

# DE-ICING TECHNOLOGY PROFIL 1500V SPECIFICATIONS

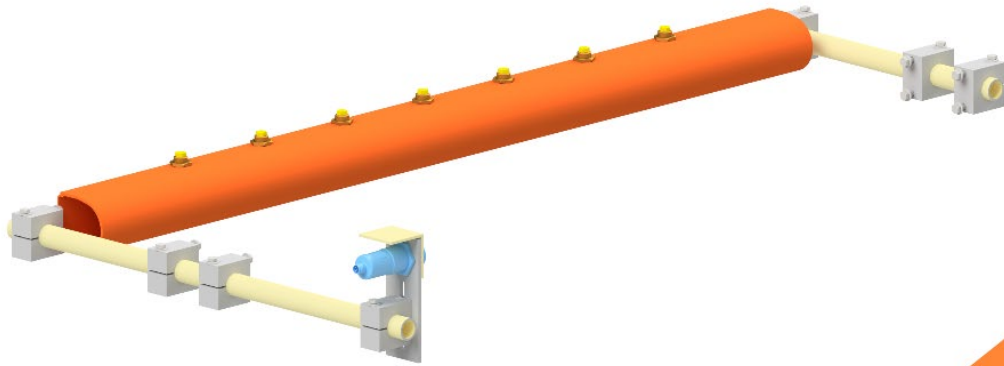


## De-icing Technology PROFIL 1500V – Specifications

20th of March 2019

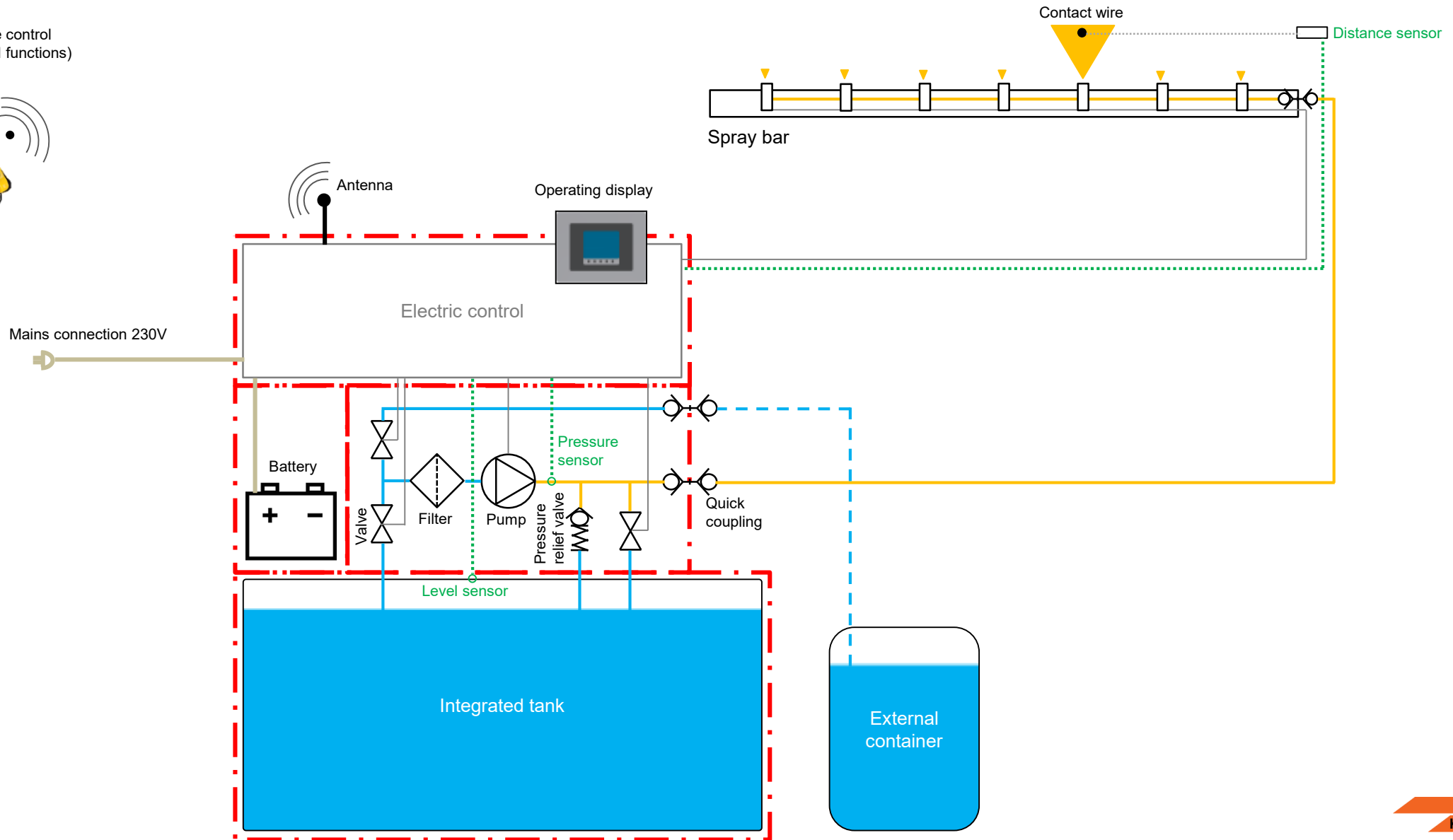
**Kummeler+Matter**

# BASIC STRUCTURE – DESIGN



# BASIC STRUCTURE – SCHEMATIC

Radio remote control  
(with reduced functions)



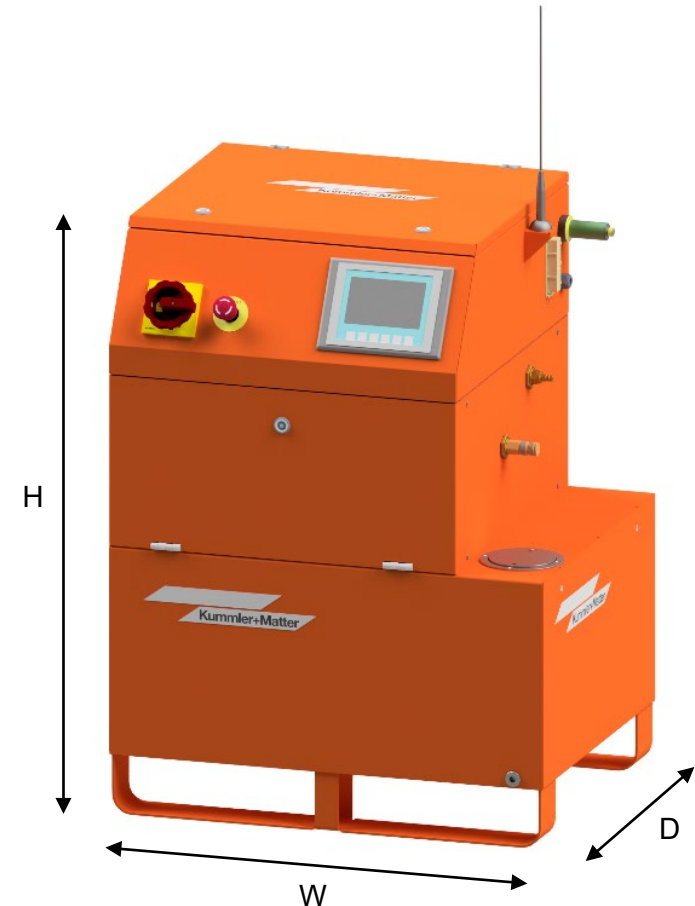


# FUNCTIONAL MOVIE



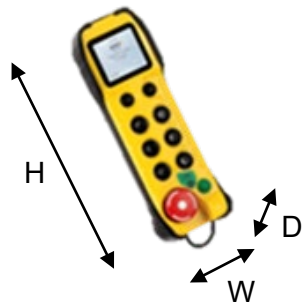
# TECHNICAL SPECIFICATIONS (1/3)

Technical Specifications Pump- and Control Unit		
<b>Size and Weight</b>		
Width (W)	mm	750
Depth (D)	mm	600
Height (H)	mm	1000 (without antenna)
Gewicht (empty)	kg	~100
<b>Operating Data</b>		
Flow rate pump	l/min	3.5-5.5
Flow rate nozzle	l/min	0.35-0.6
Working pressure	bar	3-9
Max. pressure	bar	10
Operating fluid	-	ProFil Pro
<b>Power Data</b>		
Line voltage	V	230 (50 Hz)
Battery voltage	V	24
Power	W	approx. 200

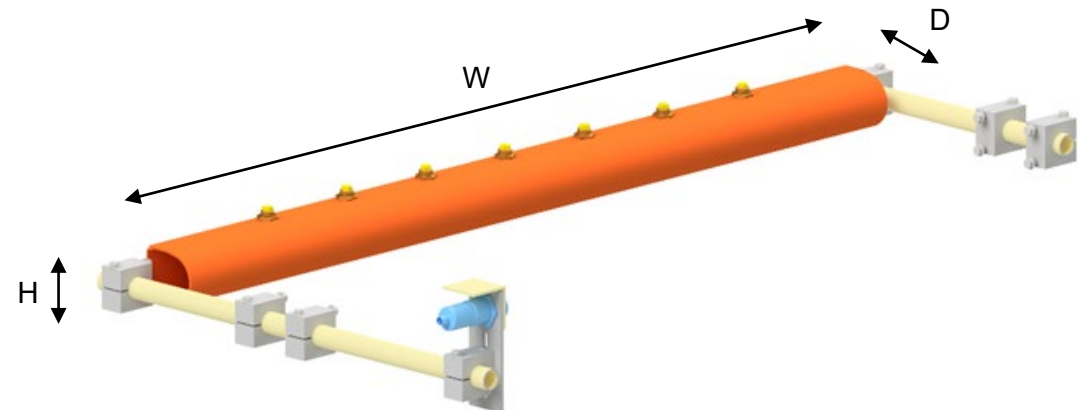


# TECHNICAL SPECIFICATIONS (2/3)

Technical Specifications Radio Remote Control		
<b>Size and Weight</b>		
Width (W)	mm	75
Depth (D)	mm	50
Height (H)	mm	235
Gewicht	kg	0.485
<b>Operating Data</b>		
Power supply	-	Li-Ionen-Akku
Battery life	h	~10
Charging time	h	~3
Range	m	up to 100
Protection class	-	IP65

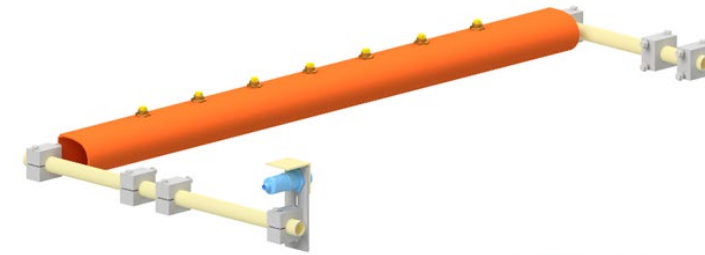


Technical Specifications Spray Unit		
<b>Size and Weight</b>		
Width (W)	mm	1100
Depth (D)	mm	65
Height (H)	mm	65
Gewicht (empty)	kg	~4
<b>Operating Data</b>		
Flow rate nozzle	l/min	0.35-0.6
Max. pressure	bar	10
Supply voltage	V	24



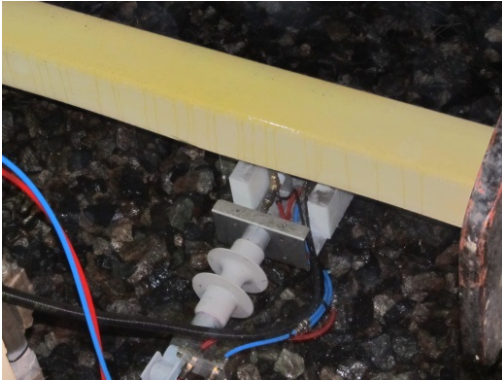
# TECHNICAL SPECIFICATIONS (3/3)

Technical Specifications Operation		
<b>System Specifications</b>		
Catenary voltage	kV	up to 1.5
Operating speed	km/h	up to 65
Consumption spraying agent	l/km	~0.9-1.4 (depending on setting)
Operating temperature range	°C	-20° to +5°
<b>Noise Emission</b>		
Noise pressure level	dB(A)	< 70
<b>Operating fluid</b>		
De-icing fluid	-	ProFil Pro
Duration of effect	days	5-7 (depending on weather)





# REFERENCES (1/2)



HKL  
Helsinki  
Finland

ProFil 3S  
Since 2011



BDWM  
Bremgarten  
Switzerland

ProFil 3v  
Since 2014



BLT  
Basel  
Switzerland

ProFil 3v  
Since 2015



RHB  
Rhaetian Railway  
Switzerland

ProFil 3v  
Since 2015



# REFERENCES (2/2)



NSTCM  
Nyon  
Switzerland

ProFil 3v  
Since 2016



TEC  
Charleroi  
Belgium

ProFil 3V  
Since 2017



Ferrovie  
Monte Generoso  
Switzerland

ProFil 3V  
Since 2017



RET  
Rotterdam  
Netherlands

ProFil 3V  
Since 2018

# BENEFITS

- ✓ Ideal for preventive conditioning of the contact wire against ice formation
  - Reduction of operating failure caused by ice
  - Reduction of material wear on contact wire and pantograph
- ✓ Non-aggressive de-icing of the contact wire
  - No scratching
  - No overheating of the contact wire
- ✓ Flexible use of the system in/on an existing vehicle (e.g. maintenance vehicles, freight wagons or in a transportable container)
- ✓ Low weight of the spray unit
  - Enables the mounting directly to usual pantographs
- ✓ Economic consumption due to contact wire detection and individual nozzle control
- ✓ Self-sustaining operation of the system by battery
- ✓ Wireless control and monitoring of the system via radio remote control
- ✓ Large tank volume of about 130 liters
- ✓ Additional connection for suction from an external container (for spraying or refilling)
- ✓ Compact and robust design
- ✓ Simple and intuitive handling