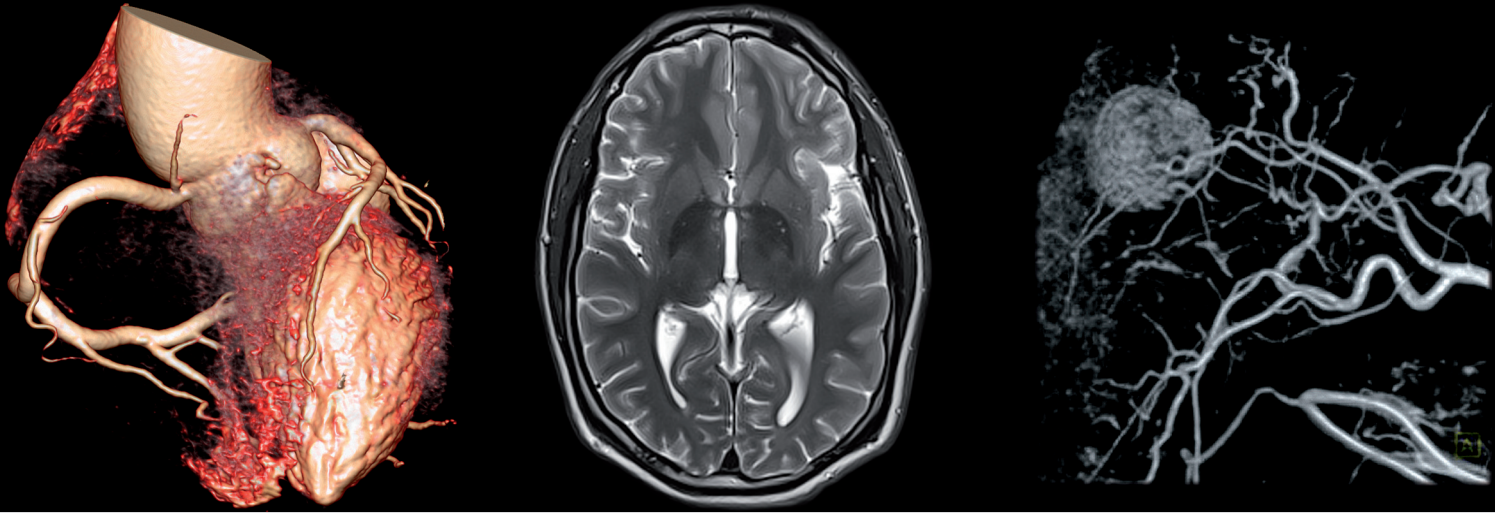


# Essential for contrast



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MED (TRON<sup>®</sup> AG  
WED LBON AG

PRODUCT CATALOGUE





Essential for contrast



PRODUCT CATALOGUE



## PREFACE

Martin Bartels, Chairman of the Board

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For more than twenty years we have been putting our knowledge and our innovation at the service of radiologists and their patients.

Thomas Alva Edison, the inventor of the light bulb, once said: "If there is a way to do it better, find it." From our point of view, this is the best way to permanently ensure quality.

This means to us to provide an even better support for the users in their workflow. Therefore, we develop contrast medium injectors and the corresponding medical devices for single and multiple use, which can be handled ever more easily, safely and quickly and thus help to save time and effort in every examination.

With our innovative injection systems we develop pioneering solutions which combine an optimal support in imaging and a contrast medium injection which is as safe and patient-friendly as possible.

Moreover, we permanently adapt our own development and production processes in such a way that we are able to face the current and future requirements of our customers open-mindedly and creatively.

MEDTRON injection systems are long-lived and fail-safe. Our service team is very reliable and helps quickly and competently. Our injectors are exclusively produced in Germany. This is a further quality advantage which we use for the benefit of our customers.

The accuracy of our injectors is already part of the name of our new product generation: Accutron.

All that makes our products what they are:  
Essential for contrast.

Martin Bartels  
Chairman of the Board

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## **MEDTRON AG - Essential for contrast**

MEDTRON AG is an internationally operating medical technology company. With more than 5,000 devices installed worldwide, MEDTRON AG has become firmly established in the international market as the leading European manufacturer of state-of-the-art contrast medium injectors. The innovative and high-quality-injector systems of the German company complete almost all modern examination methods which can be performed by the help of medical imaging systems such as computed tomography, magnetic resonance imaging and angiography.

One of the aims of the competent MEDTRON R&D team is to combine improved diagnostics, patient-friendliness and economic efficiency. Experienced radiologists and creative engineers work together amongst others to improve image representation by means of special injection profiles in radiology – an aim which can only be reached by a flexible drive concept for the injectors. Therefore, the R&D team is in constant dialogue with the users of the injectors and integrates customer requirements into the product development.

To optimize examination techniques, development projects are also run in close cooperation with all well-known manufacturers of radiological imaging systems and devices.

On request, every contrast medium injector of MEDTRON can be equipped with a user interface in the corresponding language. Of course, MEDTRON offers a wide range of device-specific and high-quality consumables for its injectors.

## **Certificates**

MEDTRON AG is certified according to

- DIN EN ISO 13485
- Annex II, Directive 93/42/EEC
- Annex V, Directive 93/42/EEC



## Opportunities and the successes we made out of them ...

- **2014**
  - Market launch of Accutron MR3 with integrated infusion pump
- **2013**
  - MEDTRON opens new production site for consumables at Hermeskeil/Germany
- **2012**
  - 20<sup>th</sup> anniversary of MEDTRON AG
- **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
- **2007**
  - 15<sup>th</sup> anniversary of MEDTRON AG
- **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
- **2002**
  - 10<sup>th</sup> anniversary of MEDTRON Medizinische Systeme GmbH
- **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 prefilled 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, the first compact microprocessor-controlled injector











Article number: MR882

# Accutron MR3:

The master of multitasking

**BRAND-  
NEW!**

ACCUTRON MR3

## Wireless & mobile



Rechargeable high-performance batteries!  
Radio remote control!

## Aluminium casing



Tough, stable and yet light!  
Easy to clean and hygienic!

## Optimized diagnostics



Contrast medium injector with an integrated infusion pump!  
Auto-hold function for stopping the injection between two phases!

# Technical data



## Mechanical design

- Swivelling injection units connected to a mobile column stand
- Injection position at an angle of about 15° below horizontal, tilt vertically upwards to vent the system
- 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: < 100 VA



## Injection profiles

- 80 injection profiles can be edited and stored by the user



## Filling of injection syringes

- Automatic filling via menu with volume input or manual filling with variable speed
- Filling speed: 1 – 4 ml/s
- Optimized tube systems with check valves

## Injection parameters

Maximum injection pressure	64 (KM) / 200 ml (NaCl)
Partial injection volume	0,1 – 64 ml (KM) / 200 ml (NaCl), programmable in 0,1 ml increments
Maximum injection pressure	21 bar, programmable from 5 to 21 bar in 1 bar increments
Flow rate KM / NaCl	0,1 – 10 ml/s, programmable in 0,1 ml/s increments
Flow rate infusion pump	0,001 – 30 ml/min, programmable in 0,001ml/min increments Alternatively, input of flow rate or phase duration
Number of phases	1 to 6
Injection delay	0,1 – 600 s
Phase delay	1 – 255 s
Remote control	Wireless touch screen remote control Alternatively, display of injection parameters or pressure graph Optional: hand switch

Subject to technical alterations



# Accessories and Options

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Accutron Infusion stand  
Article number 490201



Touch screen remote control  
Article number FB887



Adapter for prefilled syringes  
Article number 602160



Adapter for syringes  
64 ml NaCl  
Article number 602175



Adapter for Multihance  
Article number 602201

# Accessories and Options

Article name	Description	Article number
Remote control	Touch screen remote control	FB887
Power supply unit remote control	Power supply unit MPP30 24 V/ 30 W for touch screen remote control	600415
Charger	Charger Mascot 24 V, input voltage: 110-230 V	600451
Adapter 64 ml ELS NaCl	Adapter for the option "empty syringe" (64 ml NaCl)	602175
Adapter 64 ml ELS KM	Adapter for the option "empty syringe" (64 ml KM)	610105
Adapter for prefilled syringes	Adapter for the option "prefilled syringes" (15-20 ml)	602160 available in 2015
Adapter for Multihance	Adapter for the option "Multihance"	602201 available in 2015
Software Option Prefilled	Software option "Prefilled KM" 15-20 ml	available in 2015
Software Option Multihance	Software option for the option "Multihance"	available in 2015
Bottle holder	Bottle holder with cupholder and cup	600351
Cup	Cup 100 ml	600174
Infusion stand	Infusion stand for Accutron MR3 with cupholder and cup	490201
Antenna extension set	Antenna extension set for MRI consisting of: 20 m data cable, SMA antenna coupling, 0.25 m SMA antenna extension, 2 x adapter socket BNC – SMA	600015
Antenna 2,4 GHz	Antenna 2.4 GHz, straight	400015
Data cable, 9-pole	Data cable, 9-pole Sub-D (for MRI), plug – plug, 20 m	420169
Transmitter	Transmitter with Bluetooth radio module	600780

# Accutron MR3 – The master of multitasking

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With the new Accutron MR3, the contrast medium injector with an integrated infusion pump, the administering of contrast agents, physiological NaCl solution and fluids has become even easier! It is based on the tried and tested technology made in Germany. All functions are controlled by one single remote control.

## ● Optimized diagnostics with simultaneous infusion

- The **integrated infusion pump** enables the administering of fluids even during the MRI examination.
- Using an additional infusion device has become unnecessary.
- Also perfectly suitable for MRI stress tests: Everything is controlled via one single remote control.
- The stable flow rate guarantees a homogenous supply of contrast medium during the entire test.

## ● Economical, self-sustaining and immediately ready for use

- **Wireless** – no cables are necessary for power supply or for operation via remote control.
- The contrast medium injector comes with integrated, rechargeable high-performance batteries and a radio-controlled touch screen remote control.
- A quick installation of Accutron MR can also be carried out in existing MRI rooms, as the MRI cabin remains practically unaffected.
- The injector is self-sustaining and, being absolutely mobile thanks to wireless data transfer, can be used in the entire MRI field.

## ● Intuitive control and programming by user

- The well-structured, intuitive operating concept is extremely user-friendly.
- The auto-hold function allows to stop the injection between two phases and to resume it later.
- Warning message if the battery runs low.
- Keep-vein-open function (KVO) for preserving the vascular access during longer tests.



Article number: MR880



# Accutron MR:

The mobile, accurate MRI specialist

## Wireless & mobile



Rechargeable high-performance batteries!  
Radio remote control!

## Aluminium casing



Tough, stable and yet light!  
Easy to clean and hygienic!

## Optimized diagnostics



Double syringe recognition!  
Flexible syringe volumes!

# Technical data



## Mechanical design

- Swivelling injection units connected to a mobile column stand
- Injection position at an angle of about 15° below horizontal, tilt vertically upwards to vent the system
- 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: < 100 VA



## Injection profiles

- 80 injection profiles can be edited and stored by the user



## Filling of injection syringes

- Automatic filling via menu with volume input or manual filling with variable speed
- Filling speed: 1 – 5 ml/s
- Optimized tube systems with check valves

## Injection parameters

Maximum injection pressure	64 / 200 ml
Partial injection volume	0,1 – 200 ml, programmable in 0,1 ml increment
Maximum injection pressure	21 bar, programmable from 5 to 21 bar in 1 bar increments
Flow rate of the two injection units	0,1 – 10 ml/s, programmable in 0,1 ml/s increments Alternatively, input of flow rate or phase duration
Number of phases	1 to 6
Injection delay	1 – 255 s
Phase delay	1 – 255 s
Remote control	Wireless touch screen remote control Alternatively, display of injection parameters or pressure graph Optional: hand switch

Subject to technical alterations



# Accessories and Options



Adapter for multihance  
Article number 602201



Double bottle holder  
Article number 601001



Touch screen remote control  
Article number FB886



Handswitch, one-piece for MR  
Article number 601064



Adapter 64 ml ELS  
Article number 602175



Adapter for prefilled syringes  
Article number 602160

Article name	Description	Article number
Remote control	Touch screen remote control	FB886
Power supply unit remote control	Power supply unit MPP30 24 V/30 W for touch screen remote control	600415
Charger	Charger Mascot 24 V, input voltage: 110-230 V	600451
Adapter 64 ml ELS	Adapter for the option "empty syringe" (65 ml CM & NaCl)	602175
Adapter for prefilled syringes	Adapter for the option "prefilled syringes" (15-20 ml)	602160
Adapter for Multihance	Adapter for the option "Multihance"	602201
Software Option 64 ml ELS	Software option "empty syringe 64ml"	490111
Software Option Prefilled	Software option "prefilled KM" 15-20 ml	490108
Software Option Multihance	Software option "Multihance"	492201
Double bottle holder	Double bottle holder Accutron	601001
Cupholder	Cupholder with tube holder for the following versions: CM-200, CM-65	504162
Adapter & cupholder combination 1	Combination for adapter and cupholder Accutron MR for version CM-20/200	502164
Adapter & cupholder combination 2	Combination for adapter and cupholder Accutron MR for the following versions: CM-20/65/200, CM-65/200, CM-20/65	502163
Cup	Cup 100 ml	600174
Antenna extension set	Antenna extension set for MRI	600015
Antenna 2,4 GHz	Antenna 2.4 GHz, straight	400015
Data cable, 9-pole	Data cable, 9-pole Sub-D (for MRI), plug – plug, 20 m	420169
Transmitter	Transmitter with Bluetooth radio module	600780

# Accutron MR – The mobile, accurate MRI specialist

MEDTRON's Accutron MR is the ideal partner for injecting contrast media and physiological saline solution in the area of magnetic resonance imaging. The wireless, microprocessor-controlled double-head injector contributes significantly to the work flow optimization and supports the user with even better diagnostics.

## ● Optimized diagnostics

- The double syringe recognition increases the flexibility, facilitates the correct controlling and thus the user-specific workflow.
- The stable flow rate guarantees a homogenous supply of contrast medium during the entire test.
- Flexible syringe volumes: Accutron MR supports the usage of various pre-filled syringes.

## ● Economical, self-sustaining and immediately ready for use

- **Wireless** – no cables are necessary for power supply or for operation via remote control.
- The contrast medium injector comes with integrated, rechargeable high-performance batteries and a radio-controlled touch screen remote control.
- A quick installation of Accutron MR can also be carried out in existing MRI rooms, as the MRI cabin remains practically unaffected.
- The injector is self-sustaining and, being absolutely mobile thanks to wireless data transfer, can be used in the entire MRI field.

## ● Intuitive control and programming by user

- The injector offers intuitive control and manual control of the piston movement / injection start and stop via the additional keyboard.
- The elaborate device concept enables the saving of 80 profiles, which can be edited by the user.
- The keep-vein-open function (KVO) preserves the vascular access during longer tests.

## Double head injectors for magnetic resonance imaging (21 bar/305 psi)



### MR-Set ELS 65/65 ml

Article number 31 7602

2 pieces	ELS 65 ml syringe	31 6065
1 piece	MR-tube system with valves	31 7103
1 piece	standard spike	
1 piece	minispike	

Packing unit: 50 pieces/carton

Suitable for 65/65 ml version



### MR-Set ELS 65/200 ml

Article number 31 7603

1 piece	ELS 65 ml syringe	31 6065
1 piece	ELS 200 ml syringe	31 6025
1 piece	Double head tube system	31 7101
1 piece	SP 227 vented spike, luer lock	31 9095
1 piece	Minispike, green, luer lock	31 9099

Packing unit: 24 pieces/carton – 384 pieces/pallet

Suitable for 65/200 ml version



### MR-Kit ELS 65 ml

Article number 31 7604

1 piece	ELS 65 ml syringe	31 6065
1 piece	MR-tube system with valves	31 7103
1 piece	standard spike	

Packing unit: 50 pieces/carton



### CT2/MRT Set ELS

Article number 31 7625

2 pieces	ELS 200 ml syringe	31 6026
2 pieces	QFT	31 6040
1 piece	MRS 222 MR-tube system	31 7100
1 piece	ES 224/150 patient line	31 8151

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

Suitable for 200/200 ml version

just for  
Accutron MR

## CONSUMABLES

Double head injectors for magnetic resonance imaging (21 bar/305 psi)



### CT2/MRT Set ELS (S)

Article number

31 7627

2 pieces	ELS 200 ml syringe	31 6026
1 piece	MR 222 MR-tube system	31 7100
1 piece	ES 224/150 patient line	31 8151

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

Suitable for 200/200 ml version

just for  
Accutron MR



### ELS 65 ml syringe

31 6065

Residual volume: 1.0 ml

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



### ELS 200 ml syringe, QFT

31 6025

Residual volume: 1.5 ml

### ELS 200 ml (S) syringe

31 6026

Residual volume: 1.5 ml

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



### MRS 222 MR-tube system with inline drip chamber (for Scanbag CM-supply bag)

31 7099

Pressure side, ID 2.0 mm	Length	Filling volume
CM-Side	12 cm	0.6 ml
NaCl-Side	36 cm	1.3 ml
Suction side, ID 2.7 mm	Length	Filling volume
CM-Side, green	100 cm	5.8 ml
NaCl-Side, white	100 cm	5.8 ml
2 x drip chamber		each one 10 ml

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



## Double head injectors for magnetic resonance imaging (21 bar/305 psi)

Article number



### MRS 222 MR-tube system

31 7100

Pressure side, ID 2.0 mm	Length	Filling volume
CM-Side	12 cm	0.6 ml
NaCl-Side	36 cm	1.3 ml
Suction side, ID 2.7 mm	Length	Filling volume
CM-Side, green	100 cm	5.8 ml
NaCl-Side, white	100 cm	5.8 ml
2 x drip chamber		each one 10 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet



### Double head tube system

31 7101

Length from Y-piece: 1.80 cm  
Inner diameter: 2.0 mm  
Total filling volume: 6.9 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet



### MR-ELS tube system with valves

31 7104

Inner diameter: 1.7 mm  
Coiled length: 1.80 cm  
Short side: 10 cm  
Long side: 34 cm  
Filling volume: 5.1 ml

Packing unit: 50 pieces/carton



### Double head tube system with inline drip chamber (for Scanbag CM-supply bag)

31 7109

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	2.6 ml
Suction side, ID 2.7 mm	Length	Filling volume
CM-Side, green	100 cm	5.8 ml
NaCl-Side, white	100 cm	5.8 ml
2 x drip chamber		each one 10 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet

## CONSUMABLES

### Double head injectors for magnetic resonance imaging (21 bar/305 psi)



#### MRS 225 MR-tube system

Article number

31 7125

Inner diameter: 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



#### MRS 228 MR-tube system, spike

31 7128

1 piece MRS 228 tube system

1 piece SP227 vented spike, luer lock

	ID	Filling volume
Pressure side	2.0 mm	1.5 ml
Suction side	2.7 mm	5.8 ml
Spike	0.4 ml	

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



#### ES 224/25 patient line with valve

31 8020

Length: 25 cm

Inner diameter: 1.5 mm

Filling volume: 0.4 ml

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



#### 1-way stop cock with 30 cm extension line, luer lock

31 8025

Length: 32 cm

Inner diameter: 2.0 mm

Filling volume: 1.2 ml

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



## Double head injectors for magnetic resonance imaging (21 bar/305 psi)

Article number



### Patient line 150 cm with terminal check valves

31 8026

Length: 150 cm  
Inner diameter: 2.0 mm  
Filling volume: 4.8 ml

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



### Patient line 150 cm with two valves

31 8036

Length: 150 cm + 10 cm  
Inner diameter: 2.0 mm  
Filling volume: 5.2 ml

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



### ES 224 Patient line

Inner diameter: 1.5 mm

ES 224/80 Length: 80 cm, filling volume: 1.5 ml 31 8081

ES 224/100 Length: 100 cm, filling volume: 1.8 ml 31 8101

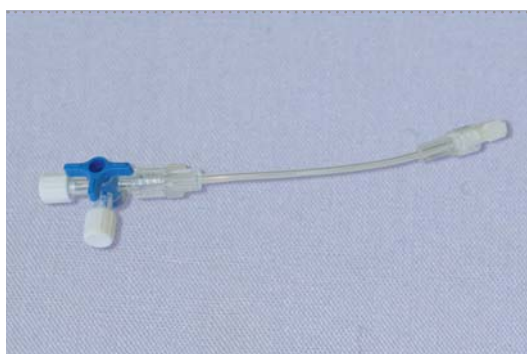
ES 224/150 Length: 150 cm, filling volume: 2.7 ml 31 8151

ES 224/200 Length: 200 cm, filling volume: 3.6 ml 31 8199

ES 224/250 Length: 250 cm, filling volume: 4.4 ml 31 8250

ES 224/300 Length: 300 cm, filling volume: 5.3 ml 31 8300

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



### DW 229 connector with 3-way stop cock

31 8042

Filling volume: 0.5 ml

Packing unit: 100 pieces/carton

## CONSUMABLES

### Double head injectors for magnetic resonance imaging (21 bar/305 psi)

Article number



#### Patient line with valve

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.6 ml **31 8152**

Length: 200 cm, filling volume: 3.5 ml **31 8198**

Length: 250 cm, filling volume: 4.4 ml **31 8251**

Length: 300 cm, filling volume: 5.3 ml **31 8301**

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



#### Patient line with inline valve

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.6 ml **31 8154**

Length: 200 cm, filling volume: 3.5 ml **31 8204**

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



#### Coiled line 150 cm

**31 8213**

Length: 150 cm

Inner diameter: 1.6 mm

Filling volume: 3.1 ml

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



#### Coiled line with 2 valves

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.6 ml **31 8217**

Length: 200 cm, filling volume: 3.5 ml **31 8218**

Length: 250 cm, filling volume: 4.4 ml **31 8219**

Length: 300 cm, filling volume: 5.3 ml **31 8220**

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

## Double head injectors for magnetic resonance imaging (21 bar/305 psi)

Article number



### Coiled line with valve

Inner diameter: 1.6 mm

Length: 150 cm, filling volume: 3.1 ml

31 8214

Length: 180 cm, filling volume: 3.7 ml

31 8181

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



### Coiled line

Inner diameter: 1.5 mm

Length: 250 cm, filling volume: 4.4 ml

31 8252

Length: 300 cm, filling volume: 5.3 ml

31 8302

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



### Coiled line with valve

Inner diameter: 1.5 mm

Length: 250 cm, filling volume: 4.4 ml

31 8253

Length: 300 cm, filling volume: 5.3 ml

31 8303

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



### Coiled line with inline valve

Inner diameter: 1.5 mm

Length: 250 cm, filling volume: 4.4 ml

31 8254

Length: 300 cm, filling volume: 5.3 ml

31 8304

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

## CONSUMABLES

### Double head injectors for magnetic resonance imaging (21 bar/305 psi)



Coiled line 235 cm with Y-connector  
with check valve

31 8235

Length: 235 cm + 1 x 10 cm + 1 x 12 cm  
Inner diameter: 1.6 mm  
Total Filling volume: 5.6 ml

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

Article number



DW 226 3-way stop cock

31 9085

Filling volume: 0.3 ml

Packing unit: 300 pieces/carton



SP 227 vented spike, luer lock

31 9095

Filling volume: 0.4 ml

Packing unit: 50 pieces/carton



Minispike, green, luer lock

31 9099

Filling volume: 0.2 ml

Packing unit: 300 pieces/carton







Article number CT860

# Accutron CT-D:

The diagnostics specialist

## Wireless & mobile



Rechargeable high-performance batteries!  
Radio remote control!

## Aluminium casing



Tough, stable and yet light!  
Easy to clean and hygienic!

## Optimized diagnostics



Wireless interfaces for CT scanners!  
Pre-Inject function!

# Technical data



## Mechanical design

- Swivelling injection unit on a mobile column stand
- Secured injection position at an angle of about 15° below horizontal (detected by a built-in inclination sensor), tilt vertically upwards to vent the system
- 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



## Injection profiles

- 80 profiles can be edited and stored by the user



## Filling of injection syringes

- Automatic filling via menu with volume input or manual filling with variable speed
- Filling speed: 1 – 5 ml/s
- Optimized tube systems with check valves

## Injection parameters

Maximum injection pressure	2 x 200 ml
Partial injection volume	1 – 200 ml, programmable in 1 ml increments
Full Offset-Volumen	0 – 10 ml, in 1 ml increments
Maximum injection pressure	21 bar, programmable from 5 to 21 bar in 1 bar increments
Flow rate of the two injection units	0,1 – 10 ml/s, programmable in 0,1 ml/s increments Alternatively, input of flow rate or phase duration
Number of phases	1 to 6
Injection delay	0 – 255 s
Phase delay	0 – 255 s
Scan delay	0 – 255 s

Subject to technical alterations





# Accessories and Options



Accutron CT-D power supply version  
Article number CT862



Accutron CT-D ceiling version  
Article number CT861



Touch screen remote control,  
wireless with power supply  
Article number FB866



Handswitch, one-piece for CT-D  
Article number 601062

Article name	Description	Article number
Accutron CT-D ceiling version	Double head injector for computed tomography	CT861
Ceiling suspension	Ceiling suspension Accutron CT-D	530166
Power supply unit for ceiling version	Power supply unit Accutron CT-D for ceiling version	600417
Power supply unit for roller version	Double head injector for computed tomography	600424
CANopen Interface Siemens	CANopen Interface (Siemens) for Accutron CT-D	IF864
Interface Philips (Brilliance)	Interface for Philips Brilliance Scanner without cable	620148
Remote control	Touch screen remote control	FB866
Power supply unit for remote control	Power supply unit MPP30 24 V/30 W for touch screen remote control	600415
Charger	Charger 24 V for CT-D/CT input voltage: 110-230 V	LG1001
Software option "prefilled syringe"	Enables the use of prefilled syringes via ELS adapter	on request
ELS adapter for prefilled syringes	Adapter for the option "prefilled syringe" (50/75/100/125 ml)	703107
Hand switch	Hand switch, one-piece, for CT-D	601062
Heater	Integrated heater	600351
Infusion stand	Infusion stand for Accutron CT-D with cupholder and cup	490200
Bottle holder	Bottle holder with cupholder and cup	600351
Double bottle holder	Double bottle holder for Accutron CT-D ceiling version (CT861)	490203
Cup	Cup 100 ml	600174
Antenna 2,4 GHz	Antenna 2.4 GHz, straight	400015

# Accutron CT-D, the diagnostics specialist

Accutron CT-D fulfils all requirements with regards to diagnostics precision, gentle treatment of patients and economy. The net-independent double-head injector for injecting contrast mediums and physiological saline solution during computer tomography boasts a high user-friendliness and highly modern drive technology.

## • Precise, economical and gentle to patients

- The system for optimized administration of contrast mediums and physiological saline solution shortens the test times significantly and contributes to a significant reduction of the contrast medium consumption.
- Easy Loading Syringes (ELS) with a filling quantity of 200 ml can be controlled via the integrated, heated syringe holder.
- The real time pressure monitoring makes the procedure highly gentle to patients.
- Pre-filled syringes can be used.

## • Economical, self-sustaining and immediately ready for use

- Like any other MEDTRON new generation injector, Accutron CT-D is available as an absolutely wireless version.
- The contrast medium injector comes with integrated, rechargeable high-performance batteries and a radio-controlled touch screen remote control.
- A quick installation of Accutron CT-D at any given place saves time, thus significantly contributing to the optimization of the workflow.

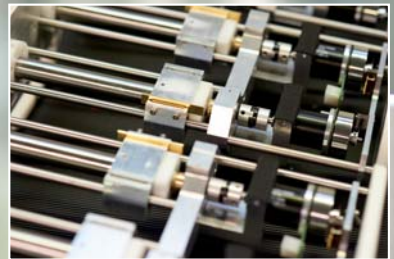
## • Intuitive control and programming by user

- Both recipients of contrast mediums and physiological saline solution are equipped with separately activated heatings, which help maintain the temperature of pre-tempered fluids.
- The well-structured, self-explanatory menus guarantee high user-friendliness and intuitive control.
- The auto-hold function allows to stop the injection between two phases and to resume it later.

## • Integration into the diagnostic procedure

With its CANopen Class4 interface (Siemens), Accutron CT-D offers an intelligent interface between the injector and the imaging unit for controlling and data exchange.

- This increases the ease of use and decreases the probability of operating errors.
- Accelerated testing – the patient's exposure to radiation and contrast mediums is significantly reduced.
- Injection profiles and scan protocols are managed together.
- Complex tests consisting of several scans and injection phases are easier to conduct.





Article number CT870

# Accutron CT:

The mobile precision partner

## Wireless & mobile



Rechargeable high-performance batteries!  
Radio remote control!

## Aluminium casing



Tough, stable and yet light!  
Easy to clean and hygienic!

## Optimized diagnostics



Real time pressure monitoring!  
Eighty editable profiles!

# Technical data



## Mechanical design

- Swivelling injection unit on a mobile column stand
- Secured injection position at an angle of about 15° below horizontal (detected by a built-in inclination sensor), tilt vertically upwards to vent the system
- Total weight: 24 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



## Injection profiles

- 80 profiles can be edited and stored by the user



## Filling of injection syringes

- Automatic filling via menu with volume input or manual filling with variable speed
- Filling speed: 1 – 5 ml/s
- Optimized tube systems with check valves

## Injection parameters

Maximum injection pressure	200 ml
Partial injection volume	1 – 200 ml, programmable in 1 ml increments
Maximum injection pressure	21 bar, programmable from 5 to 21 bar in 1 bar increments
Flow rate	0.1 – 10 ml/s, programmable in increments of 0.1 ml/s Alternatively, input of flow rate or phase duration
Number of phases	1 to 6
Injection delay	1 – 255 s
Phase delay	1 – 255 s
Scan delay	1 – 255 s

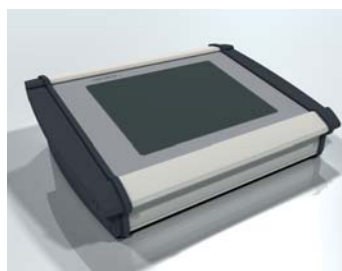
Subject to technical alterations



# Accessories and Options



Accutron CT roller version  
Article number CT871



Touch screen remote control  
Article number FB875



Infusion stand  
Article number 490200

Article name	Description	Article number
Accutron CT roller version	Single head injector for computed tomography	CT870
Remote control	Touch screen remote control, wireless, incl. power supply unit	FB875
Power supply unit for remote control	Power supply unit MPP30 24 V/30 W for touch screen remote control	600415
Charger	Charger 24 V for CT-D/CT, input voltage: 110-230 V	LG1001
ELS Adapter for prefilled syringes (75-125ml)	for the option "prefilled syringe" (75/100/125 ml) e.g. Optiray	703107
Software-Option "prefilled syringe"	Adapter for the option "prefilled syringe"	on request
Bottle holder	Bottle holder with cupholder and cup	600351
Cup	Cup 100 ml	600174
Infusion stand	Infusion stand for Accutron CT with cupholder and cup	490200



# Accutron CT – The mobile precision partner

In order to guarantee absolute safety for the patient during short exposure times, the right amount of contrast mediums has to be injected at the right time and at the right place.

Not only taking into account the requirements of modern computer tomography, but much rather achieving the best possible results for the user and the patient – these (and many other) aspirations are combined in Accutron CT.

- Precise, economical and gentle to patients

- Easy Loading Syringes (ELS) with a filling quantity of 200 ml can be controlled via the integrated, heated syringe holder.
- Pre-filled syringes can be used.
- The real time pressure monitoring makes the procedure highly gentle to patients.

- Economical, self-sustaining and immediately ready for use

- **Wireless** – no cables are necessary for power supply or for operation via remote control.
- The contrast medium injector comes with integrated, rechargeable high-performance batteries and a radio-controlled touch screen remote control. This latter helps you comfortably set your preferences from the control room.
- A quick installation of Accutron CT-D at any given place saves time, thus significantly contributing to the optimization of the workflow.

- Intuitive control and programming by user

- The well-structured, intuitive operating concept is extremely user-friendly.
- Both on the injector and on the touch screen remote control, the injection parameters or, alternatively, the pressure curve can be displayed – the former numerically, the later graphically.



## Single and double head injectors for computed tomography (21 bar/305 psi)



### CT2/MRT Set ELS

Article number

2 pieces	ELS 200 ml syringe	31 6026
2 pieces	QFT	31 6040
1 piece	MRS 222 MR-tube system	31 7100
1 piece	ES 224/150 patient line	31 8151

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



### CT2/MRT Set ELS (S)

Article number

2 pieces	ELS 200 ml syringe	31 6026
1 piece	MRS 222 MR-tube system	31 7100
1 piece	ES 224/150 patient line	31 8151

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



### ELS 200 ml syringe, QFT

Article number

Residual volume: 1.5 ml

### ELS 200 ml (S) syringe

Article number

Residual volume: 1.5 ml

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



### MRS 222 MR-tube system with inline drip chamber (for Scanbag CM-supply bag)

Article number

Pressure side, ID 2.0 mm	Length	Filling volume
CM-Side	12 cm	0.6 ml
NaCl-Side	36 cm	1.3 ml
Suction side, ID 2.7 mm	Length	Filling volume
CM-Side, green	100 cm	5.8 ml
NaCl-Side, white	100 cm	5.8 ml
2 x drip chamber		each one 10 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet

## CONSUMABLES

Single and double head injectors for computed tomography (21 bar/305 psi)



### MRS 222 MR-tube system

Article number  
31 7100

Pressure side, ID 2.0 mm	Length	Filling volume
CM-Side	12 cm	0.6 ml
NaCl-Side	36 cm	1.3 ml
Suction side, ID 2.7 mm	Length	Filling volume
CM-Side, green	100 cm	5.8 ml
NaCl-Side, white	100 cm	5.8 ml
2 x drip chamber		each one 10 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet



### Double head tube system with inline drip chamber (for Scanbag CM-supply bag)

Article number  
31 7109

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	2.6 ml
Suction side, ID 2.7 mm	Length	Filling volume
CM-Side, green	100 cm	5.8 ml
NaCl-Side, white	100 cm	5.8 ml
2 x drip chamber		each one 10 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet



### MRS 225 MR-tube system

Article number  
31 7125

Inner diameter: 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



### ES 223 tube system with spike

Article number  
31 7080

	ID	Length	Filling volume
Pressure side	2.0 mm	13 cm	0.4 ml
Suction side	2.7 mm	100 cm	6,3 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet

just for  
Accutron CT

## Single and double head injectors for computed tomography (21 bar/305 psi)



### EK 223 tube system with drip chamber

Article number 31 7081

	ID	Length	Filling volume
Pressure side	2.0 mm	13 cm	0.4 ml
Suction side	2.7 mm	100 cm	5.8 ml
drip chamber			10 ml

Packing unit: 50 pieces/carton – 2.800 pieces/pallet

just for  
Accutron CT



### ES 224/25 patient line with valve

Article number 31 8020

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

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



### 1-way stop cock with 30 cm extension line, luer lock

Article number 31 8025

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

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



### Patient line 150 cm with terminal check valves

Article number 31 8026

Length: 150 cm  
Inner diameter: 2.0 mm  
Filling volume: 4.8 ml

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

## CONSUMABLES

Single and double head injectors for computed tomography (21 bar/305 psi)



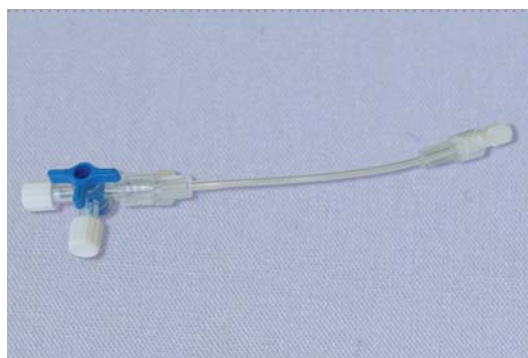
### Patient line 150 cm with two valves

Article number

31 8036

Length: 150 + 10 cm  
Inner diameter: 2.0 mm  
Filling volume: 5.2 ml

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



### DW 229 connector with 3-way stop cock

31 8042

Filling volume: 0.5 ml

Packing unit: 100 pieces/carton



### ES 224 Patient line

Inner diameter: 1.5 mm

ES224/80, length: 80 cm, filling volume: 1.4 ml 31 8081

ES224/100, length: 100 cm, filling volume: 1.8 ml 31 8101

ES224/150, length: 150 cm, filling volume: 2.7 ml 31 8151

ES224/200, length: 200 cm, filling volume: 3.6 ml 31 8199

ES224/250, length: 250 cm, filling volume: 4.4 ml 31 8250

ES224/300, length: 300 cm, filling volume: 5.3 ml 31 8300

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



### Patient line with valve

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.6 ml 31 8152

Length: 200 cm, filling volume: 3.5 ml 31 8198

Length: 250 cm, filling volume: 4.4 ml 31 8251

Length: 300 cm, filling volume: 5.3 ml 31 8301

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



## Single and double head injectors for computed tomography (21 bar/305 psi)

Article number



### Patient line with inline valve

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.6 ml

31 8154

Length: 200 cm, filling volume: 3.5 ml

31 8204

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



### Coiled line with 2 valves

Inner diameter: 1.5 mm

Length: 150 cm, filling volume: 2.6 ml

31 8217

Length: 200 cm, filling volume: 3.5 ml

31 8218

Length: 250 cm, filling volume: 4.4 ml

31 8219

Length: 300 cm, filling volume: 5.3 ml

31 8220

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



### Coiled line with valve

Inner diameter: 1.5 mm

Length: 250 cm, filling volume: 4.4 ml

31 8253

Length: 300 cm, filling volume: 5.3 ml

31 8303

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



### Coiled line

Inner diameter: 1.5 mm

Length: 250 cm, filling volume: 4.4 ml

31 8252

Length: 300 cm, filling volume: 5.3 ml

31 8302

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

## CONSUMABLES

Single and double head injectors for computed tomography (21 bar/305 psi)



### Coiled line with inline valve

Inner diameter: 1.5 mm

Length: 250 cm, filling volume: 4.4 ml

Length: 300 cm, filling volume: 5.3 ml

31 8254

31 8304

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



### Coiled line 150 cm

31 8213

Length: 150 cm

Inner diameter: 1.6 mm

Filling volume: 3.1 ml

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



### Coiled line with valve

Inner diameter: 1.6 mm

### Coiled line 150 cm with valve

31 8214

Length: 150 cm, filling volume: 3.1 ml

### Coiled line 180 cm with valve

31 8181

Length: 180 cm, filling volume: 3.7 ml

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



### Coiled line 235 cm with Y-connector with check valve

31 8235

Length: 235 cm + 1 x 10 cm + 1 x 12 cm

Inner diameter: 1.6 mm

Total Filling volume: 5.6 ml

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

## CONSUMABLES

### Single and double head injectors for computed tomography (21 bar/305 psi)

Article number



SD 225 suction tube with 3-way stop cock and spike 31 9080

Filling volume: 0.3 ml (3-way stop cock) + 6,3 ml (suction tube)

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



DW 226 3-way stop cock 31 9085

Filling volume: 0.3 ml

Packing unit: 300 pieces/carton



SP 227 vented spike, luer lock 31 9095

Filling volume: 0.4 ml

Packing unit: 50 pieces/carton



Minispike, green, luer lock 31 9099

Filling volume: 0.2 ml

Packing unit: 300 pieces/carton





Article number HP833

# Accutron HP-D:

The precise multi-talent for angiography

## Wireless & mobile



Rechargeable high-performance batteries!  
Radio remote control!

## Aluminium casing



Tough, stable and yet light!  
Easy to clean and hygienic!

## Versatile application



Ideal for interdisciplinary departments!  
For CT & angiography!

## Optimized diagnostics



Stable flow rate at high pressure!  
Reduced contrast medium usage!

# Technical data



## Mechanical design

- Swivelling injection unit on a mobile column stand
- Secured injection position at an angle of about 15° below horizontal (detected by a built-in inclination sensor), tilt vertically upwards to vent the system
- Hand switch to control the injection
- Total weight: 48 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: < 300 VA



## Injection profiles

- 60 injection profiles can be edited and stored by the user (for CT, HP oder CV)



## Filling of injection syringes

- Automatic filling via menu with volume input or manual filling with variable speed
- Filling speed: 1 – 4 ml/s
- 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
- Pressure cuff recognition



# Injection parameters

## Injection parameters

Maximum injection pressure	2 x 200 ml
Partial injection volume	1 – 200 ml, programmable in 1 ml increments
Maximum injection pressure	Angio-Mode: 83 bar (1200 psi), programmable from 5 to 83 bar (73 to 1200 psi) in 1 bar increments CT-Mode: 21 bar (305 psi), programmable from 5 to 21 bar (73 to 305 psi) in 1 bar increments
Flow rate of the two injection units	Angio-Mode: 0,1 – 30 ml/s, programmable in 0.1 ml/s increments CT-Mode: 0,1 – 10 ml/s, programmable in 0.1 ml/s increments
Rise time	0,1 – 10 s, programmable in 0.1 ml/s increments
Number of phases	1 to 3
Injection delay	0 – 255 s, programmable in 0.1 ml/s increments
Phase delay	0 – 255 s, programmable in 0.1 ml/s increments
X-ray delay	Angio-Mode: 0 – 255 s, programmable in 0.1 ml/s increments CT-Mode: 0 – 255 s, programmable in 0.1 ml/s increments, with acoustic signal

Subject to technical alterations

# Accessories and Options



Accutron HP-D roller version  
Article number HP833



Touch screen remote control  
Article number FB834



Double bottle holder  
Article number 601001



Infusion stand  
Article number 490202



Hand switch  
Article number 600679

Article name	Description	Article number
Interface Siemens	Interface Accutron HP-D for Siemens scanner	IF859
Interface Philips	Interface Accutron HP-D for Philips scanner	IF859-P
Interface Toshiba	Interface Accutron HP-D for Toshiba scanner	IF859-T
Interface Shimadzu	Interface Accutron HP-D for Shimadzu scanner	IF859-S
Interface Siemens Cios Alpha	Interface Accutron HP-D for Siemens Cios Alpha scanner	IF859-SC
DVI interface	DVI interface for Siemens and Philips angiography devices to show the injector's screen display on the monitor of the angio device	490150
Remote control	Touch screen remote control 10.4", wireless, incl. power supply unit	FB834
Power supply unit for remote control	Power supply unit MPP30 24 V/30 W for touch screen remote control	600415
Double charger	Double charger HP-D	601372
Hand switch	Hand switch HP-D	600679
Pressure jacket	Pressure jacket HP ELS 200 integrated into adapter ring	640133
Double bottle holder	Double bottle holder for Accutron HP-D	601001
Bottle holder	Bottle holder with cupholder and cup	600351
Cup	Cup 100 ml	600174
Infusion stand	Infusion stand for Accutron HP-D with cupholder and cup	490202

# Accutron HP-D – The precise multi-talent for angiography

## • Optimized diagnostics highly gentle to patients

- The stable flow rate guarantees a homogenous replenishment with contrast medium during the entire test.
- The radio interface (Bluetooth) enables the usage of the hand- and foot-activated buttons of the unit, so that the Accutron HP-D and the imaging system can be activated simultaneously by one press of a button.
- Optimized display of various tissue structures without hardening artefacts by way of changing the concentration of contrast mediums with saline solution.

## • Precise and economical

- Thanks to the numerous possible usages in the field of computer tomography and angiography, the test times can be significantly shortened.
- The system for optimized administration of contrast mediums and saline solution reduces the required time and the contrast mediums consumption.

## • Economical, self-sustaining and immediately ready for use

- **Wireless** – no cables are necessary for power supply or for operation via remote control.
- A quick installation at any place saves time and optimizes the workflow. The injector is self-sustaining and can be used without any limitations in all areas of angiography, especially when mobile C-arms are used.

## • Angiography

- During the roadmapping process, Accutron HP-D is operated in the single mode (single injection).
- For navigation in the multiple mode (multiple injection), the hand-operated button enables quick and simple starting and stopping.
- Extremely exact contrast medium dosages thanks to a maximum injection pressure of 83 bar (1200 psi) and a high pressure stability through the usage of the special MEDTRON consumption material.
- Accutron HP-D supports the generation of image sequences during cross-sectional diagnostics in the angio mode.

## • Computed tomography

- Ideal for CT tests in hybrid operation rooms.
- The concentration change of contrast mediums with physiological saline solution facilitates a clearer display of the vessel walls and the tissue.
- The setting of the duration and the delay of up to three phases is freely selectable.
- The possibility of a subsequent injection with physiological saline solution allows a reduction of the contrast medium quantity and thus a gentle treatment of the patient.



Article number HP836



# Accutron HP:

The mobile all-rounder

## Wireless & mobile



Rechargeable high-performance batteries!  
Radio remote control!

## Aluminium casing



Tough, stable and yet light!  
Easy to clean and hygienic!

## Versatile application



For CT & angiography!  
Ideal for interdisciplinary departments!

## Optimized diagnostics



Roadmap-Mode & Multiple-Mode!  
Stable flow rate at high pressure!

# Technical data



## Mechanical design

- Swivelling injection unit on a mobile column stand
- Secured injection position at an angle of about 15° below horizontal (detected by a built-in inclination sensor), tilt vertically upwards to vent the system
- 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
- Power consumption charger: < 300 VA
- Emergency power supply



## Injection profiles

- 120 injection profiles can be edited and stored by the user



## Filling of injection syringes

- Automatic filling via menu with volume input or manual filling with variable speed
- Filling speed: 1 – 4 ml/s
- Optimized high-pressure tube systems with check valves

## Injection parameters

Maximum injection pressure	200 ml
Partial injection volume	1 – 200 ml, programmable in 0,1 ml increment
Maximum injection pressure	Angio-Mode: 83 bar (1200 psi), programmable from 5 to 83 (73 to 1200 psi) bar in 1 bar increments CT-Mode: 21 bar (305 psi), programmable from 5 to 21 bar (73 to 305 psi) in 1 bar increments
Flow rate of the two injection units	Angio-Mode: 0,1 – 30 ml/s, programmable in 0.1 ml/s increments CT-Mode: 0,1 – 10 ml/s, programmable in 0.1 ml/s increments Alternatively, input of flow rate or phase duration
Number of phases	1 to 3
Injection delay	0 – 255 s
Phase delay	0 – 255 s
X-ray delay/Scan delay	Angio-Mode: 0 – 99 s, CT-Mode: 0 – 99 s

Subject to technical alterations



# Accessories and Options



Accutron HP power supply  
Article number HP832



Accutron HP ceiling version  
Article number HP837



Touch screen remote control  
Article number FB838 (available in 2015)



Hand switch, one-piece for HP  
Article number 601062

Article name	Description	Article number
Ceiling suspension	Ceiling suspension Accutron HP	530166
Power supply unit for ceiling version	Power supply unit Accutron HP ceiling version	610007
Power supply	Power supply for Accutron HP	NT1000
Interface-Siemens	Interface for Siemens scanner	IF839
Interface Siemens Cios Alpha	Interface for Siemens Cios Alpha scanner	IF839-SC
Interface Philips	Interface for Philips scanner	IF839-P
Interface Philips Eleva	Interface for Philips scanner Eleva	IF839-E
Interface GE	Interface for GE scanner	IF839-G
Interface Toshiba	Interface for Toshiba scanner	IF839-T
Interface Shimadzu	Interface for Shimadzu Brantist Safire VC17 scanner	IF839-S
Remote control	Touch screen remote control, wireless (available in 2015)	
Power supply unit for remote control	Power supply unit MPP30 24V / 30 W for touch screen remote control	600415
Charger	Double charger Accutron HP	601372
Hand switch	Hand switch one-piece for Accutron HP	601062
Pressure jacket	Pressure jacket HP ELS 200, integrated into adapter ring	640133
Bottle holder	Bottle holder with cupholder and cup	600351
Cup	Cup 100 ml	600174
Infusion stand	Infusion stand for Accutron HP with cupholder and cup	490201

# Accutron HP – The mobile all-rounder

## • Optimized diagnostics highly gentle to patients

- The stable flow rate guarantees a homogenous replenishment with contrast medium during the entire test.
- The radio interface (Bluetooth) enables the usage of the hand- and foot-activated buttons of the unit. Through the coupling of Accutron HP with the imaging unit, both systems have to be activated simultaneously with only one press of a button. Test processes are accelerated, and the patient's exposure to radiation and contrast medium is strongly reduced.

## • Precise and economical

- Thanks to the numerous possible usages of Accutron HP both in CT and in angiography, the test times can be significantly reduced.
- The system for optimized administration of contrast mediums saves times and reduces the contrast medium consumption.

## • Economical, self-sustaining and immediately ready for use

- **Wireless** – no cables are necessary for power supply or for operation via remote control.
- A quick installation of Accutron HP saves time and optimizes the workflow.
- The injector is self-sustaining and can be used without any limitations in all application areas, especially when mobile C-arms are used.

## • Angiography

- During the roadmapping process, Accutron HP-D is operated in the single mode (single injection).
- Extremely exact contrast medium dosages thanks to a maximum injection pressure of 83 bar (1200 psi) and a high pressure stability through the usage of the special MEDTRON consumption material.
- Alternatively to entering the flow rate, the setting of phase duration can also be chosen.
- For navigation in the multiple mode (multiple injection), the hand-operated button enables quick and simple starting and stopping.

## • Computed tomography

- In the CT mode, Accutron HP enables multiple-phase (1-3 phases), programme-controlled injecting.
- Maximum injection pressure 21 bar (305 psi)

## CONSUMABLES

### Single and double head high-pressure injectors (83 bar/1,200 psi)



#### ELS 200 ml syringe, QFT

Residual volume: 1.5 ml

At 83 bar only usable with pressure sleeve!

Article number  
31 6025

#### ELS 200 ml syringe

At 83 bar only usable with pressure sleeve!

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

Article number  
31 6026



#### HS 224 RA Patient line

Inner diameter: 1.8 mm

Rotating Adapter

Braided PU tube

HS 224/100 RA, length: 100 cm, filling volume: 2.5 ml

HS 224/120 RA, length: 120 cm, filling volume: 3.1 ml

HS 224/150 RA, length: 150 cm, filling volume: 3.9 ml

HS 224/180 RA, length: 180 cm, filling volume: 4.6 ml

Article number  
31 5100

Article number  
31 5126

Article number  
31 5136

Article number  
31 5135

Packing unit: 50 pieces/carton



#### HS 224 Patient line

Inner diameter: 1.8 mm

Braided PU tube

HS 224/120, length: 120 cm, filling volume: 3.1 ml

HS 224/180, length: 180 cm, filling volume: 4.6 ml

Article number  
31 5125

Article number  
31 5134

Packing unit: 50 pieces/carton



#### HS 224 RA/180 Patient line with valve

Article number  
31 5124

Inner diameter: 1.8 mm

Rotating Adapter

Braided PU tube with check valve

Length: 18 cm

Filling volume: 4.6 ml

Packing unit: 50 pieces/carton

## CONSUMABLES

### Single and double head high-pressure injectors (83 bar/1,200 psi)

Article number



#### HP 180 Patient line PVC

31 5132

Inner diameter: 1.5 mm

Length: 180 cm,

Filling volume: 3.2 ml

Packing unit: 50 pieces/carton



#### HP 150 RA Patient line PVC-flex

31 5138

Inner diameter: 1.5 mm

Rotating Adapter

Length: 150 cm

Filling volume: 2.7 ml

Packing unit: 50 pieces/carton



#### HP Patient line with valve, PVC-flex

Inner diameter: 1.5 mm

Rotating Adapter/PVC-flex tube, with check valve

HP 120 RA, length: 120 cm, filling volume: 2.2 ml

31 5137

HP 150 RA, length: 150 cm, filling volume: 2.7 ml

31 5121

Packing unit: 50 pieces/carton



#### HP 110 RA Patient line, PVC-flex

31 5139

Total length: 110 cm

Inner diameter: 1.5 mm

Filling volume: 2.0 ml

Packing unit: 25 pieces/carton

straight packed

## CONSUMABLES

### Single and double head high-pressure injectors (83 bar/1,200 psi)



HP 110 RA Patient line with valve,  
PVC-flex

Total length: 110 cm  
Inner diameter: 1.5 mm  
Filling volume: 2.0 ml

Packing unit: 25 pieces/carton

Article number

31 5140

straight packed



HSD 525 suction tube

Length: 100 cm  
Inner diameter: 2.7 mm  
Filling volume: 0.3 ml 3-way stop cock,  
6.0 ml tube + spike

Packing unit: 50 pieces/carton

31 5080



HSD 527 suction tube with valve

Length: 100 cm  
Inner diameter: 2.7 mm  
Filling volume: 0.2 ml valve,  
16 ml tube with drip chamber

Packing unit: 50 pieces/carton

31 5082



Accutron HP-D tube system

	ID	Length	Filling volume
Pressure side	1.8 mm	26.5 cm	1.4 ml (2 x 0.7 ml)
Suction side	2.7 mm	100 cm	16 ml

Packing unit: 25 pieces/carton

31 7183

just for  
Accutron HP-D



## CONSUMABLES

Single and double head high-pressure injectors (83 bar/1,200 psi)



**ScanBag® HP-D tube system**  
(for Scanbag CM-supply bag)

Article number

31 7184

	ID	Length	Filling volume
Pressure side	1.8 mm	26.5 cm	1.4 ml (2 x 0.7 ml)
Suction side	2.7 mm	100 cm	16 ml

Packing unit: 25 pieces/carton

just for  
Accutron HP-D



**SP 227 vented spike, luer lock**

31 9095

Filling volume: 0.4 ml

Packing unit: 50 pieces/carton



**HDW 526 high-pressure 3-way stop cock**

31 5085

Filling volume: 0.3 ml

Packing unit: 48 pieces/carton



**Minispike, green, luer lock**

31 9099

Filling volume: 0.2 ml

Packing unit: 300 pieces/carton

## Single and double head high-pressure injectors - material characteristics

Art. no.	Article name	Pressure line	Suction line	drip chamber
31 5100	HS 224/100 RA Patient line	TPU braided	X	X
31 5121	HP 150 RA Patient line with valve, PVC-flex	PVC tube	X	X
31 5124	HS 224/180 RA Patient line with valve	TPU braided	X	X
31 5125	HS 224/120 Patient line	TPU braided	X	X
31 5126	HS 224/120 RA Patient line	TPU braided	X	X
31 5132	HP 180 Patient line	PVC tube	X	X
31 5134	HS 224/180 Patient line	TPU braided	X	X
31 5135	HS 224/180 RA Patient line	TPU braided	X	X
31 5136	HS 224/150 RA Patient line	TPU braided	X	X
31 5137	HP 120 RA Patient line with valve, PVC-flex	PVC tube	X	X
31 5138	HP 150 RA Patient line, PVC-flex	PVC tube	X	X
31 5139	HP 110 RA Patient line, PVC-flex	PVC tube	X	X
31 5140	HP 110 RA Patient line with valve, PVC-flex	PVC tube	X	X

Art. no.	Article name	Pressure line	Suction line	drip chamber
31 5080	HSD 525 suction tube	X	PVC tube, plasticizer TOTM	X
31 5082	HSD 527 suction tube with valve	X	PVC tube, plasticizer TOTM	NONDOP
31 7183	Accutron HP-D tube system	TPU braided	PVC tube, plasticizer TOTM	NONDOP
31 7184	ScanBag® HP-D tube system	TPU braided	PVC tube, plasticizer TOTM	NONDOP

# CONSUMABLES

## Overview



Article number 31 5080  
HSD 525 suction tube  
● ● ●



Article number 31 5132  
HP 180 Patient line  
● ● ●



Article number 31 5082  
HSD 527 suction tube  
with valve  
● ● ●



Article number 31 5134  
HS 224/180 Patient line  
● ● ●



Article number 31 5085  
HDW 526 high-pressure  
3-way stop cock  
● ● ●



Article number 31 5135  
HS 224/180 RA Patient line  
● ● ●



Article number 31 5100  
HS 224/100 RA Patient line  
● ● ●



Article number 31 5136  
HS 224/150 RA Patient line  
● ● ●



Article number 31 5121  
HP 150 RA Patient line  
with valve, PVC  
● ● ●



Article number 31 5138  
HP 150 RA Patient line  
● ● ●



Article number 31 5124  
HS 224/180 RA Patient line  
with valve  
● ● ●



Article number 31 5139  
HP 110 RA Patient line,  
PVC  
● ● ●



Article number 31 5125  
HS 224/120 Patient line  
● ● ●



Article number 31 5140  
HP 110 RA Patient line  
with valve, PVC  
● ● ●



Article number 31 5126  
HS 224/120 RA Patient line  
● ● ●



Article number 31 6013  
BLS 130 ml syringe, QFT  
● ● ●

# CONSUMABLES

## Overview



Article number 31 6020  
BLS 200 ml syringe

● ● ●



Article number 31 6025  
ELS 200 ml syringe, QFT

● ● ●



Article number 31 6026  
ELS 200 ml (S) syringe

● ● ●



Article number 31 6065  
ELS 65 ml syringe

● ● ●



Article number 31 7080  
ES 223 tube system with spike

● ● ●



Article number 31 7081  
EK 223 tube system  
with drip chamber

● ● ●



Article number 31 7099  
MRS 222 MR-tube system  
with inline drip chamber

● ● ●



Article number 31 7100  
MRS 222 MR-tube system

● ● ●



Article number 31 7101  
Double head tube system

● ● ●



Article number 31 7104  
MR-ELS tube system with valves

● ● ●



Article number 31 7109  
Double head tube system  
with inline drip chamber

● ● ●



Article number 31 7125  
MRS 225 MR-tube system

● ● ●



Article number 31 7128  
MRS 228 MR-tube system  
with Spike

● ● ●



Article number 31 7183  
Accutron HP-D tube system

● ● ●



Article number 31 7184  
Scanbag HP-D-tube system

● ● ●



Article number 31 7601  
MRT-Set BLS

● ● ●

# CONSUMABLES

## Overview



Article number 31 7602  
MR-Set ELS 65/65 ml

● ● ●



Article number 31 7603  
MR-Set 65/200 ml

● ● ●



Article number 31 7604  
MR-Set ELS 65 ml

● ● ●



Article number 31 7616  
82 CT-Kit ELS

● ● ●



Article number 31 7625  
CT2-/MRT-Set ELS

● ● ●



Article number 31 7627  
CT2-/MRT-Set ELS (S)

● ● ●



Article number 31 8020  
ES 224/25 Patient line  
with valve

● ● ●



Article number 31 8025  
1-way stop cock with extension line  
30 cm, luer lock

● ● ●



Article number 31 8026  
Patient line 150 cm with  
terminal check valves

● ● ●



Article number 31 8036  
Patient line 150 cm with  
2 valves

● ● ●



Article number 31 8042  
DW 229 Connector  
with 3-way stop cock

● ● ●



Article number 31 8081  
ES 224/80 Patient line

● ● ●



Article number 31 8101  
ES 224/100 Patient line

● ● ●



Article number 31 8151  
ES 224/150 Patient line

● ● ●



Article number 31 8152  
Patient line 150 cm  
with valve

● ● ●



Article number 31 8154  
Patient line 150 cm  
with inline valve

● ● ●



# CONSUMABLES

## Overview



Article number 31 8181  
Coiled line 180 cm with valve  
● ● ●



Article number 31 8219  
Coiled line 250 cm  
with 2 valves  
● ● ●



Article number 31 8198  
Patient line 200 cm  
with valve  
● ● ●



Article number 31 8220  
Coiled line 300 cm  
with 2 valves  
● ● ●



Article number 31 8199  
ES 224/200 Patient line  
● ● ●



Article number 31 8235  
Coiled line 235 cm with  
Y-Connector with check valve  
● ● ●



Article number 31 8204  
Patient line 200 cm  
with inline valve  
● ● ●



Article number 31 8250  
ES 224/250 Patient line  
● ● ●



Article number 31 8213  
Coiled line 150 cm  
● ● ●



Article number 31 8251  
Patient line 250 cm  
with valve  
● ● ●



Article number 31 8214  
Coiled line 150 cm  
with valve  
● ● ●



Article number 31 8252  
Coiled line 250 cm  
● ● ●



Article number 31 8217  
Coiled line 150 cm  
with 2 valves  
● ● ●



Article number 31 8253  
Coiled line 250 cm with valve  
● ● ●



Article number 31 8218  
Coiled line 200 cm  
with 2 valves  
● ● ●



Article number 31 8254  
Coiled line 250 cm  
with inline valve  
● ● ●

# CONSUMABLES

## Overview



Article number 31 8300  
ES 224/300 Patient line

● ● ●



Article number 31 9095  
SP 227 vented spike,  
luer lock

● ● ●



Article number 31 8301  
Patient line 300 cm  
with valve

● ● ●



Article number 31 9099  
Minispike, green, luer lock

● ● ●



Article number 31 8302  
Coiled line 300 cm

● ● ●



Article number 31 8303  
Coiled line 300 cm with valve

● ● ●



Article number 31 8304  
Coiled line 300 cm  
with inline valve

● ● ●



Article number 31 9080  
SD 225 Suction tube  
with 3-way stop cock and spike

● ● ●



Article number 31 9085  
DW 226 3-way stop cock

● ● ●



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, MEDTRON works with local service partners that provide quick and competent maintenance service.

Customers can find their local service partner on MEDTRON´s website.

MEDTRON injectors are extremely reliable and long-lived. If nevertheless any technical problems arise, the friendly service teams of MEDTRON´s service partners will provide quick and competent assistance.

**RELIABLE – FAST – EFFICIENT**

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