

## Enclosed Plate and Frame Filter BECO INTEGRA® PLATE A400 EC

### Hermetically enclosed depth filtration system with stainless steel chassis and filter plates

BECO INTEGRA PLATE A400 EC enclosed plate and frame filter is the depth filtration system for critical filtration tasks in the pharmaceutical and biotech, chemical, cosmetics, and food industries.

BECO INTEGRA PLATE A400 EC is a multi-sheet-filter with an external chamber. The product channels are sealed with depth filter sheets only. The sealing of the whole filter package is realized by means of gaskets around the external chamber.

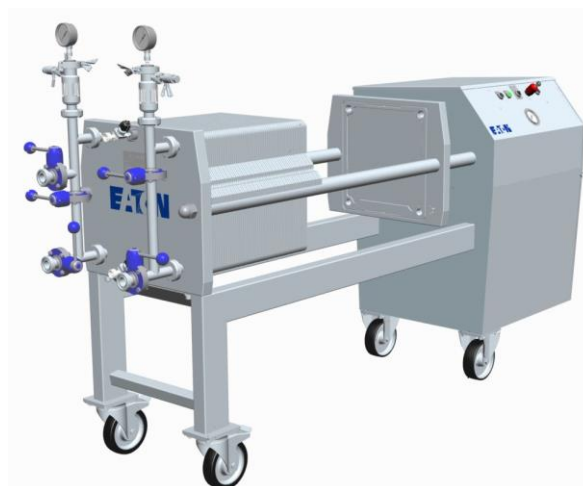
#### Special Features

- Validatable CIP cleaning without depth filter sheets.
- Complete drainage of filter due to unique filter plate design.
- High safety due to the absence of leakage in the environment thanks to a circular O-ring sealing/sealing surface and an automatic hydraulic pressure control.
- Easy handling and good cleanability thanks to ergonomic design and open support profile of filter plates; cake discharge downwards into tray under the filter package (optional).
- High flexibility: The filter can be used as a sheet filter or as a pre-coat filter. For pre-coating/removing of high particle load, cake frames in different widths are available.
- BECO INTEGRA PLATE A400 EC filter is designed and manufactured according to the cGMP guidelines and the FDA regulations.
- Electrical (standard) or pneumatic (ATEX compliant) hydraulics can be selected.

Customization or additional components allow for system expansion or complete systems according to customer specifications.

#### Technical Data

|                               |                                    |
|-------------------------------|------------------------------------|
| <b>Operating pressure:</b>    | max. 87 psi<br>(600 kPa/6 bar)     |
| <b>Differential pressure:</b> | max. 58.02 psid<br>(400 kPa/4 bar) |



|                               |  |
|-------------------------------|--|
| <b>Operating temperature:</b> | max. 284°F<br>(140°C), depending on depth filter sheets used |
| <b>Filter area per sheet:</b> | 1.3 ft² (0.12 m²)<br>(filter sheet format: 388)              |

#### Materials

|                             |  |
|-----------------------------|--|
| <b>Product cont. parts:</b> | Stainless steel AISI 316L/<br>AISI 316Ti |
| <b>Other parts:</b>         | Stainless steel AISI 304                 |
| <b>Gaskets/O-rings:</b>     | Silicone, EPDM, Viton<br>FEP-coated      |

#### Documentation

|                         |  |
|-------------------------|--|
| <b>Standard:</b>        | <ul style="list-style-type: none"> <li>- Instruction manual/ spare parts list</li> <li>- Material certificate 3.1 acc. to EN 10204</li> <li>- FDA / EU 1935/2004</li> <li>- CE 2006/42/EG</li> </ul> |
| <b>Further options:</b> | <ul style="list-style-type: none"> <li>- USP Class VI certificates</li> <li>- CE 2014/34/EG (ATEX)</li> <li>- Validation documents (FS/FAT/SAT/IQ/OQ)</li> <li>- Δ-Ferrite measurements</li> </ul>   |

| Type  | Filter area     |                   | Cake volume* |         | Chassis size | Filter plates/<br>cake frames | Depth filter sheets<br>14.8 x 15.8 in<br>(377 x 400 mm) | Weight |       |
|---|-----------------|-------------------|--------------|---------|--------------|-------------------------------|---|--------|-------|
|   | ft <sup>2</sup> | (m <sup>2</sup> ) | gal          | (l)     |              |                               |   | qty    | qty   |
| <b>A400 SF</b>  | 46.5            | (4.32)            | -            |         | 1            | 17/18                         | 36  | 1,246  | (565) |
|   | 80.1            | (7.44)            | -            |         | 2            | 30/31                         | 62  | 1,497  | (679) |
|   | 129.2           | (12.00)           | -            |         | 3            | 49/50                         | 100   | 1,852  | (840) |
| <b>A400 ASF</b><br>with 0.32"<br>(8 mm) cake<br>frames  | 46.5            | (4.32)            | 2.3          | (8.64)  | 1            | 17/18                         | 36  | 1,220  | (553) |
|   | 80.1            | (7.44)            | 3.9          | (14.88) | 2            | 30/31                         | 62  | 1,449  | (657) |
|   | 129.2           | (12.00)           | 6.3          | (24.00) | 3            | 49/50                         | 100   | 1,788  | (811) |
| <b>A400 ASF</b><br>With 0.71"<br>(18 mm) cake<br>frames | 33.6            | (3.12)            | 5.7          | (21.45) | 1            | 12/13                         | 26  | 1,242  | (563) |
|   | 54.3            | (5.04)            | 9.2          | (34.65) | 2            | 20/21                         | 42  | 1,462  | (663) |
|   | 95.6            | (8.88)            | 16.1         | (61.05) | 3            | 36/37                         | 74  | 1,857  | (842) |
| <b>A400 ASF</b><br>with 0.98"<br>(25 mm) cake<br>frames | 25.8            | (2.40)            | 6.6          | (25.00) | 1            | 9/10                          | 20  | 1,231  | (558) |
|   | 46.5            | (4.32)            | 11.9         | (45.00) | 2            | 17/18                         | 36  | 1,489  | (675) |
|   | 80.1            | (7.44)            | 20.3         | (77.00) | 3            | 30/31                         | 62  | 1,885  | (855) |
| <b>A400 ASF</b><br>with 1.57"<br>(40 mm) cake<br>frames | 18.1            | (1.68)            | 8.0          | (30.10) | 1            | 6/7                           | 14  | 1,231  | (558) |
|   | 33.6            | (3.12)            | 14.8         | (55.90) | 2            | 12/13                         | 26  | 1,500  | (680) |
|   | 59.4            | (5.52)            | 26.1         | (98.90) | 3            | 22/23                         | 46  | 1,927  | (874) |

\* usable cake volume

#### Filter Plates/Cake Frames

|               | Width |      | Cake volume* |        | Weight |        |
|---------------|-------|------|--------------|--------|--------|--------|
|               | in    | (mm) | gal          | (l)    | lb     | (kg)   |
| Filter plate  | 0.32  | (8)  |              |        | 7.1    | (3.2)  |
| Feeding plate | 0.32  | (8)  |              |        | 7.1    | (3.2)  |
| Cake frame    | 0.32  | (8)  | 0.13         | (0.48) | 5.5    | (2.5)  |
| Cake frame    | 0.71  | (18) | 0.44         | (1.65) | 12.1   | (5.5)  |
| Cake frame    | 0.98  | (25) | 0.66         | (2.50) | 16.8   | (7.6)  |
| Cake frame    | 1.57  | (40) | 1.14         | (4.30) | 26.9   | (12.2) |

\* usable cake volume

#### Connections

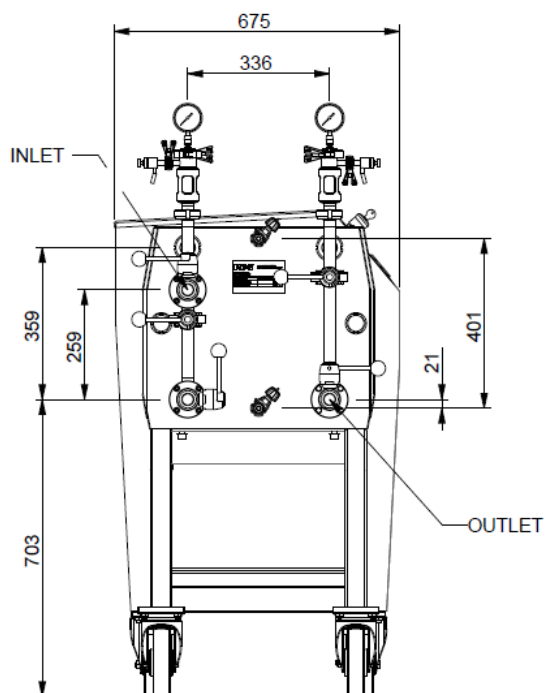
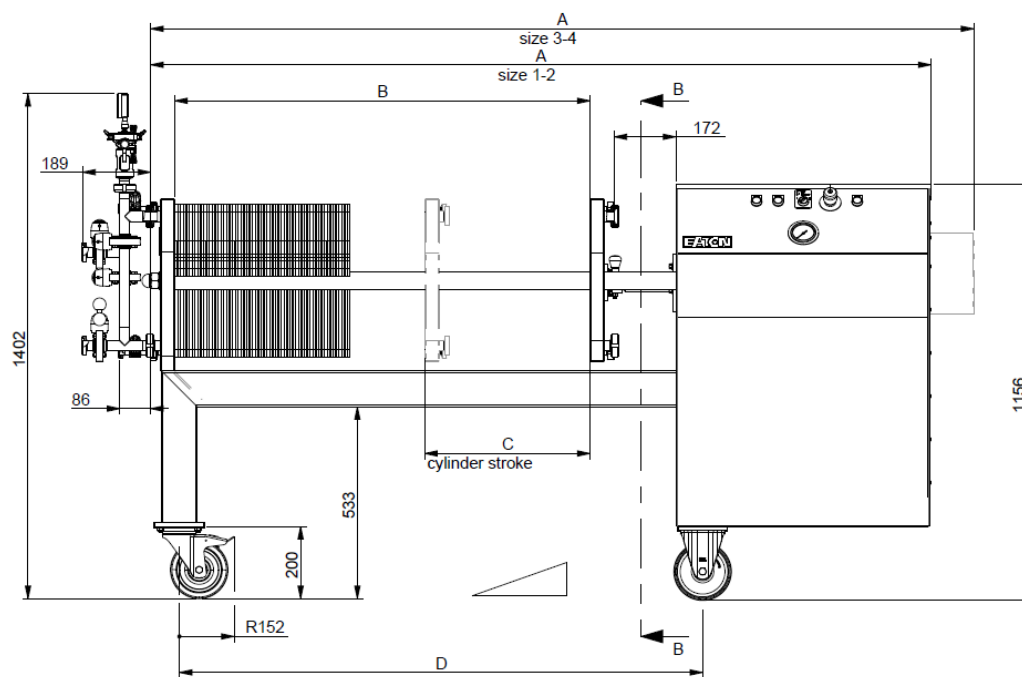
|                          |  |
|--------------------------|--|
| <b>Filter inlet:</b>     | DN 25, DIN 11851 round thread/<br>DN 25 DIN 32676-2<br>Tri-Clamp |
| <b>Filter outlet:</b>    | DN 25, DIN 11851 round thread/<br>DN 25 DIN 32676-2<br>Tri-Clamp |
| <b>External chamber:</b> | DN 10, DIN 11851 round thread/<br>DN 10 DIN 32676-2<br>Tri-Clamp |

#### Other designs

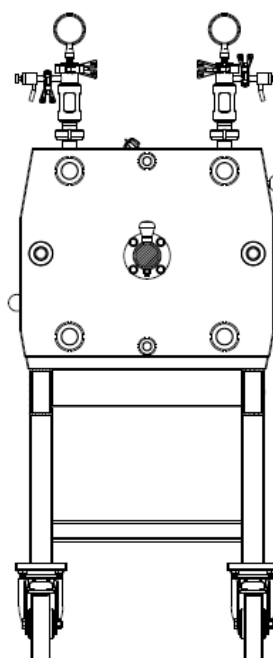
Flange connection according to EN1092-1 at in- and outlet or according to customer requirements

## Dimensions

|                | A            | B            | C           | D            |
|----------------|--------------|--------------|-------------|--------------|
|                | inch (mm)    | inch (mm)    | inch (mm)   | inch (mm)    |
| Chassis size 1 | 61.38 (1559) | 21.34 (542)  | 18.11 (460) | 33.15 (842)  |
| Chassis size 2 | 75.31 (1913) | 35.28 (896)  | 18.11 (460) | 47,09 (1196) |
| Chassis size 3 | 95.16 (2417) | 55.12 (1400) | 23.62 (600) | 66.93 (1700) |



B-B



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