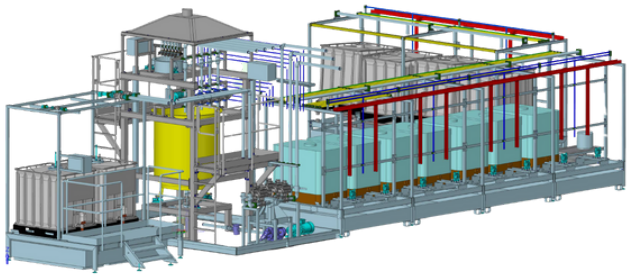
Teknomatik

POLYOL MIXING STATION



The SM Blend mixing station is designed for preparing polyols according to the desired recipe (reference).

Teknomatik
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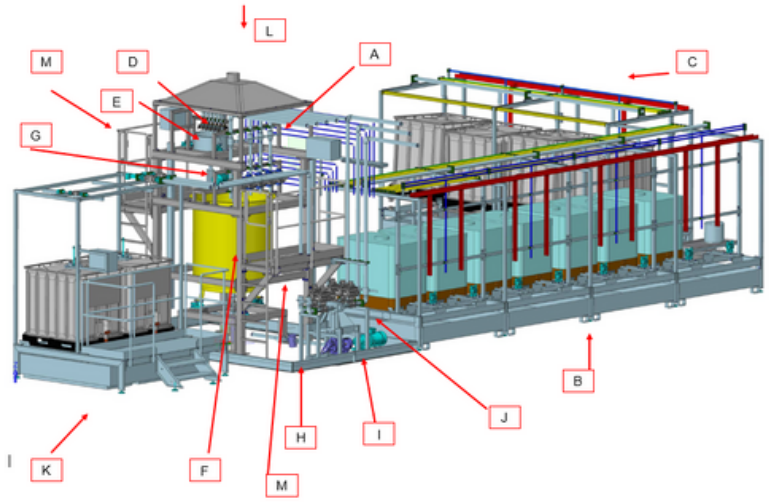
Polyol mixing station

The device **produces the final product** by mixing base **polyols** (5 types) with **additives** (12 types). The composition of the mixtures is arbitrary and depends on the currently selected reference. **Polyols** are dosed directly into the **main tank**. **Additives** are dosed into the additive tank, from which they are **transferred** to **the main tank**. The main tank is equipped with a mixer.
The finished product **can be transferred** to an integrated **IBC tank** filling station or to **external tanks.**
The station has **five transfer lines** equipped with automatically **controlled valves.**



DEVICE STRUCTURE		
A	Base polyol connection	5 lines equipped with automatic valves;
B	Additive pumping unit (fixed tanks)	8 stations equipped with diaphragm dosing pumps, permanently mounted tanks; at the last station, instead of a permanent tank, there is a place to connect a barrel;
C	Additive pumping unit (replaceable tanks)	4 stations equipped with CAMLOCK connections, ramps, and diaphragm dosing pumps;
D	Additive metering valves	12 automatic additive dosing valves;
E	Additive tank	75-liter capacity;
F	Main tank	capacity of 1500 liters;
G	Mixer	speed range: 100–280 rpm, minimum quantity of liquid to be mixed: 400 kg;
H	Filter for finished product with flow sensor	filtration and control of finished product transfer;
I	Transfer pump for finished product	gear pump;
J	Finished product distribution unit ("octopus")	finished product outlet connection, 5 transfer lines, pressure sensor;
K	IBC tank filling unit (finished product)	two stations (polyol and isocyanate) for filling IBC tanks;
L	Ventilation exhaust connection	ventilation connection;
M	Service platforms	platforms for servicing installations.

DESCRIPTION OF OPERATION	
Main Tank	**Additives tank**
Check initial conditions (tank empty, automatic valves closed)	Check initial conditions (tank empty, automatic valves closed)
Polyol dosing 1-5	Silicone dispensing 1 and 2
Silicone drain to the main tank and mixing of ingredients (5 minutes)	
Waiting for the water to drain	Water dosing
Draining water into the main tank and mixing ingredients (5 minutes)	
Waiting for chemical additives to be transferred	Dosing of chemical additives
Discharge of chemical additives into the main tank and mixing of ingredients (25 minutes)	
Product ready, waiting for transfer to start	
Transfer of finished product via selected transfer line	

ADVANTAGES

- **Automation of the polyol mixing and pouring process;**
- **Wide range of additive combinations;**
- **Safe and ergonomic design for the operator and maintenance personnel;**
- **Compliant with PN-EN ISO 12100, the machine is equipped with a number of technical safety measures such as: emergency stop switch, manual compressed air valve, guards, pictograms.**

TECHNICAL SPECIFICATIONS	
Basic parameters	
Power supply	400VAC, 50Hz
Installed power	6 kW
Compressed air supply	0,5 – 0,8 MPa
Size – mixing station (height x width x length)	4400 x 3000 x 4300 mm
Weight – mixing station	3300 kg
Size – accessory station (height x width x length)	2500 x 7400 x 9100 mm
Weight – add-on station	2800 kg
Size – pouring station (height x width x length)	3500 x 2350 x 2750 mm
Weight – pouring position	600 kg
Energy connection parameters	
Power supply	- voltage: 400VAC +N + PE, 50Hz - protection: C fuse, 32A - min. conductor cross-section: 4 mmq
Pneumatic power supply	- air pressure: 0.5 – 0.8 MPa - min. connection cross-section: Ø12 (internal)