

# EXTRA 1

POLYWARM® COATED CALORIFIERS WITH 1 STAINLESS STEEL EXTRACTABLE HEAT EXCHANGER



## APPLICATION

Production and storage of domestic hot water.

## MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - DVGW - W270 - UBA - WRAS)

## HEAT EXCHANGER

316L Stainless Steel Antilegionella® heat exchanger, with tubes bent to the bottom

## INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.  
- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining complete with top and flange cover

## CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anode.

## DRAIN

External confluence through drain connection.  
Models > 1000 external confluence through drain pipe.

## GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

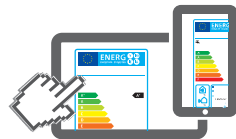
## WARRANTY

5 years - See general sales conditions and warranty

**ACCESSORIES AND SPARE PARTS :** See Accessories section for the entire list.



HARD FOAM INSULATION



[www.cordivari.com/erp](http://www.cordivari.com/erp)

On line ErP label tool

SOFT FLEECE INSULATION



## EXTRA 1 WXB

| Model | Art. Nr.      | HARD FOAM insulation | STAINLESS STEEL HEAT EXCHANGER SURFACE [m²] | ENERGY EFFICIENCY CLASS ErP |
|-------|---------------|----------------------|---|-----------------------------|
|       |               |                      |   |                             |
| 200   | 3072162360122 |                      | 0,5   | C                           |
| 300   | 3072162360123 |                      | 0,75  | C                           |
| 500   | 3072162360124 |                      | 1   | C                           |
| 800   | 3072162360125 |                      | 1,5   | C                           |
| 1000  | 3072162360126 |                      | 2   | C                           |
| 1500  | 3072162360127 |                      | 3   | C                           |
| 2000  | 3072162360128 |                      | 4   | C                           |

## EXTRA 1 WXC

| Model | Art. Nr.      | DISMOUNTABLE SOFT FLEECE insulation | STAINLESS STEEL HEAT EXCHANGER SURFACE [m²] | ENERGY EFFICIENCY CLASS ErP |
|-------|---------------|-------------------------------------|---|-----------------------------|
|       |               |                                     |   |                             |
| 500   | 3072162360134 |                                     | 1   | C                           |
| 800   | 3072162360135 |                                     | 1,5   | C                           |
| 1000  | 3072162360136 |                                     | 2   | C                           |
| 1500  | 3072162360137 |                                     | 3   | C                           |
| 2000  | 3072162360138 |                                     | 4   | C                           |
| 2500  | 3072162360113 |                                     | 5   |                             |
| 3000  | 3072162360109 |                                     | 6   |                             |
| 4000  | 3072162360110 |                                     | 8   |                             |
| 5000  | 3072162360112 |                                     | 10  |                             |

## ELECTRICAL IMMERSION HEATERS

| Mod. | Volume of water heated by the electrical immersion [lt] | MONOPHASE  |               |               | THREEPHASE    |               |               |               |               |  |
|------|---|--|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--|
|      |   | 1,5 kW   | 2 kW          | 3 kW          | 4 kW          | 5 kW          | 6 kW          | 9 kW          | 12 kW         |  |
|      |   | 5240000000051  | 5240000000052 | 5240000000053 | 5240000000047 | 5240000000048 | 5240000000049 | 5240000000050 | 5240000000031 |  |
|      |   | Ignition time from 10 °C to 45 °C with immersion heaters [min] |               |               |               |               |               |               |               |  |
|      |   | Ignition time from 10 °C to 45 °C with immersion heaters [min] |               |               |               |               |               |               |               |  |
| 200  | 49  | 87   | 65            | 44            | //            | //            | //            | //            | //            |  |
| 300  | 76  | 136  | 102           | 68            | //            | //            | //            | //            | //            |  |
| 500  | 127   | 228  | 171           | 114           | //            | //            | //            | //            | //            |  |
| 800  | 178   | 318  | 239           | 159           | //            | //            | //            | //            | //            |  |
| 1000 | 243   | 436  | 327           | 218           | 163           | 131           | 109           | 73            | 54            |  |
| 1500 | 288   | 516  | 387           | 258           | 194           | 155           | 129           | 86            | 65            |  |
| 2000 | 443   | 793  | 595           | 396           | 297           | 238           | 198           | 132           | 99            |  |
| 2500 | 577   | 1033   | 775           | 517           | 387           | 310           | 258           | 172           | 129           |  |
| 3000 | 577   | 1033   | 775           | 517           | 387           | 310           | 258           | 172           | 129           |  |
| 4000 | 797   | 1428   | 1071          | 714           | 535           | 428           | 357           | 238           | 178           |  |
| 5000 | 1040  | 1864   | 1398          | 932           | 699           | 559           | 466           | 311           | 233           |  |

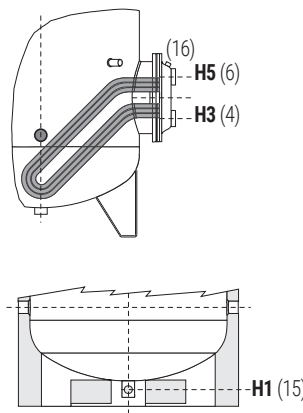
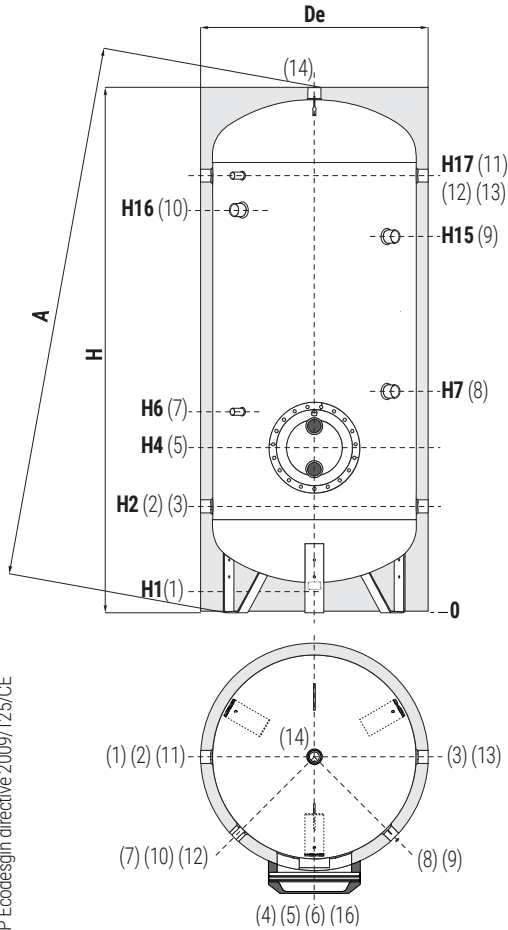
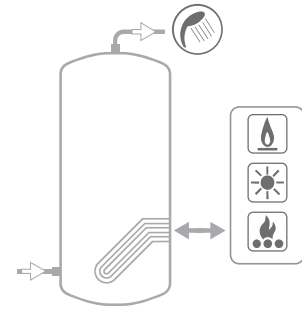


# EXTRA1

POLYWARM® COATED CALORIFIERS WITH 1 STAINLESS STEEL EXTRACTABLE HEAT EXCHANGER

| Model       | STORAGE |       | HEAT EXCHANGER |        |
|-------------|---------|-------|----------------|--------|
|             | Pmax    | Tmax  | Pmax           | Tmax   |
| 200 ÷ 1000  | 8 bar   | 90 °C | 12 bar         | 110 °C |
| 1500 ÷ 5000 | 6 bar   |       |                |        |

**CORDIVARI Lab**  
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



Models from 1500 to 5000 have two grippes on the bottom which allow the use of forklift when handling and drain pipe already fitted.

- 1 Drain 1" 1/4 F.  
For model 1000 connection 1"1/2 Gas F
- 2 Domestic cold water circuit inlet
- 3 Alternative domestic cold water circuit inlet or connection for more boilers
- 4 Primary circuit outlet 1" Gas F.  
For models > 500 connection 2" Gas F
- 5 Heat exchanger flange
- 6 Primary circuit inlet 1" Gas F.  
For models > 500 connection 2" Gas F
- 7 Connection for instrumentation 1/2" Gas F
- 8 Connection for magnesium anode 1" 1/4 Gas F
- 9 Connection for 2<sup>nd</sup> anode 1"1/4 Gas F (only for models > 1500)
- 10 Connection for electrical immersion 1"1/2 Gas F.  
For models > 800 connection 2" Gas F
- 11 Connection for recirculation or for domestic hot water
- 12 Connection for instrumentation 1/2" Gas F
- 14 Domestic hot water outlet
- 15 Drain 1" Gas F (only for models > 1000)
- 16 Heat exchanger air purge 3/8" Gas F

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

### HARD FOAM INSULATION (WXB)

| Model       | Volume Weight |      | De   | H    | A    | H1  | H2  | H3  | H4  | H5  | H6  | H7   | H15  | H16  | H17  | 5      | Connections Gas F |       |
|-------------|---------------|------|------|------|------|-----|-----|-----|-----|-----|-----|------|------|------|------|--------|-------------------|-------|
|             | [lt]          | [kg] |      |      |      |     |     |     |     |     |     |      |      |      |      |        | 2-3               | 14    |
| <b>200</b>  | 191           | 52   | 550  | 1449 | 1550 | 85  | 325 | 360 | 410 | 460 | 520 | 650  | //   | 1075 | 1185 | Øe 300 | 1"1/4             | 1"1/4 |
| <b>300</b>  | 292           | 65   | 650  | 1499 | 1634 | 85  | 350 | 385 | 435 | 485 | 545 | 735  | //   | 1100 | 1210 | Øe 300 | 1"1/4             | 1"1/4 |
| <b>500</b>  | 500           | 83   | 750  | 1800 | 1950 | 85  | 375 | 410 | 460 | 510 | 570 | 760  | //   | 1329 | 1485 | Øe 300 | 1"1/4             | 1"1/4 |
| <b>800</b>  | 794           | 139  | 900  | 2135 | 2317 | 85  | 405 | 450 | 540 | 630 | 690 | 870  | //   | 1610 | 1765 | Øe 380 | 1"1/4             | 1"1/2 |
| <b>1000</b> | 1042          | 181  | 1000 | 2221 | 2436 | 105 | 458 | 503 | 593 | 683 | 743 | 993  | //   | 1664 | 1818 | Øe 380 | 1"1/2             | 2"    |
| <b>1500</b> | 1445          | 224  | 1100 | 2415 | 2654 | 109 | 440 | 585 | 675 | 765 | 825 | 1075 | //   | 1895 | 2050 | Øe 380 | 1"1/2             | 2"    |
| <b>2000</b> | 1978          | 279  | 1300 | 2492 | 2811 | 91  | 467 | 587 | 692 | 797 | 867 | 842  | 1952 | 1877 | 2057 | Øe 430 | 2"                | 2"    |

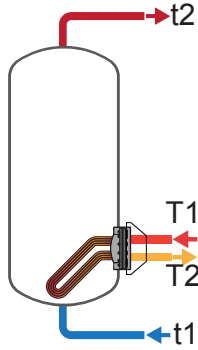
### SOFT FLEECE INSULATION (WXC)

| Model       | Volume Weight |      | De   | H    | A    | H1  | H2  | H3  | H4  | H5  | H6   | H7   | H15  | H16  | H17  | 5      | Connections Gas F |       |
|-------------|---------------|------|------|------|------|-----|-----|-----|-----|-----|------|------|------|------|------|--------|-------------------|-------|
|             | [lt]          | [kg] |      |      |      |     |     |     |     |     |      |      |      |      |      |        | 2-3               | 14    |
| <b>500</b>  | 500           | 90   | 870  | 1841 | 1988 | 101 | 416 | 451 | 501 | 551 | 611  | 801  | //   | 1370 | 1526 | Øe 300 | 1"1/4             | 1"1/2 |
| <b>800</b>  | 794           | 139  | 970  | 2188 | 2210 | 113 | 433 | 478 | 568 | 658 | 718  | 898  | //   | 1638 | 1793 | Øe 380 | 1"1/4             | 1"1/2 |
| <b>1000</b> | 1042          | 181  | 1070 | 2242 | 2260 | 101 | 454 | 499 | 589 | 679 | 739  | 989  | //   | 1660 | 1814 | Øe 380 | 1"1/2             | 2"    |
| <b>1500</b> | 1445          | 224  | 1210 | 2440 | 2485 | 109 | 440 | 585 | 675 | 765 | 825  | 1075 | //   | 1895 | 2050 | Øe 380 | 1"1/2             | 2"    |
| <b>2000</b> | 1978          | 279  | 1360 | 2492 | 2560 | 91  | 467 | 587 | 692 | 797 | 867  | 842  | 1952 | 1877 | 2057 | Øe 430 | 2"                | 2"    |
| <b>2500</b> | 2315          | 328  | 1350 | 2311 | 2470 | 140 | 551 | 671 | 776 | 881 | 951  | 976  | 1816 | 1732 | 1891 | Øe 430 | 2"                | 2"    |
| <b>3000</b> | 2921          | 384  | 1350 | 2811 | 2940 | 140 | 551 | 731 | 836 | 941 | 1011 | 1036 | 2316 | 2232 | 2391 | Øe 430 | 2"                | 2"    |
| <b>4000</b> | 3769          | 521  | 1500 | 2875 | 3040 | 114 | 570 | 750 | 855 | 960 | 1030 | 1035 | 2315 | 2238 | 2410 | Øe 430 | 2"                | 2"    |
| <b>5000</b> | 4982          | 657  | 1700 | 2915 | 3120 | 94  | 580 | 750 | 855 | 960 | 1030 | 1035 | 2335 | 2265 | 2420 | Øe 430 | 2"                | 2"    |

EXTRA-BOLLY® CALORIFIERS  
BOLLYTERM® CALORIFIERS  
STAINLESS STEEL CALORIFIERS  
CALORIFIERS FOR HEAT PUMP  
MULTIFUEL ENERGY CYLINDERS - PUFFER  
HYDRONIC  
INERTIAL TANKS  
WATER PRESSURE TANKS  
COMPRESSED AIR RECEIVERS  
ACCESSORIES AND SPARE PARTS  
TECHNICAL SUPPORT

# EXTRA 1 - HEAT EXCHANGERS TECHNICAL DATA

Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete quantity of volume in an homogeneous way. Energy storing is therefore improved and Ignition time data have to be referred to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of volume remains cold.



## CURVED HEAT EXCHANGERS

| Model | Ignition time (minutes) from 10 °C to t2 and primary at T1 |       |       |       | Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production |      |      |      | DHW continuous production lt/h within 10-45 °C and primary at T1 |      |      |      |
|-------|--|-------|-------|-------|--|------|------|------|--|------|------|------|
|       | T1/t2  |       |       |       | T1   |      |      |      | T1   |      |      |      |
|       | 55/50  | 65/60 | 70/60 | 80/60 | 55   | 65   | 70   | 80   | 55   | 65   | 70   | 80   |
| 200   | 113  | 113   | 77    | 49    | 7,3  | 11,5 | 13,7 | 18   | 178  | 283  | 338  | 455  |
|       | 147  | 148   | 102   | 65    | 5,8  | 8,9  | 10,5 | 13,9 | 141  | 218  | 258  | 344  |
| 300   | 112  | 113   | 76    | 48    | 11,1   | 17   | 21   | 28   | 274  | 435  | 520  | 701  |
|       | 145  | 146   | 102   | 65    | 8,9  | 13,8 | 16,3 | 21,6 | 219  | 339  | 402  | 534  |
| 500   | 139  | 140   | 96    | 60    | 15   | 23,8 | 28,5 | 38   | 369  | 587  | 702  | 947  |
|       | 180  | 181   | 125   | 80    | 12,1   | 18,7 | 22,1 | 29,4 | 297  | 460  | 545  | 725  |
| 800   | 146  | 147   | 101   | 64    | 23   | 36   | 44   | 59   | 570  | 908  | 1087 | 1465 |
|       | 186  | 188   | 130   | 83    | 18   | 29   | 34   | 46   | 465  | 721  | 854  | 1136 |
| 1000  | 128  | 128   | 86    | 54    | 33   | 53   | 63   | 86   | 814  | 1309 | 1571 | 2127 |
|       | 157  | 157   | 107,9 | 69    | 27   | 43   | 51   | 69   | 687  | 1077 | 1281 | 1711 |
| 1500  | 120  | 119   | 82    | 51    | 51   | 81   | 98   | 133  | 1256   | 2022 | 2428 | 3290 |
|       | 145  | 146   | 100   | 64    | 44   | 68   | 81   | 108  | 1075   | 1687 | 2008 | 2684 |
| 2000  | 121  | 122   | 83    | 52    | 69   | 111  | 133  | 180  | 1699   | 2738 | 3288 | 4453 |
|       | 146  | 147   | 101   | 65    | 59   | 93   | 111  | 148  | 1465   | 2302 | 2741 | 3665 |
| 2500  | 118  | 119   | 81    | 51    | 84   | 134  | 160  | 216  | 2066   | 3309 | 3964 | 5352 |
|       | 145  | 146   | 101   | 65    | 71   | 111  | 131  | 174  | 1755   | 2734 | 3244 | 4314 |
| 3000  | 128  | 127   | 87    | 55    | 100  | 159  | 190  | 255  | 2461   | 3926 | 4694 | 6321 |
|       | 456  | 457   | 110   | 70    | 84   | 130  | 154  | 204  | 2082   | 3224 | 3817 | 5053 |
| 4000  | 126  | 127   | 87    | 56    | 131  | 207  | 247  | 330  | 3236   | 5121 | 6105 | 8168 |
|       | 159  | 161   | 112   | 73    | 110  | 168  | 198  | 260  | 2718   | 4151 | 4903 | 6443 |
| 5000  | 137  | 138   | 96    | 61    | 162  | 253  | 301  | 401  | 3992   | 6270 | 7450 | 9921 |
|       | 176  | 179   | 125   | 82    | 135  | 204  | 239  | 312  | 3332   | 5049 | 5923 | 7727 |

## PRESSURE LOSS - CURVED HEAT EXCHANGERS



Chart for surfaces of: 0,5 m<sup>2</sup> / 0,75 m<sup>2</sup> / 1 m<sup>2</sup>

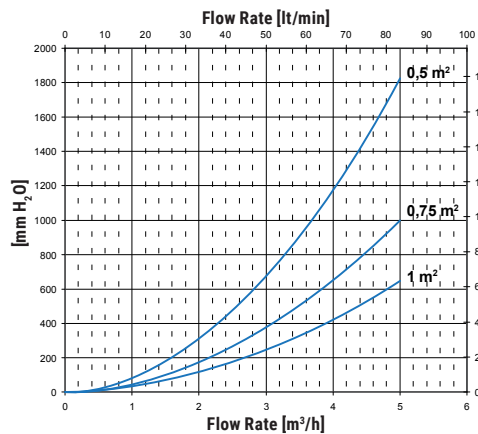
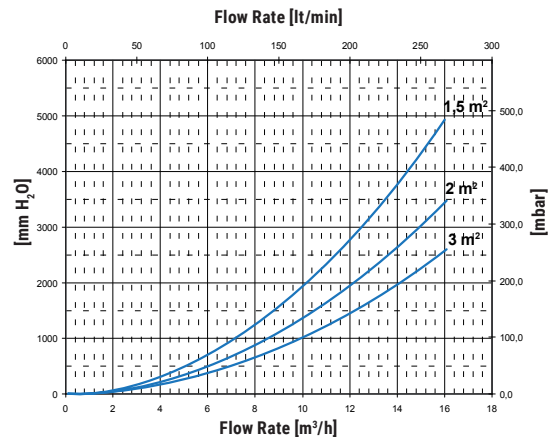


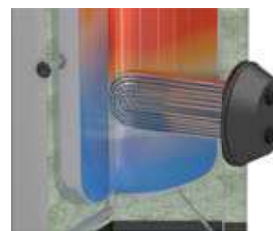
Chart for surfaces of: 1,5 m<sup>2</sup> / 2 m<sup>2</sup> / 3 m<sup>2</sup>



## INCREASED STORAGE CAPACITY OF CURVED ANTILEGIONELLA® HEAT EXCHANGER



| Model | Storage volume: Standard heat exchanger | Storage volume: Heat exchanger for 100% heated volume | Advantage in stored volume | Advantage in percentage |
|-------|---|---|----------------------------|-------------------------|
|       | [litres]                                | [litres]  | [litres]                   | [%]                     |
| 200   | 165                                     | 190   | 25                         | 13%                     |
| 300   | 251                                     | 285   | 34                         | 12%                     |
| 500   | 438                                     | 485   | 47                         | 10%                     |
| 800   | 694                                     | 790   | 96                         | 12%                     |
| 1000  | 907                                     | 995   | 88                         | 9%                      |



STANDARD HEAT EXCHANGER



100% VOLUME HEATED WITH Antilegionella® HEAT EXCHANGERS

Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

| DHW produced in the first 10 minutes in lt/10'            |       |       |       | DHW produced in the first hour in lt/60'                  |       |       |       | Flow rate | Exchanger pressure loss |          |
|---|-------|-------|-------|---|-------|-------|-------|-----------|-------------------------|----------|
| input 10 °C output 45 °C, storage at t2 and primary at T1 |       |       |       | input 10 °C output 45 °C, storage at t2 and primary at T1 |       |       |       |           | [m³/h]                  | [mm.H₂O] |
| T1/t2   |       |       |       | T1/t2   |       |       |       |           |                         |          |
| 55/50   | 65/60 | 70/60 | 80/60 | 55/50   | 65/60 | 70/60 | 80/60 |           |                         |          |
| 247   | 319   | 328   | 347   | 360   | 498   | 542   | 635   | 2         | 309                     | 30,3     |
| 241   | 308   | 314   | 329   | 330   | 446   | 478   | 547   | 1         | 84,74                   | 8,3      |
| 371   | 480   | 494   | 524   | 545   | 755   | 823   | 968   | 3         | 372                     | 36,5     |
| 362   | 464   | 474   | 496   | 501   | 678   | 729   | 834   | 1,5       | 101,02                  | 9,9      |
| 616   | 791   | 810   | 851   | 849   | 1162  | 1254  | 1450  | 4         | 419                     | 41,1     |
| 604   | 770   | 784   | 814   | 792   | 1061  | 1129  | 1273  | 2         | 113,381                 | 11,1     |
| 998   | 1280  | 1310  | 1373  | 1359  | 1855  | 1998  | 2301  | 6         | 718                     | 70,4     |
| 980   | 1249  | 1271  | 1318  | 1275  | 1705  | 1812  | 2037  | 3         | 189,22                  | 18,6     |
| 1273  | 1640  | 1683  | 1776  | 1788  | 2469  | 2678  | 3123  | 10        | 1380                    | 135,3    |
| 1252  | 1601  | 1635  | 1707  | 1687  | 2283  | 2446  | 2790  | 5         | 358,5                   | 35,2     |
| 1855  | 2394  | 2462  | 2605  | 2651  | 3675  | 4000  | 4689  | 15        | 2295                    | 225,1    |
| 1825  | 2338  | 2392  | 2504  | 2506  | 3407  | 3664  | 4204  | 7,5       | 589,6                   | 57,8     |
| 2546  | 3285  | 3377  | 3571  | 3622  | 5019  | 5459  | 6391  | 20        | 2996                    | 293,8    |
| 2507  | 3212  | 3285  | 3439  | 3435  | 4670  | 5021  | 5761  | 10        | 766,42                  | 75,2     |
| 2988  | 3856  | 3965  | 4196  | 4296  | 5951  | 6475  | 7586  | 20        | 2436                    | 238,9    |
| 2936  | 3760  | 3845  | 4023  | 4047  | 5491  | 5899  | 6755  | 10        | 624                     | 61,2     |
| 3748  | 4827  | 4955  | 5226  | 5307  | 7314  | 7928  | 9230  | 20        | 2836                    | 278,1    |
| 3685  | 4710  | 4809  | 5015  | 5004  | 6752  | 7226  | 8215  | 10        | 723                     | 70,9     |
| 4842  | 6232  | 6396  | 6740  | 6892  | 9475  | 10263 | 11913 | 20        | 3896                    | 382,1    |
| 4756  | 6070  | 6196  | 6452  | 6477  | 8699  | 9301  | 10533 | 10        | 989                     | 97,0     |
| 6362  | 8166  | 8363  | 8775  | 8891  | 12137 | 13081 | 15058 | 20        | 4707                    | 461,6    |
| 6252  | 7963  | 8109  | 8409  | 8363  | 11161 | 11860 | 13303 | 10        | 1192                    | 116,9    |

Chart for surfaces of: 4 m² / 5 m² / 6 m²

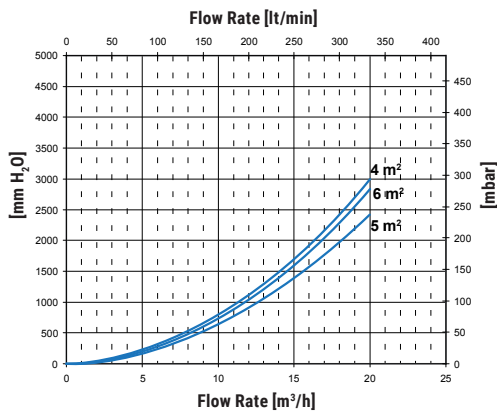
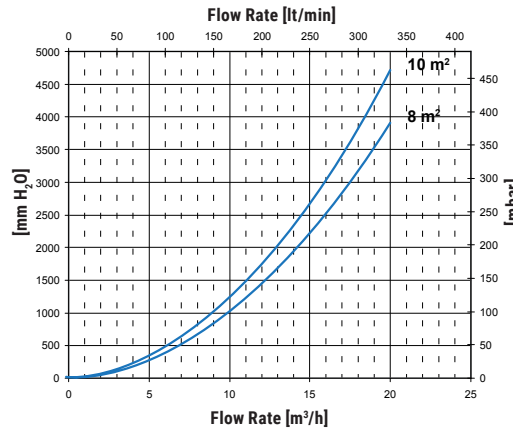


Chart for surfaces of: 8 m² / 10 m²

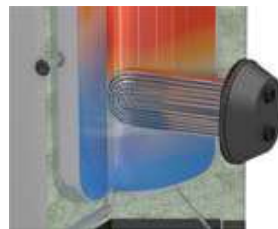


Heat exchanger surface [m²]

|      |      |
|------|------|
| 200  | 0,5  |
| 300  | 0,75 |
| 500  | 1    |
| 800  | 1,5  |
| 1000 | 2    |
| 1500 | 3    |
| 2000 | 4    |
| 2500 | 5    |
| 3000 | 6    |
| 4000 | 8    |
| 5000 | 10   |



| Model | Storage volume: Standard heat exchanger | Storage volume: Heat exchanger for 100% heated volume | Advantage in stored volume | Advantage in percentage |
|-------|---|---|----------------------------|-------------------------|
|       | [litres]                                | [litres]  | [litres]                   | [%]                     |
| 1500  | 1224                                    | 1445  | 221                        | 15%                     |
| 2000  | 1684                                    | 1978  | 294                        | 15%                     |
| 2500  | 1905                                    | 2315  | 410                        | 18%                     |
| 3000  | 2438                                    | 2921  | 483                        | 17%                     |
| 4000  | 3113                                    | 3769  | 656                        | 17%                     |
| 5000  | 4116                                    | 4982  | 866                        | 17%                     |



STANDARD HEAT EXCHANGER



100% VOLUME HEATED WITH ANTELEGIIONELLA® HEAT EXCHANGERS