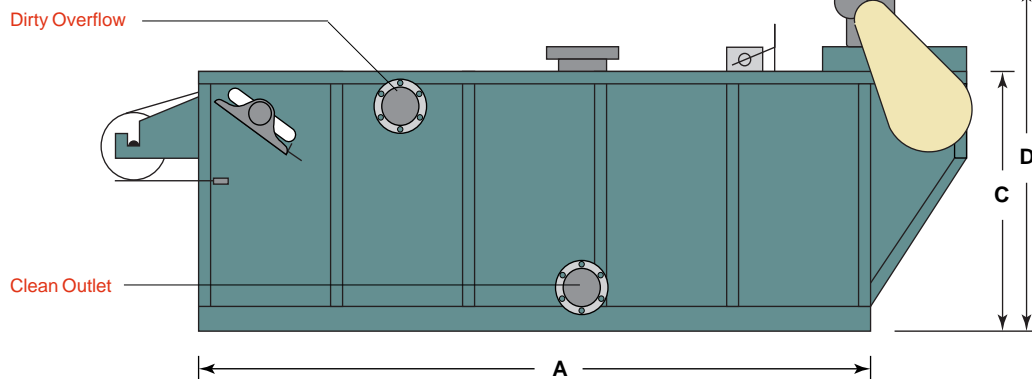
Dirty liquid is fed into the filter through an inlet header, forming a pool above the open area of the filter chamber. The weight of the liquid becomes the driving force through the media, and the contaminants are intercepted to form a "cake". This "cake" then becomes the filtering media itself. Clean liquid enters the chamber and can either gravity flow through the outlet at the bottom or can accumulate to support a flooded suction clean supply pump. As the layer of contaminants becomes tighter and thicker, the flow through the media is throttled, causing a rise in liquid level. This in turn energizes the conveyor drive system, introducing a short section of fresh media into the filter bed. The accumulated solids are conveyed to the discharge incline so that the liquid can drain back into the filter prior to final removal of the contaminants.



TOP VIEW



SIDE VIEW



## SPECIFICATIONS

| Model†   | Dimensions(cm) |              |             |             |             | Drive Hp | Est. Wt. lbs. (kg) |               |
|----------|----------------|--------------|-------------|-------------|-------------|----------|--------------------|---------------|
|          | A              | B            | C           | D           | E           |          | Dry                | Wet           |
| DBGF-120 | 8'-7" (262)    | 13'-7" (414) | 4'-4" (132) | 6'-0" (183) | 5'-7" (170) | ¾        | 4,200 (1905)       | 6,700 (3045)  |
| DBGF-160 | 10'-6" (320)   | 15'-6" (473) | 4'-4" (132) | 6'-0" (183) | 5'-7" (170) | ¾        | 5,600 (2545)       | 9,520 (4325)  |
| DBGF-200 | 13'-0" (396)   | 18'-0" (549) | 4'-4" (132) | 6'-0" (183) | 5'-7" (170) | ¾        | 6,800 (3090)       | 12,140 (5515) |
| DBGF-240 | 15'-6" (473)   | 20'-6" (625) | 4'-4" (132) | 6'-0" (183) | 5'-7" (170) | ¾        | 8,000 (3635)       | 14,700 (6680) |
| DBGF-280 | 18'-0" (549)   | 23'-6" (716) | 4'-4" (132) | 6'-0" (183) | 5'-7" (170) | ¾        | 9,200 (4180)       | 17,260 (7845) |
| DBGF-320 | 20'-6" (625)   | 25'-0" (762) | 4'-4" (132) | 6'-0" (183) | 5'-7" (170) | ¾        | 10,400 (4725)      | 19,820 (9005) |

\* Specifications and dimensions where applicable are subject to change without notice.

† Other filter sizes are available on a custom basis.

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