Unique features of BioR and BioP

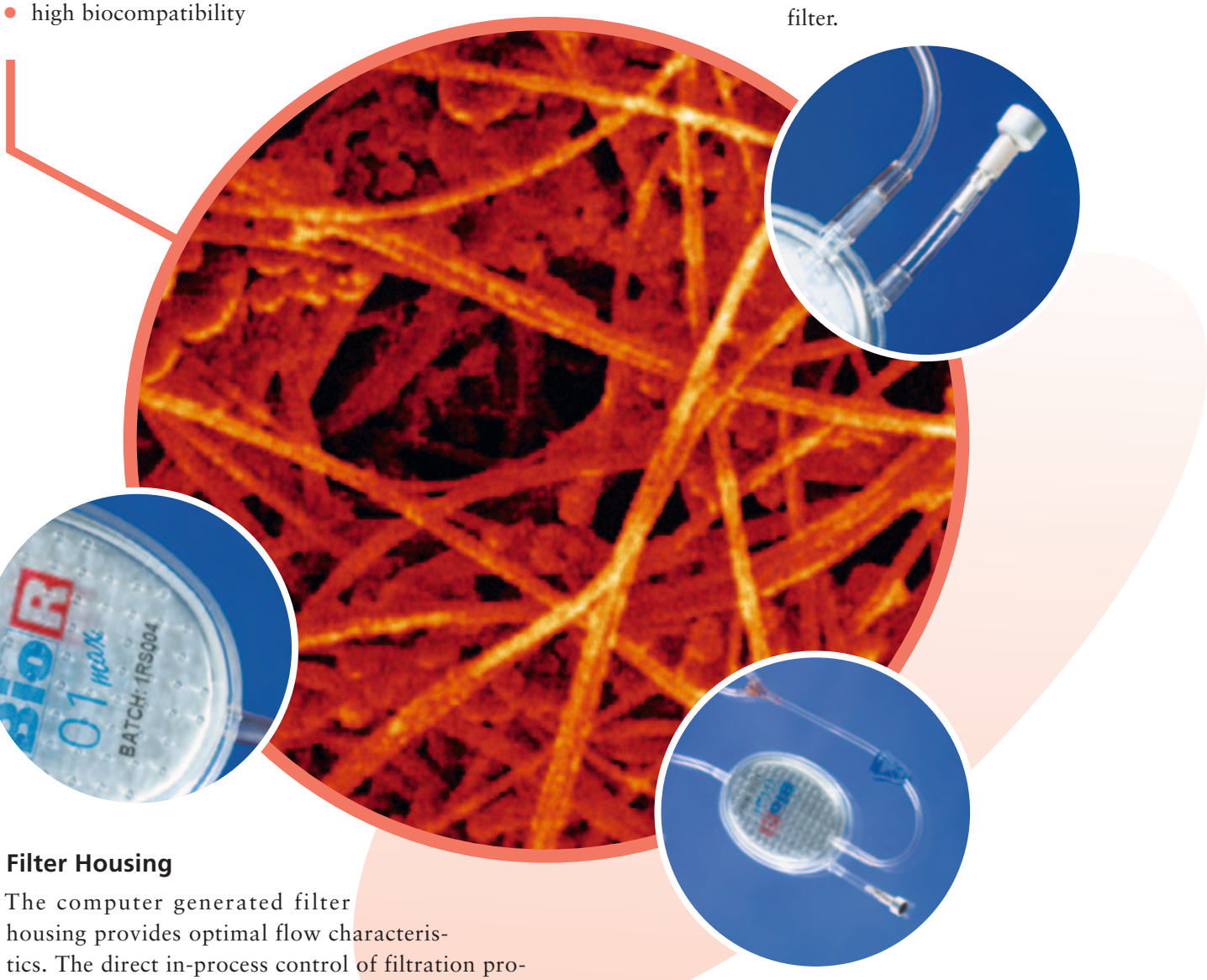
With our long year experience in filter development and production, we are able to provide filters with following excellent characteristics:

Filtering material

- melt-blown non-woven polyester fibre
- non ionic coated fibre surface
- neither positively nor negatively charged
- excellent wetting characteristic
- high biocompatibility

Autoventing System

Minimal volume loss and therefore high red cell/ platelet recovery is achieved by means of easy to handle Autoventing System (with integrated sterile air filter). It allows fast deaeration and complete emptying of the filter housing backside as well as the tubing between drip chamber and filter.



Filter Housing

The computer generated filter housing provides optimal flow characteristics. The direct in-process control of filtration procedure is ensured by the transparency of the housing material. The batch number printed on each filter enables backtracking and follow-up quality control.

Filter Design

For optimal priming, wetting and filling of the filter the configuration is assembled in an upside down position. In case of emergencies blood can be filtered with a maximum pressure of 300 mm Hg or 0.4 bar.

Ordering information

For more information, literature, technical details and working instructions as well as for equipment please contact your local sales representative or us.

	Order number	Packaging size
BioR filter	90xxxxx*	1/xx*
BioR mini	9008981	1/50
BioP filter	90xxxxx*	1/xx*

Filtration

Compolift	9028231	1

*A variety of different filter types with different packaging sizes and configurations are available.

FRESENIUS KABI
caring for life

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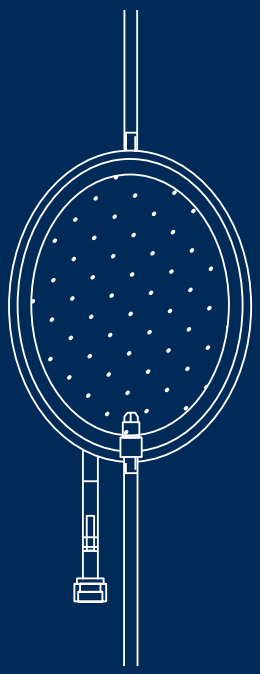
7315551/0 (xxx 00.00)

TRANSFUSION TECHNOLOGY

BioR/BioP Blood Filters

LEUKOCYTE DEPLETION FILTERS FOR WHOLE BLOOD, RED CELL CONCENTRATE OR PLATELET CONCENTRATE



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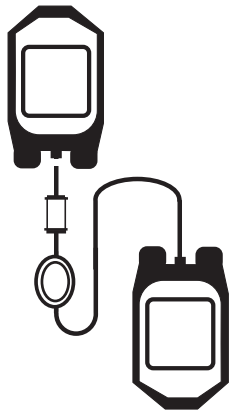
BioR and BioP Blood Filters

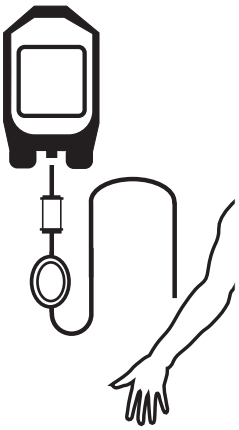
Leukocyte depletion filters for whole blood, red cell concentrate or platelet concentrate

BioR and BioP product range guarantees high filtration efficiency and performance, highest recovery, user friendliness and time saving. They are available as **blood bank** or **bedside use** filters in a wide variety of different configurations.

Blood bank use (BBS)



Bedside use (BS)



Leukocyte filters are characterized by:

high filtration efficiency and performance

·

easy handling

·

minimal volume loss

·

short filtration time

Whole blood and red cell concentrate

BioR plus

- Filtration capacity 1–2 units of RCC (R01 plus or R02 plus)
- Filtration efficiency ≥ 4 log
- Filtration loss, BioR 01 plus: 23 ml, BioR 02 plus: ~ 30 ml
- RBC recovery: ~ 95%

- Filtration time, BioR 01 plus: ≤ 15 min, BioR 02 plus: ≤ 30 min
- 170 µm prefilter
- Integrated 40 µm microaggregate filter

BioR max

- Filtration capacity 1 unit of RCC
- Filtration efficiency ≥ 5 log
- Filtration loss with AutoVenting, BioR 01 max: ~ 25 ml
- RBC recovery: ~ 95%

- Filtration time, BioR 01 max: ≤ 15 min
- Integrated 40 µm microaggregate filter

BioR mini

- Filtration capacity 60 ml of WB or RCC
- Filtration efficiency ≥ 4 log
- Filtration loss, BioR mini: ~ 5–7 ml

- Specially designed for use in neonatology and paediatric wards together with syringe pumps

BioR 01 plus	**PRE** volume (ml)	**POST** volume (ml)	**PRE** RBC (× 10^{12}/unit)	**POST** RBC (× 10^{12}/unit)	**LOSS** RBC (%)	**PRE** WBC (× 10^{8}/unit)	**POST** WBC (× 10^{4}/unit)	**Filt. time*** (min:sec)
Mean	283.4	258.6	1.92	1.76	8.5	4.12	3.09	5:42
Stand. Dev.	24.4	25.0	0.21	0.21	1.3	2.48	1.01	0:44
MIN	250.0	224.5	1.58	1.42	6.1	0.76	2.26	4:52
MAX	318.0	292.5	2.14	2.00	10.1	7.41	5.53	7:29

BioR 01 max	**PRE** volume (ml)	**POST** volume (ml)	**PRE** Hb (g)	**POST** Hb (g)	**LOSS** Hb (g)	**PRE** WBC (× 10^{6})	**POST** WBC (µl)	**Filt. time*** (min:sec)
Mean	298.2	254.8	51.3	43.0	8.4	1074.1	0	4:48
Stand. Dev.	50.4	44.2	7.8	6.7	4.6	519.0	0	0:54
MIN	207.5	160.4	36.1	26.5	5.8	481.1	0	3:00
MAX	380.7	297.2	64.1	49.1	20.6	2273.0	0	6:30

BioR mini	**Transfusion** rate (ml/h)	**Transfusion** volume (ml)	**PRE** WBC (n/µl)	**POST** WBC (n/µl)	**POST** WBC (× 10^{4}/unit)
Mean	8.4	23.5	600.5	1.5	3.391
Stand. Dev.	7.8	11.7	847.0	1.5	3.048
MIN	2.6	11.0	11.2	0.1	0.105
MAX	28.0	45.0	2700.0	3.8	7.200

(n = 10) Counting by Nageotte chamber (sensitivity 0.1 WBC/µl)

* Filtration times refer to blood bank use filters.

Platelet concentrate

BioP plus

- Filtration capacity 1 apheresis unit or 1 unit of pooled platelet concentrate (from up to 6 BC or single PC)
- Filtration efficiency ≥ 4 log

- Filtration loss, BioP plus: ~ 10–12 ml
- PLT recovery: ~ 85–90% depending on age of PLT

BioP 05 plus

- Filtration capacity 1 unit of pooled PLT concentrate (from up to 6 BC or single PC) ($c = 3–4 \times 10^{11}$)
- Filtration efficiency ≥ 4 log

- Filtration loss, BioP 05 plus: ~ 20 ml
- PLT recovery: ~ 90%

BioP 10 plus

- Filtration capacity 1 unit of pooled PLT concentrate (from up to 12 BC or single PC) ($c = 4.5–5.5 \times 10^{11}$)
- Filtration efficiency ≥ 4 log

- Filtration loss, BioP 10 plus: ~ 20 ml
- PLT recovery: ~ 90%

BioP plus	**PRE** volume (ml)	**POST** volume (ml)	**Volume** loss (ml)	**PRE** PLT ($\times 10^{11}$/unit)	**POST** PLT ($\times 10^{11}$/unit)	**PRE** WBC ($\times 10^{6}$/unit)	**POST** WBC ($\times 10^{4}$/unit)	**Filt. time*** (min)
Mean	351.1	342.0	9.1	2.87	2.56	12.22	5.35	5
Stand. Dev.	28.3	28.7	0.8	0.25	0.24	3.44	2.87	n.a.
MIN	294.1	284.3	7.8	2.55	2.15	8.40	3.29	n.a.
MAX	402.9	395.1	9.8	3.30	2.96	18.10	13.10	n.a.
BioP 05 plus (n = 15)	**PRE** volume (ml)	**POST** volume (ml)	**Volume** loss (ml)	**POST** PLT ($\times 10^{3}$/µl)	**REC** % **PLT**/µl	**POST** WBC ($\times 10^{6}$)	**log10** WBC	**Filt. time*** (min:sec)
Mean	305	285	20	826	86	0.11	3.83	07:27
Stand. Dev.	10	10	2	87	4	0.10	0.33	00:23
MIN	273	255	17	665	76	0.03	3.13	06:40
MAX	324	305	23	999	92	0.59	4.55	08:15
BioP 10 plus (n = 17)	**PRE** volume (ml)	**POST** volume (ml)	**Volume** loss (ml)	**POST** PLT ($\times 10^{3}$/µl)	**REC** % **PLT**/µl	**POST** WBC ($\times 10^{6}$)	**log10** WBC	**Filt. time*** (min:sec)
Mean	457	437	20	751	86	0.09	3.95	10:58
Stand. Dev.	11	11	1	63	3	0.02	0.13	00:23
MIN	437	417	17	669	81	0.04	3.76	10:20
MAX	477	457	22	834	91	0.14	4.25	11:50

BioP 05 plus: Platelet concentrates from 5 pooled single BC **BioP 10 plus:** Platelet concentrates from 7.5 pooled single BC

* Filtration times refer to blood bank use filters.