

# Gravine

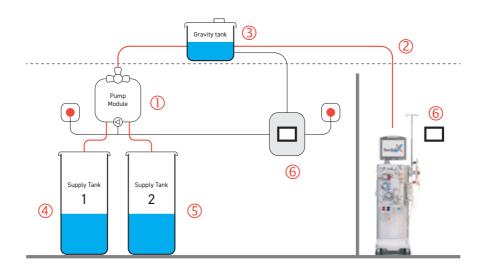
ACID CONCENTRATE DELIVERY SYSTEM



# Gravine

#### ACID CONCENTRATE DELIVERY SYSTEM

Designed to transfer dialysis concentrate from storage tanks to the dialysis machine.



# Working Principle

- **1.** The pump moves the concentrate from its tank to the gravity tank.
- **2.** From the gravity tank, the concentrate is delivered to dialysis machines by gravitational force.
- **3.** Sensors in the gravity tank automatically detect when it must be refilled.

# **Flexible Installation**

**4.** GravineXt can be connected to up to 4 tanks, with up to 2 different types of concentrate. For each type of concentrate, while one tank is in operation the other is on standby.

# Versatile Supply

**5.** GravineXt is suitable for tanks, octabins (with top or bottom connections), bag-in-boxes, mixing systems of any sizes, and all types of formulas.

# Monitoring GravineXt

- 6. Control panel with 5.7" (14 cm) touch screen:
  - in the storage room
  - on the dialysis unit (optional)
  - displayed on a computer and/or phone (Ethernet/SIM card)

# Why use gravitational force?

Gravity ensures equal pressure across the loop, reducing the risk of leakage.

Harmony

14:56:44



0.0 1/m

07/02/2023

LS+

RESET ALARMS

# **Ethernet Connection**

Schneider

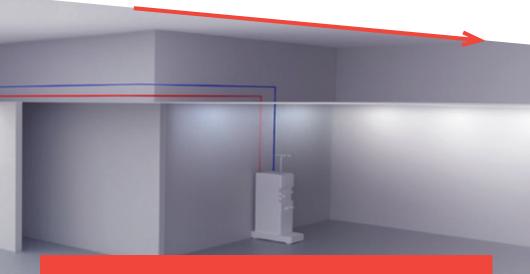
RETURN

0.0 1/m

LI

- Warning when octabin/bag-in-box is empty
- Technical service team notified of failures
- Actions and alarm failure history

# Why choose GravineXt?



# Uninterrupted supply in automatic mode

- Automated switching between concentrate tanks
- Optional automatic start with reverse osmosis systems
- Level indicator for volume remaining in the octabin/bag-in-box

# **Quality & Safety**

- Double pump system per concentrate type, allowing high operational safety in the unlikely event of one pump failing
- Dry-running safety pumps
- Uses corrosion-free polypropylene
- Low pressure system
- Four level sensors
- Alarm log

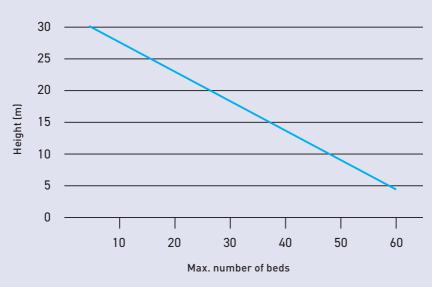
# Simple & Flexible

- Single-use concentrates can be completely replaced
- Reduces dialysis preparation time
- Minimal ecological footprint
- Frees up storage space

# **Technical Data**

### Performance

Max. pump capacity	5.7 L/min
Max. height from pump module to gravity tank	30 m
Max. distance from pump module to gravity tank	50 m
Gravity tank capacity	54 L or 80 L
Max. beds	30 (54 L)   60 (80 L)



#### Max. number of beds

#### **Electrical data**

Supply voltage	230 V / 50 Hz (± 10%)
Max. electrical consumption	0.9 kW
Pre-fuse	16 A
	Leakage current protection 30 mA

#### Connections

Supply tanks connection	Hose connection DN 10x8, connectors
Loop (gravity tank to dialysis machines)	Hose connection DN 10x14, connectors
Electrical connection	CEE 7 standard

#### Ambient temperature

Storage / transport	1-35°C
Operation	10-35°C
Relative humidity	< 95% without condensation
Air pressure	795-1062 hPa

# Dimensions

Switch cabinet	480 x 690 x 240 mm
Gravity tank (54 L)	700 x (200 + 55 (vent filter)) x 400 mm
Gravity tank (80 L)	700 x (300 + 55 (vent filter)) x 400 mm
Pump module	710 x 400 x 160 mm





Move from individual containers to an automated central supply with GravineXt

# Save on effort



# in pursuit of a better tomorrow

1. French analysis of GravineXt life cycle compared to single-use bags

2. Evaluation by In Extenso organization. 2022. Report available upon request.

\* up to



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