HIGH PRESSURE STEEL FILTER VESSELS

CONSTRUCTION
The filter vessels are electric welded, low carbon steel constructed. The vessels are designed for 100 PSIG working pressure and factory tested. The vessels are either lined with 6 mils DFT phenolic epoxy and the exterior coated with a rust inhibiting primer and top coat or hot dip galvanized. Vessels with a 30 inch diameter and less have two 4 x 6 inch hand hole in the top head and lower side shell. Tanks with a 36 inch diameter to 60 inch diameter have a 4 x 6 inch hand hole in the lower side shell. Tanks with a 66 inch diameter and larger have two 11 x 15 inch manways, one in the top head and one in the lower side shell. Standard connections are NPT threaded full couplings.

OPTIONAL: ASME CODE pressure vessels are fabricated and stamped in accordance with ASME code, Sec. 8, Div. 1. Vessels are available with special pressure ratings, connections, relief valves, various openings and interior and exterior coatings. Vessels are furnished with flanged connections when required.

DISTRIBUTOR SYSTEM
Filter Vessels with a 36” diameter and smaller, will be equipped with an outlet distributor hub. Vessels 42” in diameter and larger will include a header lateral distributor system. All vessels shall include and inlet diffuser for even distribution of water or liquid and to prevent media loss during backwashing.

FILTRATION MEDIA
ACTIVATED CARBON: The activated carbon shall be 8 x 30 or 12 x 40 mesh, 60% CTC activity, 750 minimum iodine number and a minimum abrasion number of 75. Additional grades available.

ORGANOPHILIC MEDIA: This filtration media is a proprietary quarternary amine modified granular bentonite clay or zeolite. The clay is mixed (30:70 by weight) with granular activated carbon. If backwashing is required, anthracite may be substituted for the activated carbon. (Please request OMZ Product Bulleting for additional information.)

OPTIONS AND ACCESSORIES
A. Flanged or threaded connections.
B. Linings: Rubber, epoxy, galvanizing, fiberglass.
C. Number, size, and location of manways, handholes, fittings;
D. Valves, automatic air vents, face piping, controls.
E. Vessel pressure ratings and certifications: ASME, National Board, Military, AWWA
F. Various grades and mesh sizes or media.
G. Additional diameters and sideshell lengths.
### FLOW GPM | EBCT MINUTES | DIAMETER A | SIDESHELL B | OAH APPROX. | CARBON WEIGHT | FULL VESSEL WEIGHT
--- | --- | --- | --- | --- | --- | ---
15 | 7.5 | 24” | 60” | 75” | 450 lbs. | 700 lbs.
15 | 8.9 | 24” | 72” | 87” | 525 lbs. | 900 lbs.
25 | 6.7 | 30” | 60” | 79” | 675 lbs. | 1050 lbs.
35 | 7.5 | 36” | 60” | 84” | 1000 lbs. | 1650 lbs.
50 | 7.0 | 42” | 60” | 88” | 1400 lbs. | 2475 lbs.
60 | 7.8 | 48” | 60” | 95” | 1850 lbs. | 2900 lbs.
80 | 7.4 | 54” | 60” | 97” | 2350 lbs. | 3650 lbs.
115 | 9.2 | 66” | 72” | 117” | 4200 lbs. | 6600 lbs.
150 | 8.4 | 72” | 72” | 119” | 5000 lbs. | 7700 lbs.

**NOTES:**
1. Flow Rate based upon hydraulic loading rate of 5 GPM/Sq. ft. bed face area.
2. EBCT: Empty bed contact time
3. Carbon and full vessel weight: Approx. weight based upon an average bulk density of 30 lbs. Per cubic foot, full vessel fill.
4. 24” to 72” diameter vessels may be furnished with 4 structural angle legs for unitary base mounting, 48” and larger ves-

### STANDARD CONFIGURATION

<table>
<thead>
<tr>
<th>DIAMETER</th>
<th>C &amp; D FITTINGS</th>
<th>E OPENING</th>
<th>F OPENING</th>
<th>G SPUD</th>
<th>H DISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>24”, 30”</td>
<td>2&quot; NPT</td>
<td>4” x 6” HANDHOLE</td>
<td>4” x 6” HANDHOLE</td>
<td>1.25”</td>
<td>6”</td>
</tr>
<tr>
<td>36”, 42”</td>
<td>3” NPT</td>
<td>4” x 6” HANDHOLE</td>
<td>11” x 15” MANWAY</td>
<td>2”</td>
<td>9”</td>
</tr>
<tr>
<td>48”, 66”, 72”</td>
<td>4” NPT</td>
<td>4” x 6” HANDHOLE</td>
<td>11” x 15” MANWAY</td>
<td>2”</td>
<td>12”</td>
</tr>
</tbody>
</table>

**DIAGRAM CODES**

<table>
<thead>
<tr>
<th>CODE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>VENT</td>
</tr>
<tr>
<td>C</td>
<td>INLET</td>
</tr>
<tr>
<td>D</td>
<td>DRAIN</td>
</tr>
<tr>
<td>E &amp; F</td>
<td>ACCESS</td>
</tr>
</tbody>
</table>