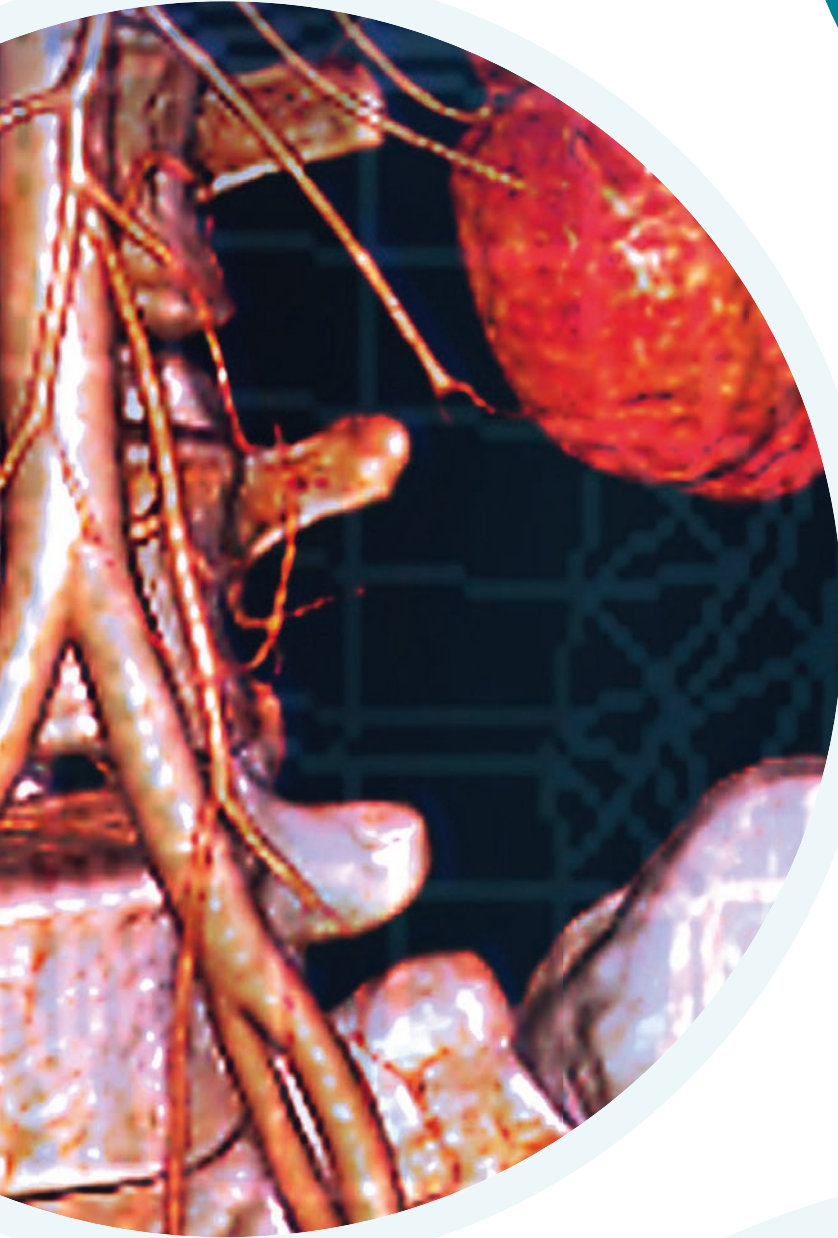


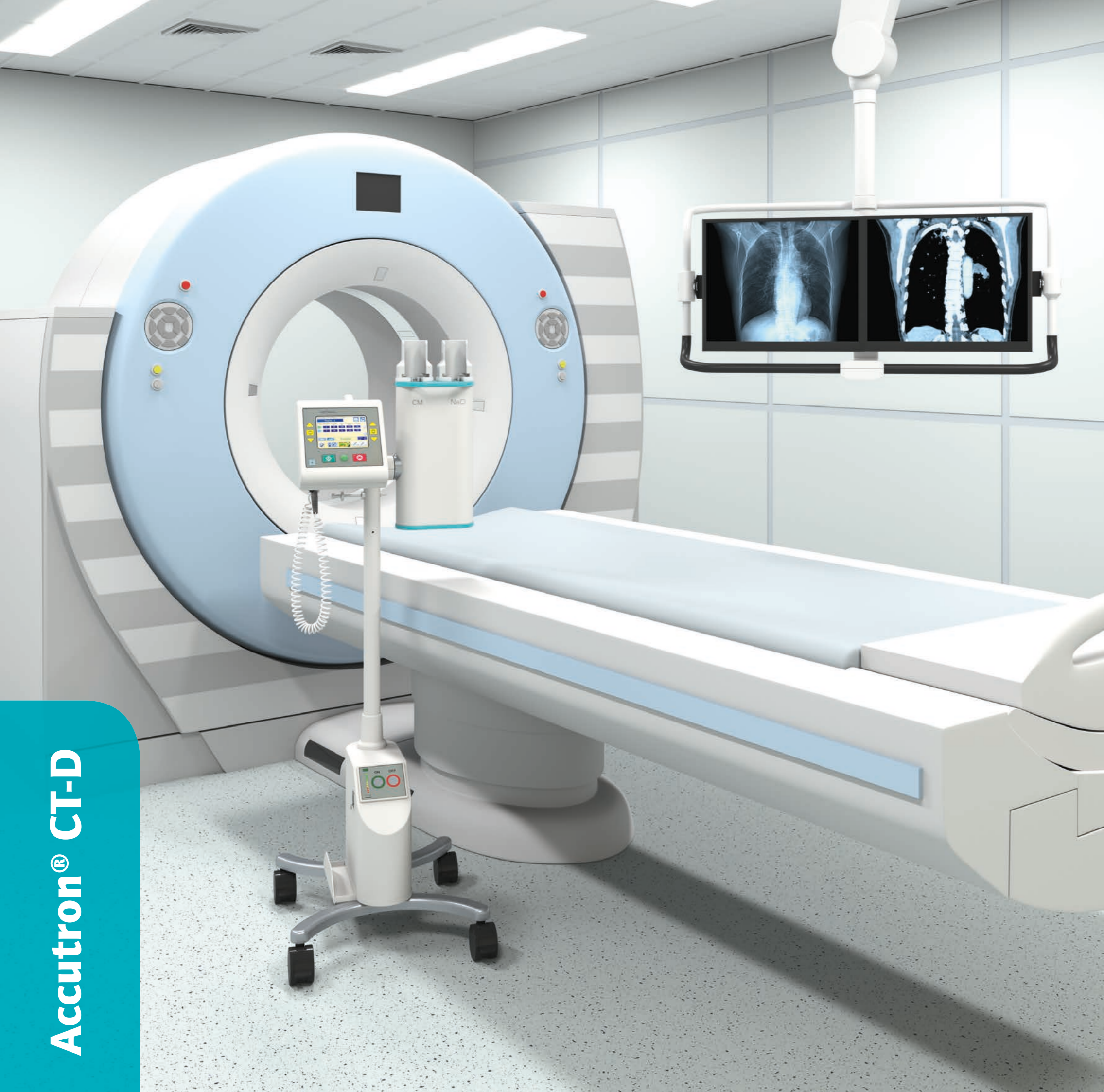
MED (TRON)<sup>®</sup> AG  
GERMANY



# Essential for contrast

Accutron<sup>®</sup> Injectors for Computed Tomography





## Clinical improvements

- Limits patient risk by reducing the amount of contrast a patient receives during injection
- Supports a new clinical application area in women's health such as CE Mammography
- May reduce risk of infections by being easy to clean and hygienic



## Operating improvements

- 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 turn around times



## Financial improvements

- May reduce the amount of contrast required per patient, resulting in less operating expenses
- Supports the development of a new clinical service in mammography, leading to potentially increased revenue



# Accutron® CT-D

The diagnostic specialist

Model CT860

The Accutron® CT-D is designed for precisely dosed injections of contrast medium (CM) and saline solution (NaCl) in computed tomography. It has an injection unit with two drive units which can be controlled independently of each other and so the contrast medium can be positioned variably and accurately in the examination area by the help of NaCl, depending on the application.

The Accutron® CT-D is also designed for use in contrast-enhanced mammography procedures.

## Easy filling

Automatic filling or manual filling with variable speed

Filling speed: 1 – 5 ml/s

Optimized tube systems with check valves

## Mindful workflow

Two-step launching process and Pre-inject function controlled via the start/stop hand switch provide precise monitoring

SMART Assist offers an automated workflow

## Wireless & mobile

Mains supply independent thanks to high-output rechargeable batteries

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

Power consumption charger < 100 VA

## Hygienic design

Tough, stable and light aluminum casing

Easy to clean and hygienic

Total weight: 26 kg



## Disposable

recommendations

### Single use

	Article number
2 x ELS 200 ml syringe	316026-000
1 x dual head coiled patient line	318235-000
2 x vented spike	319095-100

### Multiple Use

2 x ELS 200 ml MU syringe	314626-100
1 x double head 8 hr tube system	314119-100
1 x vented spike	314095-100
1 x coiled pat. line w/valve 150 cm	318214-000

**200 ml** each syringe  
Maximum injection volume

**Double Head / Double Syringe**

**21 bar**

Max. injection pressure<sup>1</sup>

**80**

Injection profiles

**6**

Phases<sup>2</sup>

**0-255s**

Injection, phase & scan delay

**1 ml every 2 min**

Keep vein open

**0.1-10 ml /s**

Flow rate<sup>3</sup>

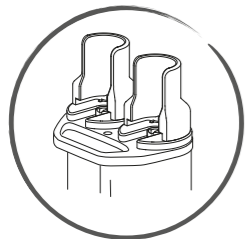
**1-5 ml /s**

Filling speed<sup>4</sup>

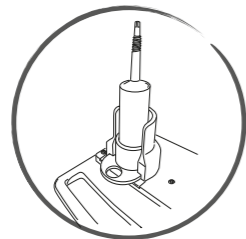
# — Specifications

highlighted

Additional highlights & options



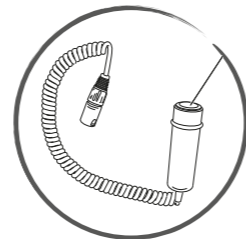
Double head heated receptacles



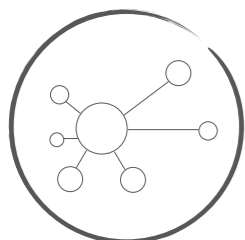
Pre-filled Syringe adapter



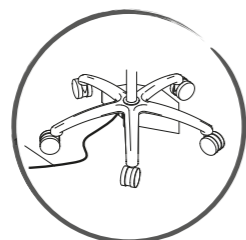
Remote Touch Screen



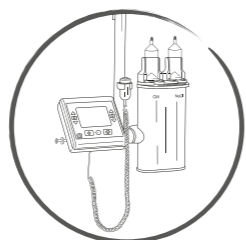
Hand Switch



Select Scanner Interfaces available<sup>5</sup>



Powered Model CT862



Ceiling mounted Model CT861

1. 21 bar maximum injection pressure. 5-21 bar, increment in 1 bar  
2. 1 to 6 phases  
3. 0.1 to 10 ml/s, programmable in 1 ml increments

4. Programmable in 1 ml/s increments  
5. CANopen Interface Siemens, Interface Philips



Model CT860  
Model CT861  
Model CT862



# Clinical Application



## Cardiac CTA

Accutron® CT-D offers multiple phase capacities as well as the possibility for direct adjustment of contrast concentration with saline. This allows you to perform the popular tri-phasic protocol which consists of 3 phases i.e., pure contrast, diluted contrast and saline only flush.

This insures that the optimal contrast volume is in the left chambers and the coronary arteries when needed.

## CE Mammography

Accutron® CT-D is also now approved for the intravenous injection of contrast media when performing contrast-enhanced mammography.

Accutron® CT-D helps you to really focus on patient care by allowing for the testing of IV access with Pre-Inject, hand-switch injection launch with precise control and shorter reaction times in case an urgent stop is required.

## Pelvic & Lower Limb

When screening the lower part of the body, it is advantageous to place the injector behind the CT gantry, connected to the arms of the patient placed above their head.

Accutron® CT & CT-D's wireless mobility allows easy placement, wherever needed. And the touch screen on the injector allows you to check and adjust the injection protocol according to the patient's clinical conditions.

## CT Angiography

Using the Accutron® CT-D double head injector with multiple phase protocols allows you to optimize the delivery of contrast for vascular dynamic studies.

It also allows flushing the arterial supply with saline when focusing on organ tissue enhancement, or increasing the duration of the contrast peak for larger vessel studies.





## Clinical improvements

- Provides real-time pressure monitoring which allows for improved precision and safety
- Integrated heatable syringe holder keeps contrast media heated to body temperature providing optimal viscosity and decreased patient discomfort



## Operating improvements

- Agile mobility with a configuration that provides flexibility to quickly change examination rooms
- Functions with select pre-filled syringes to increase throughput via quick use and improved patient turnaround times



## Financial improvements

- Consistent reliability helps to reduce repeat examinations due to contrast mistiming
- Provides solid performance and price affordability in CT imaging



# Accutron® CT

The mobile precision partner

Model CT871

The Accutron® CT is a single head / single syringe power injector designed 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 is designed for precisely dosed injections of contrast medium for computed tomography. The touch screen offers an overview at all times of the injection currently under way with the specified parameters. By means of the remote control you can control the high-pressure injector from the control room.

## Easy filling

Automatic filling or manual filling with variable speed

Filling speed: 1 – 5 ml/s

Optimized tube systems with check valves

## Mindful workflow

Up to 80 injection profiles, individually created for your examination and easily accessible

Two step launching process controlled via the start/stop hand switch provides precise monitoring.

## Agile mobility

Continuous operation with power supply unit

Input voltage charger  
100 – 240 V AC, 50 – 60 Hz

Light weight and compact design allows easy placement.

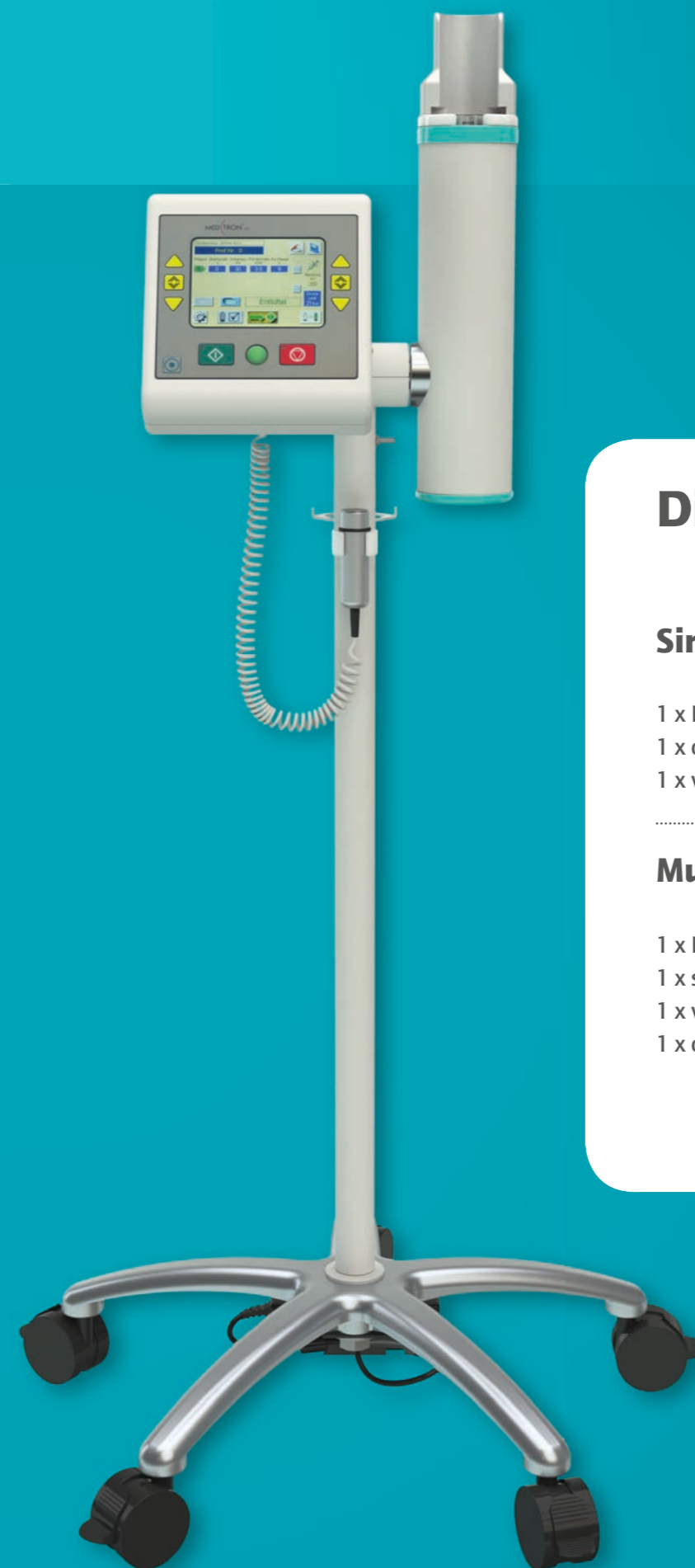
Wireless touch screen remote control offers cable-free installation and service.

## Hygienic design

Tough, stable and light aluminum casing

Easy to clean and hygienic

Total weight: 14 kg



## Disposable

recommendations

### Single use

Article number

1 x ELS 200 ml syringe	316026-000
1 x coiled patient line 150 cm	318213-000
1 x vented spike	319095-100

### Multiple Use

1 x ELS 200 ml MU syringe	314626-100
1 x single head 8 hr tube system	314081-100
1 x vented spike	314095-100
1 x coiled pat. line w/valve 150 cm	318214-000

# 200 ml

Maximum injection volume

Single Head / Single Syringe

## 21 bar

Max. injection pressure<sup>1</sup>

## 80

Injection profiles

## 6

Phases<sup>2</sup>

## 0-255s

Injection, phase & scan delay

## 0.1-10 ml /s

Flow rate<sup>3</sup>

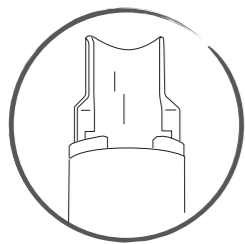
## 1-5 ml /s

Filling speed<sup>4</sup>

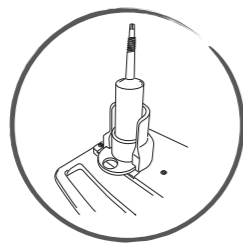
# — Specifications

highlighted

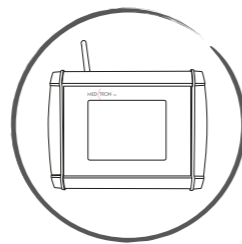
### Additional highlights & options



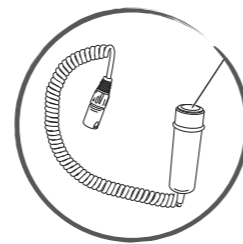
Single head heated receptacle



Pre-filled Syringe adapter



Remote Touch Screen



Hand Switch



Model CT871

1. 21 bar maximum injection pressure. 5-21 bar, increment in 1 bar  
2. 1 to 6 phases  
3. 0.1 to 10 ml/s, programmable in 1 ml increments  
4. Programmable in 1 ml/s increments

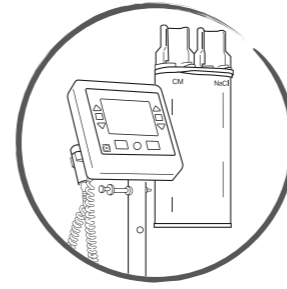


# Pre-Inject

## Minimize contrast extravasation

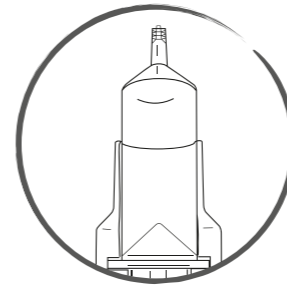
Extravasation remains a well known adverse effect with the use of intravenous injection and iodinated contrast media during MDCT procedures. Studies report that 0.3 % to 0.7 % of patients could experience an extravasation event.

Using the Pre-Inject feature with the Accutron® CT-D and CT series allows the radiographer to conduct a test injection to insure IV patency so as to minimize contrast media extravasation.



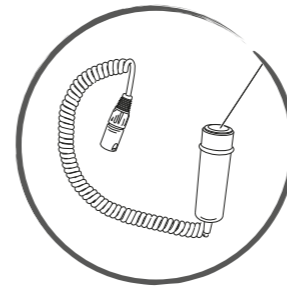
## Software option

Once activated in the injector settings, the built-in Pre-Inject function will propose to perform a test injection before each contrast protocol.



## Test injection

The test injection is performed with saline at the maximum programmed flow rate. The test injection helps validate the patency of the IV access and to evaluate the comfort of the patient with the injection.



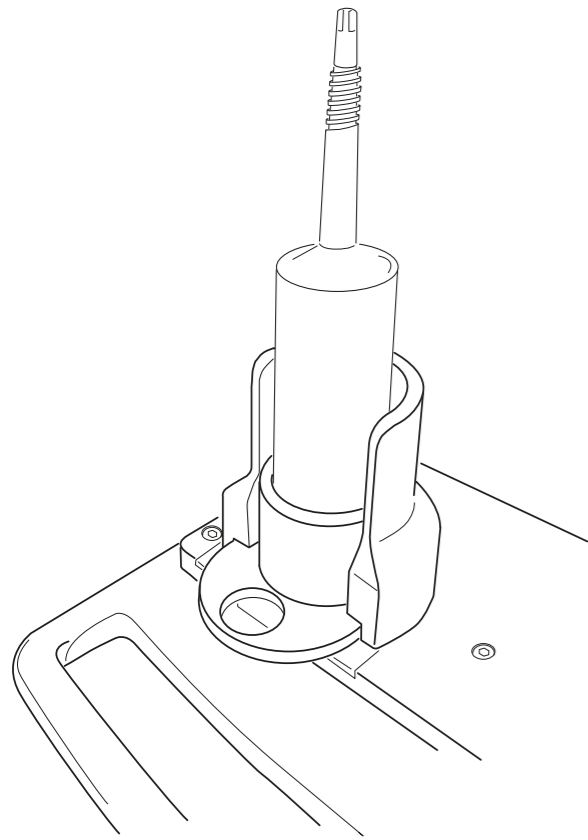
## User activated

Managed with injection handle while hand monitoring the patient's arm. The injector moves to "Activate injector" status automatically after Pre-Inject.



## Override option

Even if Pre-Inject is activated in settings, the test phase can be skipped easily so as not to impede your workflow. With override, the injector then goes to "Activate injector" status with the programmed protocol.



### Works with select pre-filled syringes

For quick use and faster patient turnaround times. The adapter and software are optimized for Optiject pre-filled syringes. Direct selection of syringe size under injection parameters. Available sizes range from 75 ml up to 125 ml.



# Easy Loading Syringe (ELS)



**200 ml**

Crystal clear patented syringes

**Slide turn**

Slide and turn to install

**Fixed luer**

Half turn to easily connect line's hubs

**Quick remove**

Removable in any position of the piston



# Multi-Use

## Disposables

### 1 Exchangeable spike

Protects from multiple spiking thereby reducing contamination risks

### 2 Multiple use filling system

Protects syringes and vials from retrograde contamination and allows multiple refill and injections

### 3 Specialized Y-connectors

Precision engineered Y-connectors reduce swirling and air bubbles

### 4 Safe valves

Safe valves on tubing and patient line provide optimal protection from cross contamination

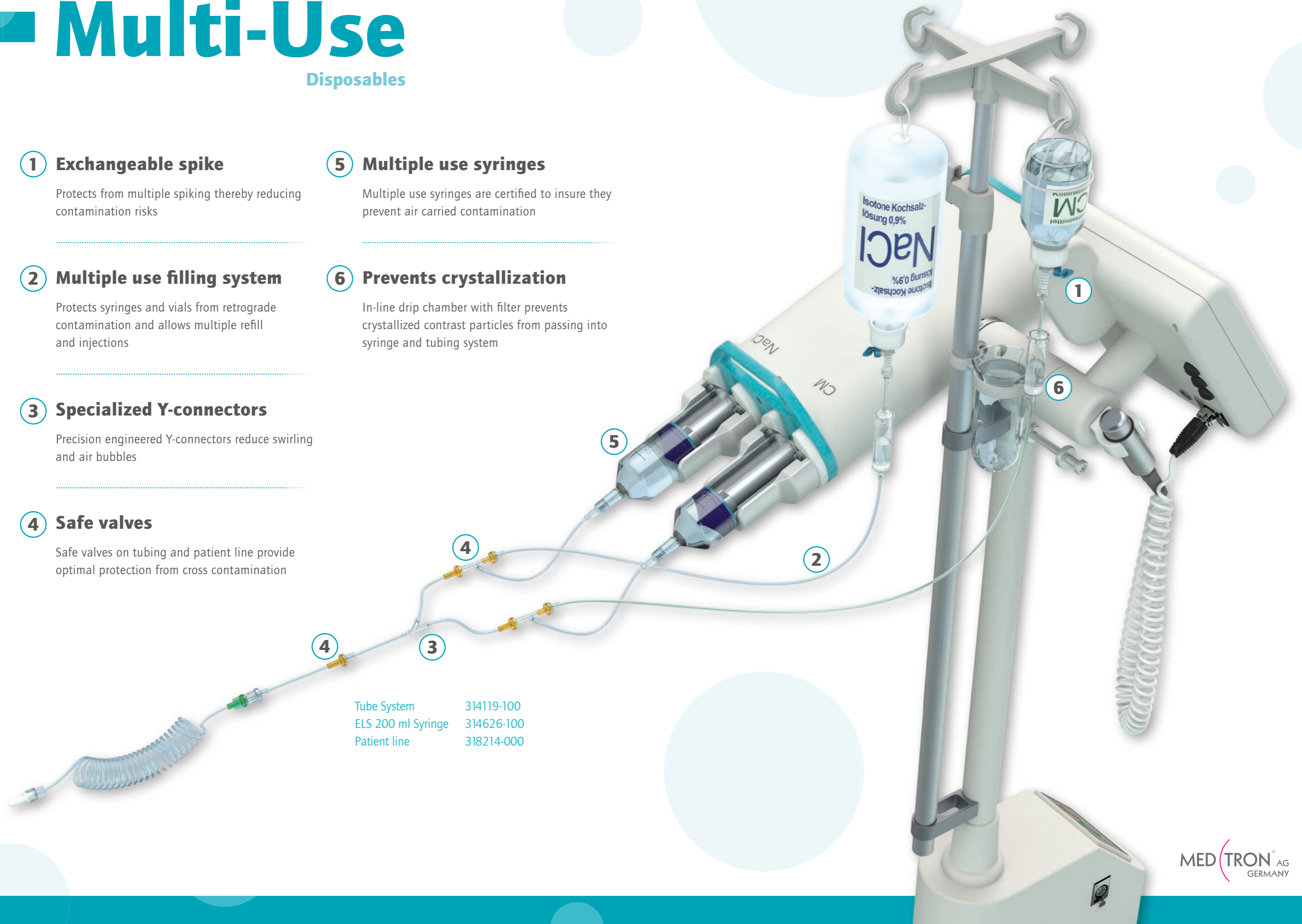
### 5 Multiple use syringes

Multiple use syringes are certified to insure they prevent air carried contamination

### 6 Prevents crystallization

In-line drip chamber with filter prevents crystallized contrast particles from passing into syringe and tubing system

Tube System 314119-100  
ELS 200 ml Syringe 314626-100  
Patient line 318214-000



# Intelligent

## Battery Management System

MEDTRON AG has designed a completely new intelligent Battery Management System to prevent damage through over-/undercharging so as to prolong the life of your injector battery. It features a combined power supply and charger in one device and

allows the end user to utilize the injector and charge at the same time, if so required. The Intelligent Battery Management System is a new feature and currently only available on select Accutron® Injectors. Check with your sales partner for further information.



### Operating improvements

- The combined power supply & charger in one device requires less user intervention and simplifies your recharging workflow
- Being able to use the injector and charge at the same time helps to optimize your workflow and enhance your flexibility.
- The resistance to damage from liquid spillage is increased due to an enhanced piston isolation, and the relocation of the hand switch and charger plug as well as the use of liquid proof Piezo type on/off buttons.
- A holder is placed at the bottom of the injector to keep the power supply unit off the floor.
- Our new LED display shows actual capacity during usage and during charging. It also indicates the charging process with running lights to provide more insight about the injector's operational capacity in any state.



### Clinical improvements

- Being easy to clean the holder for the power supply unit is a hygienic solution which may help to reduce the risk of infections.



### Financial improvements

- Preventing under-/overcharging, the intelligent Battery Management System efficiently maintains the battery reducing frequent battery changes and replacement costs.
- The holder prevents damage from moisture and grime by keeping the charger/power supply unit away from the floor; thus helping to mitigate replacement costs



MEDTRON AG is a global medical technology company and a leading European manufacturer of state-of-the-art contrast medium injectors.

**MEDTRON AG**

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