Filters for Steam Sterilization Systems

Balston Steam Filters:

The 23R Steam Filter contains a patented Microfibre® Filter Cartridge in a rugged stainless steel housing designed especially for steam service. Included as standard items with the 23R Steam Filter are a stainless steel condensate drain and a high quality bleeder valve. The unit, as received, is complete and ready for installation.

Product Features:

- Eliminate instrument staining, spotting, and rusting
- Reduced contamination of sterilizer interiors
- Reduced maintenance

Clean In Place (CIP) Steam Filtration
Room Humidification
Steam Filtration to Sterilizers and Autoclaves
Steam Filters
for Steam Sterilization Systems

How the Balston Steam Filter Works

The 23/75R Steam Filter contains a patented Microfibre® Filter Cartridge in a rugged stainless steel housing designed especially for steam service. Included as standard items with the 23/75R Steam Filter are a stainless steel condensate drain and a high quality bleeder valve. The unit, as received, is complete and ready for installation.

Steam enters the housing and moves into an expansion chamber, where much of the condensate is removed from the steam by the abrupt change in flow direction and velocity. The steam then flows upward in the housing, through the Grade R Microfibre filter cartridge, and downward to the exit port. The water draining from the filter cartridges and expansion chamber is removed from the housing by the automatic condensate drain.

The Grade R Microfibre filter cartridge, the heart of the 23/75R Steam Filter, combines sturdy construction with remarkably efficient filtration of solid particles and liquid droplets. The cartridge is rated at 98+% at 0.1 micron. Solid particles remain trapped in the depth of the filter cartridge, and liquid water drips from the filter cartridge to the automatic drain. The Microfibre filter cartridge is constructed from chemically inert borosilicate glass fibers and fluorocarbon resin binder. The filter cartridge is completely free of impurities which could extract into the steam.

The Balston 23/75R Steam Filter is recommended for use on 3/4” and 1” steam lines (line sizes for the vast majority of steam sterilization systems). Please consult our technical support department for recommendations on filters for larger steam lines. Use only products designed specifically for steam filtration in steam installations.

To order EU version that complies with PED, use “EU” as a prefix (Example: EU27/35). Consult your local distributor; see EU flow rates in table on page 85.
Steam Filters
for Steam Sterilization Systems

Principal Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>Filter Cartridge Designation</th>
<th>Materials of Construction Head</th>
<th>Bowl</th>
<th>Internals</th>
<th>Seals</th>
<th>Maximum Steam Pressure</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>23/75R</td>
<td>1&quot; NPT (1)</td>
<td>200-75-R (2)</td>
<td>304SS</td>
<td>304SS</td>
<td>304SS</td>
<td>EPR</td>
<td>80 psig (5.5 barg)</td>
<td>25 lbs. (11 kg)</td>
</tr>
</tbody>
</table>

Ordering Information

For assistance, call toll-free at 1-800-343-4048 8AM to 5PM Eastern Time

<table>
<thead>
<tr>
<th>Model</th>
<th>Automatic Drain</th>
<th>No. Filter Cartridges Required</th>
<th>Replacement Filter Cartridges (box of 15)</th>
</tr>
</thead>
<tbody>
<tr>
<td>23/75R</td>
<td>Included</td>
<td>1</td>
<td>200-75-R</td>
</tr>
</tbody>
</table>

Notes:
1. The 1" port size can be installed in a 3/4" line by using the appropriate reducing bushings.
2. Each filter is supplied with one filter cartridge installed. Replacement filter cartridges are sold in boxes of 15. To order, use complete size and grade designation; for example 200-75-R.

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Steam Filters
for Steam Sterilization Systems

Water Filters for Washer Sterilizers

Unique, graded efficiency design provides exceptionally long filter life
Reduces costly sterilizer maintenance
Easy to change filter cartridge - no tools required
Safe, inert materials of construction

Filtering Water with the Balston LP-20 Water Filter

Dirt and rust in the hot or cold water supply to washer-sterilizers leave deposits and stains on valuable instruments and sterilizers. In most hospitals, the cleanliness of the water depends upon the efficiency of the municipal water treatment system. Excessive dirt in the water can be an intermittent problem caused by a drought, a fire in the neighborhood, water main problems, or scores of other random events well beyond the control of the hospital engineers. This unpredictable, expensive problem can be permanently solved by installing an inexpensive and easily maintained Balston LP Grade 20 water filter on the water line to the washer-sterilizer. On any washer-sterilizer, installing a Balston 23/75R Steam Filter on the steam line and a Balston LP Grade 20 Water Filter on the water line guarantees freedom from the outside contaminants.

How the cartridge works

The LP Grade 20 liquid filter cartridge is constructed entirely from polypropylene, rendering it safe and inert for use in hospital water supplies. The polypropylene construction makes this filter acceptable for use in cold and hot (to 180°F/82°C) water supplies. The filter cartridge consists of a polypropylene external support structure with EPR seals and an internal filtering element. The internal filter is made of self-bonded polypropylene fibers which are graded from coarse to fine in the direction of flow (inside-to-outside). Since the coarse inner layer acts as a prefilter for the finer outer layer, the life of this cartridge is exceptionally long. For example: Approximately 50,000 gallons (190,000 liters) of water can be filtered by a single 20’ liquid filter cartridge.

Filter Assembly Selection Recommendations

<table>
<thead>
<tr>
<th>Water Line Size</th>
<th>Cold Water below 125°F (52°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4”</td>
<td>53/95 with LP-200-95-20</td>
</tr>
<tr>
<td>1/2”</td>
<td>53/50 with LP-200-50-20</td>
</tr>
</tbody>
</table>

Models 53/50 and 53/95

These models are constructed entirely of polypropylene and designed for a single filter cartridge in the 10” and 20’ lengths. The Model 53 housings are used for cold water service only.
Steam Filters
for Steam Sterilization Systems

Water Filters for Washer Sterilizers

Principal Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>Materials of Construction</th>
<th>Maximum Temperature</th>
<th>Maximum Pressure</th>
<th>Maximum Diff. Press. (1)</th>
<th>Shipping Weight</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>COLD WATER FILTER</td>
<td>53/50 3/4&quot; NPT</td>
<td>Polypro. Polypro. ——— EPR</td>
<td>125°F (52°C)</td>
<td>125 psig (8.6 barg)</td>
<td>4 lbs (2 kg)</td>
<td>5&quot;D x 12&quot;L (13cm x 31cm)</td>
<td></td>
</tr>
<tr>
<td>COLD WATER FILTER</td>
<td>53/95 3/4&quot; NPT</td>
<td>Polypro. Polypro. ——— EPR</td>
<td>125°F (52°C)</td>
<td>125 psig (8.6 barg)</td>
<td>6 lbs (3 kg)</td>
<td>5&quot;D x 22&quot;L (13cm x 56cm)</td>
<td></td>
</tr>
</tbody>
</table>

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Model | No. Filter Cartridges Required (2) | Filter Cartridge Designation
--- | --- | ---
53/50 | 1 | LP-200-50-20
53/95 | 1 | LP-200-95-20

Notes:
1. LP Grade 20 Filter Cartridge. Inside-to-outside flow.
2. Filter Cartridge not included with housing and must be ordered separately.

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Steam Filters
for Steam Sterilization Systems

EtO Filters

Long filter life
Easy to change filter cartridge
Eliminate unexpected downtime due to clogged components
Stainless steel and PTFE provide safe, trouble-free operation

Model A34

The cleanliness of Ethylene Oxide (EtO) typically varies from supplier to supplier and from delivery to delivery. In addition, EtO inherently polymerizes, causing valves to clog and regulators to malfunction. Filtering EtO at the point of use assures the delivery of clean EtO to the sterilizers, significantly improves sterilizer performance, and reduces sterilizer maintenance.

Balston EtO Filters, specifically designed for ethylene oxide service, are constructed of stainless steel with PTFE seals. The ET Grade 30 filter cartridge is inexpensive and simple to replace when necessary.

The model A34 is sized for most hospital sterilizer applications.

Principal Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Port Size</th>
<th>Filter Cartridge Designation</th>
<th>Materials of Construction</th>
<th>Seals</th>
<th>Maximum Steam Pressure</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>A34</td>
<td>1/4&quot; NPT</td>
<td>ET-100-12-30 (1)</td>
<td>316SS</td>
<td>PTFE (2)</td>
<td>250 psig (17 barg)</td>
<td>4 lbs. (2 kg)</td>
</tr>
</tbody>
</table>

Ordering Information

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Model Filter Cartridge Designation
A34 Included ET-100-12-30

Notes:
1. Each filter is supplied with one filter cartridge installed.
2. Each filter is supplied with one spare PTFE seal set.