

# CryoMatrix Series

## Cryogenic Vapor Freezer

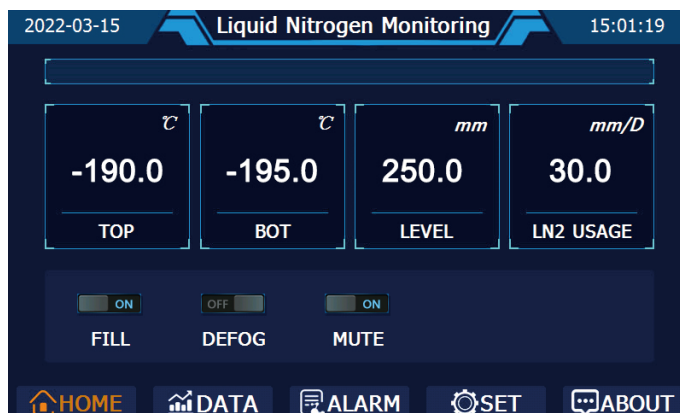
CryoMatrix series high-efficiency vapor phase liquid nitrogen storage system provides the most ideal storage conditions for biological samples. The whole series realize  $-190^{\circ}\text{C}$  vapor phase storage. Supported by  $\text{LN}_2$  automatic filling system and temperature &  $\text{LN}_2$  level monitoring system, CryoMatrix freezers provide all-round protection to precious sample, assisting life science research and cell therapy applications.

Based on the actual needs of users, Antech has innovatively optimized the performance, structure and control system of the vapor-phase cryogenic freezer to meet the user's highest standard of large-capacity vapor-phase cryogenic storage requirements.



## Advanced Control System

- HMI human-machine interactive touch screen, display temperature, liquid level, temperature curve and alarm information.
- Important events such as temperature, alarm, liquid nitrogen fill, can be checked, and can also download through USB disk.
- Various alarms, and the alarm information can be stored and downloaded through the USB disk.
- Operating data, such as temperature and liquid level, can be stored for up to 10 years.
- Optimized structure design to achieve the best sample storage density and save space.

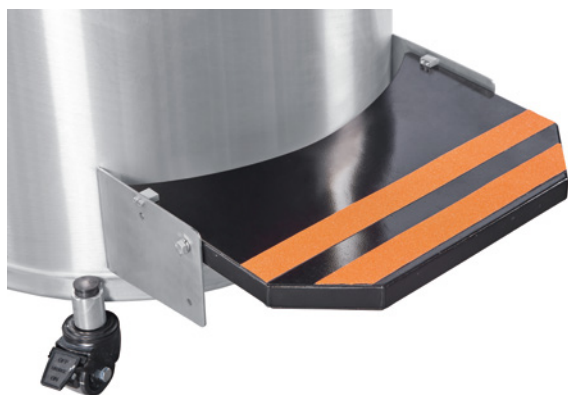


## Features

- Multiple capacity freezers, from 370L to 1,800L, 2.0ml vials storage capacity from 15,600 to 94,500.
- Excellent temperature uniformity and stability, enabling samples to be stored at  $-190^{\circ}\text{C}$  vapor phase environment.
- Excellent vacuum performance and structural design ensure minimum liquid nitrogen consumption and lower storage costs.
- Advanced temperature, liquid level monitoring and alarm system, and can realize remote monitoring.
- Automatic supply of liquid nitrogen, safe and labor-saving.
- The liquid nitrogen supply system is controlled by multiple solenoid valves, which can effectively prevent the overflow of liquid nitrogen and sample contamination caused by high  $\text{LN}_2$  level.
- Manual filling available under special circumstances.
- Compatible with vapor phase and liquid phase storage modes, users can choose according to their needs.
- The optimized mechanism design realizes high-density storage to save space.



## Humanized Design



- Defog function, easier to find samples and shorten lid opening time.
- After 48 hours of lid open, temperature in the freezer remains below  $-150^{\circ}\text{C}$  (according to the factory test standard).
- The remote alarm interface can be connected to the central alarm system.
- Foldable step for convenient operation & space saving.
- Standard backup battery in case of power failure.
- Optional vacuum jacketed hose for lower liquid nitrogen consumption.

## Why CryoMatrix?

- High density storage  
Compared with similar products, CryoMatrix freezers have a small footprint and can store a large number of samples. It truly realizes high-density storage, which not only saves space, but also reduces the storage cost per sample. Both horizontal and vertical rack systems available.
- Excellent temperature uniformity  
Vacuum insulated stainless steel tank structure, high vacuum coverage, to ensure excellent thermal insulation performance. When samples are stored at vapor phase, top level sample temperature is lower than  $-180^{\circ}\text{C}$ .

- Stable opening temperature

The innovative lid and vacuum insulated neck design reduce LN<sub>2</sub> evaporation. Even when the lid is opened for up to 48 hours, the inner temperature can remains stable.

- Advanced temperature monitoring system

The monitoring system based on microprocessor and platinum temperature probe can display the maximum and minimum temperature inside the tank in real time with an accuracy of  $\pm 1^{\circ}\text{C}$ . The user can set the alarm point by himself, with the option of alarm mute.

- Automatic LN<sub>2</sub> filling & level monitoring system

The liquid level monitoring system based on high-precision differential pressure sensor displays the liquid level in real time to ensure the safety and reliability of the automatic filling of liquid nitrogen. The color touch screen can display: top temperature, bottom temperature, liquid level height, daily liquid nitrogen consumption and other parameters.

- Warm gas bypass

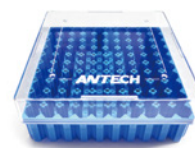
The warm gas bypass design can remove the high temperature nitrogen (gas) in the pipeline before the liquid nitrogen is injected, so as to ensure that only ultra-low temperature liquid nitrogen is injected into freezer, which avoids the temperature fluctuation in the freezer & thermo shock to samples during filling process, protecting the safety of samples.



## Rack for cryogenic boxes



Inventory racks for cryobox



| Model                                                           | Description                                   | Part Number |
|-----------------------------------------------------------------|-----------------------------------------------|-------------|
| For 81/100-place 2" height box                                  |                                               |             |
| CFC-10-2                                                        | 10-place                                      | 5122A93     |
| CFC-12-2                                                        | 12-place                                      | 5122C93     |
| CFC-13-2                                                        | 13-place                                      | 5122D93     |
| CFC-14-2                                                        | 14-place                                      | 5122E93     |
| CFC-15-2                                                        | 15-place                                      | 5122F93     |
| For 25-place 2" height box                                      |                                               |             |
| CFC-10-2S                                                       | 10-place                                      | 5121A93     |
| CFC-12-2S                                                       | 12-place                                      | 5121C93     |
| CFC-13-2S                                                       | 13-place                                      | 5121D93     |
| CFC-14-2S                                                       | 14-place                                      | 5121E93     |
| CFC-15-2S                                                       | 15-place                                      | 5121F93     |
| For 81-place 3.75" height box                                   |                                               |             |
| CFC-5-3                                                         | 5-place                                       | 5123153     |
| CFC-6-3                                                         | 6-place                                       | 5123163     |
| CFC-8-3                                                         | 8-place                                       | 5123183     |
| Cryogenic box, polycarbonate material, LN <sub>2</sub> duration |                                               |             |
| CBA-25-2                                                        | 25-place box, 2" height, for 1.5~2.0ml vials  | 5211110     |
| CBA-81-2                                                        | 81-place box, 2" height, for 1.5~2.0ml vials  | 5211120     |
| CBA-100-2                                                       | 100-place box, 2" height, for 1.5~2.0ml vials | 5211130     |
| CBA-81-3                                                        | 81-place box, 3.75" height, for 5ml vials     | 5211140     |

## Frame Rack & Cassette for Blood Bags



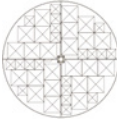
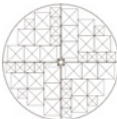
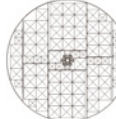
Blood bag cassette



Blood bag frame

| Model                       | Description/capacity                                                                                       | Part Number |
|-----------------------------|------------------------------------------------------------------------------------------------------------|-------------|
| <b>Cassette &amp; frame</b> |                                                                                                            |             |
| BBC-A                       | Pall MEDSEPTM 25 mL, OriGen CS 25[Dimensions(mm): 91*100*11]                                               | 5241100     |
| CFB-A-3                     | 3-place                                                                                                    | 5124135     |
| CFB-A-4                     | 4-place                                                                                                    | 5124145     |
| CFB-A-5                     | 5-place                                                                                                    | 5124155     |
| CFB-A-6                     | 6-place                                                                                                    | 5124165     |
| CFB-A-7                     | 7-place                                                                                                    | 5124175     |
| CFB-A-8                     | 8-place                                                                                                    | 5124185     |
| CFB-A-9                     | 9-place                                                                                                    | 5124195     |
| <b>Cassette &amp; Frame</b> |                                                                                                            |             |
| BBC-B                       | Fenwal 4R9951, OriGen CS 50[Dimensions(mm): 91*157*11]                                                     | 5241200     |
| CFB-B-3                     | 3-place                                                                                                    | 5125135     |
| CFB-B-4                     | 4-place                                                                                                    | 5125145     |
| CFB-B-5                     | 5-place                                                                                                    | 5125155     |
| CFB-B-6                     | 6-place                                                                                                    | 5125165     |
| CFB-B-7                     | 7-place                                                                                                    | 5125175     |
| CFB-B-8                     | 8-place                                                                                                    | 5125185     |
| CFB-B-9                     | 9-place                                                                                                    | 5125195     |
| CFB-B-10                    | 10-place                                                                                                   | 51251A5     |
| CFB-B-11                    | 11-place                                                                                                   | 51251B5     |
| <b>Cassette &amp; Frame</b> |                                                                                                            |             |
| BBC-C                       | Fenwal 4R9953 & 4R5461, OriGen CS 250, CryoMACS 50 & 250, CryoPAC 025B & 050B [Dimensions(mm): 143*202*11] | 5241300     |
| CFB-C-3                     | 3-place                                                                                                    | 5126135     |
| CFB-C-4                     | 4-place                                                                                                    | 5126145     |
| CFB-C-5                     | 5-place                                                                                                    | 5126155     |
| CFB-C-6                     | 6-place                                                                                                    | 5126165     |
| CFB-C-7                     | 7-place                                                                                                    | 5126175     |
| <b>Cassette &amp; Frame</b> |                                                                                                            |             |
| BBC-D                       | Fenwal 4R9955 & 4R5462, OriGen CS 500, CryoPAC 250B & 500B [Dimensions(mm): 143*277*11]                    | 5241400     |
| CFB-D-3                     | 3-place                                                                                                    | 5127135     |
| CFB-D-4                     | 4-place                                                                                                    | 5127145     |
| CFB-D-5                     | 5-place                                                                                                    | 5127155     |
| CFB-D-6                     | 6-place                                                                                                    | 5127165     |
| CFB-D-7                     | 7-place                                                                                                    | 5127175     |
| <b>Cassette &amp; Frame</b> |                                                                                                            |             |
| BBC-E                       | Gambro DF-200 or CryoMACS 50 & 250[Dimensions(mm): 163*191*20]                                             | 5241500     |
| CFB-E-3                     | 3-place                                                                                                    | 5128135     |
| CFB-E-4                     | 4-place                                                                                                    | 5128145     |
| CFB-E-5                     | 5-place                                                                                                    | 5128155     |
| <b>Cassette &amp; Frame</b> |                                                                                                            |             |
| BBC-F                       | Gambro DF-700, OriGen CS 1000, CryoMACS 500 & 750 & 1000, CryoPAC 750B[Dimensions(mm): 165*300*20]         | 5241600     |
| CFB-F-3                     | 3-place                                                                                                    | 5129135     |
| CFB-F-4                     | 4-place                                                                                                    | 5129145     |
| CFB-F-5                     | 5-place                                                                                                    | 5129155     |

## Inventory & Layout

| Model                                                                                       | CryoMatrix 15K                                                                    | CryoMatrix 19K                                                                    | CryoMatrix 28K                                                                    | CryoMatrix 39K                                                                    | CryoMatrix 44K                                                                      | CryoMatrix 55K                                                                      | CryoMatrix 94K                                                                      |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>2ml vial (square rack)</b>                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Rack layout                                                                                 |  |  |  |  |  |  |  |
| Maximum capacity                                                                            | 16800                                                                             | 21000                                                                             | 29000                                                                             | 40600                                                                             | 45500                                                                               | 60000                                                                               | 96750                                                                               |
| Large rack model x rack qty                                                                 | CFC-12-2 x 12                                                                     | CFC-15-2 x 12                                                                     | CFC-10-2 x 24                                                                     | CFC-14-2 x 24                                                                     | CFC-13-2 x 32                                                                       | CFC-15-2 x 32                                                                       | CFC-15-2 x 60                                                                       |
| Small rack model x rack qty                                                                 | CFC-12-2S x 8                                                                     | CFC-15-2S x 8                                                                     | CFC-10-2S x 20                                                                    | CFC-14-2S x 20                                                                    | CFC-13-2S x 12                                                                      | CFC-15-2S x 32                                                                      | CFC-15-2S x 18                                                                      |
| <b>5ml vial (square rack)</b>                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 5832                                                                              | 6840                                                                              | 9720                                                                              | 13608                                                                             | 15552                                                                               | 18144                                                                               | 34020                                                                               |
| Rack model x rack qty                                                                       | CFC-6-3 x 12                                                                      | CFC-7-3 x 12                                                                      | CFC-5-3 x 24                                                                      | CFC-7-3 x 24                                                                      | CFC-6-3 x 32                                                                        | CFC-7-3 x 32                                                                        | CFC-7-3 x 60                                                                        |
| <b>25ml blood bag (Pall MEDSEPTM 25 mL, OriGen CS 25)</b>                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 1477                                                                              | 1899                                                                              | 2370                                                                              | 3160                                                                              | 3381                                                                                | 4860                                                                                | 7488                                                                                |
| Cassette model x qty                                                                        | BBC-A x 1477                                                                      | BBC-A x 1899                                                                      | BBC-A x 2370                                                                      | BBC-A x 3160                                                                      | BBC-A x 3381                                                                        | BBC-A x 4860                                                                        | BBC-A x 7488                                                                        |
| Rack model x rack qty                                                                       | CFB-A-7 x 211                                                                     | CFB-A-9 x 211                                                                     | CFB-A-6 x 395                                                                     | CFB-A-8 x 395                                                                     | CFB-A-7 x 483                                                                       | CFB-A-9 x 540                                                                       | CFB-A-9 x 832                                                                       |
| <b>50ml blood bag (Fenwal 4R9951, OriGen CS 50)</b>                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 896                                                                               | 1152                                                                              | 1458                                                                              | 1944                                                                              | 2100                                                                                | 3051                                                                                | 4698                                                                                |
| Cassette model x qty                                                                        | BBC-B x 896                                                                       | BBC-B x 1152                                                                      | BBC-B x 1458                                                                      | BBC-B x 1944                                                                      | BBC-B x 2100                                                                        | BBC-B x 3051                                                                        | BBC-B x 4698                                                                        |
| Rack model x rack qty                                                                       | CFB-B-7 x 128                                                                     | CFB-B-9 x 128                                                                     | CFB-B-6 x 243                                                                     | CFB-B-8 x 243                                                                     | CFB-B-7 x 300                                                                       | CFB-B-9 x 339                                                                       | CFB-B-9 x 522                                                                       |
| <b>250ml blood bag (Fenwal 4R9953 &amp; 4R5461, OriGen CS 250 or CryoMACS 50 &amp; 250)</b> |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 396                                                                               | 495                                                                               | 552                                                                               | 920                                                                               | 912                                                                                 | 1275                                                                                | 2050                                                                                |
| Cassette model x qty                                                                        | BBC-C x 396                                                                       | BBC-C x 495                                                                       | BBC-C x 552                                                                       | BBC-C x 920                                                                       | BBC-C x 912                                                                         | BBC-C x 1275                                                                        | BBC-C x 2050                                                                        |
| Rack model x rack qty                                                                       | CFB-C-4 x 99                                                                      | CFB-C-5 x 99                                                                      | CFB-C-3 x 184                                                                     | CFB-C-5 x 184                                                                     | CFB-C-4 x 228                                                                       | CFB-C-5 x 255                                                                       | CFB-C-5 x 410                                                                       |
| <b>500ml blood bag (Fenwal 4R9955 &amp; 4R5462, OriGen CS 500)</b>                          |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 240                                                                               | 300                                                                               | 381                                                                               | 635                                                                               | 624                                                                                 | 855                                                                                 | 1340                                                                                |
| Cassette model x qty                                                                        | BBC-D x 240                                                                       | BBC-D x 300                                                                       | BBC-D x 381                                                                       | BBC-D x 635                                                                       | BBC-D x 624                                                                         | BBC-D x 855                                                                         | BBC-D x 1340                                                                        |
| Rack model x rack qty                                                                       | CFB-D-4 x 60                                                                      | CFB-D-5 x 60                                                                      | CFB-D-3 x 127                                                                     | CFB-D-5 x 127                                                                     | CFB-D-4 x 156                                                                       | CFB-D-5 x 171                                                                       | CFB-D-5 x 268                                                                       |
| <b>200ml blood bag (Gambro DF-200 or CryoMACS 50 &amp; 250)</b>                             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 240                                                                               | 300                                                                               | 369                                                                               | 492                                                                               | 588                                                                                 | 820                                                                                 | 1300                                                                                |
| Cassette model x qty                                                                        | BBC-E x 240                                                                       | BBC-E x 300                                                                       | BBC-E x 369                                                                       | BBC-E x 492                                                                       | BBC-E x 588                                                                         | BBC-E x 820                                                                         | BBC-E x 1300                                                                        |
| Rack model x rack qty                                                                       | CFB-E-4 x 60                                                                      | CFB-E-5 x 60                                                                      | CFB-E-3 x 123                                                                     | CFB-E-4x 123                                                                      | CFB-E-4 x 147                                                                       | CFB-E-5 x 164                                                                       | CFB-E-5 x 260                                                                       |
| <b>700ml blood bag (Gambro DF-700, OriGen CS 1000 or CryoMACS 500&amp; 750 &amp; 1000)</b>  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Maximum capacity                                                                            | 128                                                                               | 160                                                                               | 204                                                                               | 272                                                                               | 332                                                                                 | 480                                                                                 | 700                                                                                 |
| Cassette model x qty                                                                        | BBC-F x 128                                                                       | BBC-F x 160                                                                       | BBC-F x 204                                                                       | BBC-F x 272                                                                       | BBC-F x 332                                                                         | BBC-F x 480                                                                         | BBC-F x 700                                                                         |
| Rack model x rack qty                                                                       | CFB-F-4 x 32                                                                      | CFB-F-5 x 32                                                                      | CFB-F-3 x 68                                                                      | CFB-F-4 x 68                                                                      | CFB-F-4 x 83                                                                        | CFB-F-5 x 96                                                                        | CFB-F-5 x 140                                                                       |

# Specification

Model

CryoMatrix 15K CryoMatrix 19K CryoMatrix 28K CryoMatrix 39K CryoMatrix 44K CryoMatrix 55K CryoMatrix 94K

| Maximum Storage Capacity                       |                                         |              |              |              |              |              |              |              |
|------------------------------------------------|-----------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 1.2 & 2ml vial                                 | 1.2 & 2ml vial                          | 16800        | 21000        | 29000        | 40600        | 45500        | 60000        | 96750        |
|                                                | Number of large rack (81/100-place box) | 12           | 12           | 24           | 24           | 32           | 32           | 60           |
|                                                | Number of small rack (25-place box)     | 8            | 8            | 20           | 20           | 12           | 32           | 18           |
|                                                | 2" Boxes per rack                       | 12           | 15           | 10           | 14           | 13           | 15           | 15           |
| 5ml vial                                       | 5ml vial (81-place)                     | 5832         | 6804         | 9720         | 13608        | 15552        | 18144        | 34020        |
|                                                | Number of racks                         | 12           | 12           | 24           | 24           | 32           | 32           | 60           |
|                                                | 3.75" Boxes per rack                    | 6            | 7            | 5            | 7            | 6            | 7            | 7            |
| Cassette BBC-A                                 | Numbers of blood bag                    | 1477         | 1899         | 2370         | 3160         | 3381         | 4860         | 7488         |
|                                                | Layers per rack                         | 7            | 9            | 6            | 8            | 7            | 9            | 9            |
|                                                | Number of racks                         | 211          | 211          | 395          | 395          | 483          | 540          | 832          |
| Cassette BBC-B                                 | Numbers of blood bag                    | 896          | 1152         | 1458         | 1944         | 2100         | 3051         | 4698         |
|                                                | Layers per rack                         | 7            | 9            | 6            | 8            | 7            | 9            | 9            |
|                                                | Number of racks                         | 128          | 128          | 243          | 243          | 300          | 339          | 522          |
| Cassette BBC-C                                 | Numbers of blood bag                    | 396          | 495          | 552          | 920          | 912          | 1275         | 2050         |
|                                                | Layers per rack                         | 4            | 5            | 3            | 5            | 4            | 5            | 5            |
|                                                | Number of racks                         | 99           | 99           | 184          | 184          | 228          | 255          | 410          |
| Cassette BBC-D                                 | Numbers of blood bag                    | 240          | 300          | 381          | 635          | 624          | 855          | 1340         |
|                                                | Layers per rack                         | 4            | 5            | 3            | 5            | 4            | 5            | 5            |
|                                                | Number of racks                         | 60           | 60           | 127          | 127          | 156          | 171          | 268          |
| Cassette BBC-E                                 | Numbers of blood bag                    | 240          | 300          | 369          | 492          | 588          | 820          | 1300         |
|                                                | Layers per rack                         | 4            | 5            | 3            | 4            | 4            | 5            | 5            |
|                                                | Number of racks                         | 60           | 60           | 123          | 123          | 147          | 164          | 260          |
| Cassette BBC-F                                 | Numbers of blood bag                    | 128          | 160          | 204          | 272          | 332          | 480          | 700          |
|                                                | Layers per rack                         | 4            | 5            | 3            | 4            | 4            | 5            | 5            |
|                                                | Number of racks                         | 32           | 32           | 68           | 68           | 83           | 96           | 140          |
| LN <sub>2</sub> Capacity                       |                                         |              |              |              |              |              |              |              |
| LN <sub>2</sub> capacity (L)                   |                                         | 370          | 460          | 608          | 800          | 890          | 1162         | 1854         |
| LN <sub>2</sub> capacity at vapor platform (L) |                                         | 55           | 55           | 125          | 133          | 165          | 200          | 296          |
| Dimensions                                     |                                         |              |              |              |              |              |              |              |
| Neck opening (mm)                              |                                         | 317          | 317          | 445          | 445          | 465          | 520          | 635          |
| Usable internal height (mm)                    |                                         | 708          | 914          | 615          | 840          | 765          | 887          | 906          |
| Inner diameter (mm)                            |                                         | 758          | 758          | 1012         | 1012         | 1113         | 1172         | 1467         |
| External diameter (mm)                         |                                         | 820          | 820          | 1090         | 1090         | 1190         | 1256         | 1565         |
| Overall height (mm)                            |                                         | 1400         | 1600         | 1425         | 1650         | 1600         | 1790         | 1750         |
| Door width limit (mm)                          |                                         | 850          | 850          | 1140         | 1140         | 1240         | 1300         | 1615         |
| Weight empty (kg)                              |                                         | 212          | 264          | 310          | 394          | 400          | 580          | 805          |
| Weight full, liquid charged (kg)               |                                         | 513          | 638          | 809          | 1042         | 1112         | 1521         | 2307         |
| Functions                                      |                                         |              |              |              |              |              |              |              |
| Controller                                     |                                         | Touch screen | Touch screen | Touch screen | Touch screen | Touch screen | Touch screen | Touch screen |
| Full auto fill                                 |                                         | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     |
| Data storage / USB port / RS485 port           |                                         | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     |
| Defog                                          |                                         | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     |
| Foldable step                                  |                                         | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     |
| Backup battery                                 |                                         | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     | Standard     |
| Vacuum jacketed hose                           |                                         | Optional     | Optional     | Optional     | Optional     | Optional     | Optional     | Optional     |
| Inventory rack                                 |                                         | Optional     | Optional     | Optional     | Optional     | Optional     | Optional     | Optional     |
| Wi-Fi connection & cloud access                |                                         | Optional     | Optional     | Optional     | Optional     | Optional     | Optional     | Optional     |

\* Cassette BBC-A: Pall MEDSEPTM 25 mL, OriGen CS 25; Cassette BBC-B: Fenwal 4R9951, OriGen CS 50;

Cassette BBC-C: Fenwal 4R9953 & 4R5461, OriGen CS 250, CryoMACS 50 & 250, CryoPAC 025B & 050B; Cassette BBC-D: Fenwal 4R9955 & 4R5462, OriGen CS 500, CryoPAC 250B & 500B;

Cassette BBC-E: Gambro DF-200 or CryoMACS 50 & 250; Cassette BBC-F: Gambro DF-700, OriGen CS 1000, CryoMACS 500 & 750 & 1000, CryoPAC 750B.