MEDTRON® AG

PRODUCT CATALOG

ESSENTIAL FOR CONTRAST

Contrast Media Injectors and Disposables for CT, MRI & Angiography - Made in Germany

Version EN 5.1
October 2021

MEDTRON® AG

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MEDTRON AG

Essential for contrast

MEDTRON AG is an internationally operating medical technology company. As one of the leading manufacturers of ultra modern contrast medium injectors, we have established our well-known brand across the globe, where doctors, hospitals and diagnostic centres place their trust on a daily basis in our German manufactured contrast medium injectors.

The innovative and high quality injector systems of our German headquartered company complement many of today's medical imaging procedures such as computed tomography, magnetic resonance imaging and angiography.

One of the goals of our highly competent R&D team is to combine improved diagnostic imaging, patient-friendliness and economic efficiency together. Experienced radiologists and creative engineers work together and amongst others so as to improve image representation by means of special injection profiles in radiology - an aim which can only be realized with the flexible drive concept as in our injectors.

The R&D team is therefore in constant dialogue with the end users of our injectors and integrates their customer requirements into our product development. Our development projects are also conducted in close cooperation with well-known manufacturers of radiological imaging systems and devices so as to help optimize medical imaging procedures.

In addition, our contrast medium injectors are equipped with an intuitive user interface and concepted based upon your workflow. Each injector user interface can be displayed in many local languages and we also offer a wide range of high-quality device specifics disposables for our injectors.

Certificates

MEDTRON AG is certified according to
- DIN EN ISO 13485
- Annex II, Directive 93/42/EEC

HISTORY

Opportunities and the success we have made out of them ...

2019
- Expanded applications capability of Accutron® CT-D to include CE Mammography

2018
- Company partially acquired by AD-PART Beteiligungen Geschäftsführungs-AG of Dillingen, Germany

2017
- 25 years MEDTRON AG – A quarter of a century

2014
- Market launch of Accutron® MR3 with integrated infusion pump

2013
- MEDTRON opens new production site for disposables at Hermeskeil/Germany

2010
- Market launch of the Accutron® HP

2008
- Market launch of the Accutron® HP-D (first double head injector for angiography)
- Market launch of the Accutron® CT-D

2006
- Market launch of the new Accutron® series: Accutron® CT, Accutron® MR

2004
- Market launch of the Easy Loading Syringe (ELS)

2003
- Change of legal form to "AG" (corresponds roughly to "plc" or "inc"), trading now under the name of MEDTRON AG
- Market launch of the touch screen remote control for Injektron CT2 and Injektron 82 MRT

2000
- Market launch of the CT injector Injektron CT2, the first double head injector for computed tomography in the world; it has been awarded the Saarland State Prize for Product Design

1998
- Market launch of the MRI injector Injektron 82 MRT, approved for the use with tomographs of up to 3 Tesla

1996
- Market launch of the Angio/CT injector Injektron 82 HP, the first bifunctional high-pressure injector for angiography and computed tomography

1993
- Market launch of the CT injectors Injektron 82 M and 82 S, special versions of the Injektron 82 CT for the use of pre-filled injection syringes
- Sales start of disposable articles

1992
- Foundation of MEDTRON Medizinische Systeme GmbH The aim: to develop, produce and distribute medical devices for radiology and to set up an international distribution and service network
- Development and market launch of the CT injector Injektron 82 CT, first compact microprocessor controlled injector

ACCUTRON® MR3

Innovative Disposables

- Automatic or manual filling with variable speed
- Optimized tube systems with check valve

Efficient Workflow

- Keep Vein Open (KVO) function ensures that access to the vein is maintained during long examinations
- Injection can be interrupted at any time and continued if needed

Wireless & Mobile

- Mains independent supply via rechargeable high-performance batteries

Hygienic Design

- Robust, stable and lightweight aluminum housing
- Easy to clean and hygienic

ACCUTRON® MR3

Accutron® MR3

The Accutron® MR3 is a double syringe contrast delivery system with a third syringe acting as a dedicated infusion pump. The Accutron® MR3 double syringes are designed for precise injection of contrast media and saline in MR clinical imaging including pediatric, angiography, neuro and mammography as well as other routine MR examinations. Whereas the dedicated infusion pump is intended for the slow delivery of any additional or necessary medications required during specific MR examinations. This includes heart stimulating medication for cardiac stress tests or examinations requiring pain control or light sedation to support the patient during the MRI scan.

Clinical Gains

- The integrated infusion pump enables simultaneous administration of additional medication needed by some patients to undergo MRI examination.
- It enables your clinical application expansion into pharmacological cardiac MRI stress tests.

Operating Gains

- The wireless and mobile configuration provides flexibility by eliminating the need for a power connection during the examination. Communication with the remote control is also wireless via bluetooth.
- Accutron® MR3 works with selected pre-filled syringes to increase throughput via quick use and improved patient turnaround times.

Financial Gains

- The integrated infusion pump eliminates the need to purchase a separate MR compatible infusion device for cardiac stress tests.
- The wireless and mobile configuration without power requirements and/or cable installations reduces costly installation expenses.

Accutron® MR3
Article number MR882
(currently only validated for Siemens systems)

Filling of Injection Syringes

Automatic filling via menu with volume input or manual filling with variable speed

Use of optimized tube systems with check valves

Mechanical Design

Swivelling injection units connected to a mobile column stand

Total weight: 41 kg

Power Supply

Operation is independent of the mains supply, thanks to high-output rechargeable batteries

Input voltage charger:
100 - 240 V, 50 - 60 Hz

Power consumption charger:
< 170 VA

Product Selection

Article	Description	Article number
Models		
Accutron® MR3	double syringe injector with additional infusion pump for MRI	MR882
Accessories		
Software option „Pre-Filled Type D“	for the option "Pre-Filled CM Syringe" – Dotarem, ProHance, Magnevist, Gadovist, Omniscan	490163
Software option „Pre-Filled Type M“	for the option "Pre-Filled CM Syringe" – MultiHance	490180
Adapter 64 ml	for the option "Empty Syringe" (64 ml NaCl)	610183
Infusion Stand	for Accutron® MR3 with cupholder and cup	490201

Technical Data

Injection Volume:
max 64 ml (CM)
200 ml (NaCl)
programmable in
0.1 ml/s increments and
50 ml (infusion pump),
programmable in
0.001 ml/min increments

Number of Phases:
1 to 6 phases

Injection Pressure:
max 21 bar,
programmable from
5 to 21 bar in
1 bar increments

Flow Rate:
0.1 - 10 ml/s,
programmable in
0.1 ml/s increments,
Infusion pump:
0.001-30 ml/min,
programmable in
0.001 ml/min increments

Injection Profiles:
80 profiles,
individually
programmable and
storable

Injection and Phase Delay:
0.1 - 600 s
injection delay
1 - 255 s
phase delay

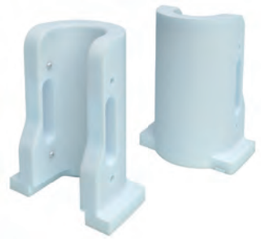
Filling Speed:
1 - 4 ml/s,
CM/NaCl,
programmable
in 1 ml/s increments

Keep Vein Open:
1 ml every 2 minutes

Subject to technical alterations

Accutron® MR3
Article number MR882
(currently only validated for
Siemens systems)

Touch Screen Remote Control
Article number FB887



Adapter for Empty Syringes
Article number 610183

Adapter for Software Option
for Pre-Filled Syringes Type D
Article number 490163

Adapter for Software Option
for Pre-Filled Syringes Type M
Article number 490180

ACCUTRON® MR3

ACCUTRON® MR

Innovative Disposables

- Automatic or manual filling with variable speed
- Optimized tube systems with check valves

Efficient Workflow

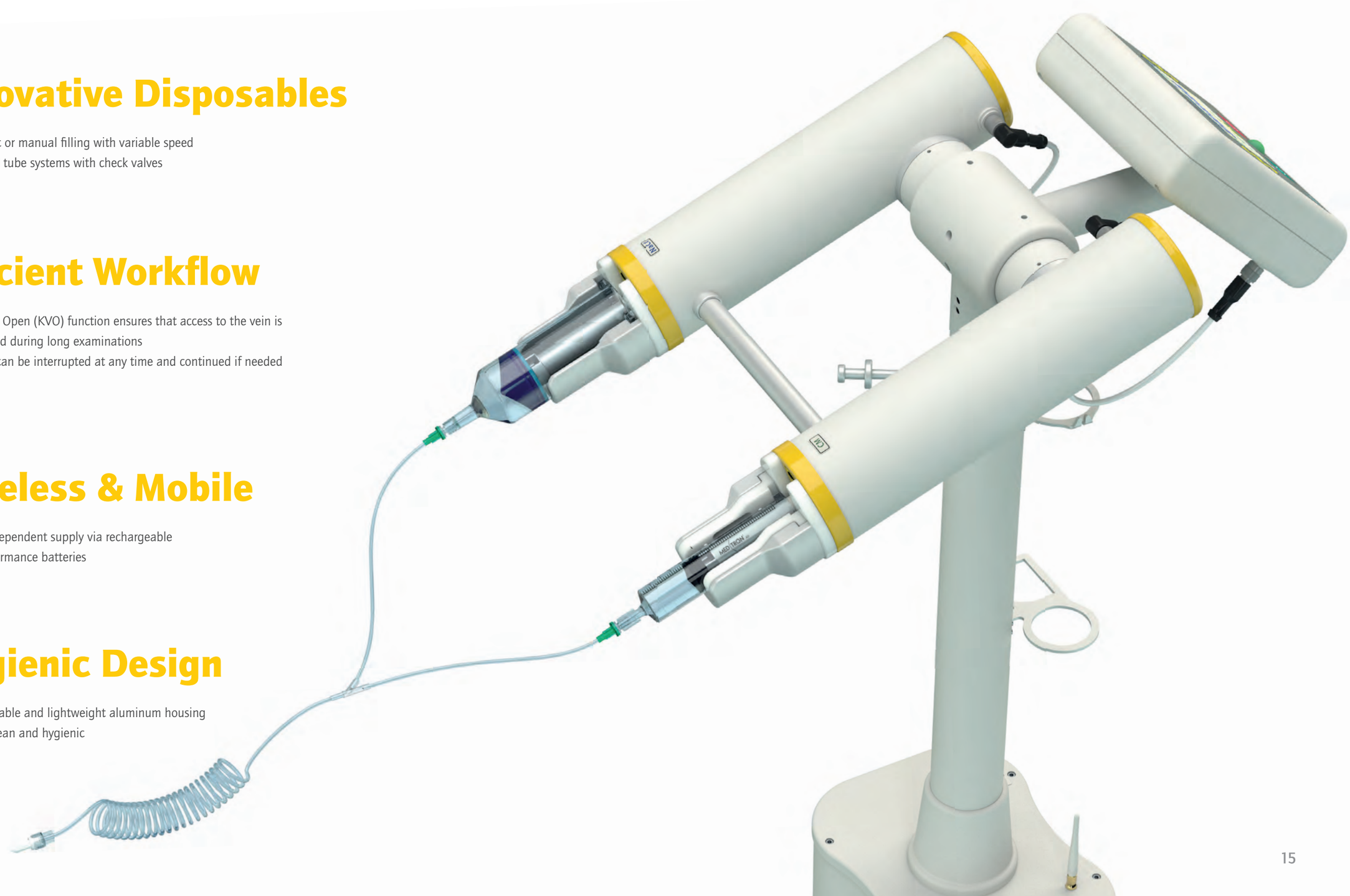
- Keep Vein Open (KVO) function ensures that access to the vein is maintained during long examinations
- Injection can be interrupted at any time and continued if needed

Wireless & Mobile

- Mains independent supply via rechargeable high-performance batteries

Hygienic Design

- Robust, stable and lightweight aluminum housing
- Easy to clean and hygienic



ACCUTRON® MR

Accutron® MR

The Accutron® MR is a double syringe contrast delivery system designed for precise injection of contrast media and saline in MR clinical imaging including pediatric, angiography, neuro and mammography as well as other routine MR examinations.

The Accutron® MR continues to push the limits of wireless operations by now allowing two MR units to share the same injector with the use of a separate touch screen for each scanner.

Clinical Gains

- The Keep Vein Open (KVO) software feature helps to maintain vascular access during longer imaging procedures.
- Compatibility with selected pre-filled syringes makes it easier to change and select the most suitable contrast medium for each patient.

Operating Gains

- The wireless and mobile configuration provides flexibility to quickly change examination rooms and does not require power supply during the examination.
- The Accutron® MR can be used with two remote controls so that one injector is shared between two MR examination rooms.

Financial Gains

- Wireless and mobile configuration reduces costly installation expenses, as no new power supply needs to be installed.
- Our solutions for single or multi-patient use allow you to optimize your disposables budget according to your operations.

Filling of Injection Syringes

Automatic filling via menu with volume input or manual filling with variable speed

Use of optimized tube systems with check valves

Mechanical Design

Swivelling injection units connected to a mobile column stand

Total weight: 37 kg

Power Supply

Operation is independent of the mains supply, thanks to high-output rechargeable batteries

Input voltage charger:
100 - 240 V, 50 - 60 Hz

Power consumption charger:
< 160 VA

Accutron® MR
Article number MR880

ACCUTRON® MR

Product Selection

Article	Description	Article number
Models		
Accutron® MR	double syringe injector for MRI	MR880
Accessories		
Remote Control	touch screen remote control including power supply	FB886
Option 2nd Remote Control	option for the use of two remote controls for MR880	490112
Hand Switch with Holder	for Accutron® MR880 with holder for remote control	601062
Software option „Pre-Filled Syringes“	enables the use of pre-filled syringes via ELS adapter MR 20 ml	490108
Adapter	for the option "Empty Syringe" (64 ml NaCl)	602175
Adapter MultiHance	for the option „Pre-Filled Syringe“ – MultiHance	602201
Adapter Long	for 20 ml syringe	540099

Technical Data

Injection Volume:
max 200 ml
per piston, selectable partial injection volume 0.1-200 ml, programmable in 0.1 ml increments

Number of Phases:
1 to 6 phases

Injection Pressure:
max 21 bar, programmable from 5 to 21 bar in 1 bar increments

Flow Rate:
0.1 - 10 ml/s, programmable in 0.1 ml/s increments, optional selection of flow rate or phase duration

Injection Profiles:
80 profiles, can be edited and stored by the user

Injection and Phase Delay:
1-255 s

Filling Speed:
1 - 5 ml/s, CM/NaCl, programmable in 1ml/s increments

Keep Vein Open:
0.5 ml every 2 minutes

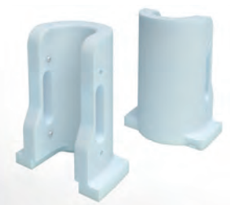
Subject to technical alterations

Accutron® MR
Article number MR880

Touch Screen Remote Control
Article number FB886

Adapter for Software Option
for Pre-Filled Syringes
Article number 490108

Adapter Long for
20 ml Syringes
Article number 540099



Adapter for Empty Syringes
64 ml
Article number 602175

Adapter MultiHance
Article number 602201

ACCUTRON® MR

DISPOSABLES

Sets for Single Use

Article number

MR-Set ELS* 65 ml **31 7602-000**

2 pieces	ELS* 65 ml Syringe	31 6065-000
1 piece	MR-ELS Tube System with Valves	31 7103
1 piece	Standard Spike	
1 piece	Mini Spike	

Packing unit: 50 pieces/carton

MR-Set ELS* 65 ml / 200 ml **31 7603-000**

1 piece	ELS* 65 ml Syringe	31 6065-000
1 piece	ELS* 200 ml Syringe	31 6025-000
1 piece	Double Head Tube System	31 7101-100
1 piece	SP 227 Vented Spike, Luer Lock	31 9095-100
1 piece	Mini Spike, green	31 9099-100

Packing unit: 20 pieces/carton – 480 pieces/pallet

MR-Kit ELS* 65 ml **31 7604-000**

1 piece	ELS* 65 ml Syringe	31 6065-000
1 piece	MR-ELS* Tube System with 2 Valves, green	31 7104-100
1 piece	Standard Spike	31 9095-100

Packing unit: 50 pieces/carton – 1,200 pieces/pallet

CT2/MRT Set ELS* **31 7625-000**

2 pieces	ELS* 200 ml Syringe with Filling Tube	31 6025-000
1 piece	MRS 222 MR-Tube System	31 7100-000
1 piece	ES 224/150 Patient Line	31 8151-000

Packing unit: 20 pieces/carton – 600 pieces/pallet

CT2/MRT Set ELS* (S) **31 7627-000**

2 pieces	ELS* 200 ml (S) Syringe	31 6026-000
1 piece	MR 222 MR-Tube System	31 7100-100
1 piece	ES 224/150 Patient Line	31 8151-100

Packing unit: 20 pieces/carton – 480 pieces/pallet

Syringes for Single Use

Article number

ELS* 200 ml Syringe with Filling Tube **31 6025-000**

Residual volume: 3.0 ml

ELS* 200 ml (S) Syringe **31 6026-000**

Residual volume: 3.0 ml

Packing unit: 50 pieces/carton – 1,500 pieces/pallet

ELS* 65 ml Syringe **31 6065-000**

Residual volume: 1.0 ml

Packing unit: 50 pieces/carton – 2,100 pieces/pallet

* Easy Loading Syringe

* Easy Loading Syringe

MR – DISPOSABLES

DISPOSABLES

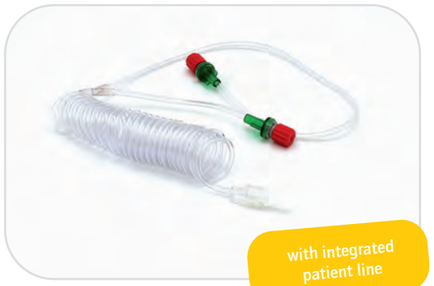
Tube Systems for Single Use

Article number

Double Head Tube System — 31 7101-100

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	6 cm	0.2 ml
NaCl-side	30 cm	0.9 ml
Pressure side, ID* 1.5 mm	**Length**	**Filling volume**
Joint tube length	180 cm	3.2 ml

Packing unit: 50 pieces/carton – 4,000 pieces/pallet



MR-ELS** Tube System with 2 Valves, green — 31 7104-000

Pressure side, ID* 1.5 mm	Length	Filling volume
CM-side	10 cm	0.2 ml
NaCl-side	34 cm	0.6 ml
Joint tube length	150 cm	2.7 ml

Packing unit: 50 pieces/carton

MRS 225 MR Tube System — 31 7125-000

ID*: 2.0 mm

	Length	Filling volume
CM-side	6 cm	0.2 ml
NaCl-side	32 cm	1.0 ml

Packing unit: 50 pieces/carton – 4,000 pieces/pallet

* Inner diameter
** Easy Loading Syringe

Tube System with Filling Tool for Single Use

Article number

Tube System with Suction Line and Drip Chamber — 31 7083-100

	ID*	Length	Filling volume
CM-side	2.0 mm	6 cm	0.2 ml
NaCl-side	2.0 mm	32 cm	1.0 ml
Patient line	1.5 mm	150 cm	2.7 ml
Suction side with drip chamber	2.7 mm	100 cm	15.7 ml

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

MRS 222 MR Tube System with Inline Drip Chamber — 31 7099-100

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	104 cm	6.0 ml
NaCl-side, white	100 cm	5.7 ml
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

Double Head Tube System with 1 Inline Drip Chamber — 31 7109-100

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Patient line (ID: 1.5 mm)	150 cm	2.7 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	104 cm	6.0 ml
NaCl-side, white	100 cm	5.7 ml
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

* Inner diameter

DISPOSABLES

Short Patient Tubes for Intravenous Access

Article number

DW 229 Connector with Three-way Stop Cock **31 8042-100**

Inner diameter: 1.5 mm
Length: 10 cm
Filling volume: 0.2 ml

Packing unit: 100 pieces/carton

One-way Stop Cock with Extension Line 30cm, Luer Lock **31 8025-100**

Inner diameter: 2.0 mm
Length: 32 cm
Filling volume: 0.9 ml

Packing unit: 100 pieces/carton – 5,600 pieces/pallet

Patient Lines with One Valve

Article number

ES 224/25 Patient Line with Valve **31 8020-100**

Inner diameter: 1.5 mm
Length: 25 cm
Filling volume: 0.4 ml

Packing unit: 100 pieces/carton – 8,000 pieces/pallet

MEDTRON recommends!

31 8152-100

Patient Line with Valve

Inner diameter 1.5 mm

Length: 150 cm, filling volume: 2.7 ml	**31 8152-100**
Length: 200 cm, filling volume: 3.5 ml	**31 8198-100**
Length: 250 cm, filling volume: 4.4 ml	**31 8251-100**
Length: 300 cm, filling volume: 5.3 ml	**31 8301-100**

Packing unit: 200 pieces/carton – 11,200 pieces/pallet

Coiled Line with Check Valve

Inner diameter: 1.65 mm

Length: 150 cm, filling volume: 3.2 ml	**31 8214-000**
Length: 180 cm, filling volume: 3.7 ml	**31 8181-000**

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Coiled Line with Check Valve **31 8253-000**

Inner diameter: 1.5 mm
Length: 250 cm
Filling volume: 4.4 ml

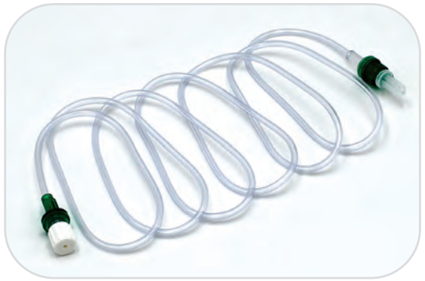
Packing unit: 50 pieces/carton – 5,850 pieces/pallet

MR – DISPOSABLES

DISPOSABLES

Patient Lines with Two Valves

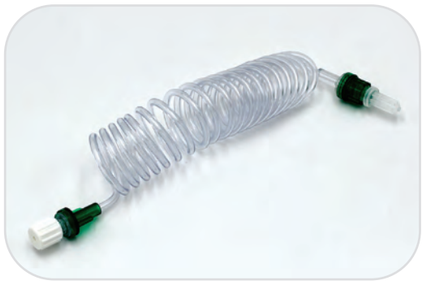
Article number



Patient Line 150 cm with Terminal Check Valves **31 8026-100**

Inner diameter: 1.5 mm
Length: 150 cm
Filling volume: 2.7 ml

Packing unit: 200 pieces/carton – 11,200 pieces/pallet



Coiled Line 150 cm with 2 Check Valves **31 8217-000**

Inner diameter 1.5 mm
Length: 150 cm
Filling volume: 2.7 ml

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Patient Lines without Valves

Article number

MEDTRON recommends!
ES 224/150
31 8151-100

ES 224 Patient Line

Inner diameter: 1.5 mm

ES 224/80	Length: 80 cm, filling volume: 1.4 ml	**31 8081-100**
ES 224/100	Length: 100 cm, filling volume: 1.8 ml	**31 8101-100**
ES 224/150	Length: 150 cm, filling volume: 2.7 ml	**31 8151-100**
ES 224/200	Length: 200 cm, filling volume: 3.5 ml	**31 8199-100**

Packing unit: 200 pieces/carton – 11,200 pieces/pallet

Coiled Line 150 cm **31 8213-000**

Inner diameter: 1.6 mm
Length: 150 cm
Filling volume: 3.1 ml

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Accessories

Article number

SP 227 Vented Spike, Luer Lock **31 9095-100**

Filling volume: 0.4 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

Mini Spike, green **31 9099-100**

Filling volume: 0.2 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

DW 226 Three-way Stop Cock **31 9085-100**

Filling volume: 0.1 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

ACCUTRON® CT-D

Innovative Disposables

- Automatic or manual filling with variable speed
- Optimized tube systems with check valve

Efficient Workflow

- Pre-Inject function allows test injections to be performed
- Control via hand switch with simultaneous monitoring of the patient
- SMART Assist offers an optimized workflow

Wireless & Mobile

- Mains independent supply via rechargeable high-performance batteries

Hygienic Design

- Robust, stable and lightweight aluminum housing
- Easy to clean and hygienic

ACCUTRON® CT-D

Accutron® CT-D

Accutron® CT-D is a double syringe contrast delivery system needed for advanced clinical CT imaging procedures such as cardiac CTA, CT angiography, pelvic & lower limb imaging as well as routine CT examinations. It is also ready for new emerging applications in women's health like Contrast Enhanced Mammography.

Through all of these applications, Accutron® CT-D offers the comfort of its' wireless mobility and the safety of its' advanced features; whether you are storing injection profiles for quick recall via the touch screen interface, simply checking IV patency using Pre-Inject on the hand switch or monitoring the injection pressure graph via the touch screen remote control.

Clinical Gains

- The Accutron® CT-D's precise dosing of contrast medium and saline solution limits the patient risk by reducing the amount of contrast medium required during injection.
- The Accutron® CT-D now supports CE Mammography which helps to provide new outcomes in womens health.
- The injector may reduce risk of infections by being easy to clean and hygienic.

Operating Gains

- Wireless and mobile configuration provides flexibility to quickly change examination rooms and eliminates barriers, such as nearby power requirements and/or cable installation.
- The integration with the scanner interface reduces workload for the operator and improves patient turnaround times.

Financial Gains

- Our solutions for single or multi-patient use allow you to optimize your disposables budget according to your operations.
- The Accutron® CT-D supports the development of a new clinical practice in mammography, expanding your range of applications, leading to potentially increased revenue.

Filling of Injection Syringes

Automatic filling via menu with volume input or manual filling with variable speed

Use of optimized tube systems with check valves

Mechanical Design

Swivelling injection units connected to a mobile column stand

Total weight: 26 kg

Power Supply

Operation is independent of the mains supply, thanks to high-output rechargeable batteries

Input voltage charger:
100 - 240 V, 50 - 60 Hz

Power consumption charger:
< 100 VA

Accutron® CT-D
Article number CT860

ACCUTRON® CT-D

Product Selection

Article	Description	Article number
Models		
Accutron® CT-D Battery Version	double syringe injector for computed tomography	CT860
Accutron® CT-D Ceiling Mount	double syringe injector for computed tomography	CT861
Ceiling suspension	for Accutron® CT-D	530166
Accutron® CT-D Power Supply	double syringe injector for computed tomography	CT862
OEM Interfaces*		
Class 4 CANopen Interface Siemens	compatible with Siemens systems	IF864
Class 1 CANopen Interface Siemens	compatible with Siemens systems	IF864
Interface Philips	compatible with Philips systems	620140
Class 4 CANopen Interface GE	compatible with GE Revolution EVO	IF864
Accessories		
Software Option „Pre-Filled Syringe"	enables the use of pre-filled syringes via ELS adapter, i. e. Optiray	490110
Infusion Stand	for Accutron® CT-D with cupholder and cup	490200

*For detailied information please contact your local dealer.

Technical Data

Injection Volume:
max 200 ml per piston
1-200 ml, programmable in 1 ml increments

Number of Phases:
1 to 6 phases

Injection Pressure:
max 21 bar,
5-21 bar, programmable in 1 bar increments

Flow Rate:
0.1 - 10 ml/s,
programmable in 0.1 ml/s increments

Injection Profiles:
80 profiles,
can be edited and stored by the user

Injection, Phase and Scan Delay:
0 - 255 s

Filling Speed:
1 - 5 ml/s,
programmable in 1 ml/s increments

Keep Vein Open:
1 ml every 2 minutes

Subject to technical alterations

Accutron® CT-D Ceiling Mount
Article number CT861

Accutron® CT-D Power Supply
Article number CT862

Touch Screen Remote Control
Article number FB866

ACCUTRON® CT-D

ACCUTRON® CT

Innovative Disposables

- Automatic or manual filling with variable speed
- Optimized tube systems with check valves

Efficient Workflow

- Up to 80 injection profiles, individually created for your examination and easily accessible
- Pre-Inject function allows test injections to be performed

Agile Mobility

- Continuous operation with power supply unit
- Light weight and compact design allow easy placement
- Wireless touch screen remote control off ers cable-free installation and service

Hygienic Design

- Robust, stable and lightweight aluminum housing
- Easy to clean and hygienic

ACCUTRON® CT

Accutron® CT

The Accutron® CT is a contrast delivery system designed for computed tomography and built using the same technology platform that all Accutron® injectors are based upon. Whether you are budget conscious or newly exploring the potential use of a powered injector in your CT department, Accutron® CT is your starting point.

The Accutron® CT doesn't forego essential comfort and safety features; it offers a touch screen interface, an optional remote touch screen for your control room as well as a hand switch all of which is supported by our renowned injection control software technology.

Clinical Gains

- The Accutron® CT provides real-time pressure monitoring which allows for improved precision and safety.
- The integrated heatable syringe holder keeps contrast media heated to body temperature providing optimal viscosity and increased patient comfort.

Operating Gains

- Agile mobility with a configuration provides flexibility to quickly change examination rooms.
- The Accutron® CT functions with select pre-filled syringes to increase throughput via quick use and improved patient turnaround times.

Financial Gains

- Consistent reliability helps to reduce repeat examinations due to contrast mistiming.
- The Accutron® CT provides solid performance and price affordability in CT imaging.

Filling of Injection Syringes

Automatic filling via menu with volume input or manual filling with variable speed

Use of optimized tube systems with check valves

Mechanical Design

Swivelling injection units connected to a mobile column stand

Total weight: 14.4 kg

Power Supply

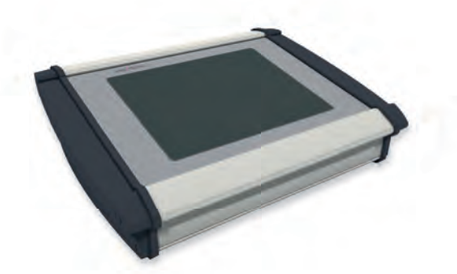
Input voltage charger:
100 - 240 V, 50 - 60 Hz

Power consumption charger:
< 170 VA

Accutron® CT
Article number CT871

ACCUTRON® CT

Product Selection



Touch Screen Remote Control
Article number FB875S

Infusion Stand
Article number 490200

Article	Description	Article number
Models		
Accutron® CT	single syringe injector for computed tomography	CT871
Accessories		
Software Option „Pre-Filled Syringe"	enables the use of pre-filled syringes via ELS adapter, i. e. Optiray	490110
Infusion Stand	for Accutron® CT with cupholder and cup	490200

Technical Data

Injection Volume:
max 200 ml

Number of Phases:
1 to 6 phases

Injection Pressure:
max 21 bar,
5-21 bar, programmable in 1 bar increments

Flow Rate:
0.1 - 10 ml/s,
programmable in 0.1 ml/s increments, optional selection of flow rate or phase duration

Partial Injection Volume:
1 - 200 ml,
programmable in 1 ml increments

Injection Profiles:
80 profiles,
can be edited and stored by the user

Injection, Phase and Scan Delay:
1 - 255 s

Filling Speed:
1 - 5 ml/s,
programmable in 1 ml/s increments

Subject to technical alterations

Single Use Sets with Integrated Dripping Chamber for CT Injectors

Article number

CT2/MRI Set ELS* **31 7625-000**

2 pieces	ELS* 200 ml Syringe with Filling Tube	31 6025-000
1 piece	MRS 222 MR Tube System	31 7100-000
1 piece	ES 224/150 Patient Line	31 8151-000

Packing unit: 20 pieces/carton – 600 pieces/pallet

CT2/MRI Set ELS* (S) **31 7627-000**

2 pieces	ELS* 200 ml (S) Syringe	31 6026-000
1 piece	MRS 222 MR Tube System	31 7100-000
1 piece	ES 224/150 Patient Line	31 8151-000

Packing unit: 20 pieces/carton – 480 pieces/pallet

* Easy Loading Syringe

DISPOSABLES

Syringes for Single Use

Article number

ELS 200 ml Syringe with Filling Tube** **31 6025-000**

Residual volume: 3.0 ml

ELS 200 ml (S) Syringe** **31 6026-000**

Residual volume: 3.0 ml

Packing unit: 50 pieces/carton – 1,500 pieces/pallet

Single Head Filling Tubes for Single Use

Article number

SD 225 Suction Tube with Three-way Stop Cock and Spike **31 9080-100**

Length: 100 cm
Filling volume: Three-way stop cock 0.3 ml
Suction tube 5.7 ml
Spike 0.1 ml

Packing unit: 50 pieces/carton – 4,000 pieces/pallet

Single Head Tube Systems for Single Use

Article number

ES 223 Tube System with Spike **31 7080-100**

	ID*	Length	Filling volume
Pressure side	2.0 mm	16 cm	0.5 ml
Suction side	2.7 mm	100 cm	5.7 ml

Packing unit: 50 pieces/carton – 4,000 pieces/pallet

Tube System with Drip Chamber **31 7081-100**

	ID*	Length	Filling volume
Pressure side	2.0 mm	21 cm	0.7 ml
Suction side	2.7 mm	100 cm	5.7 ml
Drip chamber			10 ml

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

* Inner diameter
** Easy Loading Syringe

Double Head Tube Systems with Filling Function for Single Use

Article number

MRS 222 MR Tube System **31 7100-100**

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	100 cm	5.7 ml
NaCl-side, white	100 cm	5.7 ml
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

Suitable for pre-filled syringes

Tube System with Suction Line and Drip Chamber **31 7083-100**

	ID*	Length	Filling volume
CM-side	2.0 mm	6 cm	0.2 ml
NaCl-side	2.0 mm	32 cm	1.0 ml
Patient line	1.5 mm	150 cm	2.7 ml
Suction side with drip chamber	2.7 mm	100 cm	5.7 ml

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

MRS 222 MR Tube System mit Inline Drip Chamber** **31 7099-100**

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	104 cm	6.0 ml
NaCl-side, white	100 cm	5.7 ml
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

Double Head Tube System with 1 Inline Drip Chamber** **31 7109-100**

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Patient line (ID: 1.5 mm)	150 cm	2.7 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	104 cm	6.0 ml
NaCl-side, white	100 cm	5.7 ml
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

* Inner diameter
** for Scanbag®-CM supply bag

DISPOSABLES

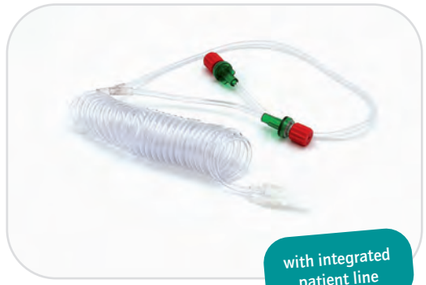
Double Head Tube Systems for Single Use

Article number

Double Head Tube System — 31 7101-100

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	30 cm	0.9 ml
NaCl-side	6 cm	0.2 ml
Pressure side, ID* 1.5 mm	**Length**	**Filling volume**
Joint tube length	180 cm	3.2 ml

Packing unit: 50 pieces/carton – 2,800 pieces/pallet



MR-ELS** Tube System with 2 Valves, green — 31 7104-000

Pressure side, ID* 1.5 mm	Length	Filling volume
CM-side	10 cm	0.2 ml
NaCl-side	34 cm	0.6 ml
Joint tube length	150 cm	2.7 ml

Packing unit: 50 pieces/carton

MRS 225 MR Tube System — 31 7125-100

ID*: 2.0 mm

	Length	Filling volume
CM-side	6 cm	0.2 ml
NaCl-side	32 cm	1.0 ml

Packing unit: 50 pieces/carton – 4,000 pieces/pallet

* Inner diameter
** Easy Loading Syringe

Patient Lines with One Valve

Article number

ES 224/25 Patient Line with Valve — 31 8020-100

Inner diameter: 1.5 mm
Length: 25 cm
Filling volume: 0.4 ml

Packing unit: 100 pieces/carton – 8,000 pieces/pallet

MEDTRON recommends!

31 8152-100

Patient Line with Valve

Inner diameter 1.5 mm

Length: 150 cm, filling volume: 2.7 ml	**31 8152-100**
Length: 200 cm, filling volume: 3.5 ml	**31 8198-100**
Length: 250 cm, filling volume: 4.4 ml	**31 8251-100**
Length: 300 cm, filling volume: 5.3 ml	**31 8301-100**

Packing unit: 200 pieces/carton – 11,200 pieces/pallet

Coiled Line with Check Valve

Inner diameter: 1.65 mm

Length: 150 cm, filling volume: 3.2 ml	**31 8214-000**
Length: 180 cm, filling volume: 3.7 ml	**31 8181-000**

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Coiled Line with Check Valve — 31 8253-000

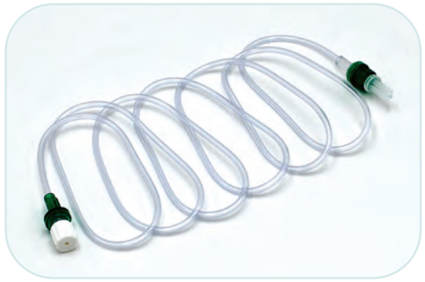
Inner diameter: 1.5 mm
Length: 250 cm
Filling volume: 4.4 ml

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

DISPOSABLES

Patient Lines with Two Valves

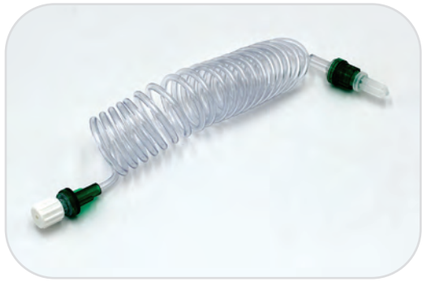
Article number



Patient Line 150 cm with Terminal Check Valves **31 8026-100**

Inner diameter: 1.5 mm
Length: 150 cm
Filling volume: 2.7 ml

Packing unit: 200 pieces/carton – 11,200 pieces/pallet



Coiled Line 150 cm with 2 Check Valves **31 8217-000**

Inner diameter 1.5 mm
Length: 150 cm
Filling volume: 2.7 ml

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Patient Lines without Valve

Article number

MEDTRON recommends!

ES 224/150
31 8151-100

ES 224 Patient Line

Inner diameter: 1.5 mm

ES224/80, Length: 80 cm, filling volume: 1.4 ml **31 8081-100**
ES224/100, Length: 100 cm, filling volume: 1.8 ml **31 8101-100**
ES224/150, Length: 150 cm, filling volume: 2.7 ml **31 8151-100**
ES224/200, Length: 200 cm, filling volume: 3.5 ml **31 8199-100**

Packing unit: 200 pieces/carton – 11,200 pieces/pallet

Coiled Line 150 cm **31 8213-000**

Inner diameter: 1.65 mm
Length: 150 cm
Filling volume: 3.2 ml

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Short Patient Lines for Intraveneous Access

Article number

One-way Stop Cock with Extension Line 30cm, Luer Lock **31 8025-100**

Inner diameter: 2.0 mm
Length: 32 cm
Filling volume: 1.2 ml

Packing unit: 100 pieces/carton – 5,600 pieces/pallet

DW 229 Connector with Three-way Stop Cock **31 8042-100**

Inner diameter: 1.5 mm
Length: 10 cm
Filling volume: 0.5 ml

Packing unit: 100 pieces/carton - 8,000 pieces/pallet

CT – DISPOSABLES

DISPOSABLES

Accessories

Article number

DW 226 Three-way Stop Cock **31 9085-100**

Filling volume: 0.1 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

SP 227 Vented Spike, Luer Lock **31 9095-100**

Filling volume: 0.4 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

Mini Spike, green **31 9099-100**

Filling volume: 0.2 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

CT – DISPOSABLES

ACCUTRON® HP-D

Innovative Disposables

- Automatic or manual filling with variable speed
- Optimized tube systems with check valves

Efficient Workflow

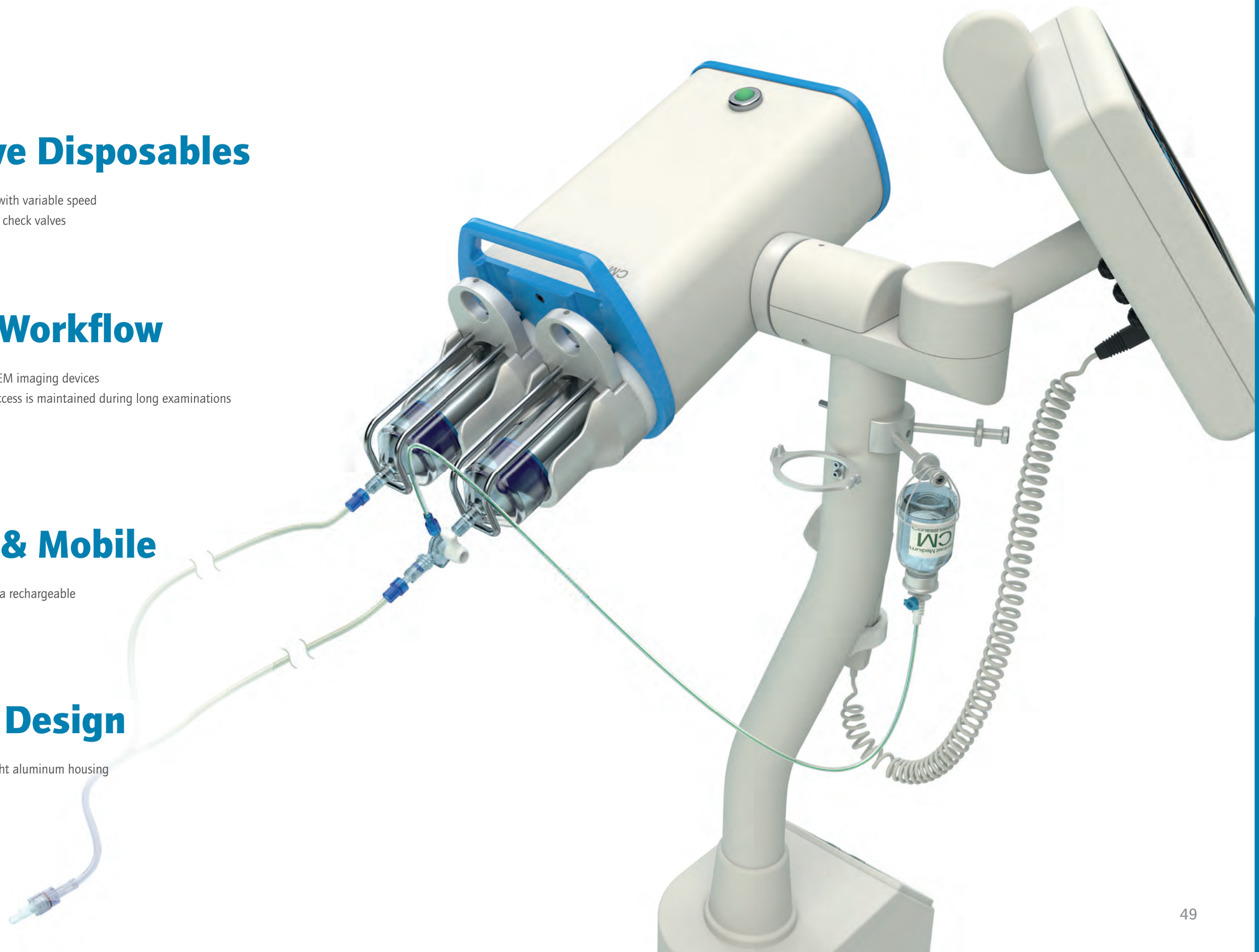
- Direct interface to various OEM imaging devices
- KVO function ensures that access is maintained during long examinations

Wireless & Mobile

- Mains independent supply via rechargeable high-performance batteries

Hygienic Design

- Robust, stable and lightweight aluminum housing
- Easy to clean and hygienic



ACCUTRON® HP-D

Accutron® HP-D

The Accutron® HP-D is a double syringe contrast delivery system designed for precise injection of contrast media and saline in angiography procedures at high pressures.
It is particularly suitable for 3D angiography and Cone Beam CT due in part to its multiple phase capability and contrast concentration adjustment by simultaneous saline injection.

Accutron® HP-D can also be operated as a single head injector, making it adaptable to all types of imaging protocols, for both diagnostic and interventional procedures. In addition to working with angiography procedures in "angio mode", the Accutron® HP-D offers a standard pressure "CT mode" for intravenous use in hybrid CT procedures in the angiography suite.

Clinical Gains

- The Accutron® HP-D reduces beam hardening artifacts through flexible adjustment of contrast concentration using saline.
- Cleanly defined & reproducible contrast media boli' can be achieved by pushing contrast media with a saline bolus.

Operating Gains

- Wireless and mobile configuration provides flexibility to quickly change examination rooms and eliminates barriers; such as nearby power requirements and/or cable installation.
- Integration with the scanner interface reduces workload for the operator and improves patient turnaround times.

Financial Gains

- The Accutron® HP-D may reduce the amount of contrast required per patient; resulting in less operating expenses.
- The double head injector can be utilized in both angiography and computer tomography modes; eliminating the need to purchase an additional injector for CT.

Accutron® HP-D
Article number HP833

Filling of Injection Syringes

Automatic filling via menu with volume input or manual filling with variable speed

Use of optimized high-pressure tube systems with check valves

Automatic adaption of capacity

Keep Vein Open function for maintaining the access to blood vessels

Rinsing function using NaCl

Mechanical Design

Swivelling injection unit on a mobile column stand

Hand switch to control the injection

Total weight: 62 kg

Power Supply

Operation is independent of the mains supply, thanks to high-output rechargeable batteries

Input voltage charger:
100 - 240 V, 50 - 60 Hz

ACCUTRON® HP-D

Product Selection

Article	Description	Article number
Models		
Accutron® HP-D	double syringe injector für angiography and computed tomography	HP833
OEM Interfaces*		
Interface Canon	compatible with Canon systems	IF859-C
Interface GE	compatible with GE systems	IF859-G
Interface Philips	compatible with Philips systems	IF859-P
Interface Shimadzu	compatible with Shimadzu Angio	IF859-S
Interface Siemens Artis	compatible with Siemens Artis	IF859
Interface Siemens Cios	compatible with Siemens Cios Alpha & Fusion	IF859-SC
Interface Switch	interface for switching between different scanners	IF859-SW
Interface Ziehm	compatible with Ziehm C-arms of the Vision series	IF859-Z
DVI Interface	DVI interface for the angio systems of Siemens and Philips to display the screen of the injector on the screen of the angio system	490150
Accessories		
Remote Control	touch screen remote control 10.4", wireless, including power supply	FB834

*For detailied information please contact your local dealer.

Technical Data

Injection Volume:
max 200 ml per piston, 1-200 ml, programmable in 1 ml increments

Injection, Phase, X-ray and Scan Delay:
0 - 255 s

Angio-Mode

Injection Pressure:
max 83 bar (1200 psi), 5-83 bar (75-1200 psi), programmable in 1 bar increments

Flow Rate:
0.1 - 30 ml/s, programmable in 0.1 ml/s increments

CT-Mode

Injection Pressure:
max 21 bar (305 psi), 5-21 bar (75-305 psi), programmable in 1 bar increments

Flow Rate:
0.1 - 10 ml/s, programmable in 0.1 ml/s increments

Injection Profiles:
120 profiles, 60 profiles each mode, can be edited and stored by the user

Number of Phases:
1 to 3 phases

Filling Speed:
1 - 4 ml/s, programmable in 1 ml increments

Keep Vein Open:
1 – 4 ml every 4 minutes

Rising Time:
0.1 - 10 s, programmable in 0.1 s increments

Subject to technical alterations

Accutron® HP-D
Article number HP833

Pressure Jacket for HP ELS 200
Article number 640130B

Touch Screen Remote Control, Wireless
Article number FB834

ACCUTRON® HP-D

ACCUTRON® HP

Innovative Disposables

- Automatic or manual filling with variable speed
- Optimized tube systems with check valves

Efficient Workflow

- Interface to various OEM imaging devices
- Up to 120 injection profiles in total (60 in angio mode/60 in CT mode), individually created for your examinations and easily accessible

Wireless & Mobile

- Mains independent supply through rechargeable high-performance batteries

Hygienic Design

- Robust, stable and lightweight aluminum housing
- Easy to clean and hygienic

ACCUTRON® HP

Accutron® HP

The Accutron® HP is a contrast delivery system designed for precise injection of contrast media in angiography procedures at high pressure. Accutron® HP is an allrounder or multi-talent because in addition to working with angiography procedures in "angio mode", the Accutron® HP offers a standard pressure "CT mode" for intravenous use in hybrid CT procedures in the angiography suite.

The Accutron® HP smartly adapts to fit your differing requirements. Regardless if you need a mobile imaging feature to be added to a surgical environment, the battery powered version can offer ideal wireless interoperability with mobile C-Arms. We also offer for dedicated fixed angiography units, an Accutron® HP table mounted version which provides for stable integration with the angiography system.

Clinical Gains

- The Accutron® HP enables interdisciplinary clinical imaging examinations; in both angiography and computed tomography.
- It reduces risk of infections by being easy to clean and hygienic.

Operating Gains

- Wireless and mobile configuration provides flexibility to quickly change examination rooms and eliminates barriers; such as nearby power requirements and/or cable installation.
- Integration with the scanner interface reduces workload for the operator and improves patient turnaround times.

Financial Gains

- Purchasing the Accutron® HP reduces the amount of capital expenditures because of dual usability in angiography and CT.
- The Accutron® HP's robust design, simplified maintenance and customized solutions for disposables ensure that the operating costs of the Accutron® HP can be well monitored.

Accutron® HP
Article number HP836

Filling of Injection Syringes

Automatic filling via menu with volume input or manual filling with variable speed

Use of optimized high-pressure tube systems with check valves

Mechanical Design

Swivelling injection unit on a mobile column stand

Hand switch to control the injection

Total weight: 41 kg

Power Supply

Operation is independent of the mains supply, thanks to high-output rechargeable batteries

Input voltage charger:
100 - 240 V, 50 - 60 Hz

Product selection

Article	Description	Article number
Models		
Accutron® HP Battery Version	single syringe injector for angiography	HP836
Accutron® HP Power Supply	single syringe injector for angiography	HP832
Accutron® HP Table Mount	single syringe injector for angiography	HP890
Accutron® HP Table Mount Siemens	single syringe injector for Siemens-compatible tables	HP890-0
Accutron® HP Table Mount Philips	single syringe injector for Philips-compatible tables	HP890-1
Accutron® HP Table Mount GE	single syringe injector for GE-compatible tables	HP890-2
OEM Interfaces*		
Interface Canon	compatible with Canon systems	IF839-C
Interface GE	compatible with GE systems	IF839-G
Interface Philips	compatible with Philips systems	IF839-P
Interface Shimadzu	compatible with Shimadzu angio systems	IF839-S
Interface Siemens Artis	compatible with Siemens Artis	IF839
Interface Siemens Cios	compatible with Siemens Cios Alpha & Fusion	IF839-SC
Interface Ziehm	compatible with Ziehm C-arms of the Vision series	IF839-Z
Accessories		
Remote Control	touch screen remote control 10.4", wireless, including power supply	FB834
Infusion Stand	for Accutron® HP836 with cupholder and cup	490201

*For detailied information please contact your local dealer.

Technical Data

Injection Volume:
max 200 ml,
1 - 200 ml,
programmable in
1 ml increments

Injection Profiles:
120 profiles,
60 profiles each mode,
can be edited and stored
by the user

Injection, Phase, X-Ray and Scan Delay:
0 - 255 s injection and
phase delay,
0 - 99 s x-ray and
scan delay

Number of Phases:
1 to 3 phases

CT-Mode

Injection Pressure:
max 21 bar (305 psi),
5 - 21 bar (73 - 305 psi),
programmable in
1 bar increments

Flow Rate:
0.1 - 10 ml/s,
programmable in
0.1 ml/s increments

Angio-Mode

Injection Pressure:
max 83 bar (1200 psi),
5 - 83 bar (73 - 1200 psi),
programmable in
1 bar increments

Flow Rate:
0.1 - 30 ml/s,
programmable in
0.1 ml/s increments

Subject to technical alterations

Accutron® HP Power Supply
Article number HP832

Accutron® HP Table Mount
Article number HP890

Pressure Jacket for HP ELS 200
Article number 640130B

Touch Screen Remote Control, Wireless, incl. Power Supply
Article number FB838

ACCUTRON® HP

DISPOSABLES

Syringes for Single Use

Article number

ELS* 200 ml Syringe with Filling Tube **31 6025-000**
Residual volume: 3.0 ml
At 83 bar only usable with pressure sleeve!

ELS* 200 ml (S) Syringe **31 6026-000**
At 83 bar only usable with pressure sleeve!

Packing unit: 50 pieces/carton – 1,500 pieces/pallet

Single Head Tube Systems for Single Use

Article number

MEDTRON recommends!

HSD 525 Suction Tube 100 **31 5081-100**

Inner diameter: 2.7 mm
Length filling tube: 100 cm
Filling volume: Tube: 5.7 ml
Spike: 0.1 ml
Three-way stop cock: 0.3 ml

Packing unit: 50 pieces/carton

HSD 527 Suction Tube with Valve **31 5082-000**

Inner diameter: 2.7 mm
Length: 100 cm
Filling volume: 5.7 ml Drip chamber
10 ml Tube
0.2 ml Valve

Packing unit: 50 pieces/carton

HSD 527 Suction Tube with Valve and Inline Drip Chamber **31 5083-000**

Inner diameter: 2.7 mm
length: 104 cm
Filling volume: 6 ml Drip chamber
10 ml Tube
0.2 ml Valve

Packing unit: 50 pieces/carton

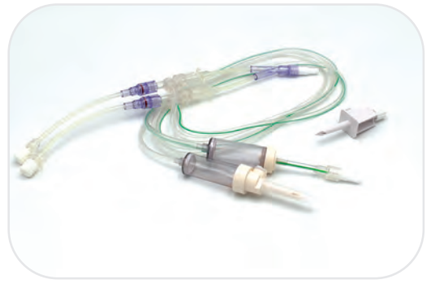
Double Head Tube Systems for Single Use

Article number

Accutron® HP-D Tube System **31 7183-000**

Pressure side	Length	Filling volume
CM-side	16 cm	0.4 ml
NaCl-side	16 cm	0.4 ml
Suction side	**Length**	**Filling volume**
CM-side, green	100 cm	15.7 ml incl. drip chamber
NaCl-side, white	100 cm	16 ml incl. drip chamber
2 x Drip chamber		10 ml each

Packing unit: 25 pieces/carton



ScanBag® HP-D Tube System** **31 7184-000**

Pressure side	Length	Filling volume
CM-side	16 cm	0.4 ml
NaCl-side	16 cm	0.4 ml
Suction side	**Length**	**Filling volume**
CM-side, green	104 cm	15.7 ml incl. drip chamber
NaCl-side, white	100 cm	14 ml incl. drip chamber
2 x Drip chamber		10 ml each

Packing unit: 25 pieces/carton

Double Head Pressure Tubes

Article number

Accutron® HP-D - Y-Connector with 2 RV and RA **31 7187-000**

Pressure side	Length	Filling volume	ID*
CM-side	18 cm	0.5 ml	1.8 mm
NaCl-side	18 cm	0.5 ml	1.8 mm
Joint tube length	200 cm	3.5 ml	1.5 mm

Packing unit: 25 pieces/carton

MEDTRON recommends!

Accutron® HP-D - Y-Connector 83 bar 31 7188-000 with 2 RV and RA - Long Supply Tubes

Pressure side	Length	Filling volume	ID*
CM-side	180 cm	4.6 ml	1.8 mm
NaCl-side	180 cm	4.6 ml	1.8 mm
Joint tube length	15 cm	0.3 ml	1.5 mm

Packing unit: 25 pieces/carton

* Inner diameter
**for Scanbag®-CM supply bag

DISPOSABLES

Single Head Pressure Tubes, TPU Braided

Article number

MEDTRON recommends!

HS 224/150
31 5136-000

HS 224 RA Patient Line

Inner diameter: 1.8 mm, Rotating adapter

Length: 100 cm, filling volume: 2.5 ml **31 5100-000**
Length: 120 cm, filling volume: 3.1 ml **31 5126-000**
Packing unit: 50 pieces/carton

Length: 150 cm, filling volume: 3.8 ml **31 5136-000**
Length: 180 cm, filling volume: 4.6 ml **31 5135-000**
Packing unit: 25 pieces/carton

HS 224 Patient Line

Inner diameter: 1.8 mm

Length: 120 cm, filling volume: 3.1 ml **31 5125-000**
Packing unit: 50 pieces/carton

Length: 180 cm, filling volume: 4.6 ml **31 5134-000**
Packing unit: 25 pieces/carton

HS 224 RA/180 Patient Line with Valve **31 5124-000**

Inner diameter: 1.8 mm, Rotating adapter,
with check valve

Length: 180 cm
Filling volume: 4.6 ml

Packing unit: 50 pieces/carton

Single Head Pressure Tube, Crystal Clear PVC-Flex

Article number

MEDTRON recommends!

31 5138-000

HP RA Patient Line PVC-Flex

Inner diameter: 1.5 mm
Rotating adapter

Length: 120 cm, filling volume: 2.1 ml **31 5130-000**
Packing unit: 50 pieces/carton

Length: 150 cm, filling volume: 2.2 ml **31 5138-000**
Packing unit: 25 pieces/carton

HP Patient Line PVC-Flex

Inner diameter: 1.5 mm

Length: 120 cm, filling volume: 2.1 ml **31 5129-000**
Length: 180 cm, filling volume: 3.2 ml **31 5132-000**

Packing unit: 50 pieces/carton

HP Patient Line with Check Valve, PVC-Flex

Inner diameter: 1.5 mm
Rotating adapter/PVC-flex tube, with check valve

Length: 120 cm, filling volume: 2.1 ml **31 5137-000**
Length: 150 cm, filling volume: 2.7 ml **31 5121-000**

Packing unit: 50 pieces/carton

Filling Accessories for Single Use

Article number

SP 227 Vented Spike, Luer Lock **31 9095-100**

Filling volume: 0.4 ml

Packing unit: 50 pieces/carton
200 pieces/carton – 11,200 pieces/pallet

HDW 526 High Pressure Three-Way Stop Cock **31 5087-100**

Filling volume: 0.3 ml

Packing unit: 50 pieces/carton
200 pieces/carton

MULTIPLE USE

8h Tube System for CT and MRI

Efficient 8h-Use

- Fast and easy setup of disposables reduces patient turnaround time
- 8h reusable tube systems reduce costs for disposables
- Environmentally friendly solution, sustainably produced (latex, DEHP and pyrogen-free plastic components)

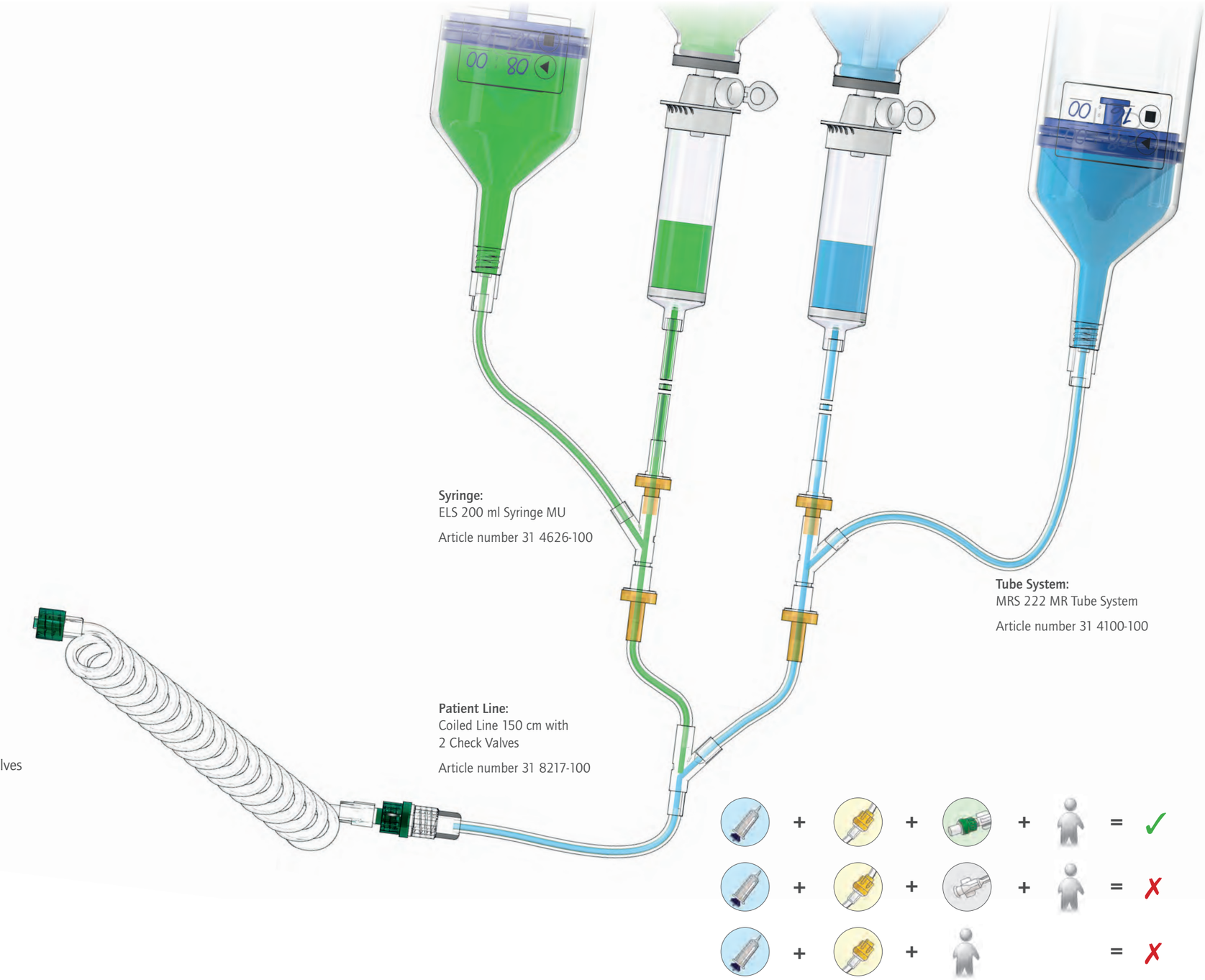
Variable & Flexible

- 8h-syringe, 8h-tube system and patient line build a system
- Individual system solutions

Safe Handling

- Overview and control of the exact application time period thanks to individual write-on stickers located on the syringes
- 8h multiple use filling system, exchangeable spikes and intelligent valves reduce the risk of contamination
- Compact and well-structured design enables simple and safe use

Tips for use:



MULTIPLE USE UP TO 8H

Multiple Use up to 8h

Regarding our Drip Chambers with a Spike:
The drip chambers are equipped with microbiological ventilation and a soil filter for particle-free filling.

Regarding our Inline Drip Chambers:
The drip chambers are equipped with a soil filter for particle-free filling.

Our valve technology is secure for up to 8 hours in terms of microbiological and viral hazards. It is also self-closing: The opening pressure is 250 mbar.

Multiple Use 8h Syringes

Article number

ELS 200 ml Syringe MU** **31 4626-100**

Filling volume: 200 ml
Residual volume: 3.0 ml

Packing unit: 50 pieces/carton incl. sticker to mark the start- and endtime of the 8 hours – 1,200 pieces/pallet

Single Head 8h Tube System

Article number

ES 223 Tube System with Drip Chamber **31 4081-100**

	ID*	Length	Filling volume
Pressure side	2 mm	14 cm	0.4 ml
Suction side	2.7 mm	100 cm	15.8 ml incl. drip chamber

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

* Inner diameter
** Easy Loading Syringe

Double Head 8h Tube Systems

Article number

MRS 222 MR Tube System with 1 Inline Drip Chamber **31 4099-100**

Pressure side, ID*2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	104 cm	15.8 ml incl. drip chamber
NaCl-side, white	100 cm	15.8 ml incl. drip chamber
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

MRS 222 MR Tube System **31 4100-100**

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.0 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	100 cm	15.7 ml incl. drip chamber
NaCl-side, white	100 cm	5.7 ml incl. drip chamber
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

MEDTRON recommends!

MRS 222 XS Tube System with Exchangeable Spikes and Additional Valve **31 4119-100**

Pressure side, ID* 2.0 mm	Length	Filling volume
CM-side	12 cm	0.4 ml
NaCl-side	36 cm	1.1 ml
Suction side, ID* 2.7 mm	**Length**	**Filling volume**
CM-side, green	104 cm	16 ml incl. drip chamber
NaCl-side, white	104 cm	16 ml incl. drip chamber
2 x Drip chamber		10 ml each

Packing unit: 50 pieces/carton – 2,800 pieces/pallet

* Inner diameter

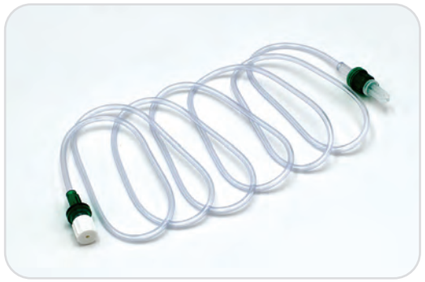
Patient Lines for Use with 8h Tube Systems

Article number

ES 224/25 Patient Line with Valve **31 8020-100**

Inner diameter: 1.5 mm
Length: 25 cm
Filling volume: 0.4 ml

Packing unit: 100 pieces/carton – 8,000 pieces/pallet



Patient Line 150 cm with Terminal Check Valves **31 8026-100**

Inner diameter: 1.5 mm
Length: 150 cm
Filling volume: 2.7 ml

Packing unit: 200 pieces/carton –11,200 pieces/pallet

MEDTRON recommends!

31 8152-100

Patient Line with Valve

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.7 ml	**31 8152-100**
Length: 200 cm, filling volume: 3.5 ml	**31 8198-100**
Length: 250 cm, filling volume: 4.4 ml	**31 8251-100**
Length: 300 cm, filling volume: 5.3 ml	**31 8301-100**

Packing unit: 200 pieces/carton – 11,200 pieces/pallet

Coiled Patient Lines for Use with 8h Tube Systems

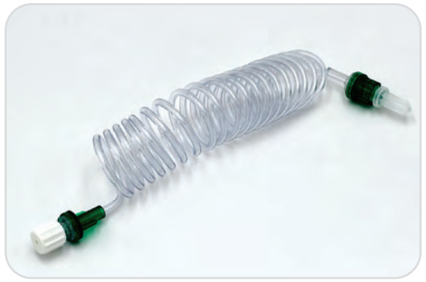
Article number

Coiled Line with Check Valve

Inner diameter: 1.65 mm

Length: 150 cm, filling volume: 3.2 ml	**31 8214-000**
Length: 180 cm, filling volume: 3.7 ml	**31 8181-000**

Packing unit: 50 pieces/carton – 5,850 pieces/pallet



Coiled Line 150 cm with 2 Check Valves **31 8217-000**

Inner diameter: 1.5 mm
Length: 150 cm
Filling volume: 2.7 ml

Packing unit: 50 pieces/carton – 5,850 pieces/pallet

Accessories

Article number

Vented Spike MU **31 4095-100**

Filling volume: 0.4 ml

Packing unit: 200 pieces/carton – 11,200 pieces/pallet

DISPOSABLES MULTIPLE USE UP TO 8H

DECLARATION OF COMPATIBILITY

TUBE SYSTEMS & SYRINGES

injectors

syringes

tube systems

tubes

accessories

Kompatibilitätserklärung
Declaration of Compatibility

Hiermit erklären wir, dass die folgenden von der MEDTRON AG als Hersteller im Sinne der Richtlinie 93/42 EWG hergestellten und vertriebenen
The undersigned manufacturer hereby declare that the following products produced and distributed by MEDTRON AG as a manufacturer within the meaning of Directive 93/42 EEC

8h-Spritze zur kurzzeitigen Anwendung ≤ 8 Stunden (8h)
REF 314626-100 „ELS 200ml Spritze MU"
8h-Syringe for short-term use ≤ 8 hours (8h)
REF 314626-100 „ELS 200ml Syringe MU"

in Verbindung mit den **8h-Schlauchsysteme zur kurzzeitigen Anwendung ≤ 8 Stunden (8h)** mit **gelben** Ventilen
in conjunction with the ***8h-tubesystems for short-term use ≤ 8 hours (8h)*** *with* ***yellow*** *valves*

REF 314081-000, REF 314081-100, REF 314084-000, REF 314099-100, REF 314100-000, REF 314100-100, REF 314108-100, REF 314109-000, REF 314119-100

und den **Patientenleitungen zur einmaligen Benutzung (Einmalprodukt)** mit **grünen** Ventilen
and the ***patient lines for single use (single-use device)*** *with* ***green*** *valves*

REF 318020-000, REF 318020-100, REF 318021-000, REF 318021-100, REF 318026-000, REF 318026-100, REF 318036-000, REF 318036-100, REF 318040-000, REF 318040-100, REF 318152-000, REF 318152-100, REF 318181-000, REF 318181-100, REF 318198-000, REF 318198-100, REF 318214-000, REF 318214-100, REF 318217-000, REF 318217-100, REF 318251-100, REF 318253-000, REF 318253-100, REF 318301-100, REF 318303-000, REF 318303-100

für einen maximalen Zeitraum von bis zu 8 Stunden bei uneingeschränkter Anwendungshäufigkeit für die Diagnoseuntersuchung von mehreren Patienten validiert ist.
is validated for a maximum period of up to 8 hours at full application frequency for the diagnosis study of several patients.

Die hygienische Unbedenklichkeit von der Spritze, Schlauchleitungen und Ventile wurde im Rahmen von mikrobiologischen Studien für die kurzzeitige Anwendung von ≤ 8 Stunden in einem unabhängigen akkreditierten Labor untersucht.
The hygienic safety from the syringe, tubesystem and valves was investigated as part of microbiological studies for short-term use of ≤ 8 hours in an independent accredited laboratory.

Diese Erklärung wird verantwortlich für den Hersteller abgegeben.
This declaration is delivered under the responsibility of the manufacturer.

MEDTRON AG

Hauptstraße 255 66128 Saarbrücken Germany

Saarbrücken, 16.12.2019

Martin Biehl
Vorstand / *Member of the Board*

Kennnummer der CE-Kennzeichnung / CE identification number: **0482**
MEDCERT GmbH, Pilatuspool 2, 20355 Hamburg, Germany

FB 07.19.61
Revision 00

OVERVIEW OF DISPOSABLES

Art.-Nr. 31 5081-100
HSD 525 Suction Tube

Art.-Nr. 31 5082-000
HSD 527 Suction Tube with Valve

Art.-Nr. 31 5083-000
HSD 527 Suction Tube with Valve and Inline Drip Chamber

Art.-Nr. 31 5087-100
HDW 526 High Pressure Three-Way Stop Cock

Art.-Nr. 31 5100-000
HS 224/100 RA Patient Line

Art.-Nr. 31 5121-000
HP 150 RA Patient Line with Check Valve, PVC-Flex

Art.-Nr. 31 5124-000
HS 224/180 RA Patient Line with Valve

Art.-Nr. 31 5125-000
HS 224/120 Patient Line

Art.-Nr. 31 5126-000
HS 224/120 RA Patient Line

Art.-Nr. 31 5129-000
HP 120 Patient Line

Art.-Nr. 31 5130-000
HP 120 RA Patient Line

Art.-Nr. 31 5132-000
HP 180 Patient Line

Art.-Nr. 31 5134-000
HS 224/180 Patient Line

Art.-Nr. 31 5135-000
HS 224/180 RA Patient Line

- Double head injectors for magnetic resonance imaging (21 bar/305 psi)
- High-pressure injectors for angiography (83 bar/1.200 psi)
- Injectors for computed tomography (21 bar/305 psi)

OVERVIEW OF DISPOSABLES

Art.-Nr. 31 5136-000
HS 224/150 RA Patient Line

Art.-Nr. 31 5137-000
HP 120 RA Patient Line with Check Valve, PVC-Flex

Art.-Nr. 31 5138-000
HP 150 RA Patient Line

Art.-Nr. 31 6025-000
ELS* 200 ml Syringe with Filling Tube

Art.-Nr. 31 6026-000
ELS* 200 ml (S) Syringe

Art.-Nr. 31 6065-000
ELS* 65 ml Syringe

Art.-Nr. 31 7080-100
ES 223 Tube System with Spike

Art.-Nr. 31 7081-100
EK 223 Tube System with Drip Chamber

Art.-Nr. 31 7083-100
Tube System with Suction Line and Drip Chamber

Art.-Nr. 31 7099-100
MRS 222 MR Tube System with 1 Inline Drip Chamber

Art.-Nr. 31 7100-100
MRS 222 MR Tube System

Art.-Nr. 31 7101-100
Double Head Tube System

Art.-Nr. 31 7104-000
MR-ELS* Tube System with 2 Valves, green

Art.-Nr. 31 7109-100
Double Head Tube System with 1 Inline Drip Chamber

* Easy Loading Syringe

Art.-Nr. 31 7125-100
MRS 225 MR Tube System

Art.-Nr. 31 7183-000
Accutron® HP-D Tube System

Art.-Nr. 31 7184-000
Scanbag® HP-D Tube System

Art.-Nr. 31 7187-000
Accutron® HP-D - Y-Connector 83 bar with 2 RV and RA

Art.-Nr. 31 7188-000
Accutron® HP-D - Y-Connector 83 bar with 2 CV and RA - Long Supply Tubes

Art.-Nr. 31 7602-000
MR-Set ELS* 65 ml

Art.-Nr. 31 7603-000
MR-Set 65/200 ml

- Double head injectors for magnetic resonance imaging (21 bar/305 psi)
- High-pressure injectors for angiography (83 bar/1.200 psi)

Art.-Nr. 31 7604-000
MR-Kit ELS* 65 ml

Art.-Nr. 31 7625-000
CT2/MRI Set ELS*

Art.-Nr. 31 7627-000
CT2/MRI Set ELS* (S)

Art.-Nr. 31 8020-100
ES 224/25 Patient Line with Valve

Art.-Nr. 31 8025-100
One-Way Stop Cock with Extension Line 30 cm, Luer Lock

Art.-Nr. 31 8026-100
Patient Line 150 cm with Terminal Check Valves

Art.-Nr. 31 8042-100
DW 229 Patient Line with Three-Way Stop Cock

* Easy Loading Syringe

- Injectors for computed tomography (21 bar/305 psi)

OVERVIEW OF DISPOSABLES

OVERVIEW OF DISPOSABLES

Art.-Nr. 31 8081-100
ES 224/80 Patient Line

Art.-Nr. 31 8101-100
ES 224/100 Patient Line

Art.-Nr. 31 8151-100
ES 224/150 Patient Line

Art.-Nr. 31 8152-100
Patient Line 150 cm with
Check Valve

Art.-Nr. 31 8181-100
Coiled Line 180 cm
with Check Valve

Art.-Nr. 31 8198-100
Patient Line 200 cm
with Valve

Art.-Nr. 31 8199-100
ES 224/200 Patient Line

Art.-Nr. 31 8213-000
Coiled Line 150 cm

Art.-Nr. 31 8214-000
Coiled Line 150 cm with
Check Valve

Art.-Nr. 31 8217-000
Coiled Line 150 cm with
2 Check Valves

Art.-Nr. 31 8251-100
Patient Line 250 cm with Valve

Art.-Nr. 31 8253-000
Coiled Line 250 cm
with Check Valve

Art.-Nr. 31 8301-100
Patient Line 300 cm with Valve

Art.-Nr. 31 9080-100
Suction Tube with
Three-Way Stop Cock and Spike

Art.-Nr. 31 9085-100
DW 226 Three-Way Stop Cock

Art.-Nr. 31 9095-100
SP 227 Vented Spike, Luer Lock

Art.-Nr. 31 9099-100
Minispike, green

- Double head injectors for magnetic resonance imaging (21 bar/305 psi)
- High-pressure injectors for angiography (83 bar/1.200 psi)
- Injectors for computed tomography (21 bar/305 psi)

OVERVIEW OF DISPOSABLES

DISPOSABLES
MULTIPLE USE UP TO 8H – OVERVIEW

Multiple Use 8h Syringes

Art.-Nr. 31 4626-100
ELS* 200 ml Syringe MU

Single Head 8h Tube System

Art.-Nr. 31 4081-100
ELS* 223 Tube System with Drip Chamber

Double Head 8h Tube Systems

Art.-Nr. 31 4099-100
MRS 222 MR Tube System with 1 Inline Drip Chamber

Art.-Nr. 31 4119-100
MRS 222 XS Tube System with Exchangeable Spikes and Additional Valve

Art.-Nr. 31 4100-100
MRS 222 MR Tube system

* Easy Loading Syringe

● Double head injectors for magnetic resonance imaging (21 bar/305 psi) ● Injectors for computed tomography (21 bar/305 psi)

Patient Lines toUse with 8h Tube Systems

Art.-Nr. 31 8020-100
ES 224/25 Patient Line with Check Valve

Art.-Nr. 31 8198-000
Patient Line 200 cm with Valve

Art.-Nr. 31 8026-100
Patient Line 150 cm with Terminal Check Valves

Art.-Nr. 31 8251-100
Patient Line 250 cm with Valve

Art.-Nr. 31 8152-100
Patient Line 150 cm with Check Valve

Art.-Nr. 31 8301-100
Patient Line 300 cm with Valve

Coiled Patient Lines to Use with 8h Tube Systems

Art.-Nr. 31 8214-000
Coiled Line 150 cm with Valve

Art.-Nr. 31 8181-000
Coiled Line 180 cm with Valve

Art.-Nr. 31 8217-000
Coiled Line 150 cm with 2 Check Valves

Accessories

Art.-Nr. 31 4095-100
Spike with Ventilation MU

Material Specifications

Art.-Nr.	Article	Pressure line	Suction line	Drip chamber
31 5100-000	HS 224/100 RA Patient Line	TPU braided	X	X
31 5121-000	HP 150 RA Patient Line with Valve, PVC-Flex	PVC tube	X	X
31 5124-000	HS 224/180 RA Patient Line with Valve	TPU braided	X	X
31 5125-000	HS 224/120 Patient Line	TPU braided	X	X
31 5126-000	HS 224/120 RA Patient Line	TPU braided	X	X
31 5132-000	HP 180 Patient Line	PVC tube	X	X
31 5134-000	HS 224/180 Patient Line	TPU braided	X	X
31 5135-000	HS 224/180 RA Patient Line	TPU braided	X	X
31 5136-000	HS 224/150 RA Patient Line	TPU braided	X	X
31 5137-000	HP 120 RA Patient Line with Valve, PVC-Flex	PVC tube	X	X
31 5138-000	HP 150 RA Patient Line, PVC-Flex	PVC tube	X	X

Art.-Nr.	Article	Pressure line	Suction line	Drip chamber
31 5081-100	HSD 525 Suction Tube 100	X	PVC tube, plasticizer TOTM	X
31 5082-000	HSD 527 Suction Tube with Valve	X	PVC tube, plasticizer TOTM	NONDOP
31 7183-000	Accutron® HP-D Tube System	TPU braided PVC tube, plasticizer	PVC tube, plasticizer TOTM	NONDOP
31 7184-000	ScanBag® HP-D Tube System	TPU braided PVC tube, plasticizer	PVC tube, plasticizer TOTM	NONDOP
31 7187-000	Accutron® HP-D Y-Connector	TPU braided PVC tube, plasticizer	X	X
31 7188-000	Accutron® HP-D Y-Connector Long Supply	TPU braided PVC tube, plasticizer	X	X

MATERIAL SPECIFICATIONS

SERVICE

As is generally known, a reliable service increases customer satisfaction.

And since satisfied customers are more than important, MEDTRON makes every effort to provide its customers with a 100% operative injector. In order to ensure this, we work with local service partners that provide quick and competent maintenance service.

Customers can find their local service partner on our website.

Our "Made in Germany" injectors and disposables are designed for a long service life and are highly reliable and backed by our competent service team. If nevertheless any technical problems arise, the friendly service teams of our service partners will provide quick and competent assistance.

RELIABLE – FAST – EFFICIENT

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NOTES