WALL-MOUNTED ULTRASONIC FLOW METER

DHR

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APPLICATIONS

Widely used for wáter supply , non conductive liquid such as the distilled water, food oil, light oil , boiler fuel oil engine for diesel measurement, and air conditioner system to measure the Flow and heat, food and beverage, pharmaseutical, ballast wáter, fuel consumption and others processes on-board ships, etc

FEATURES

1. High Precise Bidirectional Measurement

Highly Dynamic Flow Measurement

2. Highly cost effective

- Simplified installation
- Virtually maintenance free
- No process shutdowns
- Cost advantage over magenetic flow meter

Nominal Pipe Diameters

15 mm up to 6000 mm

3. Relizable Heat Measurement

- Clamp on type and inster type transducers are optional.
- Energy unit: Giga joule, Kilocalorie, Kwh, BTU are optional.

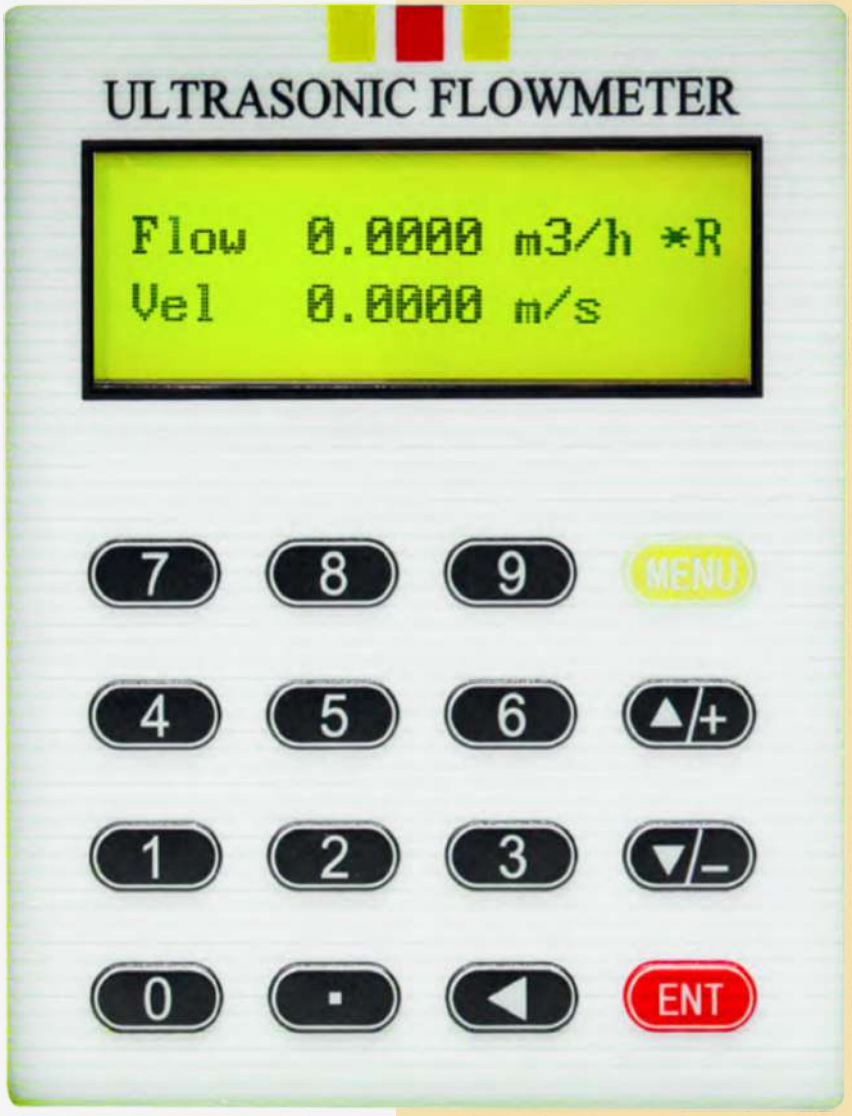
4. Hazardous Area Approved

- Suitable for use in explosive areas

Exd IIBT5

5. LCD Display, Easy to Read.

- Backlight LCD display instantaneous Flow and positive total Flow, negative total Flow, net total Flow, Flow velocity, etc

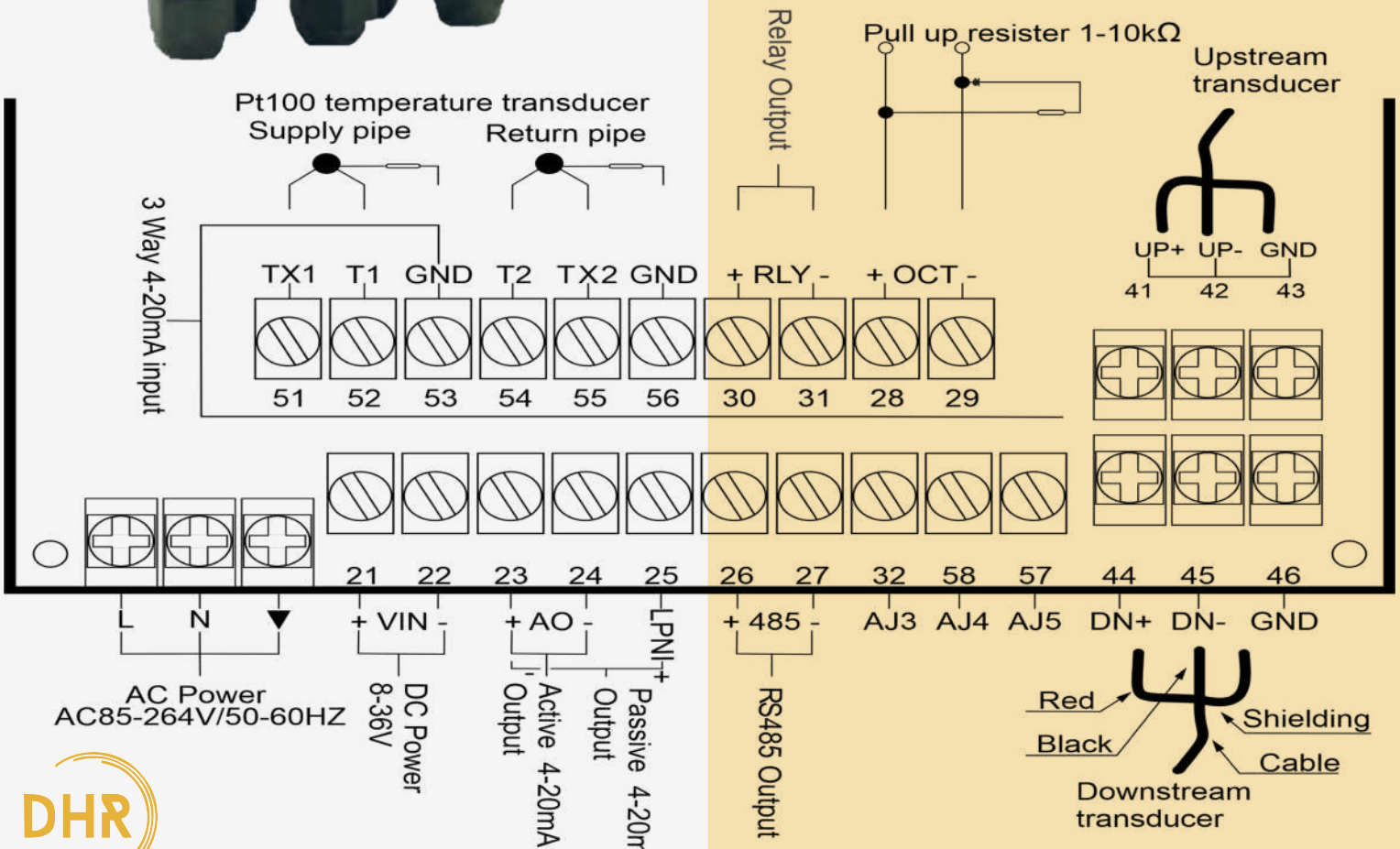


Flow Unit M, Liter, US gallon, UK gallon, etc.

Lenguage English (Standard), Italian, Turkish (Optional)

6. Modular design PCB Strong Anti-interference

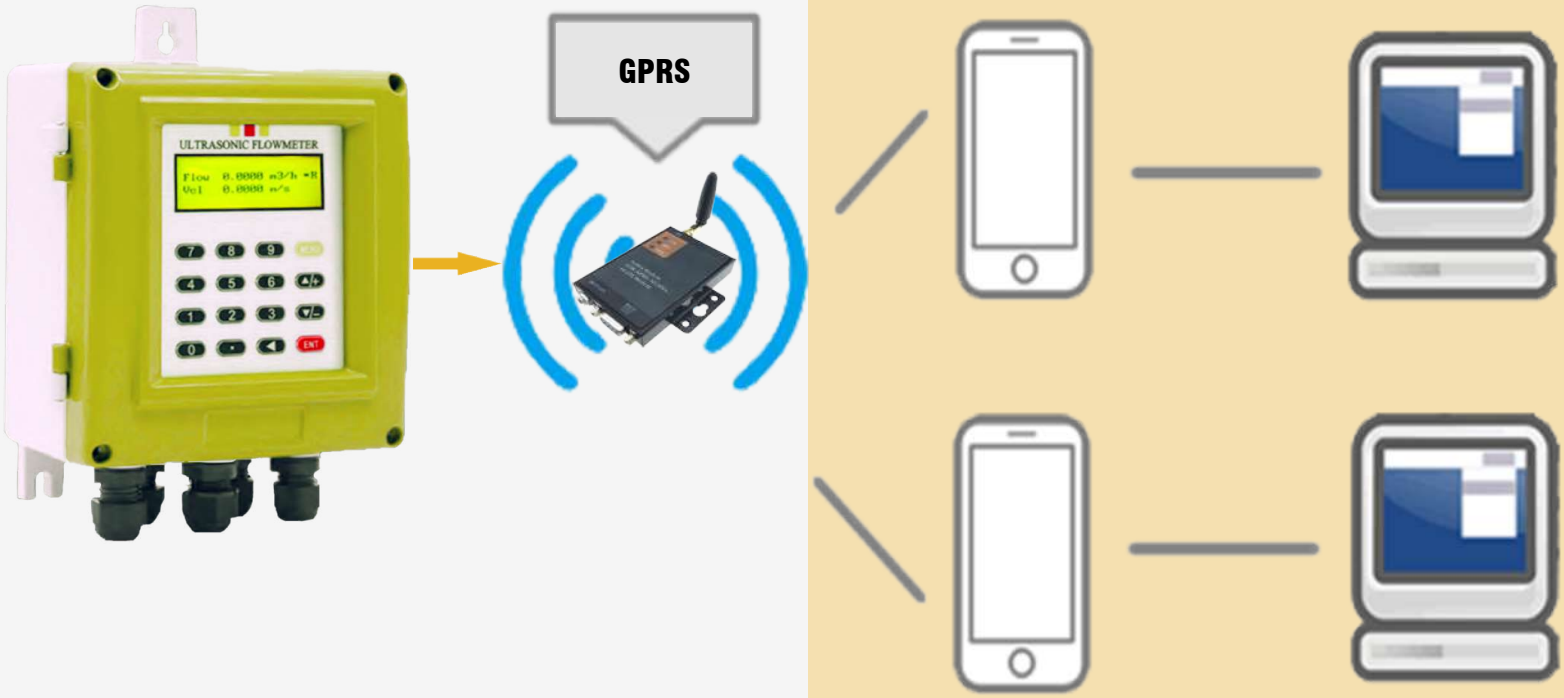
- Multiple Output
- One Way 4-20mA
- One Way OCT Pulse Output
- One Way Relay
- Communication
- MODBUS RTU RS485
- Power — AC220V/DC24V



7. SD Card Optional

Store time and date, instant flow, total flow and signal strength, etc.

8. Relizable GPRS Function



SPECIFICATIONS

ITEMS	SPECIFICATIONS
Accuarency	±1% of reading at rates >0.2mps
Repeatability	0.2%
Principle	Transmit time
Velocity	±32m/s
Pipe size	DN15mm-DN6000mm
Display	LCD with backlight, display accumulated flow/heat, instantaneous flow/heat, velocity, time, etc.
Signal Output	1 way 4-20mA output
	1 way OCT pulse output
	1 way relay output
Signal Input	3 way 4-20mA input achieve to heat measurement by connecting Pt1000 platinum resistor
Other Functions	Automatically records the positive, negative, net totalizer flow rate and heat. Automatically records the timer of power-on/off and flow rate of the last 30 times, Replenish by hand or read the datas through Modbus communication protocol
Pipe Material	Carbon Steel, stainless steel, cast iron, cement pipe, copper, PVC, aluminum, FRP, etc. Liner is allowed
Straight Pipe section	Upstream: 10D; Downstream: 5D; From the pump; 30D (D means outer diameter)
Liquid Types	Water, sea water, sewage, acid & alkali liquid, alcohol, beer, all kinds of oils which can transmit ultrasonic single uniform liquid
Liquid Temperature	Standard: -30°C ~ 90°C, High temperature: -30°C ~ 160°C
Liquid Turbidity	Less than 10000 ppm, with a little bubble
Flow Direction	Bidirectional measuring, net flow / heat measuring
Environment Temperature	Main Unit: -30°C ~ 80°C
	Transducer -40°C 110°C, Temperature transducer: select on equity
Environment Humidity	Main Unit: 85% RH
	Transducer: standard is IP65, IP68 (optional)
Cable	Twisted pair line, standard length of 5m, can be extended to 500m (not recommended); Contact the manufacturer for longer cable requirement. RS485
Power Supply	AC220V and DC24V
Power Consumption	Less than 1.5W
Communication	MODBUS RTU RS485

ULTRASONIC FLOWMETER SELECTION

1. Transducer Selection

Type	Picture	Specification	Measuring range	Temperature range
Clamp on type		Small-size	DN15mm DN100mm	-30°C ~90°C
		Middle-size	DN50mm DN700mm	-30°C ~90°C
		Large-size	DN300mm DN6000mm	-30°C ~90°C
High temperature clam on type		Small-size	DN15mm DN100mm	-30°C ~160°C
		Middle-size	DN50mm DN700mm	-30°C ~160°C
		Large-size	DN300mm DN6000mm	-30°C ~160°C
Insert type		Standard length type Wall thckness ≤20mm	DN50mm DN6000mm	-30°C ~160°C
		Standard length type Wall thckness ≤70mm	DN50mm DN6000mm	-30°C ~160°C
		Parallel type used for narrow installation space	DN50mm DN6000mm	-30°C ~160°C
Inline type		π type inline	DN15mm DN32mm	-30°C ~160°C
		Parallel type used for narrow	DN40mm DN1000mm	-30°C ~160°C

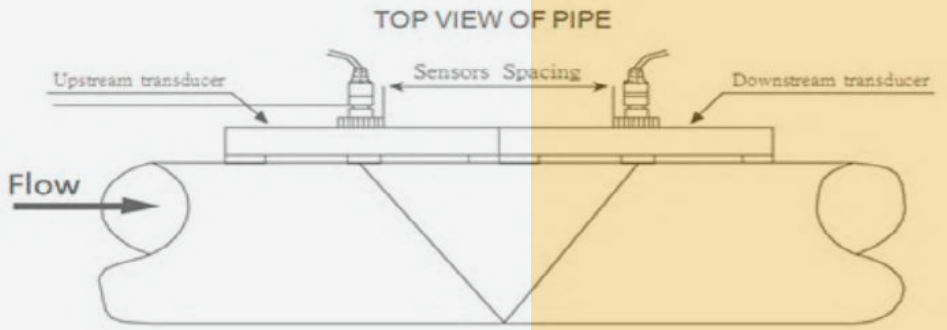
Temperature Sensor Model

PT100	Picture	Accuarancy	Cut off water	Measuring range	Measuring range
Clamp on		±1%	NO	DN15mm DN100mm	-30°C ~90°C
insertion sensor		±1%	YES	DN50mm DN700mm	-30°C ~90°C
Insertion type installation with pressure		±1%	NO	DN300mm DN6000mm	-30°C ~90°C
Insertion type for small pipe diameter		±1%	YES	DN15mm DN100mm	-30°C ~160°C

TRANSDUCERS INSTALLATION

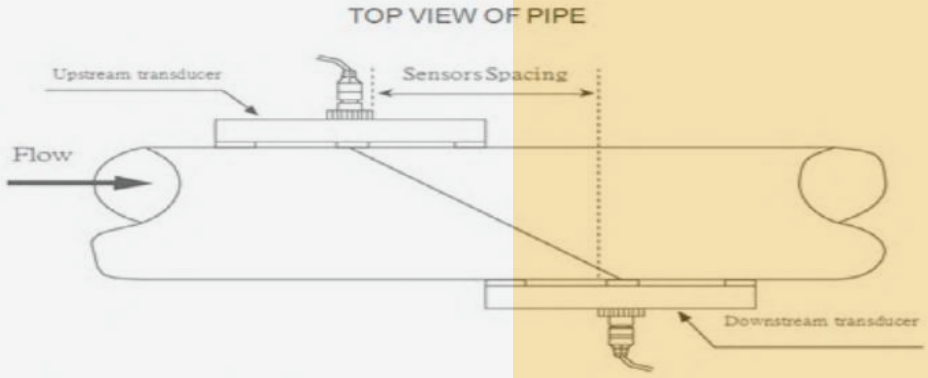
1. V-method Installation

V-Method installation is the most widely used mode for daily measurement with pipe inner diameters ranging from 15 mm to 200mm
It is also called reflective mode.



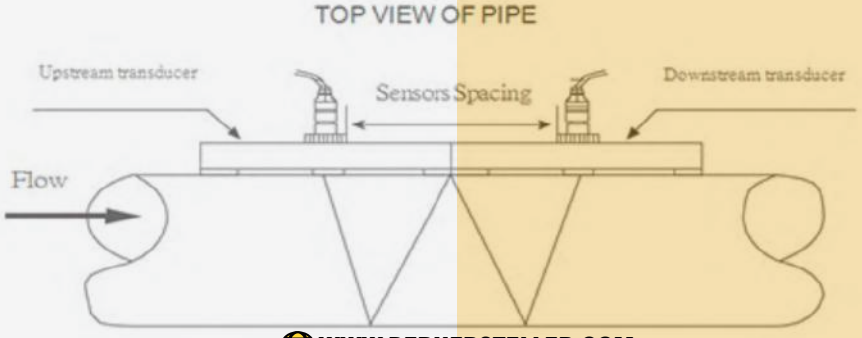
2. Z-method Installation

Z-method is commonly used when the pipe diameter is between 300mm and 500mm



3. Z-method Installation

W-method is usually used on plastic pipes with a diameter from 15mm to 100mm



2. Installation Selection

Clamp on installation

Insert installation

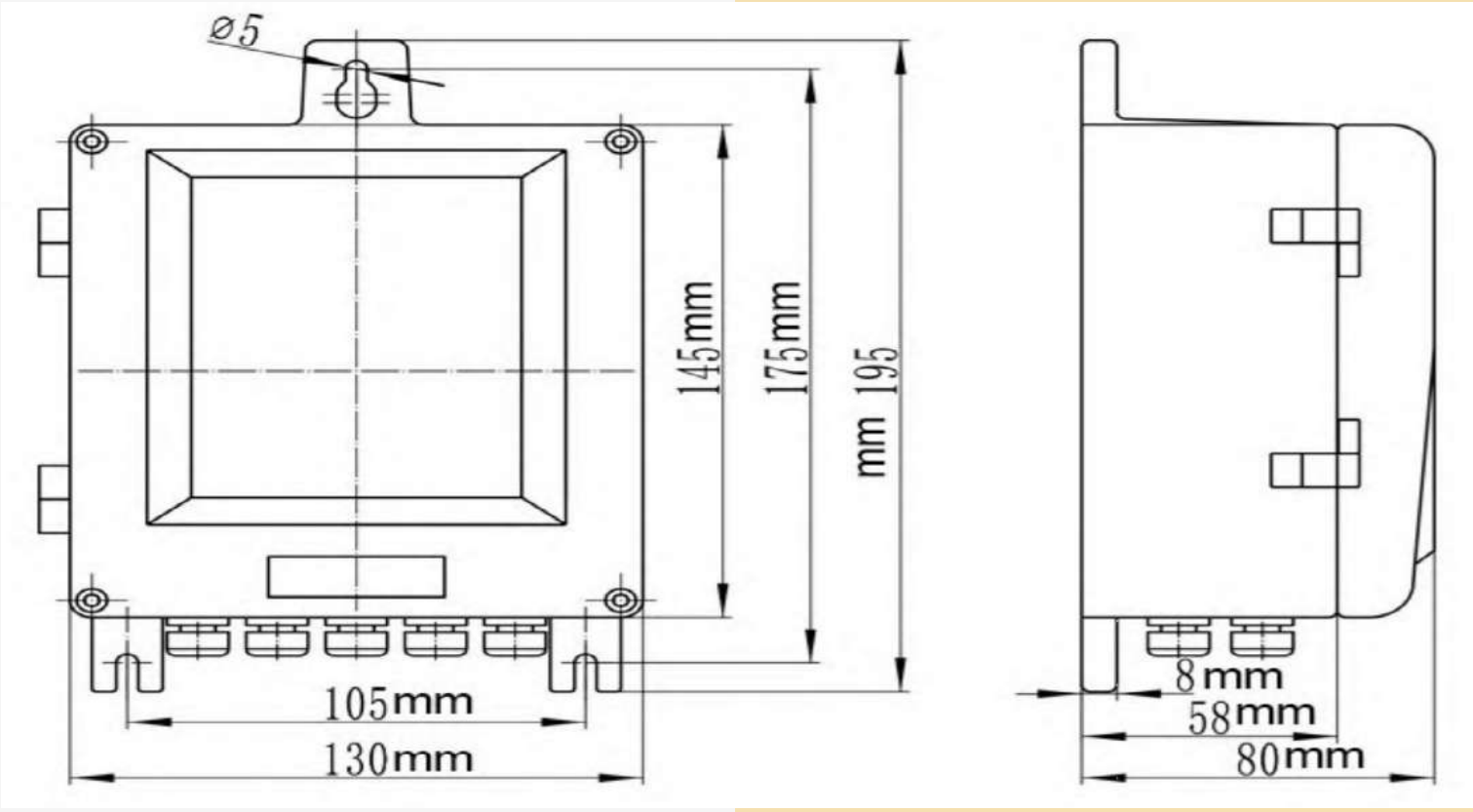
Inline type installation

Bracket sensor installation

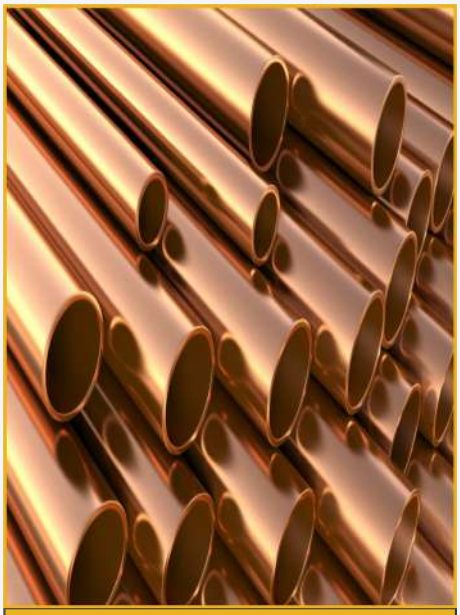
1 Bracket clamp sensor with clear scale, accurate installation assured and more convenient

2 If pipe material is fiberglass or cement, need select insertion transducer

3. Size Chart



3. Compatible With Many Material Pipes



Copper pipe

Galvanized pipe

Stainlees steel pipe

FRP pipe

Carbon steel pipe

Aluminum, Cement Pipe and Other Uniform Pipeline, Liner is allowable

MORE PRODUCTS





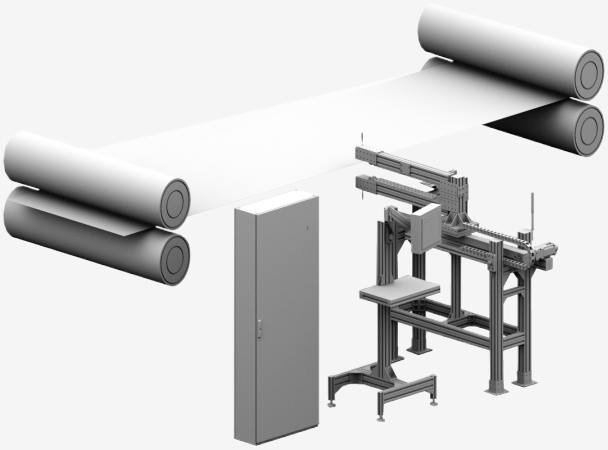








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