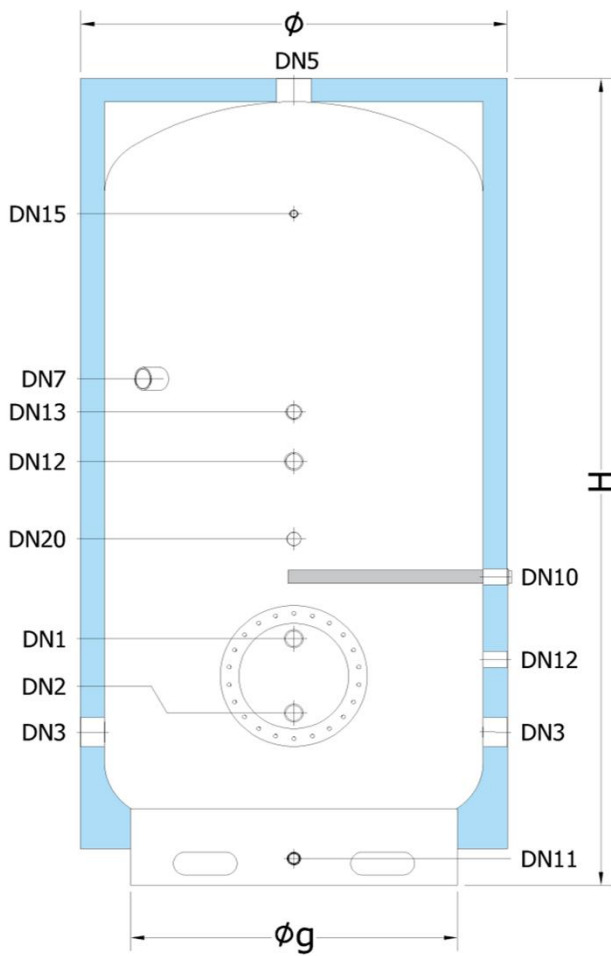
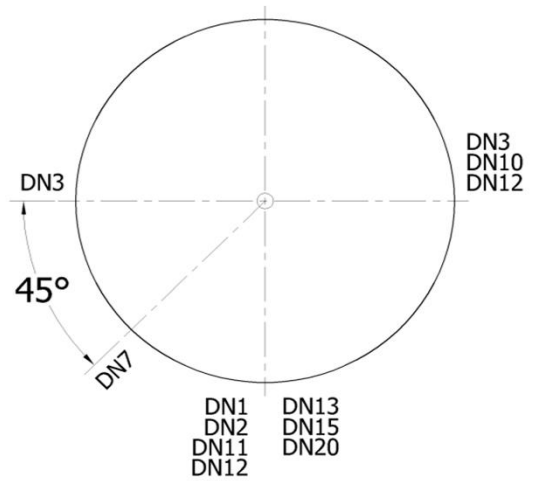
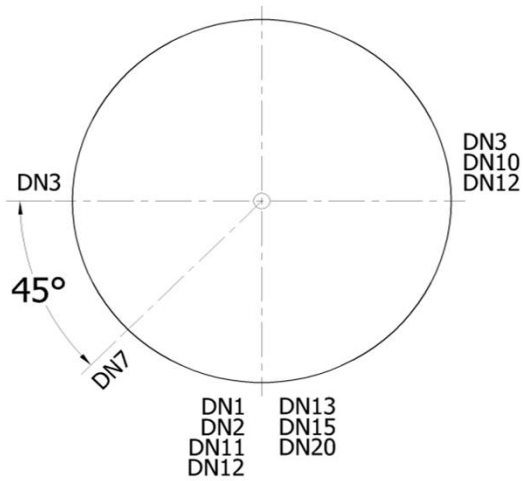
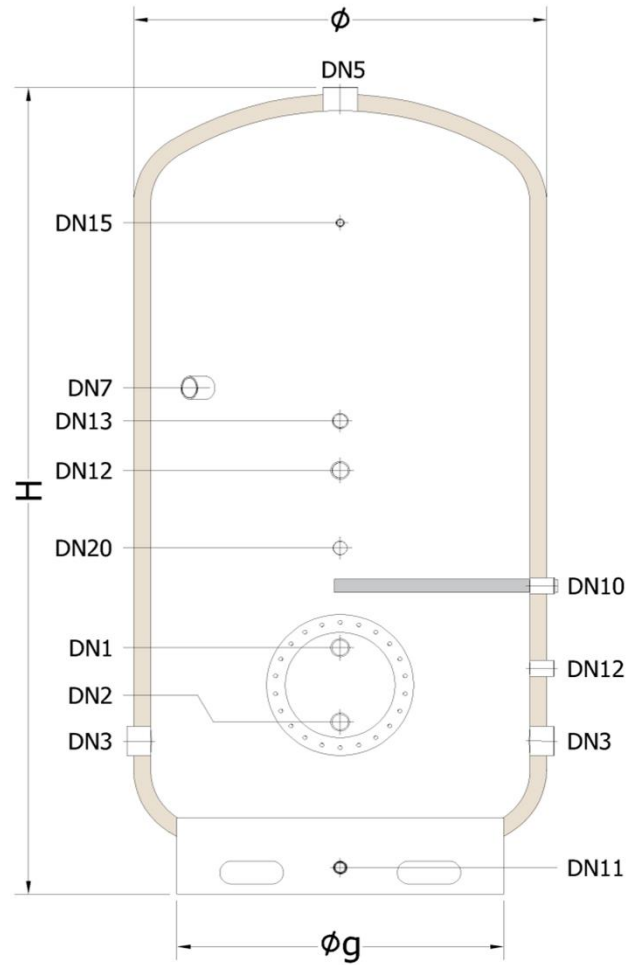


### BF-1 1500÷2000



### BF-1 3000÷5000



## Dati dimensionali / Ratings data sheet

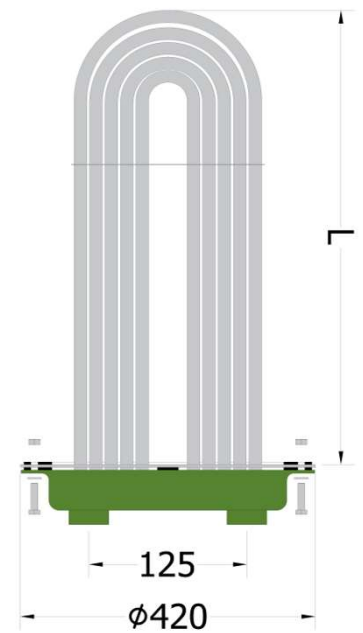
| Pos.           | Descrizione<br>Description  | Modello / Type |               |                  |                  |             |
|----------------|---|----------------|---------------|------------------|------------------|-------------|
|                |   | BF-1           |               |                  |                  |             |
| Cod.           | Codice<br>Code  | A340H67 VW4A5  | A340H70 VW4A5 | A340H74<br>VW050 | A340H80<br>VW050 |             |
| -              | Capacità nominale<br><i>Nominal capacity</i>                              | L              | <b>1500</b>   | <b>2000</b>      | <b>3000</b>      | <b>5000</b> |
| -              | Volume utile (accumulo)<br><i>Storage volume (DHW tank)</i>               | L              | 1626          | 1940             | 2962             | 5090        |
| -              | Volume utile (serpentino inferiore)<br><i>Storage volume (lower coil)</i> | L              | 15            | 18               | 24               | 39          |
| -              | Superficie di scambio (serpentino inferiore)<br><i>Lower coil surface</i> | m <sup>2</sup> | 3             | 4                | 6                | 10          |
| -              | Classe di efficienza energetica<br><i>Energy efficiency class</i>         |                | C             | C                | n.d.             | n.d.        |
| -              | Dispersione termica<br><i>Standing loss</i>                               | W              | 163           | 174              | n.d.             | n.d.        |
| ∅              | Diametro accumulatore<br><i>Cylinder diameter</i>                         | mm             | 1270          | 1370             | 1350             | 1700        |
| H              | Altezza<br><i>Height</i>  | mm             | 2530          | 2510             | 2840             | 3045        |
| ∅ <sub>G</sub> | Diametro gonna<br><i>Skirt diameter</i>                                   | mm             | 850           | 950              | 1100             | 1450        |
| -              | Quota di ribaltamento<br><i>Pivot measurement</i>                         | mm             | 2840          | 2860             | 3150             | 3490        |
| DN1            | Quota connessione<br><i>Connection height</i>                             | mm             | 755           | 745              | 790              | 895         |
| DN2            | Quota connessione<br><i>Connection height</i>                             | mm             | 530           | 520              | 565              | 670         |
| DN3            | Quota connessione<br><i>Connection height</i>                             | mm             | 475           | 465              | 530              | 635         |
| DN6            | Quota connessione<br><i>Connection height</i>                             | mm             | 1295          | 1285             | 1480             | 1585        |
| DN7            | Quota connessione<br><i>Connection height</i>                             | mm             | 1545          | 1535             | 1730             | 1835        |
| DN10           | Quota connessione<br><i>Connection height</i>                             | mm             | 945           | 935              | 980              | 1085        |
| DN11           | Quota connessione<br><i>Connection height</i>                             | mm             | 80            | 80               | 80               | 80          |
| DN12           | Quota connessione<br><i>Connection height</i>                             | mm             | 695           | 685              | 730              | 835         |
| DN13           | Quota connessione<br><i>Connection height</i>                             | mm             | 1445          | 1435             | 1630             | 1735        |
| DN15           | Quota connessione<br><i>Connection height</i>                             | mm             | 2045          | 2035             | 2380             | 2485        |
| DN20           | Quota connessione<br><i>Connection height</i>                             | mm             | 1060          | 1050             | 1095             | 1200        |

| Pos.   | Descrizione<br>Description   | L   | Modello / Type |             |             |             |
|--|--|-----|----------------|-------------|-------------|-------------|
|  |  |     | BF-1           |             |             |             |
| -  | Capacità nominale<br><i>Nominal capacity</i>                                   |     | <b>1500</b>    | <b>2000</b> | <b>3000</b> | <b>5000</b> |
| DN1  | Entrata fluido primario scambiatore inferiore<br>Flow to lower heat exchanger  |     | G1½"           | G1½"        | G1½"        | G1½"        |
| DN2  | Uscita fluido primario scambiatore inferiore<br>Flow from lower heat exchanger |     | G1½"           | G1½"        | G1½"        | G1½"        |
| DN3  | Entrata acqua fredda sanitaria<br>Mains water supply                           |     | G2½"           | G2½"        | G3"         | G3"         |
| DN5  | Uscita acqua calda<br>DHW draw-off   |     | G3"            | G3"         | G3"         | G3"         |
| DN6  | Ricircolo<br>Recirculation   |     | G1½"           | G1½"        | G1½"        | G1½"        |
| DN7  | Predispos. per resistenza elettrica<br>Provision for immersion heater          |     | G2"            | G2"         | G2"         | G2"         |
| DN10   | Anodo di magnesio<br>Magnesium anode   |     | G1¼"           | G1¼"        | G1¼"        | G1½"        |
| DN11   | Scarico<br>Drain   |     | G1"            | G1"         | G1"         | G1"         |
| DN12   | Vaso d'espansione sanitario<br>Sanitary water expansion tank                   |     | G1¼"           | G1¼"        | G1¼"        | G1¼"        |
| DN13   | Anodo di magnesio<br>Magnesium anode   |     | G1¼"           | G1¼"        | G1¼"        | G1½"        |
| DN15   | Sonda<br>Probe   |     | G½"            | G½"         | G½"         | G½"         |
| DN20   | Termoregolazione<br>Safety devices   |     | G1¼"           | G1¼"        | G1¼"        | G1¼"        |
| Pressione massima di esercizio (accumulo)<br>Max. working pressure (cylinder)      |  | bar | 6              |             |             |             |
| Temperatura massima di esercizio (accumulo)<br>Max. working temperature (cylinder) |  | °C  | +95            |             |             |             |

## Scambiatori / Heat exchangers

| Codice<br>Code   | Superficie di scambio<br>Exchanger surface | Lunghezza<br>Length | Applicabilità / Applicable to BF-1 type |      |      |      |
|------------------|--|---------------------|---|------|------|------|
|                  |  |                     | 1500                                    | 2000 | 3000 | 5000 |
| 2950150<br>V0012 | 1,6 m <sup>2</sup>                         | 550 mm              | ✓                                       | ✓    | ✓    | ✓    |
| 2960250<br>V0012 | 2,5 m <sup>2</sup>                         | 790 mm              | ✓                                       | ✓    | ✓    | ✓    |
| 2950300<br>V0012 | 3 m <sup>2</sup>                           | 675 mm              | ✓(*)                                    | ✓    | ✓    | ✓    |
| 2950400<br>V0012 | 4 m <sup>2</sup>                           | 820 mm              | ✓                                       | ✓(*) | ✓    | ✓    |
| 2960500<br>V0012 | 5 m <sup>2</sup>                           | 855 mm              | ✓                                       | ✓    | ✓    | ✓    |
| 2960600<br>V0012 | 6 m <sup>2</sup>                           | 1190 mm             | ✗                                       | ✗    | ✓(*) | ✓    |
| 2950800<br>V0012 | 8 m <sup>2</sup>                           | 1440 mm             | ✗                                       | ✗    | ✓    | ✓    |
| 2961000<br>V0012 | 10 m <sup>2</sup>                          | 1480 mm             | ✗                                       | ✗    | ✓    | ✓(*) |

(\*) scambiatore standard incluso nella fornitura  
standard heat exchanger included with the cylinder



| Codice<br>Code | Superficie di scambio<br>Exchanger surface | Funzionamento con acqua calda<br>Hot water operation |                                      | Funzionamento con vapore saturo<br>Saturated steam operation |                                      |
|----------------|--|--|--------------------------------------|--|--------------------------------------|
|                |  | Pressione max.<br>Max. pressure                      | Temperatura max.<br>Max. temperature | Pressione max.<br>Max. pressure                              | Temperatura max.<br>Max. temperature |
| 2950150 V0012  | 1,5 m <sup>2</sup>                         | 12 bar   | 110 °C                               | 4 bar  | 152 °C                               |
| 2960250 V0012  | 2,5 m <sup>2</sup>                         | 12 bar   | 110 °C                               | 4 bar  | 152 °C                               |
| 2950300 V0012  | 3 m <sup>2</sup>                           | 12 bar   | 110 °C                               | 2 bar  | 134 °C                               |
| 2950400 V0012  | 4 m <sup>2</sup>                           | 12 bar   | 110 °C                               | 2 bar  | 134 °C                               |
| 2960500 V0012  | 5 m <sup>2</sup>                           | 12 bar   | 110 °C                               | 2 bar  | 134 °C                               |
| 2960600 V0012  | 6 m <sup>2</sup>                           | 12 bar   | 110 °C                               | 2 bar  | 134 °C                               |
| 2950800 V0012  | 8 m <sup>2</sup>                           | 12 bar   | 110 °C                               | 1 bar  | 120 °C                               |
| 2961000 V0012  | 10 m <sup>2</sup>                          | 12 bar   | 110 °C                               | 1 bar  | 120 °C                               |

## Caratteristiche della coibentazione / Insulation characteristics:

| Modello<br>Type | Tipo coibentazione<br>Insulation type  | Spessore coibentazione<br>Insulation thickness | Finitura<br>Finish                        |
|-----------------|--|--|---|
| BF-1-1500       | Fibra di poliestere 100% riciclabile, classe di resistenza al fuoco B1 secondo DIN 4102-1<br><i>100% recyclable polyester fiber, fire resistance class B1 acc. to DIN 4102-1</i> | 135 mm   | PVC grigio RAL 9006<br>PVC gray RAL 9006  |
| BF-1-2000       |  |  |   |
| BF-1-3000       | Poliuretano espanso flessibile a celle aperte<br><i>Open cells flexible expanded polyurethane</i>  | 50 mm  | PVC bianco RAL 9001<br>PVC white RAL 9001 |
| BF-1-5000       |  |  |   |

## Dispositivi di protezione / Protective devices:

| Modello<br>Type | Anodo di magnesio in dotazione<br>Installed magnesium anode | Vaso di espansione raccomandato lato ACS(*)<br>Recommended sanitary expansion tank(*) |
|-----------------|---|---|
| BF-1-1500       | nr. 1 - Ø32x1¼" L=670 - cod. 8560070                        | DPV-80  |
| BF-1-2000       | nr. 1 - Ø32x1¼" L=670 - cod. 8560070                        | DPV-100   |
| BF-1-3000       | nr. 1 - Ø32x1¼" L=700 - cod. 8560080                        | DPV-200   |
| BF-1-5000       | nr. 1 - Ø40x1½" L=640 - cod. 8560100                        | DPV-300   |

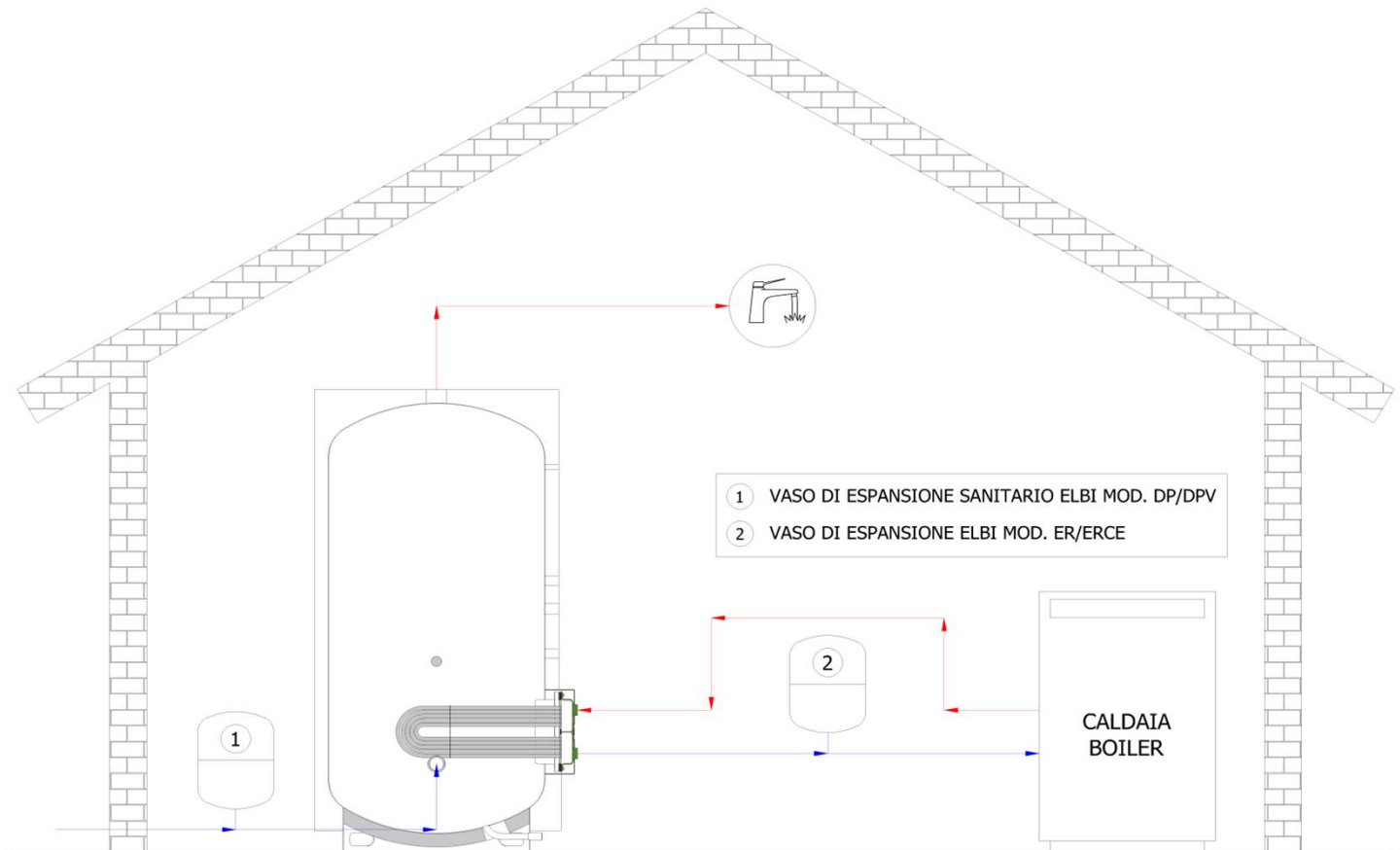
(\*) Il vaso di espansione deve essere sempre dimensionato da un progettista termotecnico esperto sulla base dei dati effettivi dell'impianto.

*The expansion tank must always be sized by an expert technician on the basis of actual system parameters.*

## Resistenze elettriche / Immersion heaters:

| Codice<br>Code   | Potenza<br>Power | Alimentazione<br>Source | Attacco<br>Connection | Lunghezza<br>Length | Applicabilità / Applicable to BF-1 type |      |      |      |
|--|------------------|-------------------------|-----------------------|---------------------|---|------|------|------|
|  |                  |                         |                       |                     | 1500                                    | 2000 | 3000 | 5000 |
| RESISTENZE SENZA TERMOSTATO / IMMERSION HEATERS WITHOUT THERMOSTAT |                  |                         |                       |                     |   |      |      |      |
| 8601000  | 1                | 220V / 1F               | G1¼"                  | 295                 | ✓                                       | ✓    | ✓    | ✓    |
| 8601650  | 1,65             | 220V / 1F               | G1¼"                  | 450                 | ✓                                       | ✓    | ✓    | ✓    |
| 8602000  | 2                | 220V / 1F               | G1¼"                  | 515                 | ✓                                       | ✓    | ✓    | ✓    |
| 8602600  | 2,6              | 220V / 1F               | G1¼"                  | 675                 | ✓                                       | ✓    | ✓    | ✓    |
| 8602601  | 2,6              | 220V / 1F               | G1¼"                  | 360                 | ✓                                       | ✓    | ✓    | ✓    |
| 8603300  | 3,3              | 220V / 1F               | G1¼"                  | 825                 | ✓                                       | ✓    | ✓    | ✓    |
| 8603301  | 3,3              | 220V / 1F               | G1¼"                  | 435                 | ✓                                       | ✓    | ✓    | ✓    |
| 8604001  | 4                | 220V / 1F               | G1¼"                  | 510                 | ✓                                       | ✓    | ✓    | ✓    |
| 8705000  | 5                | 380V / 3F               | G1½"                  | 445                 | ✓                                       | ✓    | ✓    | ✓    |
| 8706000  | 6                | 380V / 3F               | G1½"                  | 510                 | ✓                                       | ✓    | ✓    | ✓    |
| 8708000  | 8                | 380V / 3F               | G1½"                  | 670                 | ✓                                       | ✓    | ✓    | ✓    |
| 8710000  | 10               | 380V / 3F               | G1½"                  | 820                 | ✓                                       | ✓    | ✓    | ✓    |
| 8712000  | 12               | 380V / 3F               | G1½"                  | 970                 | ✓                                       | ✓    | ✓    | ✓    |
| RESISTENZE CON TERMOSTATO / IMMERSION HEATERS WITH THERMOSTAT      |                  |                         |                       |                     |   |      |      |      |
| 8T01500  | 1,5              | 220V / 1F               | G1½"                  | 320                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T02000  | 2                | 220V / 1F               | G1½"                  | 320                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T02200  | 2,2              | 220V / 1F               | G1½"                  | 320                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T02500  | 2,5              | 220V / 1F               | G1½"                  | 320                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T03000  | 3                | 220V / 1F               | G1½"                  | 320                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T04000  | 4                | 380V / 3F               | G1½"                  | 400                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T05000  | 5                | 380V / 3F               | G1½"                  | 500                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T06000  | 6                | 380V / 3F               | G1½"                  | 600                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T09000  | 9                | 380V / 3F               | G1½"                  | 700                 | ✓                                       | ✓    | ✓    | ✓    |
| 8T12000  | 12               | 380V / 3F               | G1½"                  | 850                 | ✓                                       | ✓    | ✓    | ✓    |

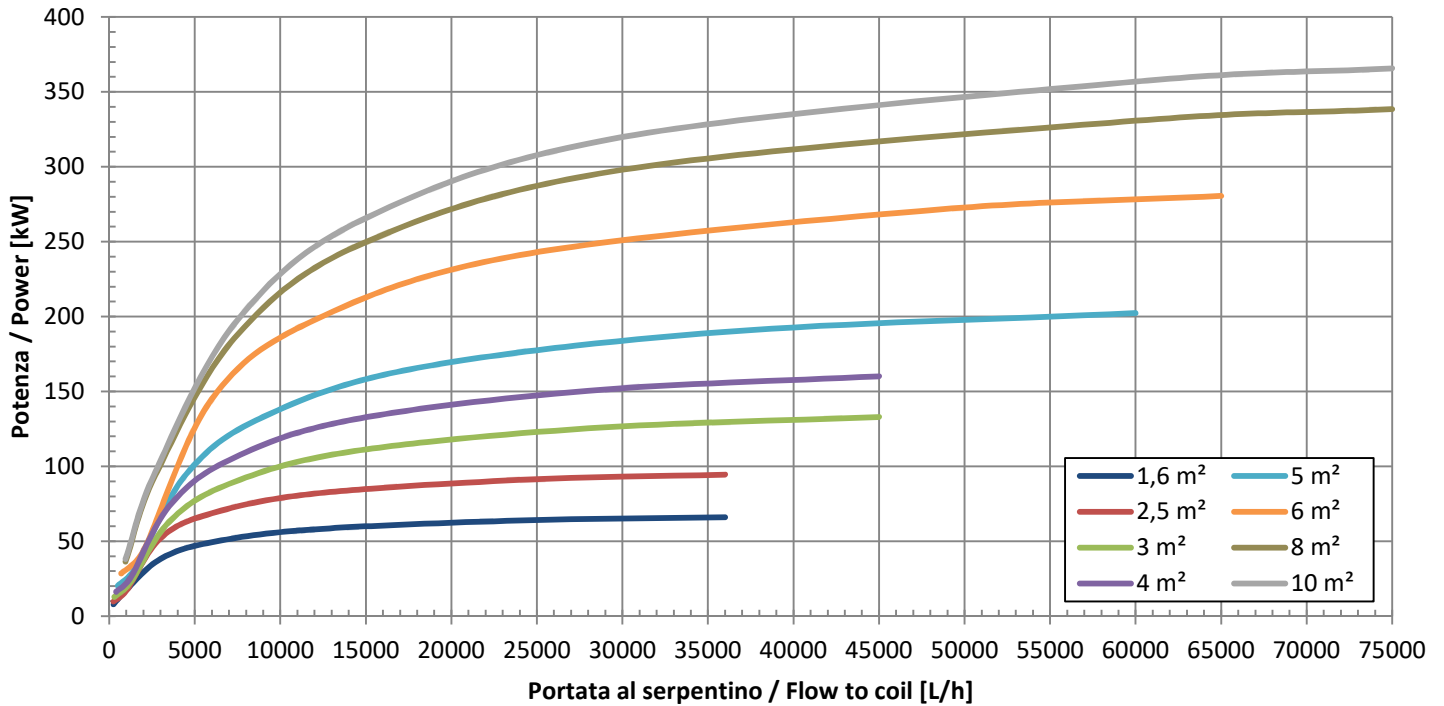
## Esempio di installazione / Installation scheme:



Prestazioni teoriche / typical performances:

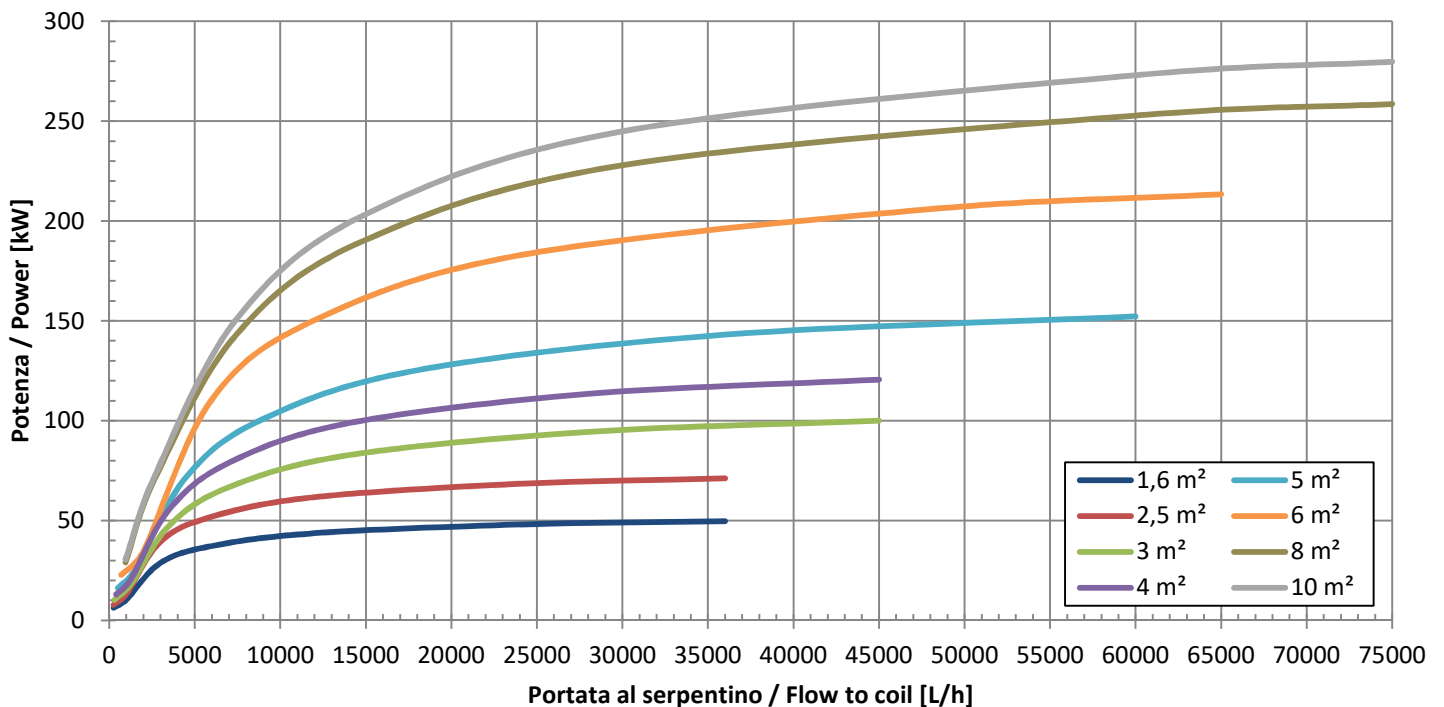
**Potenza scambiata / Exch. power**

$T_{in,coil} = 80\text{ °C}; T_{serb,in} = 10\text{ °C}, T_{serb,out} = 45\text{ °C}$



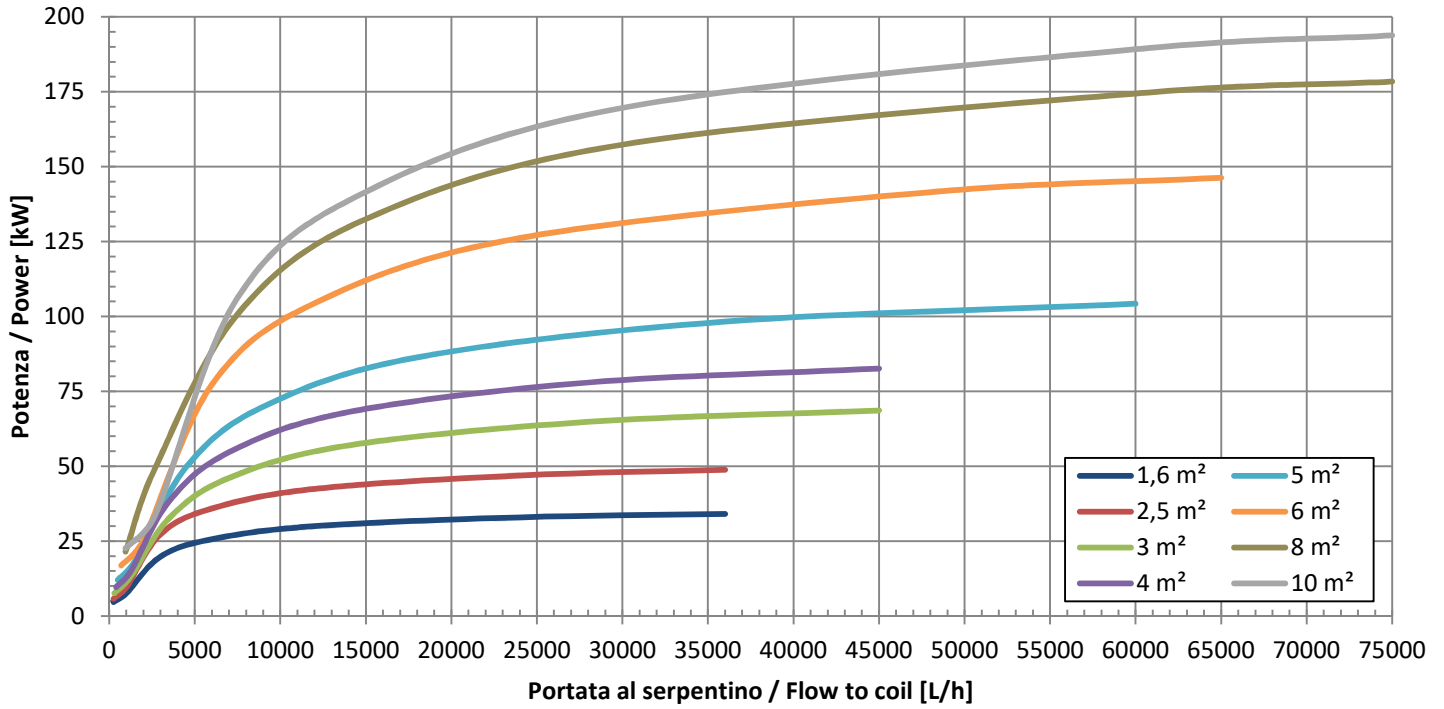
**Potenza scambiata / Exch. power**

$T_{in,coil} = 70\text{ °C}; T_{serb,in} = 10\text{ °C}, T_{serb,out} = 45\text{ °C}$



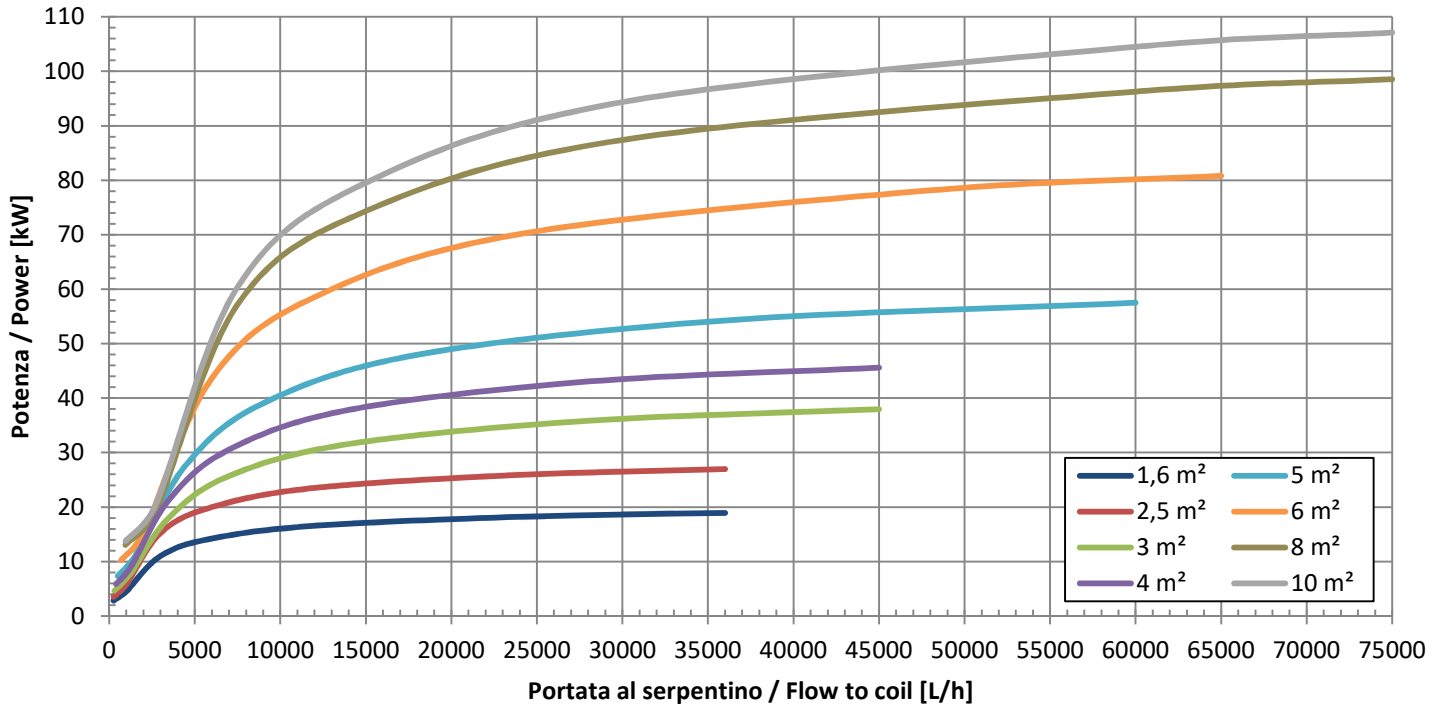
### Potenza scambiata / Exch. power

$T_{in,coil} = 60\text{ °C}$ ;  $T_{serb,in} = 10\text{ °C}$ ,  $T_{serb,out} = 45\text{ °C}$



### Potenza scambiata / Exch. power

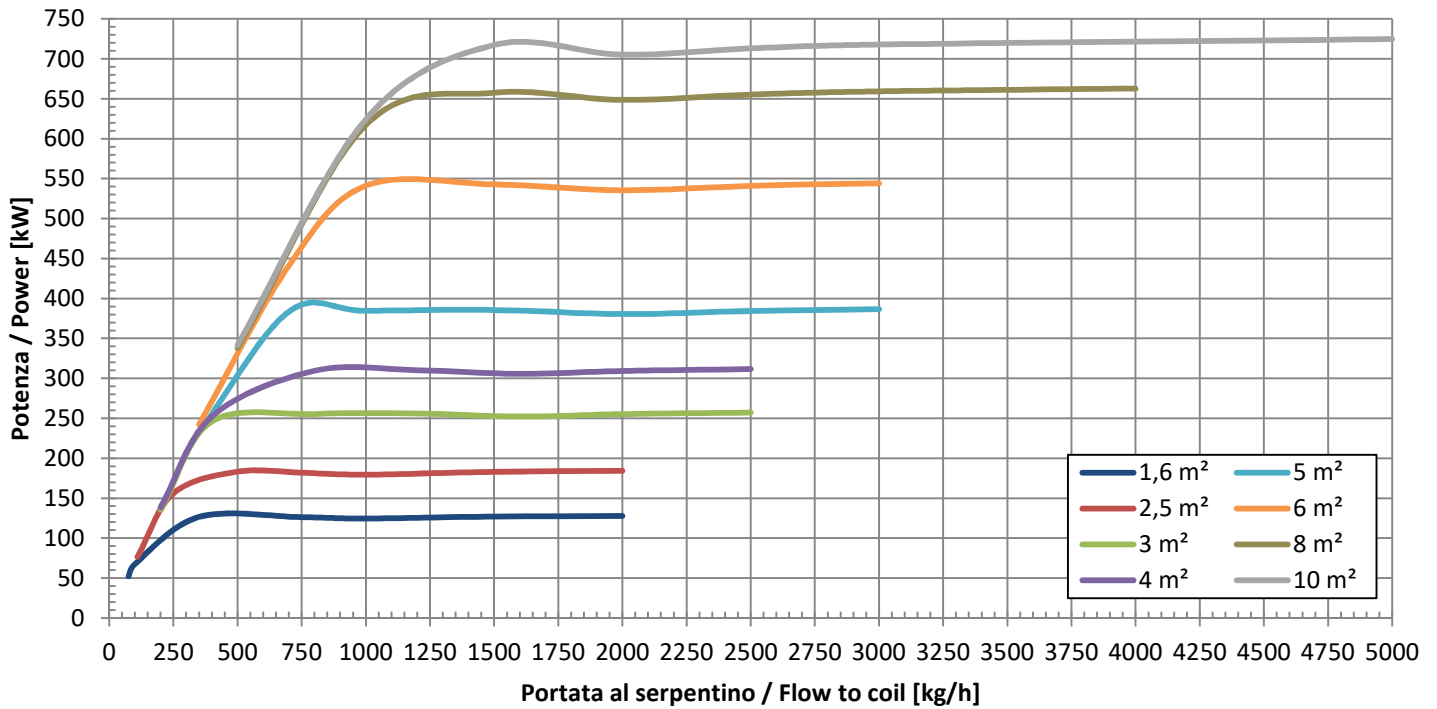
$T_{in,coil} = 50\text{ °C}$ ;  $T_{serb,in} = 10\text{ °C}$ ,  $T_{serb,out} = 45\text{ °C}$





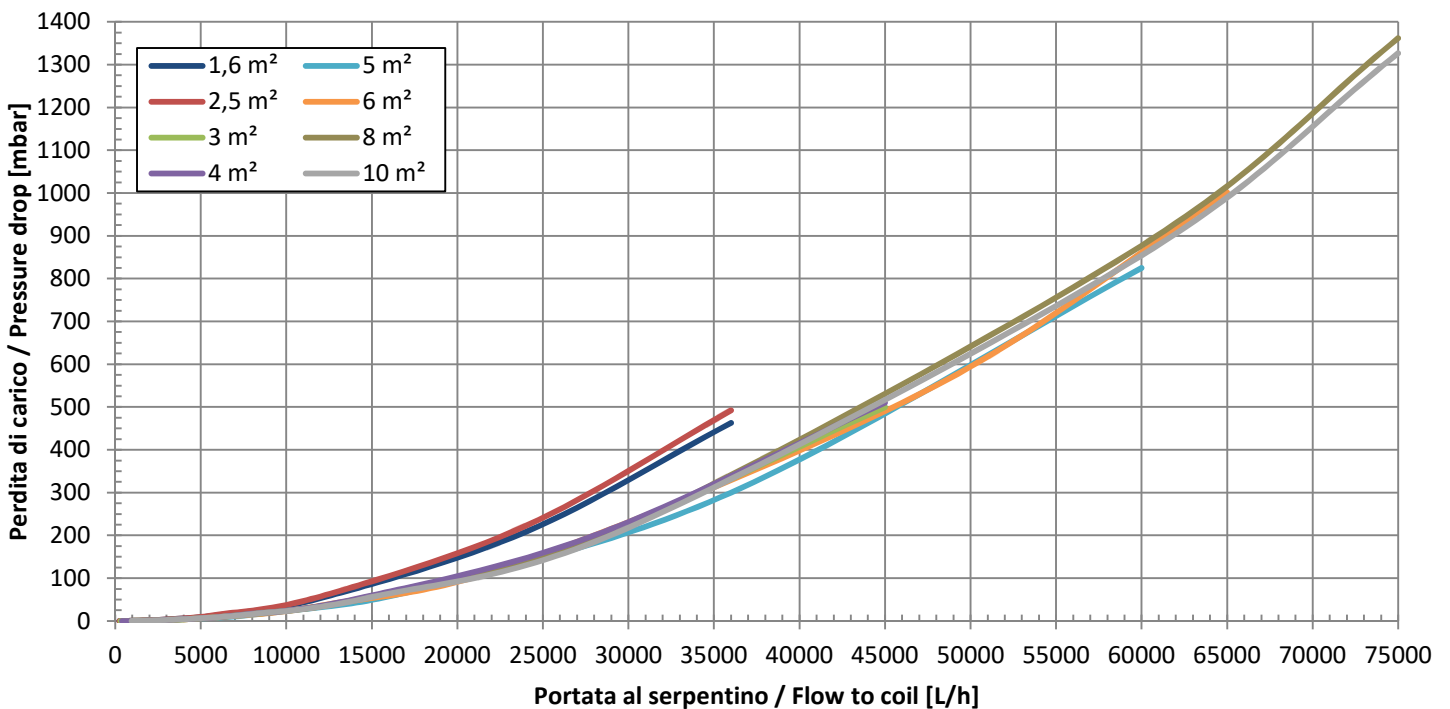
### Potenza scambiata / Exch. power

Vapore saturo secco a 120 °C;  $T_{serb,in} = 10^{\circ}\text{C}$ ,  $T_{serb,out} = 45^{\circ}\text{C}$

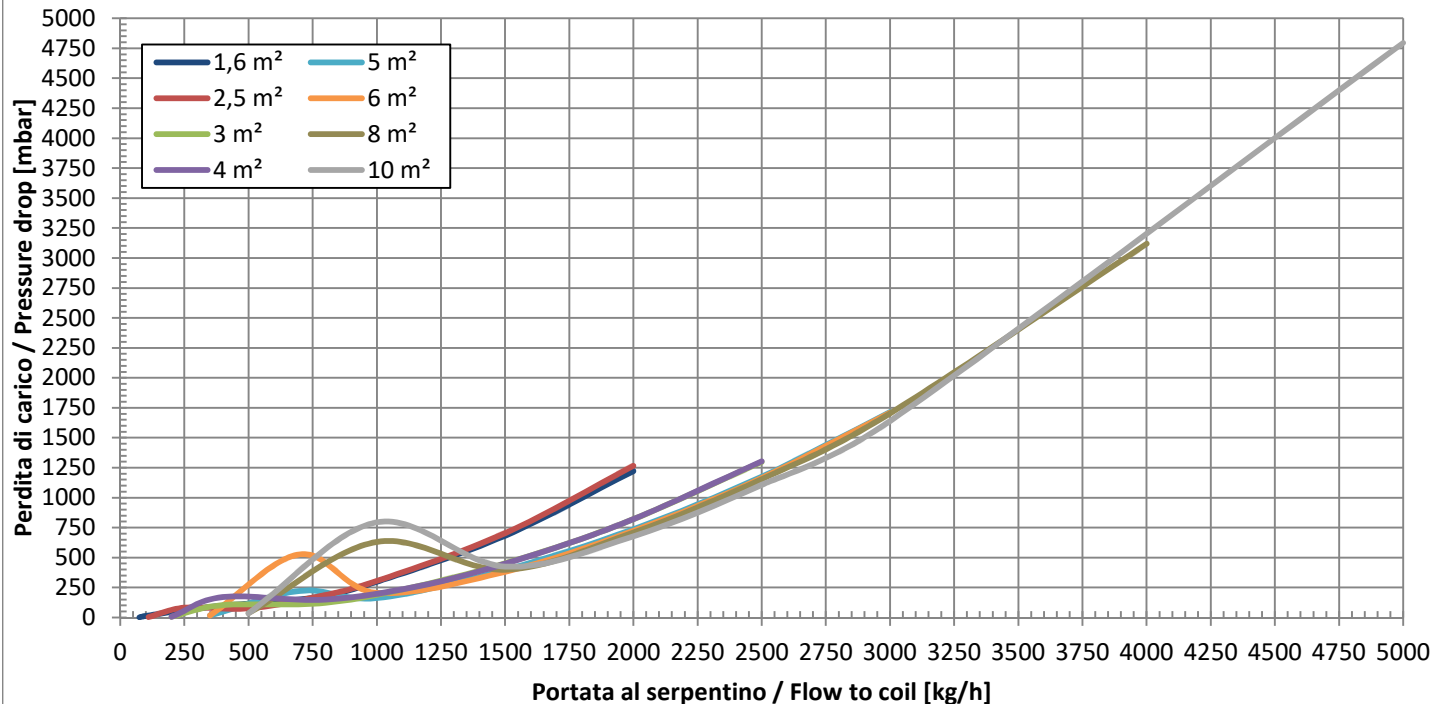


### Perdita di carico al serpentino / Coil pressure drop

Funzionamento ad acqua calda / Hot water operation



## Perdita di carico al serpentino / Coil pressure drop Funzionamento a vapore saturo / Saturated steam operation



### Note / Notes:

1. Il serbatoio subisce un trattamento anticorrosivo interno di **VETRIFICAZIONE** in accordo con la norma DIN 4753 che assieme alla protezione catodica garantisce una protezione interna totale dalla corrosione ed è idoneo per il contenimento di acqua calda per uso igienico sanitario.

*Internal surface of cylinder is **VITREOUS ENAMELED** according to DIN 4753 standard, this treatment together with the cathodic protection guarantees total internal protection from corrosion and make it suitable for hot sanitary water applications.*

2. I bollitori serie **BF-1** sono conformi all'art. 4.3 della **Direttiva 2014/68/UE** ed alla **Direttiva 2009/125/CE**.  
**BF-1 series cylinders are in compliance with Directive No. 2014/68/EU art. 4.3 and Directive 2009/125/CE.**
3. I bollitori ELBI serie **BF-1** sono garantiti **5 anni**.  
**5 years warranty on ELBI Hot Water Cylinders BF-1 series.**