

**GENERAL NOTE - STRAINERS PRODUCTION**

The Y filter is the most common and economical type of filter for permanent fluid or gas applications. Thanks to its compact construction, its light weight and its easy access for rapid cleaning, it is used for many generally standard system applications.

Permanent filter, straight line, suitable for filtering fluids in either the liquid state (water, seawater, petroleum and its derivatives) or the gaseous state (gas, air, chemical products) through a perforated plate filter element placed perpendicular to the direction of flow.

Obtained from a welded Y-joint, it ensures a large surface area for flow and thus offers a high filtration capacity with a low loss of capacity even at high speeds.

The standard equipment includes a screen suitable for high pressures, which is easy to maintain and replace and capable of filtration of more than 200% of the inlet area.



OPEN AREA RATIO=  $\frac{100 \times \text{Mesh Open Area} \times \text{Screen Area}}{\text{Inlet area}}$

| SIZES  |
|--|
| 2" - 3" - 4" - 6" - 8" - 10" - 12" - 16" - 18" - 20" - 24" |

(The calculations are based on the filtering percentage of the mesh's surface area only.)

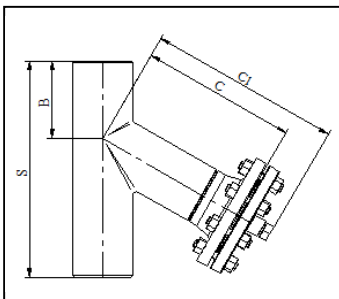
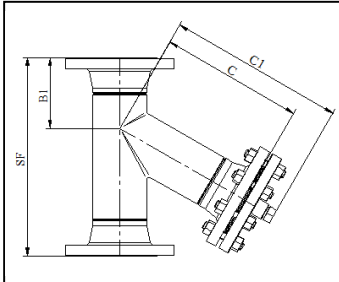
All of Blu Zac products have been designed to satisfy the requests and specific requirements of the customer, including high pressure applications.

Designed and fabricated to ASME VIII Div.1 as standard but can also be supplied to other pressure vessel codes. I.e. ASME B31.3 etc.

| CONNECTIONS |     |             |
|-------------|-----|-------------|
| Buttweld    | BW  | ANSI B16.25 |
| Flanged     | FLG | ANSI B16.5  |

**GENERAL NOTE - STRAINERS STANDARD PRODUCTION**

|                     |                     |                              |                         |                             |
|---------------------|---------------------|------------------------------|-------------------------|-----------------------------|
| <b>INSTALLATION</b> | <br>Correct         | <br>Incorrect                | <br>Correct             | <br>Incorrect               |
| <b>TYPE</b>         | <br>FYWE – Y type   | <br>FYWEY – rizer type       | <br>FYWEV – V type      |                             |
| <b>COVER</b>        | <br>Bolted Cover    | <br>Bolted Cover with Hinge  |                         |                             |
| <b>DRAIN</b>        | <br>Drain NPT-F     | <br>Drain Bevel or Plain End | <br>Drain Flanged+Blind |                             |
| <b>SUPPORT</b>      | <br>Without support | <br>With support             |                         |                             |
| <b>BASKET</b>       | <br>Basket Plane    | <br>Basket type V            | <br>Basket type W       | <br>Basket cylindrical type |



| Size           | 2"     | 3"  | 4"  | 6"   | 8"   | 10"  | 12"  | 14"  | 16"  | 18"  | 20"  | 24"  |      |
|----------------|--------|-----|-----|------|------|------|------|------|------|------|------|------|------|
| <b>S</b>       | 290    | 380 | 420 | 520  | 610  | 740  | 820  | 880  | 980  | 1030 | 1120 | 1320 |      |
| <b>B</b>       | 110    | 140 | 150 | 180  | 210  | 260  | 280  | 290  | 330  | 340  | 370  | 420  |      |
| <b>C</b>       | 210    | 260 | 300 | 400  | 500  | 600  | 700  | 750  | 850  | 940  | 1060 | 1180 |      |
| <b>SF (mm)</b> | 150RF  | 420 | 525 | 575  | 700  | 820  | 945  | 1055 | 1140 | 1240 | 1315 | 1415 | 1630 |
|                | 300RF  | 430 | 540 | 595  | 720  | 835  | 980  | 1085 | 1170 | 1280 | 1355 | 1450 | 1665 |
|                | 600RF  | 450 | 560 | 640  | 770  | 895  | 1060 | 1150 | 1225 | 1355 | 1415 | 1520 | 1745 |
|                | 900RF  | 510 | 600 | 665  | 815  | 950  | 1125 | 1240 | 1325 | 1430 | 1505 | 1635 | 1925 |
|                | 1500RF | 510 | 630 | 685  | 880  | 1050 | 1265 | 1405 | 1495 | 1620 | 1705 | 1850 | 2150 |
|                | 2500RF | 560 | 735 | 820  | 1085 | 1260 | 1595 | 1765 | no   | no   | no   | no   | no   |
|                | 150RJ  | 430 | 535 | 585  | 710  | 830  | 960  | 1065 | 1150 | 1250 | 1325 | 1425 | 1640 |
|                | 300RJ  | 445 | 555 | 610  | 735  | 850  | 995  | 1100 | 1185 | 1290 | 1365 | 1470 | 1685 |
|                | 600RJ  | 455 | 565 | 645  | 775  | 900  | 1065 | 1150 | 1240 | 1355 | 1420 | 1525 | 1755 |
|                | 900RJ  | 515 | 605 | 670  | 820  | 955  | 1130 | 1245 | 1335 | 1440 | 1520 | 1650 | 1940 |
| 1500RJ         | 515    | 635 | 690 | 885  | 1060 | 1275 | 1420 | 1515 | 1645 | 1725 | 1870 | 2180 |      |
| 2500RJ         | 665    | 740 | 830 | 1095 | 1275 | 1615 | 1775 | no   | no   | no   | no   | no   |      |
| <b>B1 (mm)</b> | 150RF  | 176 | 212 | 228  | 271  | 314  | 364  | 396  | 419  | 459  | 482  | 517  | 574  |
|                | 300RF  | 182 | 221 | 238  | 280  | 323  | 380  | 412  | 435  | 478  | 501  | 534  | 590  |
|                | 600RF  | 191 | 231 | 260  | 306  | 352  | 421  | 444  | 464  | 516  | 533  | 569  | 632  |
|                | 900RF  | 220 | 250 | 273  | 328  | 380  | 453  | 488  | 511  | 554  | 577  | 626  | 721  |
|                | 1500RF | 220 | 266 | 282  | 360  | 431  | 522  | 571  | 597  | 650  | 676  | 734  | 835  |
|                | 2500RF | 245 | 317 | 349  | 462  | 536  | 688  | 752  | no   | no   | no   | no   | no   |
|                | 150RJ  | 180 | 217 | 233  | 276  | 318  | 368  | 401  | 424  | 464  | 486  | 521  | 579  |
|                | 300RJ  | 188 | 228 | 244  | 287  | 329  | 386  | 419  | 441  | 484  | 507  | 542  | 600  |
|                | 600RJ  | 193 | 233 | 262  | 307  | 353  | 422  | 446  | 465  | 518  | 534  | 572  | 636  |
|                | 900RJ  | 222 | 252 | 274  | 330  | 382  | 454  | 490  | 516  | 559  | 583  | 632  | 730  |
| 1500RJ         | 222    | 267 | 284 | 363  | 436  | 527  | 579  | 606  | 661  | 687  | 745  | 849  |      |
| 2500RJ         | 247    | 320 | 354 | 468  | 544  | 699  | 763  | no   | no   | no   | no   | no   |      |
| <b>C1 (mm)</b> | 150RF  | 273 | 337 | 367  | 489  | 572  | 674  | 775  | 829  | 930  | 1033 | 1146 | 1271 |
|                | 300RF  | 276 | 342 | 375  | 500  | 585  | 691  | 794  | 847  | 951  | 1054 | 1167 | 1293 |
|                | 600RF  | 285 | 352 | 388  | 518  | 606  | 713  | 816  | 870  | 976  | 1083 | 1199 | 1332 |
|                | 900RF  | 298 | 358 | 394  | 526  | 613  | 720  | 829  | 886  | 989  | 1102 | 1218 | 1370 |
|                | 1500RF | 298 | 368 | 404  | 553  | 642  | 758  | 874  | 933  | 1046 | 1162 | 1288 | 1433 |
|                | 2500RF | 311 | 386 | 426  | 578  | 677  | 815  | 934  | no   | no   | no   | no   | no   |
|                | 150RJ  | 277 | 342 | 372  | 494  | 577  | 678  | 780  | 833  | 935  | 1038 | 1151 | 1276 |
|                | 300RJ  | 282 | 348 | 382  | 506  | 591  | 698  | 801  | 854  | 957  | 1060 | 1175 | 1303 |
|                | 600RJ  | 287 | 353 | 390  | 519  | 607  | 715  | 818  | 871  | 978  | 1084 | 1202 | 1336 |
|                | 900RJ  | 300 | 360 | 396  | 527  | 615  | 721  | 831  | 891  | 994  | 1108 | 1224 | 1379 |
| 1500RJ         | 300    | 369 | 405 | 556  | 647  | 763  | 882  | 943  | 1057 | 1173 | 1299 | 1447 |      |
| 2500RJ         | 312    | 390 | 431 | 584  | 685  | 826  | 945  | no   | no   | no   | no   | no   |      |

| DIMENSION TOLLERANCE |            |             |
|----------------------|------------|-------------|
| SIZE                 | DIMENSION* |             |
|                      | S<br>SF    | B & C<br>C1 |
| 1/2" to 2.1/2"       | ± 2        | ± 5         |
| 3" to 4"             | ± 2        | ± 5         |
| 6" to 8"             | ± 3        | ± 6         |
| 10" to 18"           | ± 4        | ± 8         |
| 20" to 24"           | ± 5        | ± 10        |
| 26" to 30"           | ± 6        | ± 12        |
| 32" to 48"           | ± 10       | ± 15        |

\*S, SF, A, H and H1 are in millimeters (mm)

## Y - TYPE STRAINERS FYWE - welded

| POS | DESCRIPTION  | MATERIALS                             | MATERIALS                             | MATERIALS                             | MATERIALS                             | SPARES |
|-----|--------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------|
| 1   | Body         | ASTM A106 Gr.B                        | ASTM A333 Gr.6                        | ASTM A312 TP304                       | ASTM A312 TP316                       |        |
| 2   | Flange       | ASTM A105                             | ASTM A350 LF2                         | ASTM A182 F304                        | ASTM A182 F316                        |        |
| 3   | Blind flange | ASTM A105                             | ASTM A350 LF2                         | ASTM A182 F304                        | ASTM A182 F316                        |        |
| 4   | Basket       | AISI 304 or 316                       | AISI 304 or 316                       | AISI 304 or 316                       | AISI 304 or 316                       | X      |
| 5   | Frame        | AISI 304 or 316                       | AISI 304 or 316                       | AISI 304 or 316                       | AISI 304 or 316                       |        |
| 6   | Guide rods   | ASTM A105                             | ASTM A350 LF2                         | ASTM A182 F304                        | ASTM A182 F316                        |        |
| 7   | Gasket       | SPW: F-Graphite<br>W-316 IR-316 OR-CS | SPW: F-Graphite<br>W-316 IR-316 OR-CS | SPW: F-Graphite<br>W-316 IR-316 OR-CS | SPW: F-Graphite<br>W-316 IR-316 OR-CS | X      |
| 8   | Bolts        | ASTM A193 B7                          | ASTM A320 L7                          | ASTM A193 B8                          | ASTM A193 B8                          |        |
| 9   | Nuts         | ASTM A194 Gr.2H                       | ASTM A194 Gr.4                        | ASTM A194 Gr.8                        | ASTM A194 Gr.8                        |        |
| 10  | Drain        | ASTM A105                             | ASTM A350 LF2                         | ASTM A182 F304                        | ASTM A182 F316                        |        |
| 11  | Handle       | Carbon Steel                          | Carbon Steel                          | Carbon Steel                          | Carbon Steel                          |        |
| 12  | Hinge        | Carbon Steel                          | Carbon Steel                          | Carbon Steel                          | Carbon Steel                          |        |
| 13  | Support      | Carbon Steel                          | Carbon Steel                          | Carbon Steel                          | Carbon Steel                          |        |

Note 1: Other Materials and Dimensions on Request

Note 2: Detail 12 and 13 are optional if required by client.

Note 3: When the Body material is Stainless Steel, standard accessories Hinge, Davit and Support will be in Carbon Steel material;

### HOW TO MAKE FACILITIES SERVICES

Usually, the maintenance of the filters should be done once a year or when the pressure drop exceeds the normally expected pressure drop.

Important: check system at least once a month and, if possible, undertake a quick cleaning.

### HOW TO MAINTAIN:

1. Before starting, wear the required safety equipment and follow all plant safety procedures.
2. Stop the main line to make sure that no residues of dangerous waste fluid could be emitted.
3. Unscrew cover studs(8) and nuts(9), then remove the cover flange(3) and gasket(7).
4. Remove the screen(4), clean the block with compressed air or any other appropriate tools. Inspect thoroughly to check for any damage; if the basket is damaged or deformed, it must be replaced with a new one.
5. Thoroughly clean the inside of the vessel before inserting the filter basket.
6. Install the basket in the body(1).
7. Replace the gasket(7).
8. Reposition the cover flange (3), then screw the studs(8) and nuts(9) of the cover.
9. Slowly start the plant and check if there are any line losses.
10. Apply a label to the filter with the maintenance date.

### ORDER CODE

i.e. FYWE 2" 150RF BW-XS WPB/F304 M3-O6 +DRAIN ¼" NPT

