



# Feedwater/Condensate Return Systems and Blow-Down Separators

For Boilers from 1 to 500 HP



# HORIZONTAL FEEDWATER/CONDENSATE RETURN SYSTEMS

## FEATURES

Fulton condensate return systems are completely assembled with tank, stand, high pressure pump, motor, strainer, float valve, shut-off valve, gauge glass assembly, with overflow and drain openings.

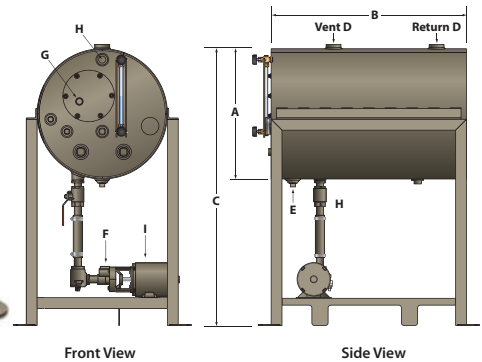
- Heavy gauge properly sized tanks built for quick installation and removal or replacement
- Heavy duty feed water pump
- Rigid welded support frame



*Horizontal Condensate Return Systems Designed For Boilers From 4 HP to 500 HP*

Optional preheat kits are available.

Standard pump is good for 180°F maximum water temperature. Pumps for higher temperature water are available upon request.



## SPECIFICATIONS & DIMENSIONS

| Model HT                     |                             | 10     | 20    | 30    | 50    | 60    | 80    | 100    | 150     | 200     | 250     | 300     | 350     | 400     | 500     |  |
|------------------------------|-----------------------------|--------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|--|
| <b>For Boiler Size</b>       | HP                          | 4-12.5 | 13-21 | 22-30 | 31-50 | 51-60 | 61-80 | 81-100 | 101-150 | 151-200 | 201-250 | 251-300 | 301-350 | 351-400 | 401-500 |  |
| <b>Full Capacity</b>         | GALLONS                     | 33     | 40    | 46    | 71    | 94    | 128   | 147    | 220     | 220     | 317     | 317     | 432     | 432     | 504     |  |
|                              | LITERS                      | 125    | 151   | 174   | 269   | 356   | 485   | 556    | 833     | 833     | 1200    | 1200    | 1635    | 1635    | 1908    |  |
| <b>Weight</b>                | LBS                         | 160    | 180   | 195   | 325   | 465   | 560   | 650    | 1190    | 1190    | 1430    | 1430    | 1670    | 1670    | 1948    |  |
|                              | KGS                         | 73     | 82    | 89    | 148   | 211   | 254   | 295    | 540     | 540     | 649     | 649     | 757     | 757     | 884     |  |
| <b>DIMENSIONS</b>            |                             |        |       |       |       |       |       |        |         |         |         |         |         |         |         |  |
| <b>(A) Tank Diameter</b>     | IN                          | 18     | 18    | 18    | 24    | 24    | 28    | 30     | 30      | 30      | 36      | 36      | 42      | 42      | 42      |  |
|                              | MM                          | 457    | 457   | 457   | 610   | 610   | 711   | 762    | 762     | 762     | 914     | 914     | 1067    | 1067    | 1067    |  |
| <b>(B) Tank Length</b>       | IN                          | 30     | 36    | 42    | 36    | 48    | 48    | 48     | 72      | 72      | 72      | 72      | 72      | 72      | 84      |  |
|                              | MM                          | 762    | 914   | 1067  | 914   | 1219  | 1219  | 1219   | 1829    | 1829    | 1829    | 1829    | 1829    | 1829    | 2134    |  |
| <b>(C) Overall Height</b>    | IN                          | 45     | 45    | 45    | 52    | 52    | 56    | 80     | 80      | 80      | 86      | 86      | 92      | 92      | 92      |  |
|                              | Floor-Top Of Tank<br>MM     | 1143   | 1143  | 1143  | 1321  | 1321  | 1422  | 2032   | 2032    | 2032    | 2185    | 2185    | 2337    | 2337    | 2337    |  |
| <b>(D) Vent/Return</b>       | IN                          | 1.25   | 1.25  | 1.25  | 2     | 2     | 2     | 3      | 3       | 3       | 3       | 3       | 3       | 3       | 3       |  |
|                              | MM                          | 32     | 32    | 32    | 51    | 51    | 51    | 76     | 76      | 76      | 76      | 76      | 76      | 76      | 76      |  |
| <b>(E) Drain</b>             | IN                          | .50    | .50   | .50   | 1     | 1     | 1     | 1      | 1       | 1       | 1.25    | 1.25    | 1.25    | 1.25    | 1.25    |  |
|                              | MM                          | 13     | 13    | 13    | 25    | 25    | 25    | 25     | 25      | 25      | 32      | 32      | 32      | 32      | 32      |  |
| <b>(F) Pump Outlet</b>       | IN                          | 1      | 1     | 1     | 1     | 1     | 1     | 1      | 1.25    | 1.25    | 2       | 2       | 2       | 2       | 2       |  |
|                              | MM                          | 25     | 25    | 25    | 25    | 25    | 25    | 25     | 32      | 32      | 51      | 51      | 51      | 51      | 51      |  |
| <b>(G) Cold Water Inlet</b>  | IN                          | .50    | .50   | .50   | .75   | .75   | .75   | .75    | 1       | 1       | 1       | 1       | 1.25    | 1.25    | 1.5     |  |
|                              | MM                          | 13     | 13    | 13    | 19    | 19    | 19    | 19     | 25      | 25      | 25      | 25      | 32      | 32      | 38      |  |
| <b>(H)* Overflow Opening</b> | IN                          | 1      | 1     | 1     | 1     | 1     | 1     | 1      | 1       | 1       | 1       | 1       | 1.25    | 1.25    | 1.25    |  |
|                              | MM                          | 25     | 25    | 25    | 25    | 25    | 25    | 25     | 25      | 25      | 25      | 25      | 32      | 32      | 32      |  |
| <b>(I) Pump HP</b>           | 1 Ph. Motor                 | .50    | .75   | 2     | 2     | *     | *     | 3      | 5       | 7.5     | 7.5     | 7.5     | *       | *       | *       |  |
|                              | (High Pres Blr) 3 Ph. Motor | .50    | .75   | 2     | 2     | 5     | 5     | 3      | 5       | 7.5     | 7.5     | 7.5     | 15      | 15      | 15      |  |
| <b>(I) Pump HP</b>           | 1 Ph. Motor                 | .25    | .33   | .33   | .5    | 1     | 1     | .5     | .75     | 1       | 1.5     | 1.5     | 2       | 2       | 2       |  |
|                              | (Low Pres Blr) 3 Ph. Motor  | *      | .33   | .33   | .5    | 1     | 1     | .5     | .75     | 1       | 1.5     | 1.5     | 2       | 2       | 2       |  |

\* Overflow opening must be piped to drain. \* Consult Factory

# VERTICAL FEEDWATER/CONDENSATE RETURN SYSTEMS

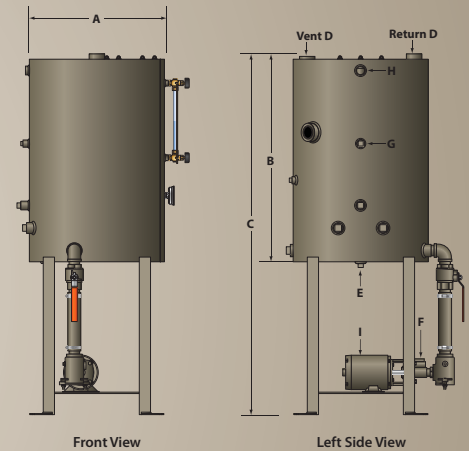
## FEATURES

Both the horizontal and the vertical condensate return systems are available in heavy gauge "long lasting" steel only. Vertical tanks have all the same assembly components that the horizontal tanks do.

- Increased pump life under normal operation because of higher head pressure
- Vertical return systems can be ordered separately or skid-mounted and piped to your boiler
- Easily serviced from the top
- Complete float assembly can be removed without draining tank



*Vertical Condensate Return Systems Designed For Compact Space Saving Applications For Boilers From 1 HP up to 100 HP*



## SPECIFICATIONS & DIMENSIONS

| Model VT                     |                             | 10       | 20      | 30      | 50      | 60      | 80      | 100      |
|------------------------------|-----------------------------|----------|---------|---------|---------|---------|---------|----------|
| <b>For Boiler Size</b>       | HP                          | 4 - 12.5 | 13 - 21 | 22 - 30 | 31 - 50 | 51 - 60 | 61 - 80 | 81 - 100 |
| <b>Full Capacity</b>         | GALLONS                     | 33       | 40      | 46      | 71      | 94      | 128     | 147      |
|                              | LITERS                      | 125      | 151     | 174     | 269     | 356     | 485     | 556      |
| <b>Weight</b>                | LBS                         | 160      | 180     | 195     | 325     | 465     | 560     | 650      |
|                              | KGS                         | 73       | 82      | 89      | 148     | 211     | 254     | 295      |
| <b>DIMENSIONS</b>            |                             |          |         |         |         |         |         |          |
| <b>(A) Tank Diameter</b>     | IN                          | 18       | 18      | 18      | 24      | 24      | 28      | 30       |
|                              | MM                          | 457      | 457     | 457     | 610     | 610     | 711     | 762      |
| <b>(B) Tank Height</b>       | IN                          | 30       | 36      | 42      | 36      | 48      | 48      | 48       |
|                              | MM                          | 762      | 914     | 1067    | 914     | 1219    | 1219    | 1219     |
| <b>(C) Overall Height</b>    | IN                          | 51       | 57      | 63      | 59      | 71      | 71      | 71       |
| <b>Floor-Top Of Tank</b>     | MM                          | 1295     | 1448    | 1600    | 1499    | 1803    | 1803    | 1803     |
| <b>CONNECTIONS</b>           |                             |          |         |         |         |         |         |          |
| <b>(D) Vent/Return</b>       | IN                          | 1.25     | 1.25    | 1.25    | 2       | 2       | 2       | 2        |
|                              | MM                          | 32       | 32      | 32      | 51      | 51      | 51      | 51       |
| <b>(E) Drain</b>             | IN                          | .50      | .50     | .50     | 1       | 1       | 1       | 1        |
|                              | MM                          | 13       | 13      | 13      | 25      | 25      | 25      | 25       |
| <b>(F) Pump Outlet</b>       | IN                          | 1        | 1       | 1       | 1       | 1       | 1       | 1        |
|                              | MM                          | 25       | 25      | 25      | 25      | 25      | 25      | 25       |
| <b>(G) Cold Water Inlet</b>  | IN                          | .50      | .50     | .50     | .75     | .75     | .75     | .75      |
|                              | MM                          | 13       | 13      | 13      | 19      | 19      | 19      | 19       |
| <b>(H)* Overflow Opening</b> | IN                          | 1        | 1       | 1       | 1       | 1       | 1       | 1        |
|                              | MM                          | 25       | 25      | 25      | 25      | 25      | 25      | 25       |
| <b>(I) Pump HP</b>           | 1 Ph. Motor                 | .50      | .75     | 2       | 2       | NA      | NA      | 3        |
|                              | (High Pres Blr) 3 Ph. Motor | .50      | .75     | 2       | 2       | 5       | 5       | 3        |
| <b>(I) Pump HP</b>           | 1 Ph. Motor                 | .25      | .33     | .33     | .5      | 1       | 1       | .5       |
|                              | (Low Pres Blr) 3 Ph. Motor  | NA       | .33     | .33     | .5      | 1       | 1       | .5       |

\* Overflow opening must be piped to drain.

# BLOW-DOWN SEPARATORS

## FEATURES

Constructed with the finest quality materials, all compact Fulton Blow-Down Separators meet or exceed ASME Code and include special features to insure safe boiler blow-down. Fulton Blow-Down Separators also operate with minimum maintenance.

- Baffle plate absorbs steam flash and pressure
- Steam is expelled safely through vent
- Water and sludge pass through drain to sewer
- 3" x 4" handhole for cleaning and inspection
- Welded to ASME Pressure Vessel Code
- Fast, easy hook-up to boiler

### *Fulton's full line of heat transfer products includes:*

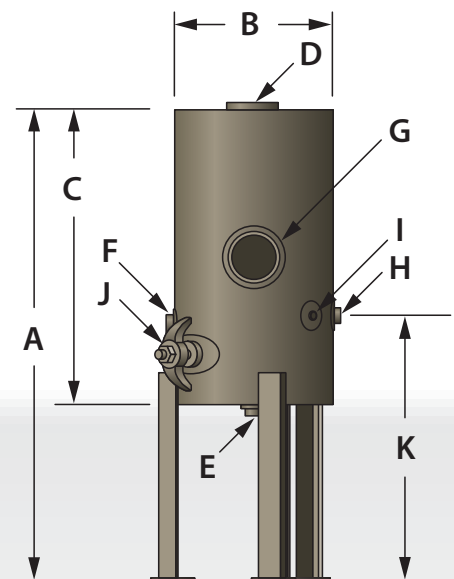
- Fuel-fired vertical tubeless steam and hot water boilers
- Electric steam and hot water boilers
- Condensing and non-condensing commercial heating boilers
- Fuel-fired and electric thermal fluid heaters
- Customized sequencing and complete system control solutions

*Larger blow-down separators are available for larger horsepower applications. Consult factory.*

Optional cooling kits available.

## SPECIFICATIONS/DIMENSIONS/CONNECTIONS

| Model F              |         | 10       | 20       | 30       | 50       | 75       | 100      | 150       |
|----------------------|---------|----------|----------|----------|----------|----------|----------|-----------|
| For Boiler Size      | HP      | 4 - 10   | 11 - 20  | 21 - 30  | 31 - 50  | 51 - 75  | 76 - 100 | 101 - 150 |
| Max. Boiler Pressure | PSI     | 150      | 150      | 150      | 150      | 150      | 150      | 150       |
| Capacity             | GALLONS | 7.9      | 17.4     | 22       | 35.6     | 40.8     | 58.75    | 70.5      |
|                      | LITERS  | 30       | 66       | 83       | 135      | 154      | 222      | 267       |
| Weight               | LBS     | 110      | 190      | 200      | 255      | 295      | 415      | 450       |
|                      | KGS     | 50       | 86       | 91       | 116      | 134      | 188      | 204       |
| <b>DIMENSIONS</b>    |         |          |          |          |          |          |          |           |
| (A) Height           | IN      | 32       | 34       | 34       | 40       | 44       | 44       | 50        |
|                      | MM      | 813      | 864      | 864      | 1016     | 1118     | 1118     | 1270      |
| (B) Diameter         | IN      | 10.75    | 16       | 18       | 20       | 20       | 24       | 24        |
|                      | MM      | 254      | 406      | 457      | 508      | 508      | 610      | 610       |
| (C) Tank Height      | IN      | 20       | 20       | 20       | 26       | 30       | 30       | 36        |
|                      | MM      | 508      | 508      | 508      | 660      | 762      | 762      | 914       |
| (D) Vent             | IN      | 3        | 3        | 3        | 3        | 4        | 4        | 4         |
|                      | MM      | 76       | 76       | 76       | 76       | 102      | 102      | 102       |
| (E) Drain            | IN      | 1.5      | 1.5      | 1.5      | 1.5      | 1.5      | 1.5      | 1.5       |
|                      | MM      | 38       | 38       | 38       | 38       | 38       | 38       | 38        |
| (F) Water Supply     | IN      | .75      | 1        | 1        | 1        | 1        | 1        | 1         |
|                      | MM      | 19       | 25       | 25       | 25       | 25       | 25       | 25        |
| (G) Outlet           | IN      | 3        | 3        | 3        | 3        | 3        | 3        | 3         |
|                      | MM      | 76       | 76       | 76       | 76       | 76       | 76       | 76        |
| (H) Inlet            | IN      | 1        | 1.25     | 1.25     | 1.50     | 2        | 2        | 2         |
|                      | MM      | 25       | 32       | 32       | 38       | 51       | 51       | 51        |
| (I) Thermometer      | IN      | .50      | .50      | .50      | .50      | .50      | .50      | .50       |
|                      | MM      | 13       | 13       | 13       | 13       | 13       | 13       | 13        |
| (J) Handhole         | IN      | 3 x 4    | 3 x 4    | 3 x 4    | 3 x 4    | 3 x 4    | 3 x 4    | 3 x 4     |
|                      | MM      | 76 x 102 | 76 x 102 | 76 x 102 | 76 x 102 | 76 x 102 | 76 x 102 | 76 x 102  |
| (K) Inlet Height     | IN      | 16       | 18       | 18       | 18       | 18       | 18       | 18        |
|                      | MM      | 406      | 457      | 457      | 457      | 457      | 457      | 457       |



The heat transfer innovators.

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RETURN-SYSTEMS-BRO\_2014-0903