

# Hydraulic Separator

## Air and Dirt Separation in Ultimate Stability

### Low Velocity / Loss Headers with Demountable and Magnetic options

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**British manufactured all in Stainless Steel**

**Hydronic Balancing** is the process of optimising the distribution of water in a building's heating or cooling system so it provides the intended indoor climate at optimum energy efficiency and minimal operating cost.

A well balanced hydraulic water system is highly important for HVAC and process systems with separated circuits or several groups and pumps. The successful removal of air and dirt also contributes towards the achievement of optimum system performance. Hydraulic balancing and air and dirt separation are combined in the Hydraulic Separator

Magnetic Low Velocity/Loss headers are an extended development from Magnetic Microbubble Air & Dirt Separators. The use of LV/LH's has developed as the norm to be specified in particular with condensing boilers and boilers of low water content where Magnetite and sludge particles can easily damage the system. Some end up being fabricated on site. Whilst not being totally ineffective they do not contain the factory produced internal membranes to cause micro air bubbles to rise to the top and magnetite and dirt to fall to the bottom.

### Features and Benefits

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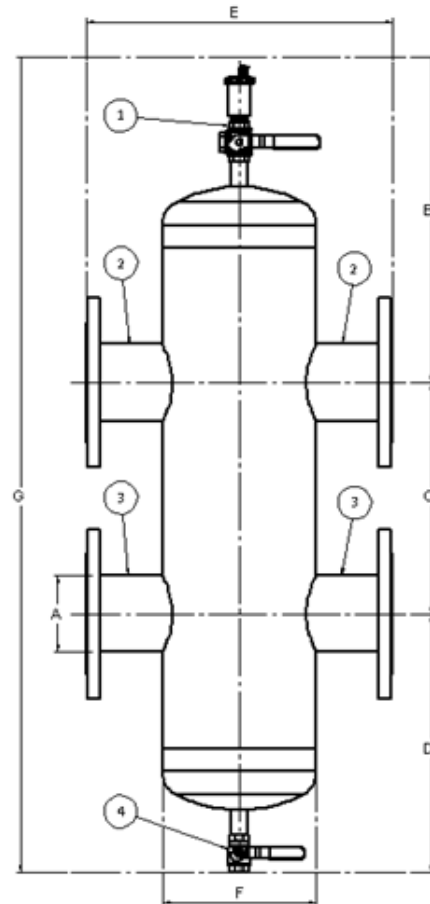
- The Hydraulic Separator can be used for both new build projects and for renovating heating, cooling and process systems.
- Trapped dirt can be discharged while the system is in operation.
- The Hydraulic Separator is suitable for water and water/glycol mixtures (max. 50%).
- The Hydraulic Separator is suitable for a temperature range of 0 to 110 °C and for an operating pressure of 0 to 10 bar. The flange connection is PN 16.
- Other sizes, materials, pressures and temperatures are available on request.
- Custom-made solutions and OEM applications
- Fabricated Products offers not only standard products. If required, we work with customers to produce custom-made solutions. These are based on users' specific requirements. If considered necessary, these can also be supplied as OEM products.

# Hydraulic Separator

## Air and Dirt Separation in Ultimate Stability

### HY-CVAD – Hydraulic Air and Dirt Separator

| Model No.          | A   | B    | C    | D    | E    | F   | G    | Drain mm | Primary Flow L/Sec |
|--------------------|-----|------|------|------|------|-----|------|----------|--------------------|
| <b>HY-CVAD-50</b>  | 50  | 415  | 250  | 295  | 430  | 165 | 960  | 25       | 1.4-4.2            |
| <b>HY-CVAD-65</b>  | 65  | 425  | 310  | 310  | 430  | 165 | 1045 | 25       | 2.8-4.7            |
| <b>HY-CVAD-80</b>  | 80  | 440  | 370  | 320  | 490  | 220 | 1130 | 25       | 4.2-8.3            |
| <b>HY-CVAD-100</b> | 100 | 540  | 470  | 425  | 490  | 220 | 1435 | 25       | 6.9-15.3           |
| <b>HY-CVAD-125</b> | 125 | 605  | 570  | 500  | 630  | 324 | 1675 | 25       | 9.7-22.2           |
| <b>HY-CVAD-150</b> | 150 | 685  | 680  | 565  | 630  | 324 | 1930 | 25       | 15.3-33.3          |
| <b>HY-CVAD-200</b> | 200 | 845  | 880  | 765  | 810  | 406 | 2490 | 50       | 25-55.6            |
| <b>HY-CVAD-250</b> | 250 | 940  | 1100 | 860  | 880  | 508 | 2900 | 50       | 30.6-97.2          |
| <b>HY-CVAD-300</b> | 300 | 1090 | 1300 | 1010 | 1110 | 610 | 3400 | 50       | 41.7-138.9         |



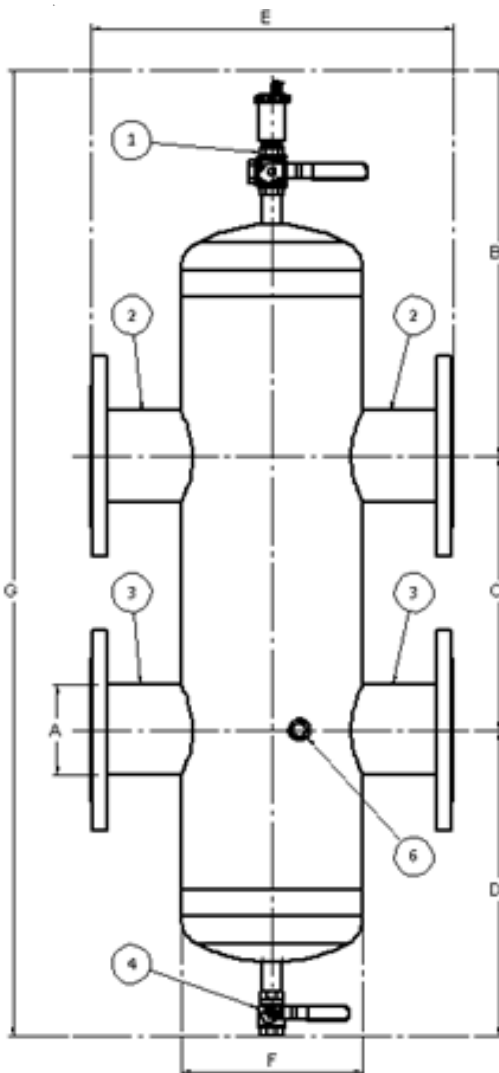
1. The automatic air eliminator at the top plus a quick bleed valve.
2. Boiler flow connection.
3. Boiler return connection.
4. The BSP drain valve at the base for periodic flushing of sludge.
5. Internal stainless-steel membrane to encourage air to rise plus dirt and magnetite to fall.
6. Optional – Insert ½” tapping’s in the flow and return for instruments if required.
7. Optional – We can mount the unit on a base support with the drain coming out the side.

# Hydraulic Separator

## Air and Dirt Separation in Ultimate Stability

### HY-MAGCVAD – Hydraulic Air and Dirt Separator with Magnetic Rod

| Model No.             | A   | B    | C    | D    | E    | F   | G    | Drain mm | Primary Flow L/Sec |
|-----------------------|-----|------|------|------|------|-----|------|----------|--------------------|
| <b>HY-MAGCVAD-50</b>  | 50  | 415  | 250  | 295  | 430  | 165 | 960  | 25       | 1.4-4.2            |
| <b>HY-MAGCVAD-65</b>  | 65  | 425  | 310  | 310  | 430  | 165 | 1045 | 25       | 2.8-4.7            |
| <b>HY-MAGCVAD-80</b>  | 80  | 440  | 370  | 320  | 490  | 220 | 1130 | 25       | 4.2-8.3            |
| <b>HY-MAGCVAD-100</b> | 100 | 540  | 470  | 425  | 490  | 220 | 1435 | 25       | 6.9-15.3           |
| <b>HY-MAGCVAD-125</b> | 125 | 605  | 570  | 500  | 630  | 324 | 1675 | 25       | 9.7-22.2           |
| <b>HY-MAGCVAD-150</b> | 150 | 685  | 680  | 565  | 630  | 324 | 1930 | 25       | 15.3-33.3          |
| <b>HY-MAGCVAD-200</b> | 200 | 845  | 880  | 765  | 810  | 406 | 2490 | 50       | 25-55.6            |
| <b>HY-MAGCVAD-250</b> | 250 | 940  | 1100 | 860  | 880  | 508 | 2900 | 50       | 30.6-97.2          |
| <b>HY-MAGCVAD-300</b> | 300 | 1090 | 1300 | 1010 | 1110 | 610 | 3400 | 50       | 41.7-138.9         |



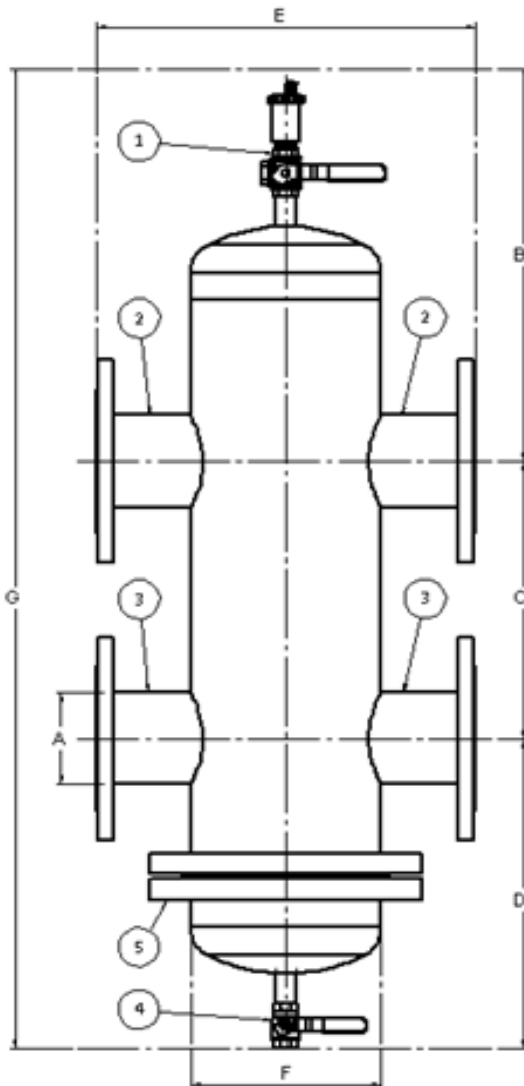
1. The automatic air eliminator at the top plus a quick bleed valve.
2. Boiler flow connection.
3. Boiler return connection.
4. The BSP drain valve at the base for periodic flushing of sludge.
5. Internal stainless-steel membrane to encourage air to rise plus dirt and magnetite to fall.
6. The magnetic rod removes magnetite even at 5 microns and below.
7. Optional – Insert ½” tapping’s in the flow and return for instruments if required.
8. Optional – We can mount the unit on a base support with the drain coming out the side.

# Hydraulic Separator

## Air and Dirt Separation in Ultimate Stability

### HY-CVAD-R – Hydraulic Air and Dirt Separator with Removable Base

| Model No.           | A   | B    | C    | D    | E    | F   | G    | Drain mm | Primary Flow L/Sec |
|---------------------|-----|------|------|------|------|-----|------|----------|--------------------|
| <b>HY-CVAD-R50</b>  | 50  | 415  | 250  | 333  | 430  | 165 | 998  | 25       | 1.4-4.2            |
| <b>HY-CVAD-R65</b>  | 65  | 425  | 310  | 348  | 430  | 165 | 1083 | 25       | 2.8-4.7            |
| <b>HY-CVAD-R80</b>  | 80  | 440  | 370  | 368  | 490  | 220 | 1178 | 25       | 4.2-8.3            |
| <b>HY-CVAD-R100</b> | 100 | 540  | 470  | 473  | 490  | 220 | 1483 | 25       | 6.9-15.3           |
| <b>HY-CVAD-R125</b> | 125 | 605  | 570  | 548  | 630  | 324 | 1723 | 25       | 9.7-22.2           |
| <b>HY-CVAD-R150</b> | 150 | 685  | 680  | 613  | 630  | 324 | 1978 | 25       | 15.3-33.3          |
| <b>HY-CVAD-R200</b> | 200 | 845  | 880  | 835  | 810  | 406 | 2560 | 50       | 25-55.6            |
| <b>HY-CVAD-R250</b> | 250 | 940  | 1100 | 930  | 880  | 508 | 2970 | 50       | 30.6-97.2          |
| <b>HY-CVAD-R300</b> | 300 | 1090 | 1300 | 1080 | 1110 | 610 | 3470 | 50       | 41.7-138.9         |



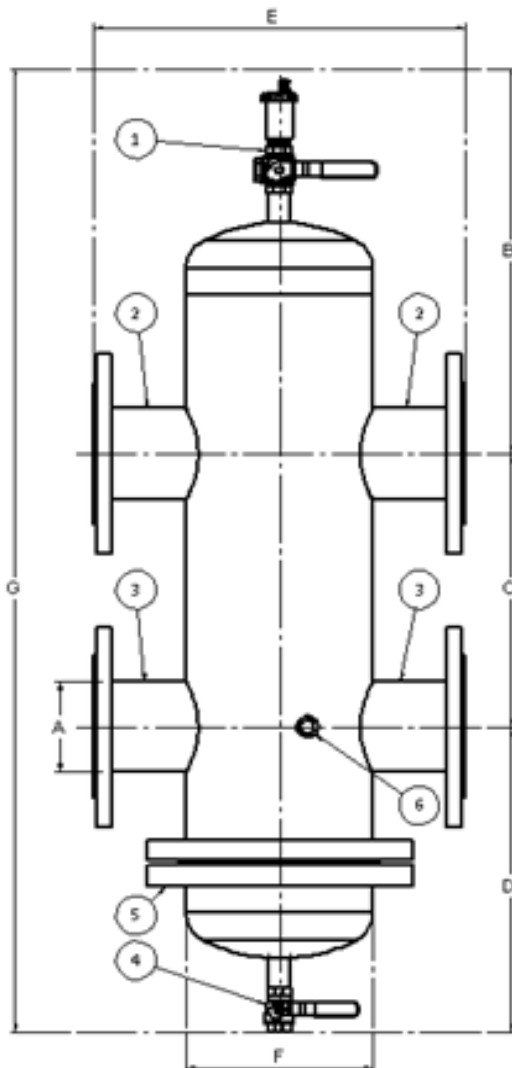
1. The automatic air eliminator at the top plus a quick bleed valve.
2. Boiler flow connection.
3. Boiler return connection.
4. The BSP drain valve at the base for periodic flushing of sludge.
5. The demountable/removable base flange for total periodic cleaning.
6. Internal stainless-steel membrane to encourage air to rise plus dirt and magnetite to fall.
7. Optional – Insert ½” tapping’s in the flow and return for instruments if required.
8. Optional – We can mount the unit on a base support with the drain coming out the side.

# Hydraulic Separator

## Air and Dirt Separation in Ultimate Stability

### HY-MAGCVAD-R – Hydraulic Air and Dirt Separator with Removable Base + Magnetic Rod

| Model No.       | A   | B    | C    | D    | E    | F   | G    | Drain mm | Primary Flow L/Sec |
|-----------------|-----|------|------|------|------|-----|------|----------|--------------------|
| HY-MAGCVAD-R50  | 50  | 415  | 250  | 333  | 430  | 165 | 998  | 25       | 1.4-4.2            |
| HY-MAGCVAD-R65  | 65  | 425  | 310  | 348  | 430  | 165 | 1083 | 25       | 2.8-4.7            |
| HY-MAGCVAD-R80  | 80  | 440  | 370  | 368  | 490  | 220 | 1178 | 25       | 4.2-8.3            |
| HY-MAGCVAD-R100 | 100 | 540  | 470  | 473  | 490  | 220 | 1483 | 25       | 6.9-15.3           |
| HY-MAGCVAD-R125 | 125 | 605  | 570  | 548  | 630  | 324 | 1723 | 25       | 9.7-22.2           |
| HY-MAGCVAD-R150 | 150 | 685  | 680  | 613  | 630  | 324 | 1978 | 25       | 15.3-33.3          |
| HY-MAGCVAD-R200 | 200 | 845  | 880  | 835  | 810  | 406 | 2560 | 50       | 25-55.6            |
| HY-MAGCVAD-R250 | 250 | 940  | 1100 | 930  | 880  | 508 | 2970 | 50       | 30.6-97.2          |
| HY-MAGCVAD-R300 | 300 | 1090 | 1300 | 1080 | 1110 | 610 | 3470 | 50       | 41.7-138.9         |



1. The automatic air eliminator at the top plus a quick bleed valve.
2. Boiler flow connection.
3. Boiler return connection.
4. The BSP drain valve at the base for periodic flushing of sludge
5. The demountable/removable base flange for total periodic cleaning
6. The magnetic rod removes magnetite even at 5 microns and below
7. Internal stainless-steel membrane to encourage air to rise plus dirt and magnetite to fall.
8. Optional - Insert ½" tapping's in the flow and return for instruments if required.
9. Optional - We can mount the unit on a base support with the drain coming out the side