

Volumat Lines

Infusion - Transfusion - Oncology -
Paediatric - Parenteral Nutrition



FRESENIUS KABI

caring for life



To the Health Care Professional,

Fresenius Kabi applies more than 40 years of experience in developing high quality infusion systems to support clinicians in reducing IV medication risks at the patient bedside.

The Volumat Lines are specifically designed for the Agilia VP MC infusion pumps.

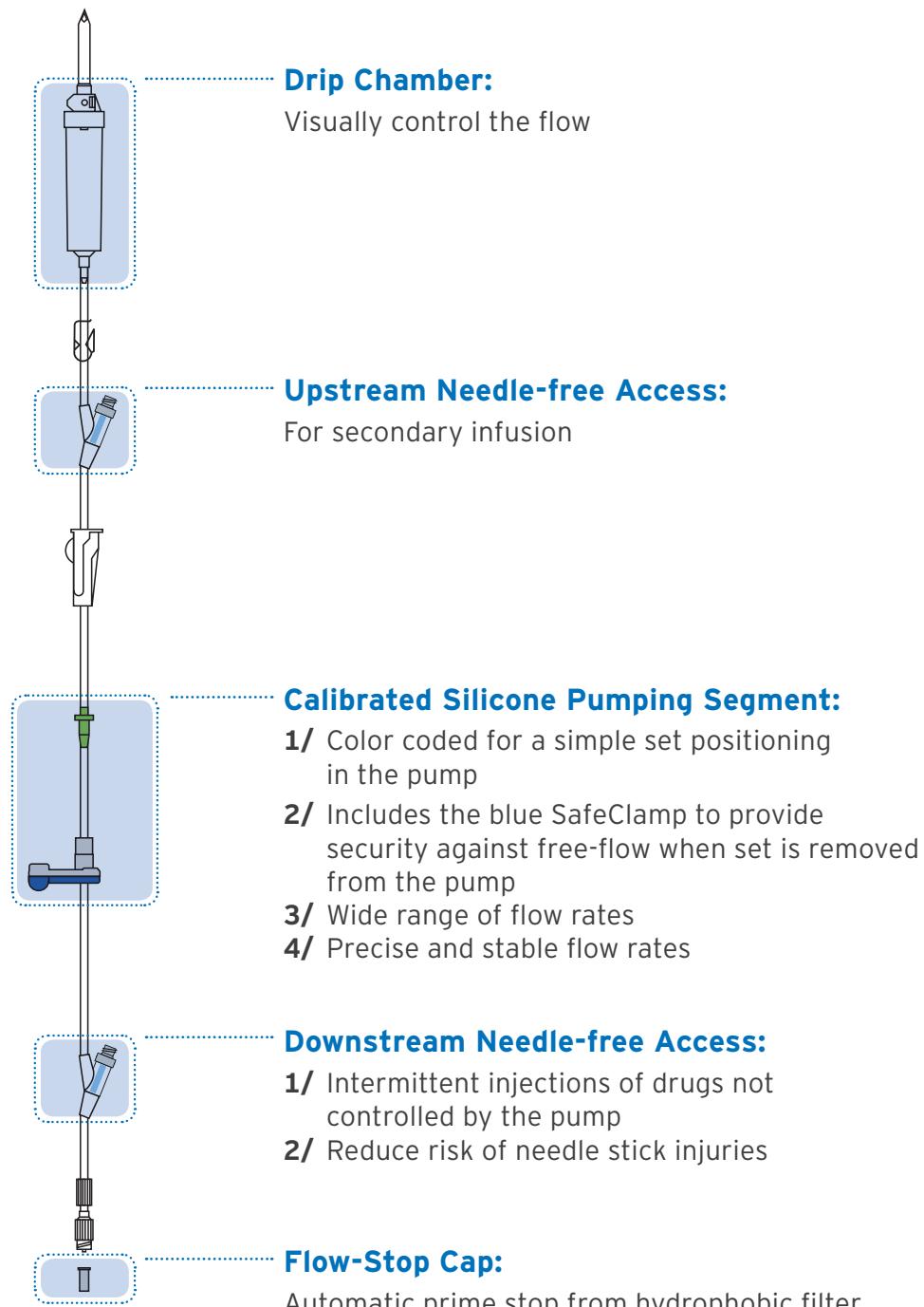
The Agilia VP MC pumps and sets integrate advanced pumping mechanisms, to aid in accurate delivery of fluid in the clinical area.

Like all Agilia devices, the Agilia VP MC pumps and sets are intuitive to use.

Volumat Lines available features

DEHP*
FREE

→ Dedicated pump set



DEHP*: di-(2-ethylhexyl) phthalate.

In accordance with EU Regulation (EC) 1907/2006 (REACH) containing not more than 0.1 % (w/w) DEHP.



Volumat Lines



Standard & Primary Sets

11

- Standard sets are designed for infusion of drugs or solutions
- Primary sets are equipped with upstream needle-free access enabling the connection of secondary sets for secondary infusion

Oncology Sets

14

- Equipped with upper needle-free access
- Certain oncology sets have special filter or materials

Transfusion Sets

21

- Equipped with 200 µm filter allowing blood products to be administered
- *Note: Blood products should only be administered with transfusion sets*

Paediatric Sets

25

- Equipped with burette to deliver a defined volume
- *Note: Standard sets may be suitable for paediatric purposes in many situations*

Parenteral Nutrition Set

27

- Equipped with 1.2 µm filter enabling filtration of lipid-containing solutions
- *Note: When filtration of parenteral nutrition is not required, other standard infusion sets may also be suitable*

Special Sets

28

- Use special material or have a special configuration to allow infusion of certain drugs

Secondary Sets

31

- Short lines, designed to be attached to primary sets

Additional Information

37

Standard &
Primary Sets

Oncology
Sets

Transfusion
Sets

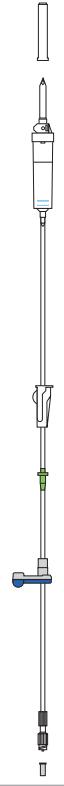
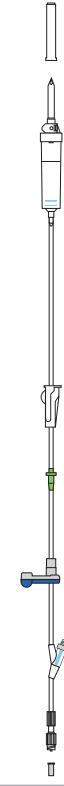
Paediatric
Sets

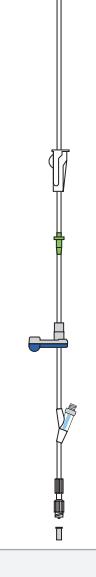
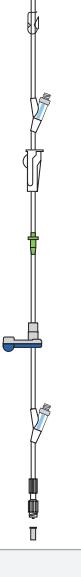
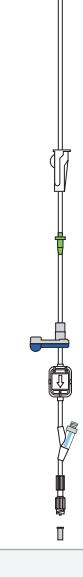
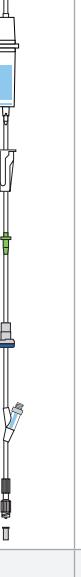
Parenteral
Nutrition Sets

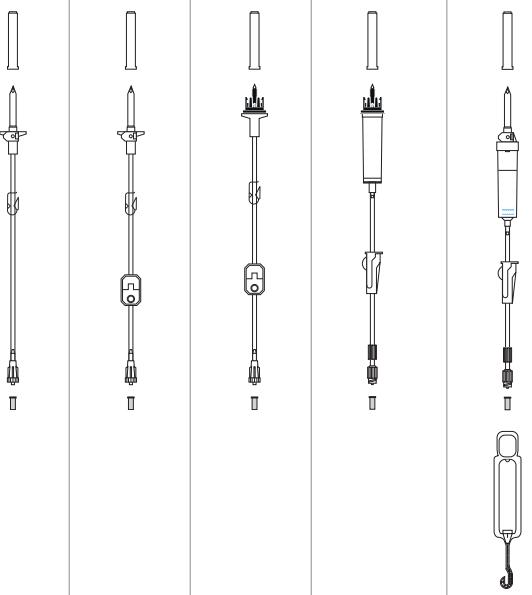
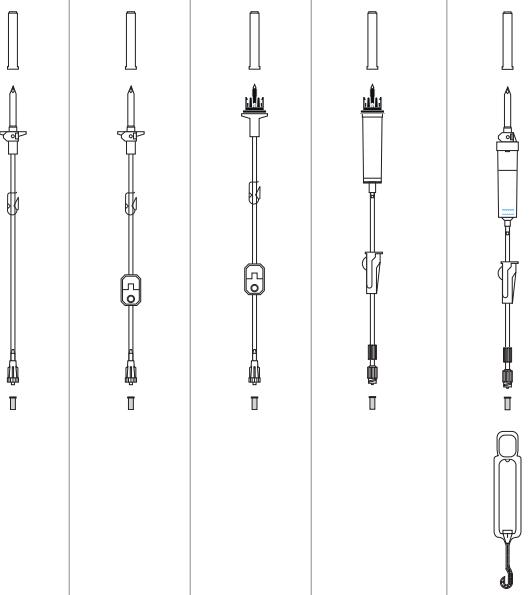
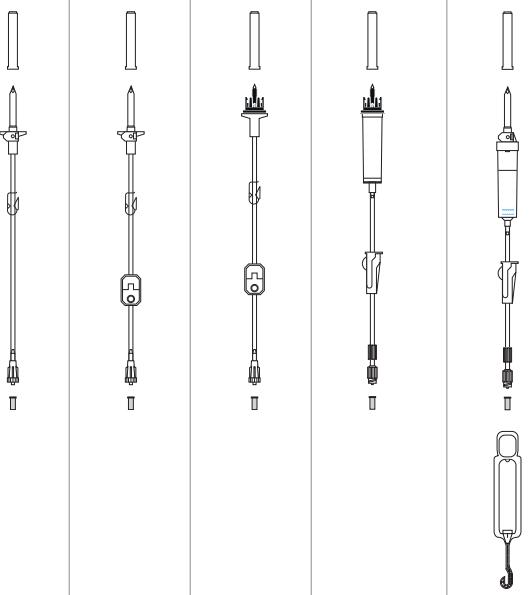
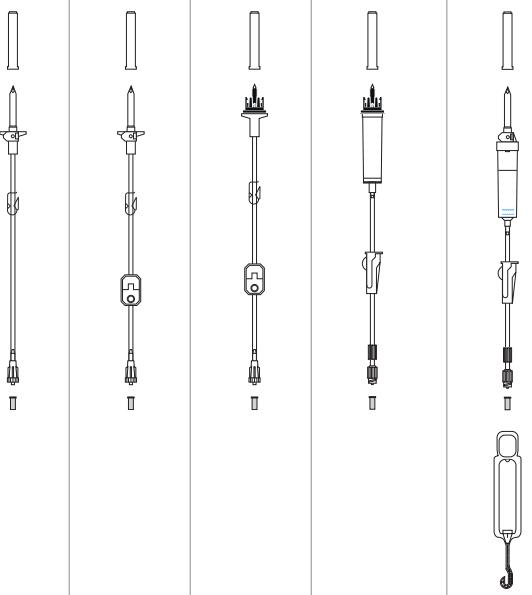
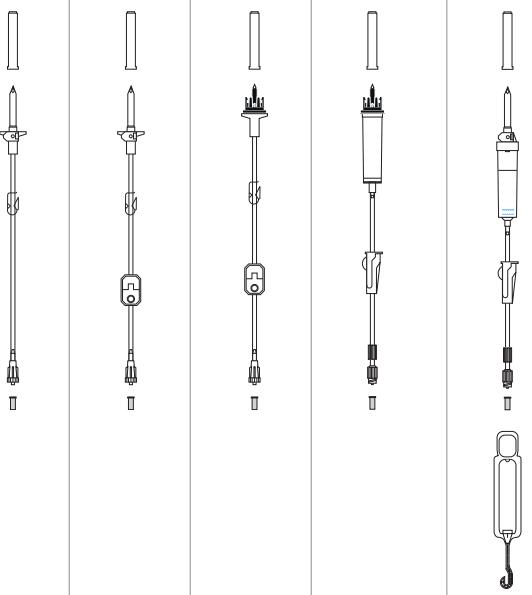
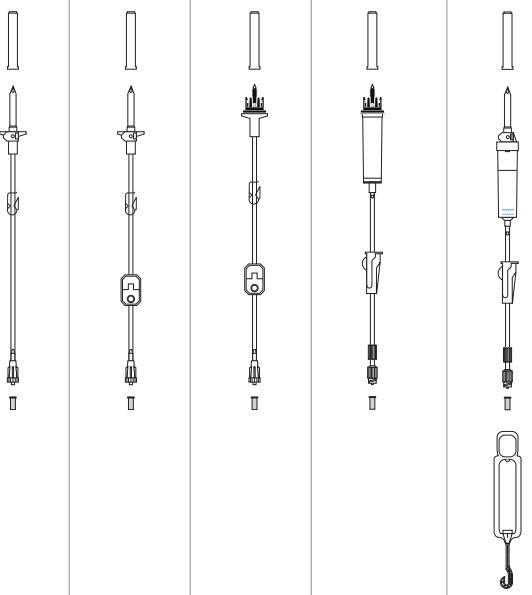
Special
Sets

Secondary
Sets

Additional
Information

DESIGNATION	STANDARD AND PRIMARY SETS				ONCOLOGY SETS				VL ON42 OP NF
	VL ST10	VL ST02	VL ST22	VL ST02 ND	VL ON70	VL ON72	VL ON90	VL ON22 OP NF	
ARTICLE REFERENCE	M46441300s	M46441900s	M46442500s	M46441980	M46444600s	M46444100s	M46444900s	M46444235	M46444085
APPLICATION	Infusion	Infusion	Infusion	Infusion	Infusion	Infusion	Infusion	Infusion	Infusion
									
SPIKE Vented / Non - Vented									
DRIP CHAMBER ▀ Inline	15 μm filter	15 μm filter	15 μm filter	no liquid filter	15 μm filter	15 μm filter	15 μm filter	▀ 15 μm filter	▀ 15 μm filter
ROBSON CLAMP ▲ Upstream / ▼ Downstream			▲	▼			▲	▲▼	▲▼
ONE-WAY CHECK VALVE									
NEEDLE-FREE ACCESS ▲ Upstream / ▼ Downstream		▼	▲▼	▼		▼		▲▲▼	▲▲▲▼
ROLLER CLAMP	✓	✓	✓	✓	✓	✓	✓	✓	✓
ANTI-BACTERIAL / AIR ELIMINATING FILTER					✓ 0.2 μm filter	✓ 0.2 μm filter			
3-WAY-STOPCOCK									
INJECTION SITE									
ROTATING MALE LUER LOCK	✓	✓	✓	✓					
FLOW-STOP CAP	✓	✓	✓	✓	✓	✓	✓	✓	✓
PRIMING VOLUME	~25 ml	~25 ml	~25 ml	~27 ml	~28 ml				
LENGTH DOWNSTREAM	~170 cm	~180 cm	~160 cm	~150 cm	~150 cm				
APPROXIMATE SET LENGTH	~285 cm	~285 cm	~285 cm	~296 cm	~312 cm				
MAIN MATERIALS	PVC, SILICONE	PVC, SILICONE	PVC, SILICONE	PVC, SILICONE	PUR, PP, SILICONE	PUR, PP, SILICONE	PUR, PP, SILICONE	PUR, PP, SILICONE	PUR, PP, SILICONE
	PAGE 11	PAGE 12	PAGE 13	PAGE 14	PAGE 15	PAGE 16	PAGE 17	PAGE 18	PAGE 19

TRANSFUSION SETS				PAEDIATRIC & BURETTE SETS		PARENTERAL NUTRITION SET	SPECIAL SETS		
200 µm FILTER							200 µm FILTER	LIGHT PROTECTED TUBING	
VL TR00	VL TR12	VL TR42	VL TR43	VL PA93	VL PA94	VL PN02	VL SP22	VL SP90	VL SP92
M46442800s	M46442700s	M46442900s	M46444500s	M46443800s	M46445300s	M46444400s	M46443100s	M46443500s	M46443600s
Infusion and Transfusion	Infusion and Transfusion	Infusion and Transfusion	Infusion and Transfusion	Infusion	Infusion	Infusion	Infusion and Transfusion	Infusion	Infusion
									
200 µm filter	150 ml burette 15 µm filter	150 ml burette 15 µm filter	15 µm filter	200 µm filter	15 µm filter				
									
									
									
									
									
									
									
~25 ml	~30 ml	~25 ml	~25 ml						
~170 cm	~180 cm	~170 cm	~170 cm	~180 cm					
~285 cm	~285 cm	~285 cm	~285 cm	~300 cm	~300 cm	~285 cm	~290 cm	~285 cm	~285 cm
PVC, SILICONE	PUR, PP, SILICONE	PUR, PP, SILICONE							

DESIGNATION	SECONDARY SETS				
	SL	SL Filter	SL FX Filter	SL 20 FX ND	SL 00 DC
ARTICLE REFERENCE	M77460020	M77460025	M77460026	M77460033	M77460037
APPLICATION	Infusion	Infusion	Infusion	Infusion	Infusion
					
SPIKE Vented / Non - Vented			freeflex®	freeflex®	
DRIP CHAMBER n Inline				no liquid filter	15 µm filter
ROBSON CLAMP ▲ Upstream / ▽ Downstream	▲	▲	▲		
ONE-WAY CHECK VALVE					
NEEDLE-FREE ACCESS ▲ Upstream / ▽ Downstream					
ROLLER CLAMP				✓	✓
ANTI-BACTERIAL / AIR ELIMINATING FILTER		✓ 0.2 µm filter	✓ 0.2 µm filter		
3-WAY-STOPCOCK					
INJECTION SITE					
ROTATING MALE LUER LOCK				✓	✓
FLOW-STOP CAP	✓	✓	✓	✓	✓
PRIMING VOLUME	~2 ml	~5 ml	~7 ml	~10 ml	~12 ml
LENGTH DOWNSTREAM					
APPROXIMATE SET LENGTH	~38 cm	~48 cm	~78 cm	~65 cm	~85 cm
MAIN MATERIALS	PUR	PUR	PUR	PUR	PVC
	PAGE 31	PAGE 32	PAGE 33	PAGE 34	PAGE 35



Volumat Lines / Sets

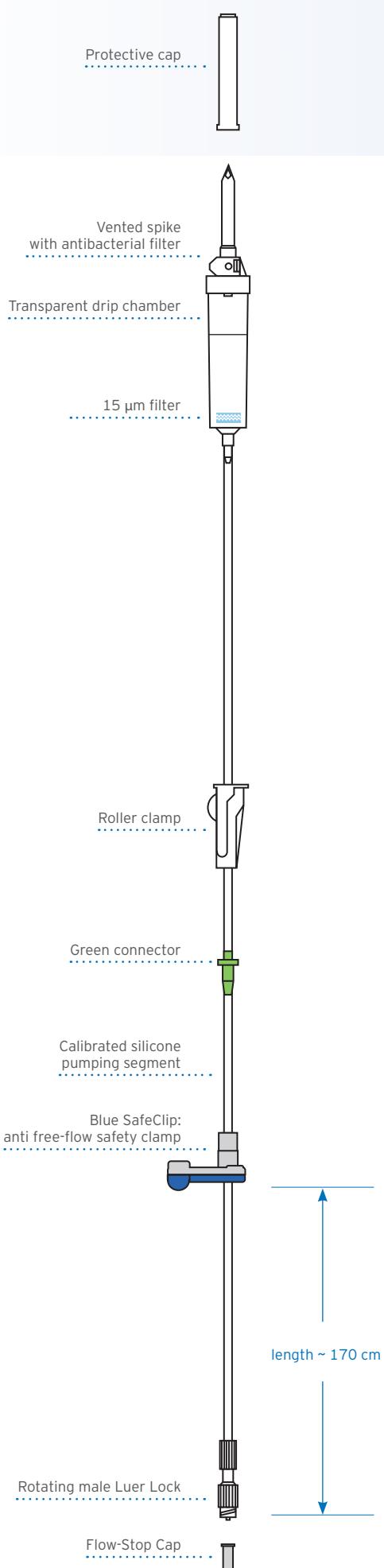


DEHP
FREE

	Sets for infusion	Sets for transfusion	Drip chamber filter [µm]	Special characteristics	Needle free access	Side lines	Drops /ml	Page
Standard and Primary Sets								
VL ST10	1		15					11
VL ST02	1		15		1			12
VL ST22	1		15		2			13
Oncology Set								
VL ST02 ND	1			no liquid filter	1			14
VL ON70	1		15	0.2 µm air eliminating filter				15
VL ON72	1		15	0.2 µm air eliminating filter	1			16
VL ON90	1		15	light protection				17
VL ON22 OP NF	1		15	light protection	3			18
VL ON42 OP NF	1		15	light protection	5			19
Transfusion Sets								
VL TR00	1	1	200					21
VL TR12	1	1	200		1			22
VL TR42	1	1	200	one-way check valve	2			23
VL TR43	1	1	200		2			24
Paediatric Sets								
VL PA93	1		15	burette set	2		20	25
VL PA94	1		15	burette set with safety flange	2		60	26
Parenteral Nutritional Set								
VL PN02	1		15	1.2 µm air eliminating filter	1			27
Special Sets								
VL SP22	1	1	200	2 spikes	1			28
VL SP90	1		15	light protected tubing				29
VL SP92	1		15	light protected tubing	1			30
Secondary Sets								
SL	1			PVC free				31
SL Filter	1			0.2 µm air eliminating filter				32
SL FX Filter	1			freeflex® connection, 0.2 µm air eliminating filter				33
SL 20 FX ND	1			freeflex® connection, no drip chamber filter				34
SL 00 DC	1		15	secondary hanger				35

VL ST10

ref. M46441300s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)
 Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility

Not to be used for / in

- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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Standard & Primary Sets

Oncology Sets

Transfusion Sets

Paediatric Sets

Parenteral Nutrition Sets

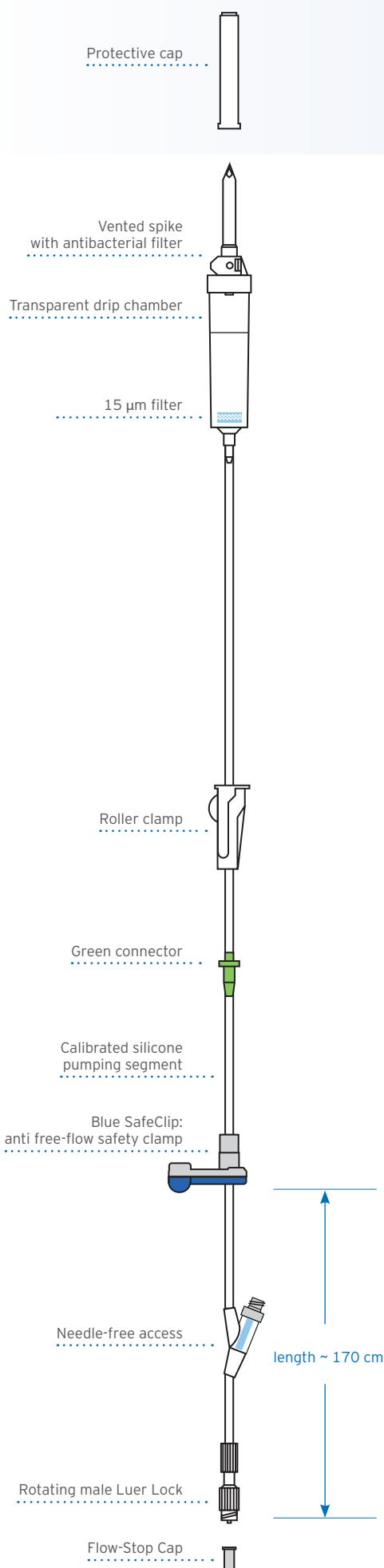
Special Sets

Secondary Sets

Additional Information

VL ST02

ref. M46441900s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility

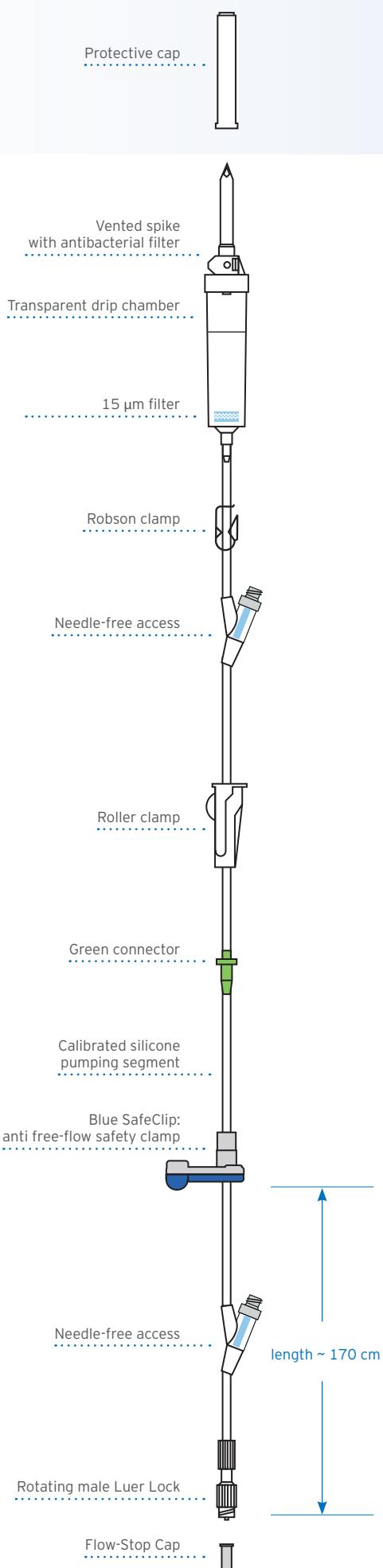
Not to be used for / in

- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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VL ST22

ref. M46442500s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of different drugs in the same set with use of Secondary Lines
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Not to be used for / in

- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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Standard & Primary Sets

Oncology Sets

Transfusion Sets

Paediatric Sets

Parenteral Nutrition Sets

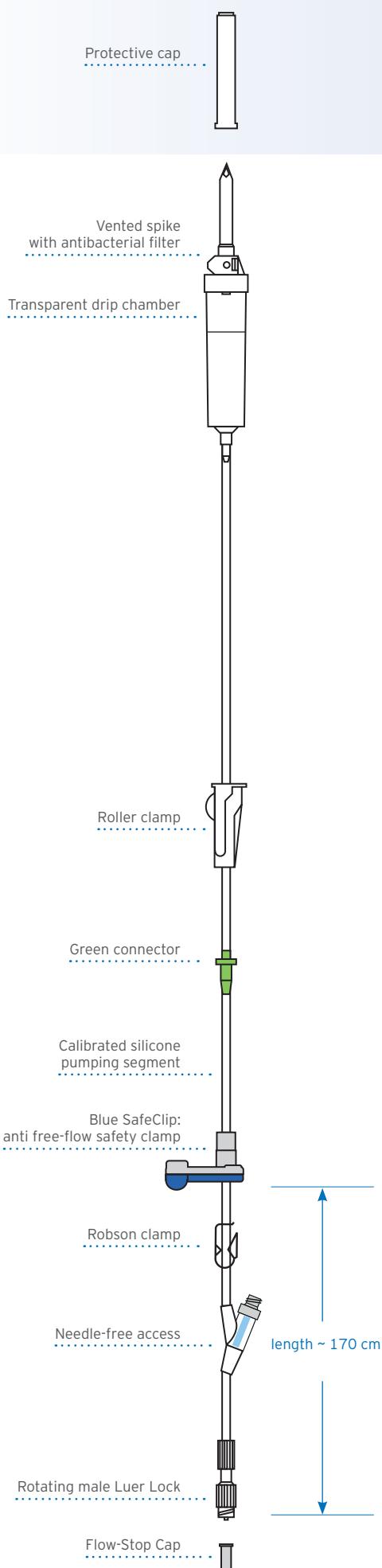
Special Sets

Secondary Sets

Additional Information

VL STO2 ND

ref. M46441980



Approximate set length:

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- No liquid filter in the drip chamber
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles (main line)
 - having no particular incompatibility

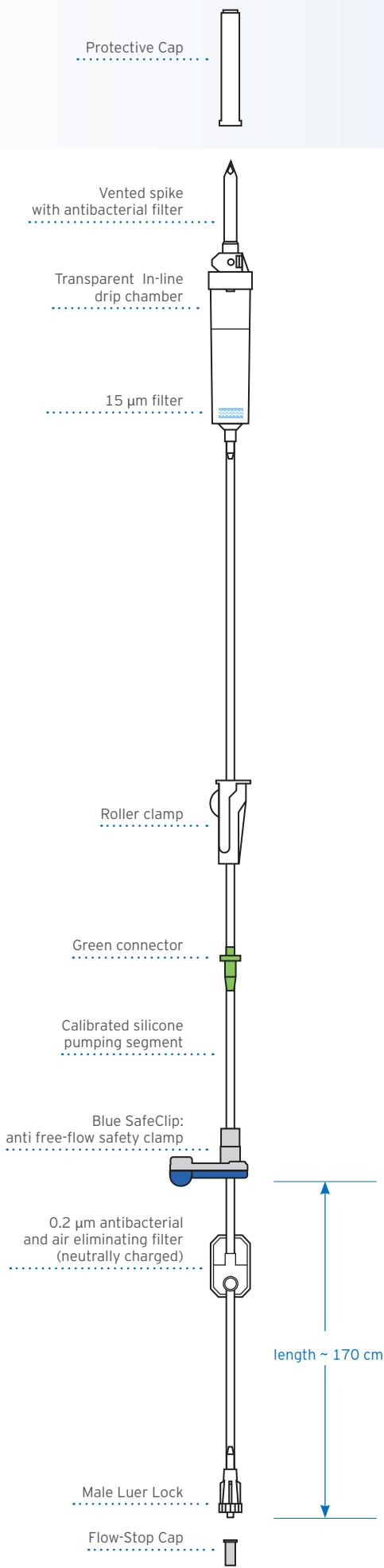
Not to be used for / in

- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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VL ON70

ref. M46444600s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1 mm)

PP (tubing: diameter 2.94 x 4.02 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Provides additional protection against bacterial contamination
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- 0.2µm PES neutrally charged filter
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs requiring a 0.2 µm filter
- Infusion of drugs / fluids
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC

Not to be used for / in

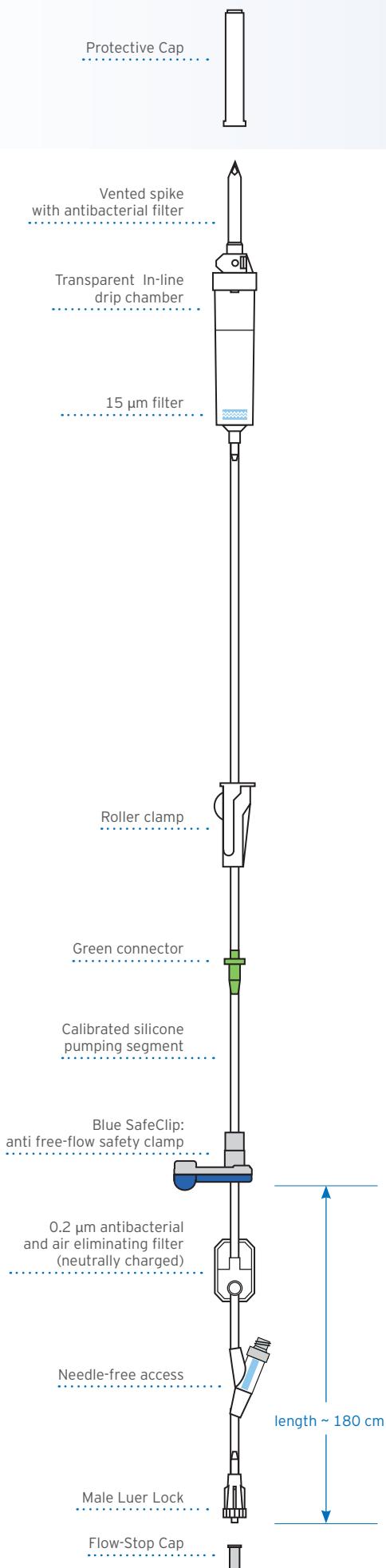
- Blood cells
- Total parenteral nutrition and other lipid-containing solutions
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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VL ON72

ref. M46444100s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1 mm)

PP (tubing: diameter 2.94 x 4.02 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Provides additional protection against bacterial contamination
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- 0.2µm PES neutrally charged filter
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs requiring a 0.2 µm filter
- Infusion of drugs / fluids
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC

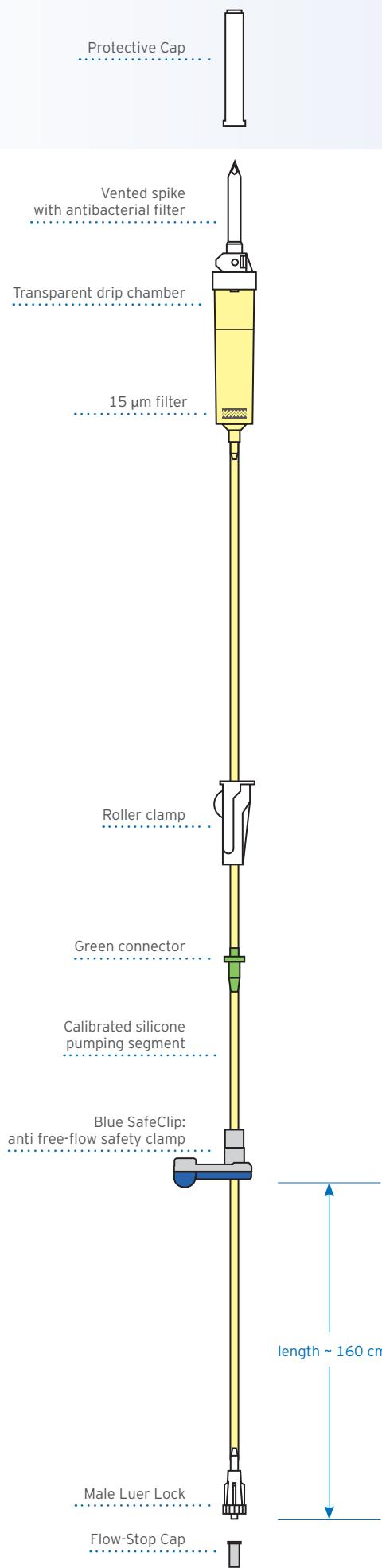
Not to be used for / in

- Blood cells
- Total parenteral nutrition and other lipid-containing solutions
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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VL ON90

ref. M46444900s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1 mm)

PP (tubing: diameter 2.94 x 4.02 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Protection for light sensitive drugs
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of any drugs / fluids including light-sensitive drugs (including UV-sensitive drugs)
- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC

Not to be used for / in

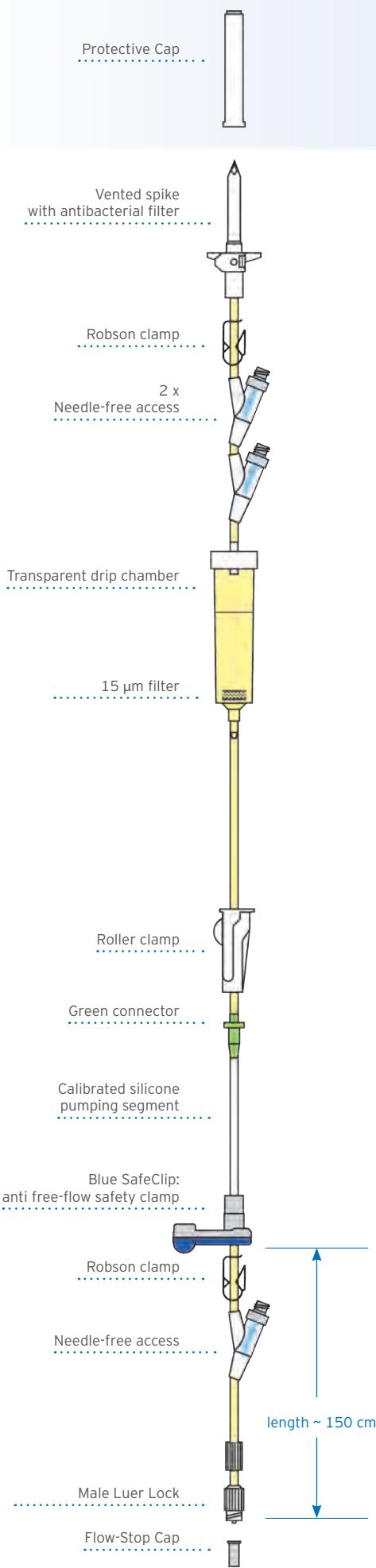
- Blood cells
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

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VL ON22 OP NF

ref. M46444235

**Approximate set length:**

296 cm

Approximate priming volume:

27 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1 mm)

PP (tubing: diameter 2.94 x 4.02 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Protection for light sensitive drugs
- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of any drugs / fluids including light-sensitive drugs (including UV-sensitive drugs)
- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC
- Infusion of different drugs in the same set with use of Secondary Lines
- Manual primary / secondary mode with Volumat MC Agilia / Volumat MC VP MC

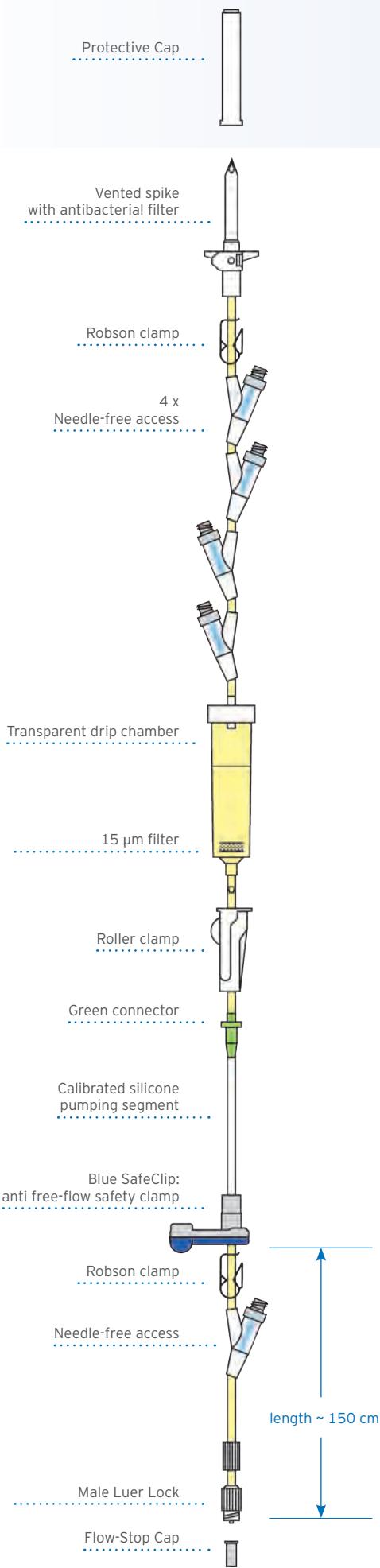
Not to be used for / in

- Blood cells
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Automatic primary / secondary mode with Volumat MC Agilia / Volumat MC VP MC

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VL ON42 OP NF

ref. M46444085

**Approximate set length:**

312 cm

Approximate priming volume:

28 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1 mm)

PP (tubing: diameter 2.94 x 4.02 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Protection for light sensitive drugs
- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 25 x 1

Typical applications

- Infusion of any drugs / fluids including light-sensitive drugs (including UV-sensitive drugs)
- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC
- Infusion of different drugs in the same set with use of Secondary Lines
- Manual primary / secondary mode with Volumat MC Agilia / Volumat MC Agilia VP MC

Not to be used for / in

- Blood cells
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Automatic primary / secondary mode with Volumat MC Agilia / Volumat MC Agilia VP MC

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Standard & Primary Sets

Oncology Sets

Transfusion Sets

Paediatric Sets

Parenteral Nutrition Sets

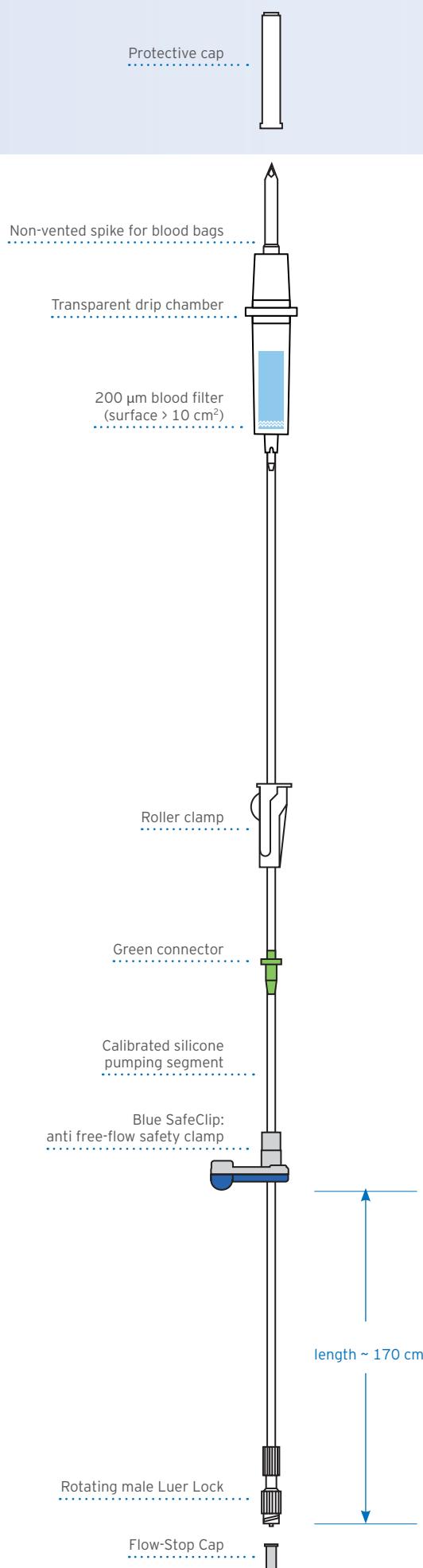
Special Sets

Secondary Sets

Additional Information

VL TR00

ref. M46442800s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- 200 µm filter
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Transfusion of blood products available in bags
- Can be used for infusion

Not to be used for / in

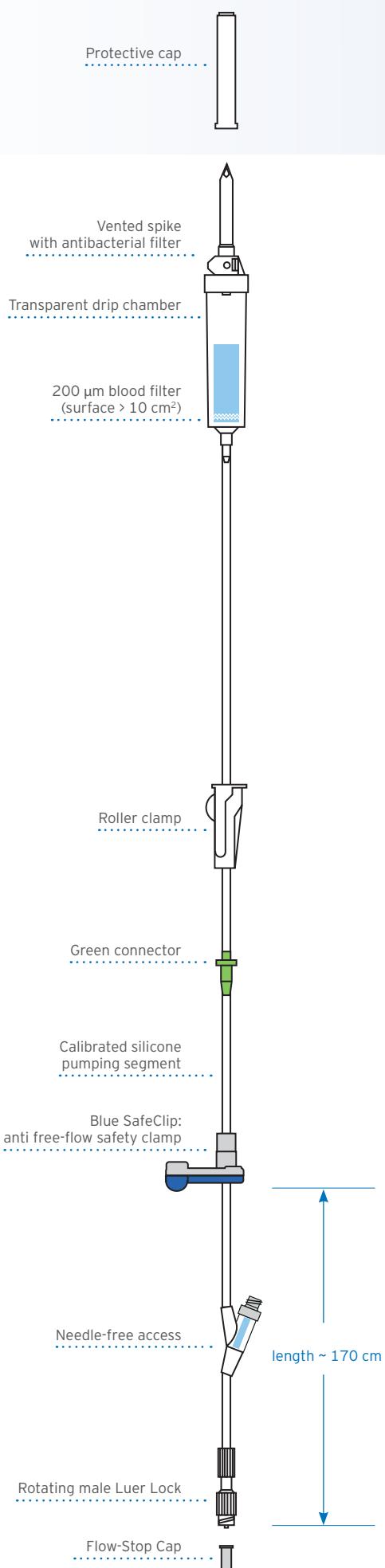
- Bottles
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.



VL TR12

ref. M46442700s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)
 Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- 200 µm filter
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Transfusion of blood products available in bags
- Can be used for infusion

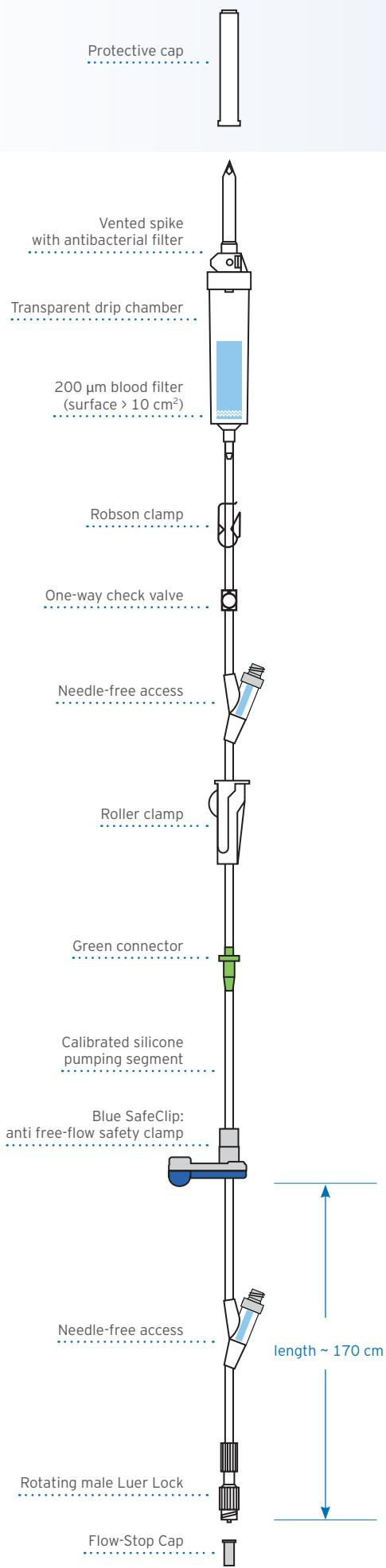
Not to be used for / in

- Infusion of drugs known to be incompatible with PVC (e.g. glyceral trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

VL TR42

ref. M46442900s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)
 Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- 200 µm filter
- One-way check valve
- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of different drugs in the same set with use of Secondary Lines
- Manual primary / secondary mode with Volumat MC Agilia
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Transfusion of blood products available in bags
- Can be used for infusion

Not to be used for / in

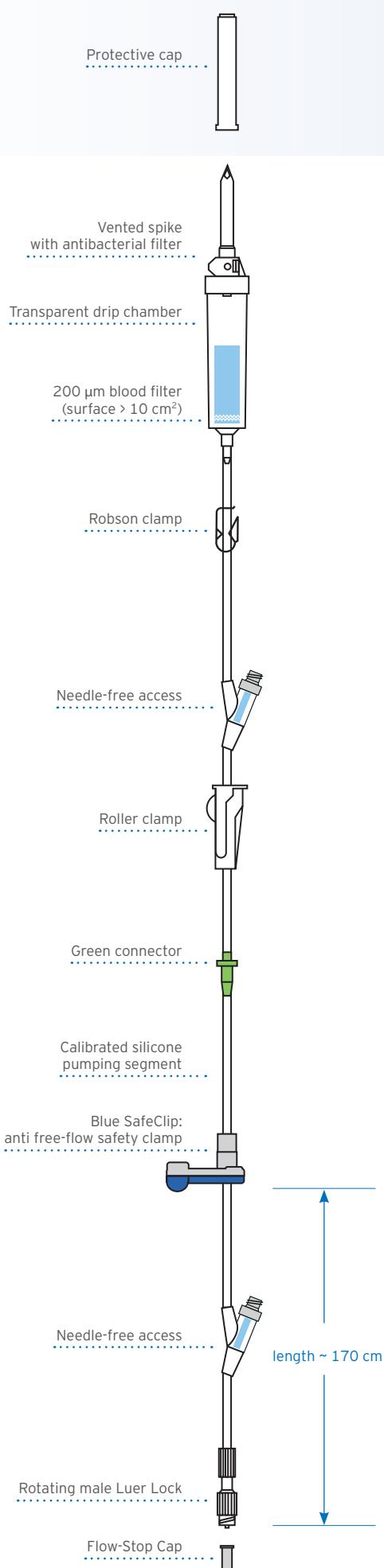
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.



VL TR43

ref. M46444500s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- 200 µm filter
- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of different drugs in the same set with use of Secondary Lines
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Transfusion of blood products available in bags
- Can be used for infusion

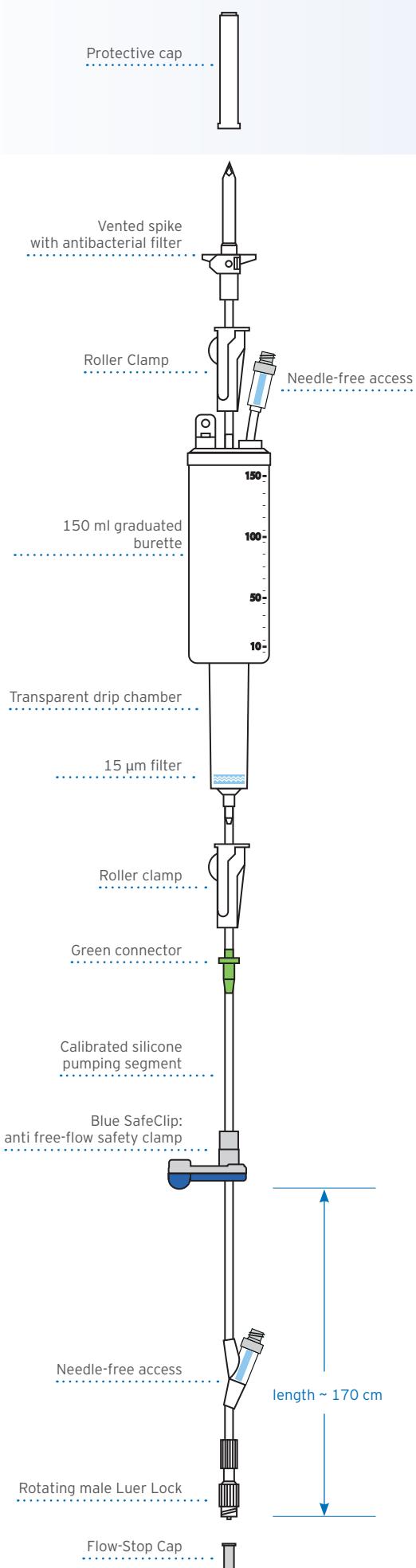
Not to be used for / in

- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

VL PA93

ref. M46443800s

**Approximate set length:**

300 cm

**Approximate priming volume
(without burette's volume):**

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Allows the infusion of a precisely known volume via 150 ml graduated burette
- Allows the mixing of different fluids / drugs in the burette
- 20 drops / ml
- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 10 x 1

Typical applications

- Infusion of a precise volume out of a bag or bottle
- Mixing and adding of drugs into the burette
- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility

Not to be used for / in

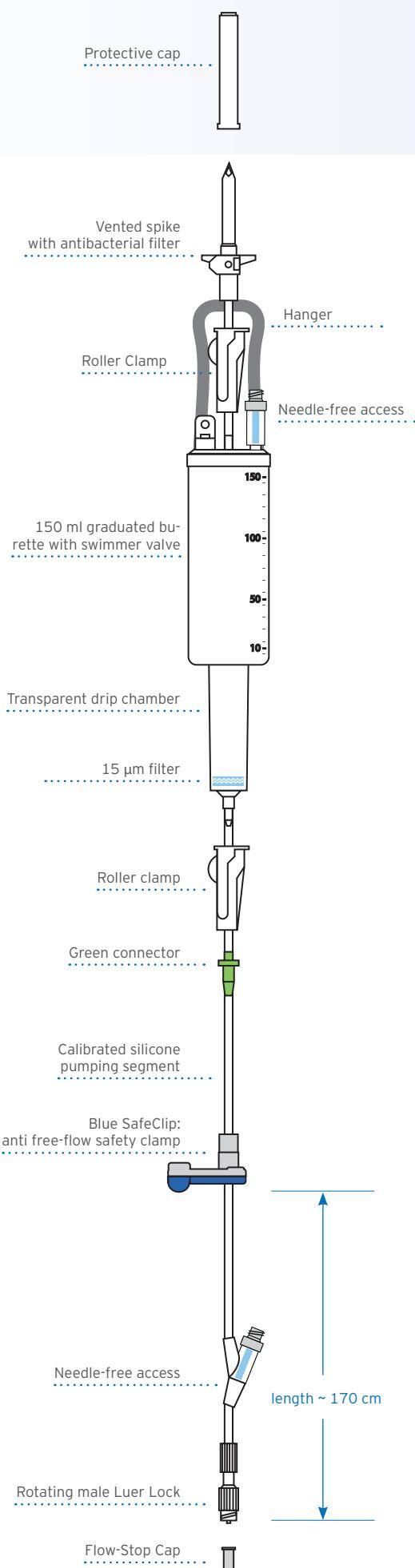
- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Not compatible with the optional drop sensor

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.



VL PA94

ref. M46445300s

**Approximate set length:**

300 cm

**Approximate priming volume
(without burette's volume):**

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Allows the infusion of a precisely known volume via 150 ml graduated burette with swimmer valve
- Allows the mixing of different fluids / drugs in the burette
- 60 drops / ml
- Patient proximal access for emergency application
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 10 x 1

Typical applications

- Infusion of a precise volume out of a bag or bottle
- Mixing and adding of drugs into the burette
- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility

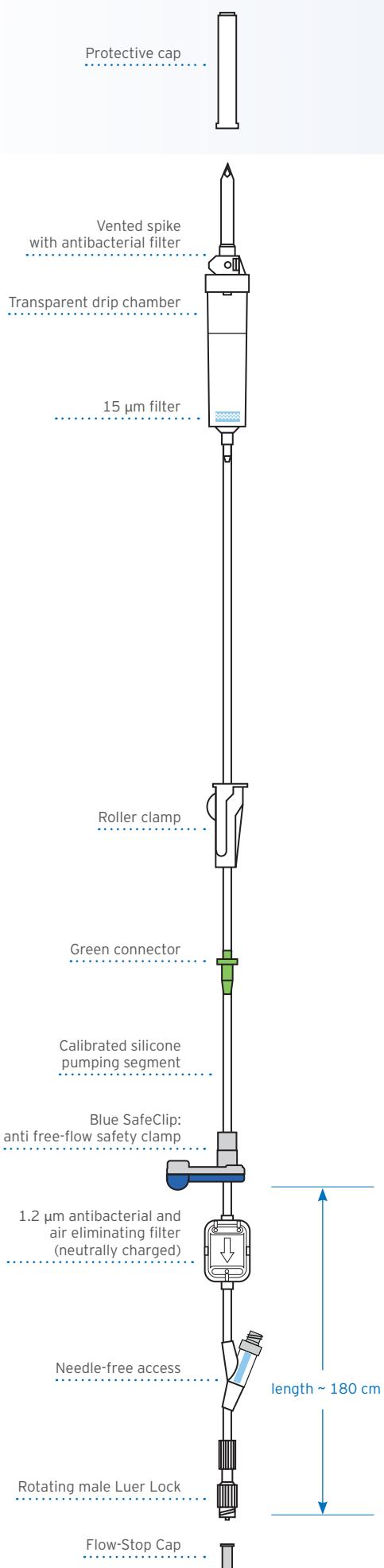
Not to be used for / in

- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Not compatible with the optional drop sensor

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

VL PN02

ref. M46444400s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- Provides additional protection against bacterial contamination
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- 1.2µm PES neutrally charged filter
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - available in bags or bottles (main line)
 - having no particular incompatibility
- Infusion of drugs requiring a 1.2 µm filter
- Can be used for parenteral nutrition

Not to be used for / in

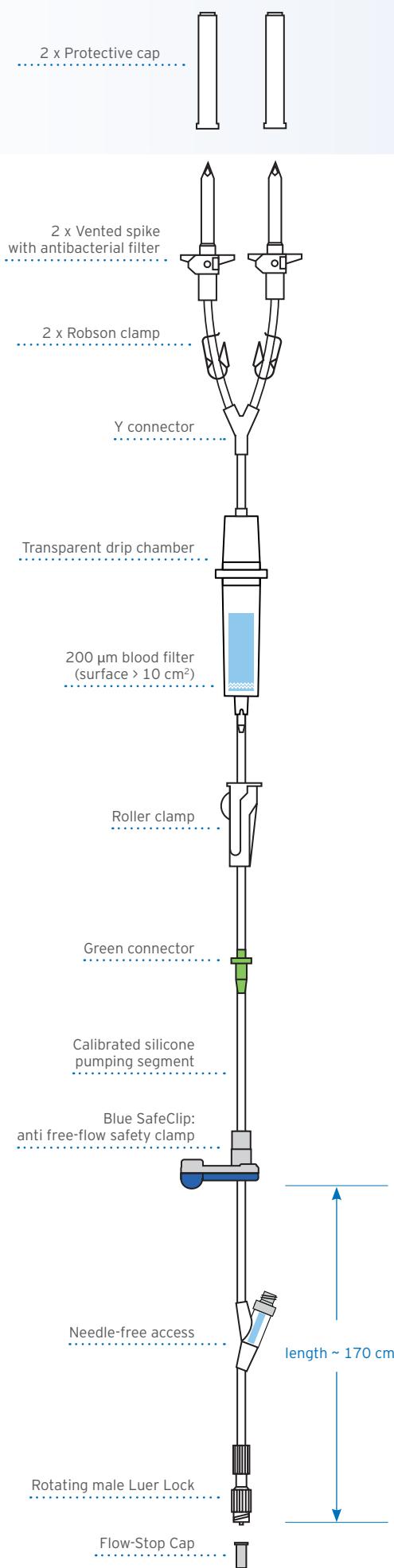
- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.



VL SP22

ref. M46443100s



Approximate set length:

290 cm

Approximate priming volume:

30 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Silicone (tubing: diameter 3.41 x 5.11 mm)

Advantages

- 200 μm filter
- Anti free-flow safety clamp
- Flow-Stop Cap
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - available in bags or bottles
 - having no particular incompatibility
- Transfusion of blood products available in bags
- Can be used for infusion
- Secondary infusions
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC

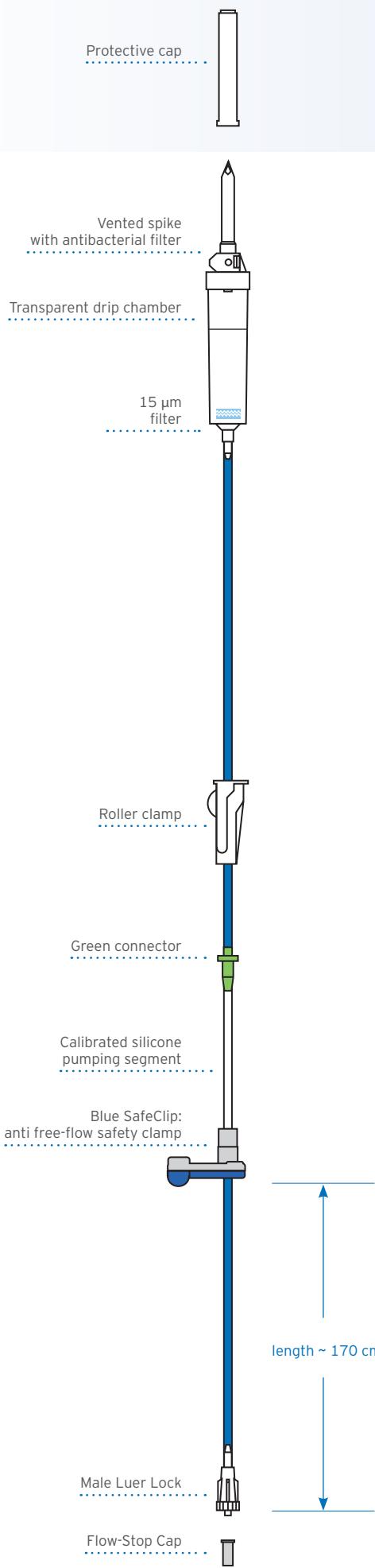
Not to be used for / in

- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)
- Needle-free access. Should not be used to connect a gravity line (unless it is protected by a back check valve)
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

VL SP90

ref. M46443500s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1)

PP (tubing: diameter 2.94 x 4.02)

Silicone (tubing: diameter 3.41 x

5.11)

Advantages

- Protection for light sensitive drugs
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC

Not to be used for / in

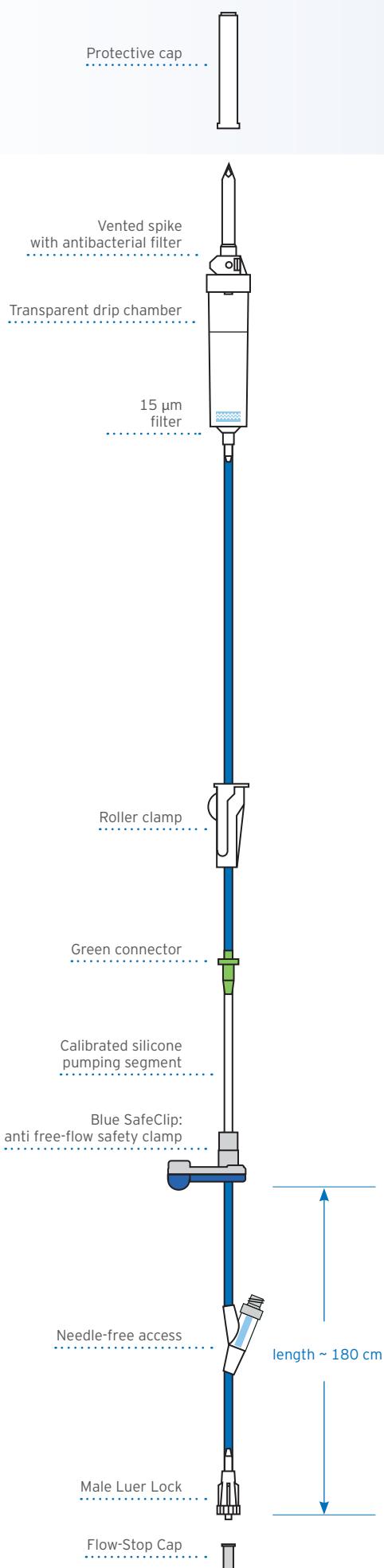
- Blood cells
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC



Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

VL SP92

ref. M46443600s

**Approximate set length:**

285 cm

Approximate priming volume:

25 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1)

PP (tubing: diameter 2.94 x 4.02)

Silicone (tubing: diameter 3.41 x

5.11)

Advantages

- Protection for light sensitive drugs
- Anti free-flow safety clamp
- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 30 x 1

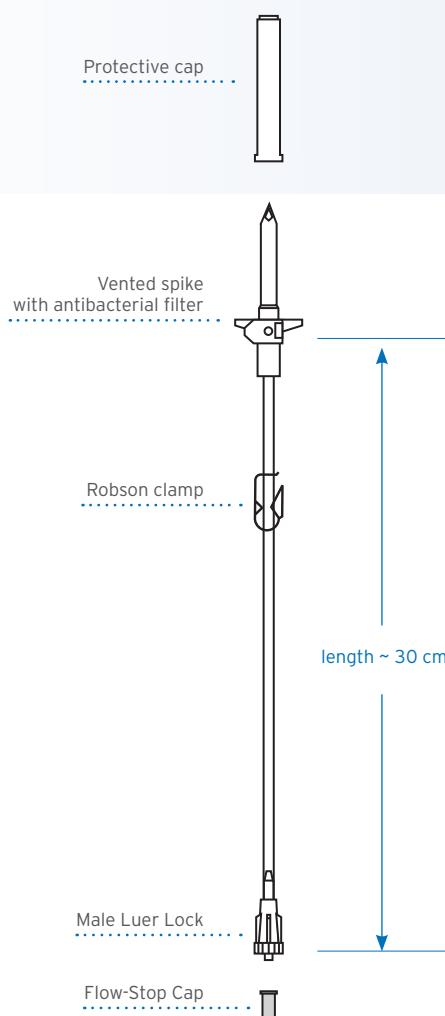
Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC

Not to be used for / in

- Blood cells
- Manual primary / secondary or automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.



SL

ref. M77460020

Approximate set length:

38 cm

Approximate priming volume:

2 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1)

Advantages

- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 60 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Secondary infusion

Not to be used for / in

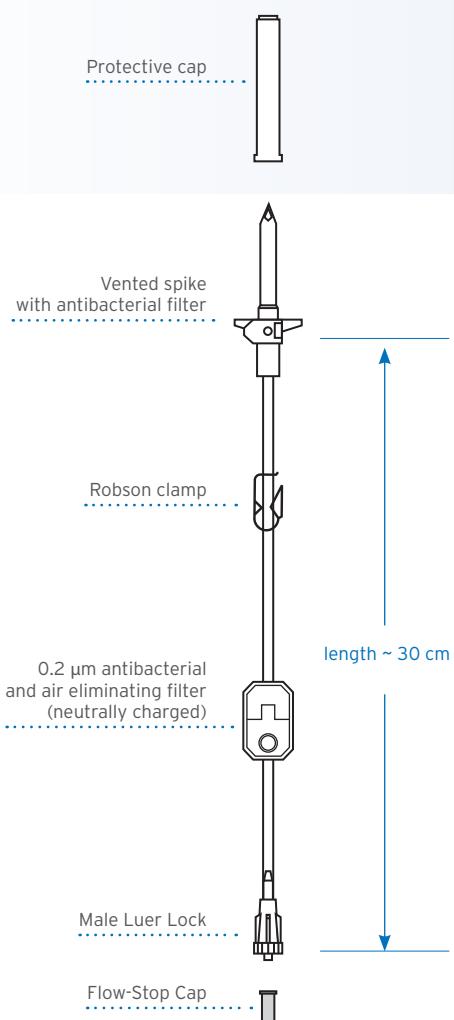
- Blood cells
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)



Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

SL Filter

ref. M77460025

**Approximate set length:**

48 cm

Approximate priming volume:

5 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1)

Advantages

- Provides additional protection against bacterial contamination
- Flow-Stop Cap
- PVC free
- DEHP free
- 0.2µm PES neutrally charged filter
- Latex free

Packaging

- Case quantity: 40 x 1

Typical applications

- Infusion of drugs requiring a 0.2 µm filter
- Infusion of drugs / fluids
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Secondary infusion

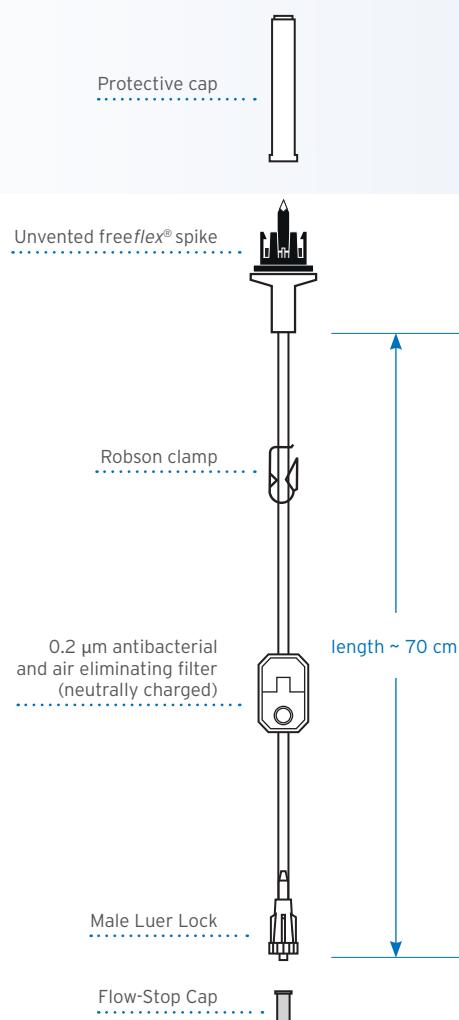
Not to be used for / in

- Blood cells
- Total parenteral nutrition and other lipid-containing solutions
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

SL FX Filter

ref. M77460026



Approximate set length:

78 cm

Approximate priming volume:

7 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1)

Advantages

- Tight and secure connection with freeflex® ensuring a permanent connection avoiding spillages
- Provides additional protection against bacterial contamination
- Flow-Stop Cap
- PVC free
- DEHP free
- 0.2µm PES neutrally charged filter
- Latex free

Packaging

- Case quantity: 40 x 1

Typical applications

- Only use with Fresenius Kabi freeflex® bags
- Infusion of drugs requiring a 0.2 µm filter
- Infusion of drugs / fluids
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Secondary infusion

Not to be used for / in

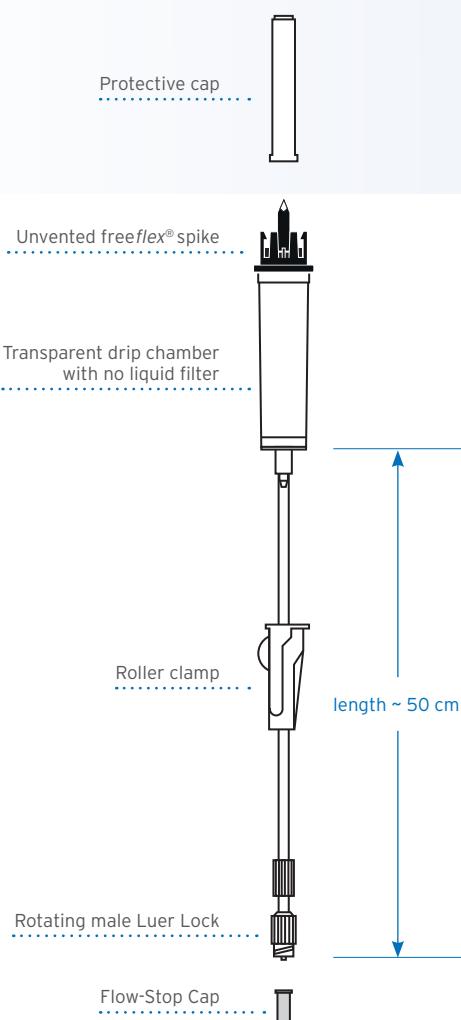
- Bottles
- Standard bags
- Blood cells
- Total parenteral nutrition and other lipid-containing solutions
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.



SL 20 FX ND

ref. M77460033

**Approximate set length:**

65 cm

Approximate priming volume:

10 ml

Main materials:

PUR (tubing: diameter 3.0 x 4.1)

Advantages

- Tight and secure connection with freeflex® ensuring a permanent connection avoiding spillages
- Flow-Stop Cap
- PVC free
- DEHP free
- Latex free

Packaging

- Case quantity: 50 x 1

Typical applications

- Only use with Fresenius Kabi freeflex® Bags
- Infusion of drugs / fluids
 - having no particular filtration requirements
 - having no particular incompatibility
- Infusion of drugs not compatible with PVC
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Secondary infusion

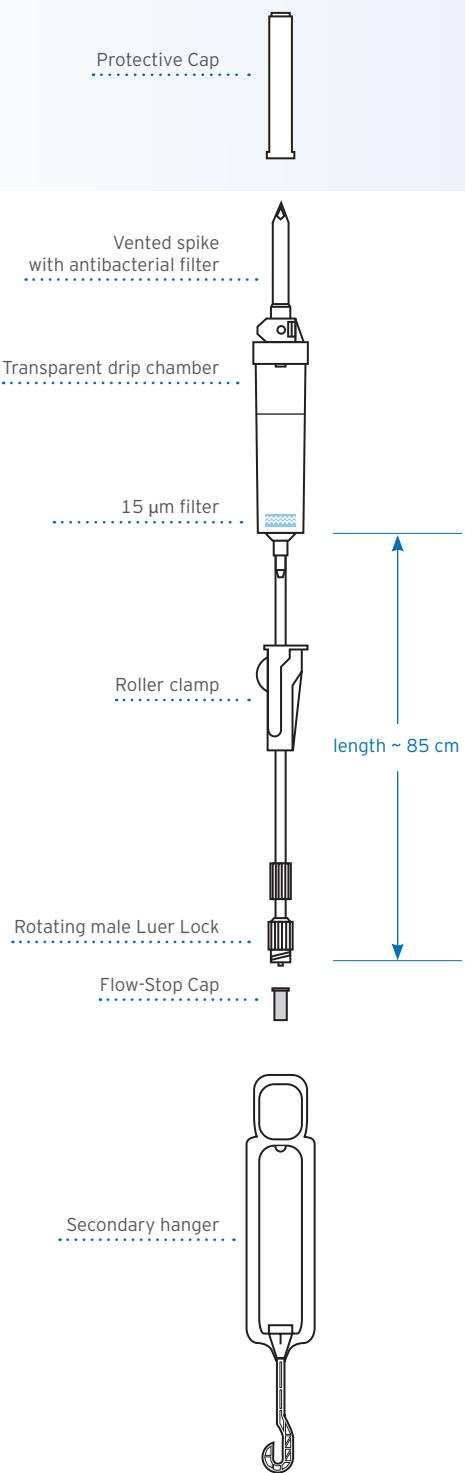
Not to be used for / in

- Bottles
- Standard bags
- Blood cells
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.

SL 00 DC

ref. M77460037

**Approximate set length:**

85 cm

Approximate priming volume:

12 ml

Main materials:

PVC (tubing: diameter 3.0 x 4.1 mm)

Advantages

- Flow-Stop Cap
- DEHP free
- Latex free
- Secondary hanger to hang the primary bag lower than the secondary infusion

Packaging

- Case quantity: 40 x 1

Typical applications

- Infusion of drugs / fluids
 - having no particular filtration requirements
 - available in bags or bottles
 - having no particular incompatibility
- Manual primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Automatic primary / secondary mode with Volumat MC Agilia / Agilia VP MC
- Secondary infusion

Not to be used for / in

- Blood cells
- Infusion of drugs known to be incompatible with PVC (e.g. glyceryl trinitrate, isosorbide dinitrate, sodium nitroprusside)
- Light sensitive drugs (unless other precautions are taken to protect the drug against direct light)

Due to our policy of continuous product improvement, as well as changes in standards, the features described in this document may change. Please consult us for the most current information.





Additional Information

Sets by references	38
Priming of the set used with a bag / bottle	39
Handling recommendation	40
Installation / Deinstallation of the infusion set	42
Specific Features	43

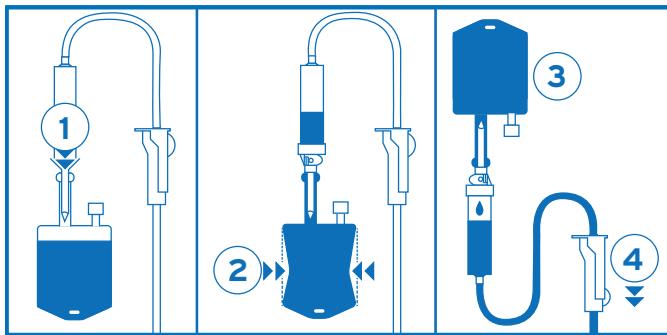
Sets

by reference

REFERENCE	DESIGNATION	PAGE
Standard and Primary Sets		
VL ST10	M46441300s	11
VL ST02	M46441900s	12
VL ST22	M46442500s	13
Oncology Sets		
VL ST02 ND	M46441980	14
VL ON70	M46444600s	15
VL ON72	M46444100s	16
VL ON90	M46444900s	17
VL ON22 OP NF	M46444235	18
VL ON42 OP NF	M46444085	19
Transfusion Sets - 200 µm Filter		
VL TR00	M46442800s	21
VL TR12	M46442700s	22
VL TR42	M46442900s	23
VL TR43	M46444500s	24
Burette Lines		
VL PA93	M46443800s	25
VL PA94	M46445300s	26
Parenteral Nutrition Set - 1.2 µm Filter		
VL PN02	M46444400s	27
Special Sets		
VL SP22	M46443100s	28
VL SP90	M46443500s	29
VL SP92	M46443600s	30
Secondary Sets		
SL	M77460020	31
SL FILTER	M77460025	32
SL FX FILTER	M77460026	33
SL 20 FX ND	M77460033	34
SL 00 DC	M77460037	35

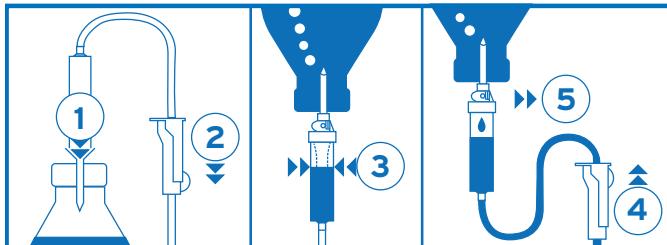
Priming of the set used with a bag

- 1 Introduce the spike right down into the bag (roller clamp open - air inlet closed).
- 2 Press the bag in order to remove the air, and fill the drip chamber up to half of its capacity.
- 3 Hang the bag upside down, and let the liquid flow into the set.
- 4 Once the set is completely primed, close the roller clamp and check absence of air bubbles.



Priming of the set used with a bottle

- 1 Introduce the spike right down into the bottle (roller clamp open - air inlet closed).
- 2 Close the roller clamp.
- 3 Hang the bottle upside down, then press the drip chamber in order to fill it to ~ half of its capacity.
- 4 Open the roller clamp.
- 5 Open the air inlet, and let the liquid flow into the set.
- 6 Once the set is completely primed, close the roller clamp and check absence of air bubbles.



Standard &
Primary Sets

Transfusion
Sets

Paediatric
Sets

Parenteral
Nutrition Sets

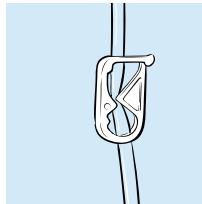
Special
Sets

Secondary
Sets

Oncology
Sets

Additional
Information

Handling recommendation of Standard Lines



Close upper clamp of the Administration Set.



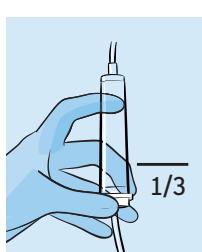
Spike container.



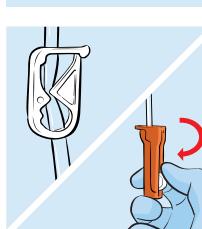
Turn infusion bag and port upside down (180°), open upper clamp again.



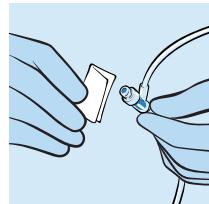
Hold the drip chamber of the Administration Set above the port of the infusion bag.



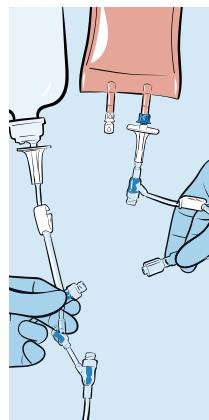
Press infusion bag until the drip chamber of the Administration Set is filled to 1/3. Then hang infusion bag on infusion stand and prime Administration Set completely. Flow-Stop Cap will prevent leakage.



Close upper clamp and roller clamp of Administration Set.



Disinfect needle-free access port of the Administration Set (Main Line).



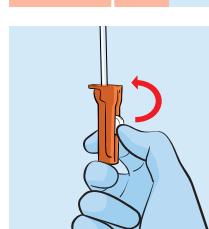
Attach connector of Secondary Line to needle-free access port of the Administration Set.



Prepare for start of infusion according to local protocol and manufacturers guideline for respective pump in use.



Attach connector of Administration Set to patient access site. Consider local protocol for the procedure.

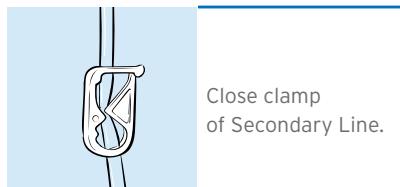


Before starting the process open the roller clamp of the Administration Set.

Handling recommendation

of Standard and Inverted Port

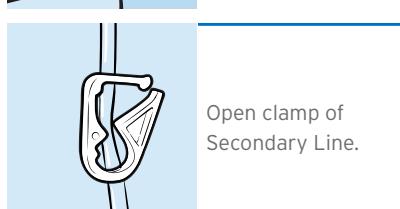
A: Standard



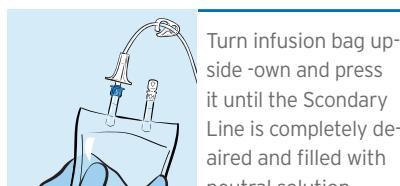
Close clamp of Secondary Line.



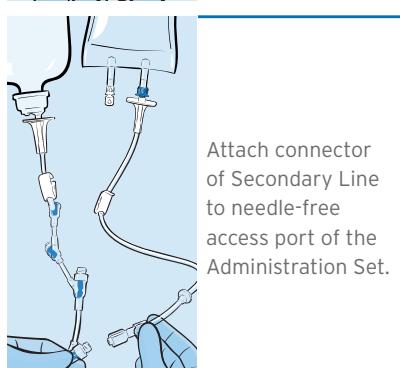
Remove cap from the spike of the Secondary Line and spike infusion bag.



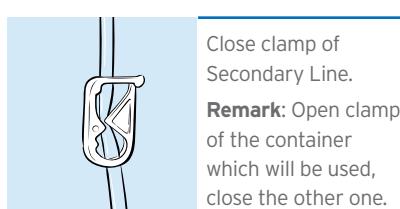
Open clamp of Secondary Line.



Turn infusion bag upside -own and press it until the Secondary Line is completely deaired and filled with neutral solution.



Attach connector of Secondary Line to needle-free access port of the Administration Set.



Close clamp of Secondary Line.
Remark: Open clamp of the container which will be used, close the other one.

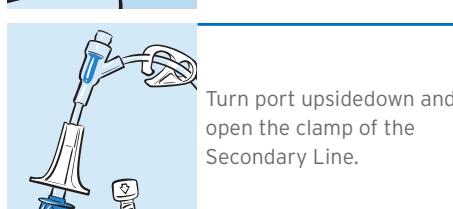
B: Inverted port



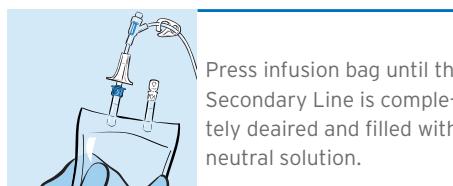
Close clamp of Secondary Line.



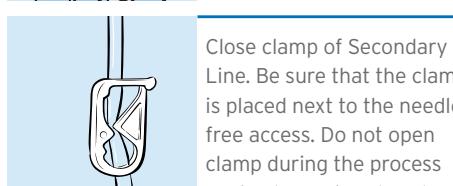
Remove cap from the spike of the Secondary Line and spike infusion bag.



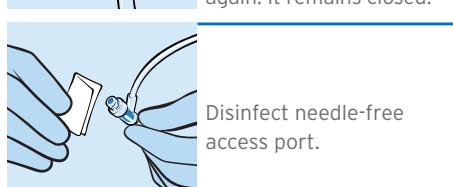
Turn port upsidedown and open the clamp of the Secondary Line.



Press infusion bag until the Secondary Line is completely deaired and filled with neutral solution.



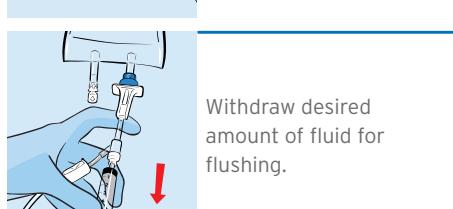
Close clamp of Secondary Line. Be sure that the clamp is placed next to the needle-free access. Do not open clamp during the process again! It remains closed!



Disinfect needle-free access port.



Connect syringe to needle-free access port.



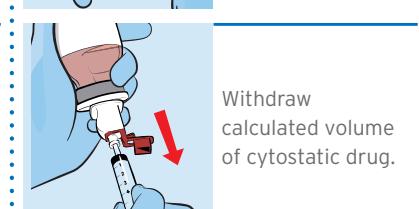
Withdraw desired amount of fluid for flushing.



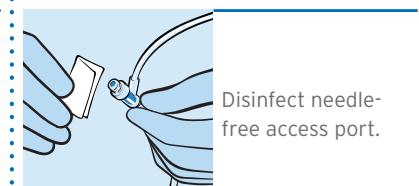
Disinfect port at Secondary Line.



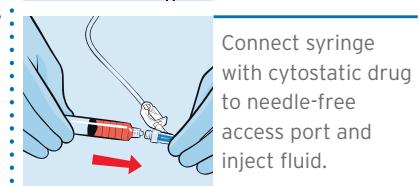
Spike vial with chemo-spike.



Withdraw calculated volume of cytostatic drug.



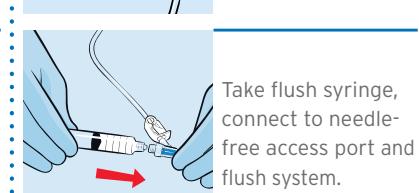
Disinfect needle-free access port.



Connect syringe with cytostatic drug to needle-free access port and inject fluid.



Disinfect needle-free access port at Secondary Line.



Take flush syringe, connect to needle-free access port and flush system.

Installation of the infusion set

- 1 Open the pump door by lifting the door lever.

Note: The pump automatically switches on when connected to mains. If not, press the <ON> key. An auto-test checks the functionality of the pump. Make sure that all LEDs and buzzers are activated.

- 2 Once the auto-test is OK, an alarm screen appears to indicate that you can start installing the tubing set.

Note: The flashing red leds indicate that it is an alarm. If no action is taken within 2 minutes, an audible signal will sound. Press the <SILENCE ALARM> key.



- 1 Align the tubing set horizontally along the tube guides so that the green connector is positioned to the right (green) and the blue clamp is positioned in front of the clamp guide (blue).

- 2 Insert the green connector into the green slot.

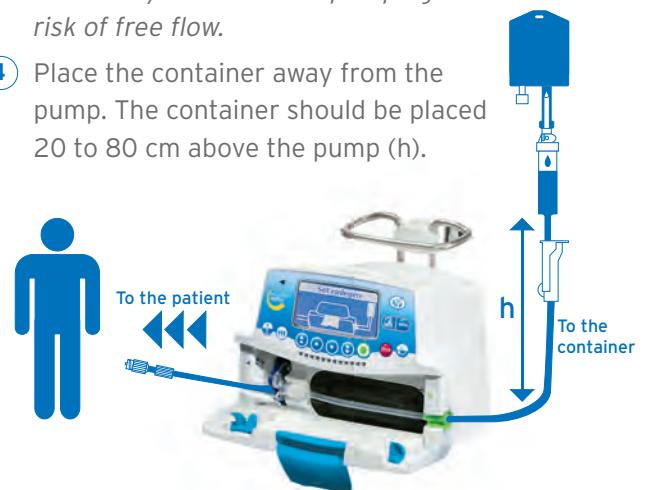
- 3 Position the blue SafeClip in its blue slot and then push the clamp to locate the spherical hinge into place.

- 4 Ensure that the tube is in the left tube guide, then push the door lever to close the pump door.

- 3 Occlusivity Check System (OCS) automatically clamps the line, activates real pumping and checks pressure increase.

The OCS test verifies the circuit and pump occlusivity to secure the pump against a risk of free flow.

- 4 Place the container away from the pump. The container should be placed 20 to 80 cm above the pump (h).



Deinstallation of the infusion set

- 1 Remove the set by pulling on the safety clamp and on the administration set.

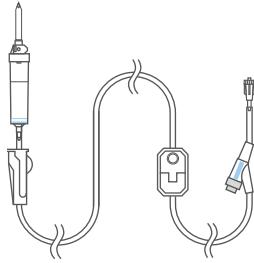
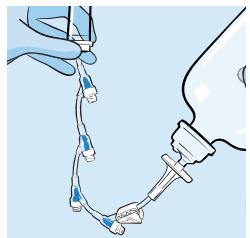
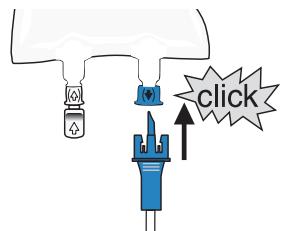


- 2 Release the Safe Clip.



Specific Features

Function, information and handling

	Function	General information	Specific handling
Filters	 <ul style="list-style-type: none"> Prevention of infusion of unwanted particles and organisms as well as small amounts of air Providing additional protection against bacterial contamination 	<ul style="list-style-type: none"> Hydrophobic and hydrophilic membrane Hydrophobic membrane: <ul style="list-style-type: none"> Separates air from the fluid Vent the air out of the system through holes Size of membranes 0.02µm Hydrophilic membrane: <ul style="list-style-type: none"> Leads the fluid through the filter and keeps it in the system Size of the membrane 0.2µm 	<p>Priming needs to be done in flow-direction of filter.</p> 
PVC free tubing	 <ul style="list-style-type: none"> Prevention of adsorption or absorption of drug (in)to tube as well as leaching of plasticiser from tube 	<ul style="list-style-type: none"> Adsorption, absorption, or leaching of PVC might lead to: <ul style="list-style-type: none"> Loss of drug concentration Accidental infusion of plasticiser 	
Needle-free access	 <ul style="list-style-type: none"> IV access device for needle-free injection and infusion via a Secondary Line and/or needle-free syringe 	<ul style="list-style-type: none"> One-directional valve Infusion pressure: <ul style="list-style-type: none"> up to 2 bar Maximum flow rate: <ul style="list-style-type: none"> 10.900 ml/hour (183 ml/min) Double sealed; no air entrance during activation Tested for 72 h usage and 72 activations 	<p>Priming needs to be done with needle-free access upside down.</p> 
freeflex® infusion line	 <ul style="list-style-type: none"> Guarantees a permanent connection between the freeflex® ensuring a closed system 	<p>The freeflex® portfolio with freeflex® infusion lines, freeflex® spike and freeflex® allows the following features:</p> <ul style="list-style-type: none"> Secure and tight connection to the bag Easy to pierce with low risk of injury Color code: "blue to blue" 	<ul style="list-style-type: none"> Please use lines equipped with the freeflex® set to fully gain advantages of the closed system freeflex® system can avoid accidental disconnection and prevent contamination with cytostatics 

Standard &
Primary Sets

Transfusion
Sets

Paediatric
Sets

Parenteral
Nutrition Sets

Special
Sets

Secondary
Sets

Oncology
Sets

Additional
Information



Other products may be available and not included in this catalogue. Please contact your local Fresenius Kabi Account Manager to discuss our complete range of dedicated Volumat infusion giving sets.

This brochure may contain inaccuracies or typographical errors. Modifications may thus be made and will be included in later editions. As standards and equipment change from time to time, the features shown and described in this document must be confirmed by our departments.

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