

AUTOMATIC POLYMER PREPARATION STATION

Catalogue sheet



Automatic polymer station is used for preparing polymer solution for subsequent dosing to dewatering machines MP-DW series. Station consists of storage and mixing chambers. Storage chamber is source of polymer solution for use in dewatering, upper (mixing) chamber is used for preparing solution.

Both chambers are equipped with level probes. Once polymer in storage chamber drops below certain level, new preparation cycle is triggered.

After starting new preparation cycle, bypass valve between both chambers is closed, clean water valve (solenoid valve) is open. After mixing chamber is filled with clean water, dosing device of polymer (pump for liquid concentrate or powder dispenser) switches on, as well as mixing motor. After mixing of content of chamber is finished (time defined), content of chamber is transferred to storage chamber by opening the bypass valve. Solution concentration is defined by duration of operation of dosing device.

ASP (*Automatic polymer station*) is equipped with dedicated control box with HMI (touch screen panel) for controlling the device, setting up operation times and alarms debugging. ASP is either equipped with liquid polymer concentrate or screw powder dispenser for usage with powder-based polymers. When powder polymer version is used, hopper of powder dispenser is equipped with heating cables to avoid wetting of polymer powder and solenoid for knocking of hopper.

Parameters

Model	Tank material	Platform shape	Mixing tank [l]	Storage tank [l]	Polymer type	Max. solution output [l/h]	Weight [kg]	El. power [kW]
ASP220/110-SS-C	DIN1.4301 (AISI304)	Rectangle	110	220	Liquid	300	150	1
ASP220/110-SS-P	DIN1.4301 (AISI304)	Rectangle	110	220	Powder	80	170	1.1
ASP250/150-PP-C	PP - polypropylene	Circle	150	250	Liquid	430	120	1
ASP250/150-PP-P	PP - polypropylene	Circle	150	250	Powder	130	140	1.1
ASP700/450-PP-C	PP - polypropylene	Circle	450	700	Liquid	1200	200	1
ASP700/450-PP-P	PP - polypropylene	Circle	450	700	Powder	400	230	1.1
ASP750/400-SS-C	DIN1.4301 (AISI304)	Rectangle	400	750	Liquid	1100	290	1
ASP750/400-SS-P	DIN1.4301 (AISI304)	Rectangle	400	750	Powder	400	320	1.1
ASP1500/1450-SS-C	DIN1.4301 (AISI304)	Rectangle	1400	1550	Liquid	4200	500	1
ASP1500/1450-SS-P	DIN1.4301 (AISI304)	Rectangle	1400	1550	Powder	1300	530	1.1

Other parameters

Agitator speed	193 RPM
Water level probes	5x conductivity-based water level probes
Bypass valve	Electro actuator – with ball valve
Clean water inlet valve	solenoid valve or actuator with ball valve
Storage chamber drainage	Manual ball valve
Visual water level indication	Transparent pipe

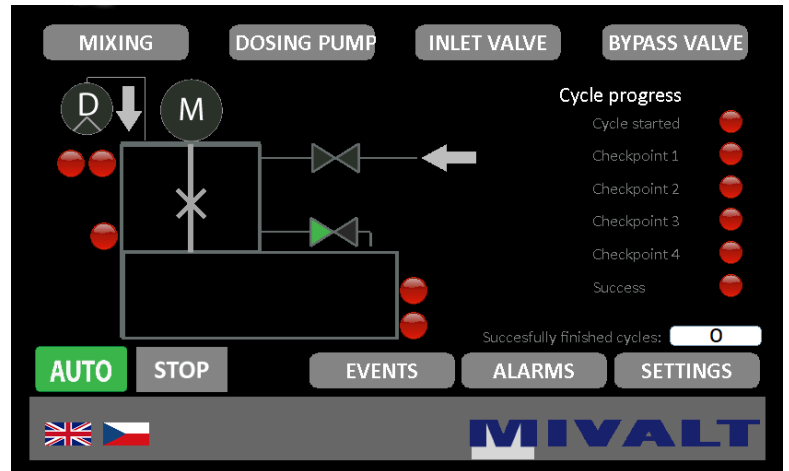
Powder dispenser parameters

Speed	56 RPM
Hopper material	DIN 1.4301 (AISI 304)
Heating power	10 W (230V AC)
Knock system	Solenoid 40W – 20 N
Heating cables switching	By measured hopper temperature (-20 ~ +95 °C)
Hopper capacity	10 [dm ³] or 30 [dm ³]

Liquid concentrate dosing pumps parameters

Type	Piston pump
Manufacturer	INJECTA
Max. flow	85 l/h
Piston diameter	48 mm
Max. head	10 bar
Speed	58 RPM
Stroke regulation	Manual

MIVALT



Powder dispenser

HMI Home screen

Manufacturer

MIVALT s.r.o.

Prokofjevova 23, Brno 623 00, Czech republic

mivalt@mivalt.eu, www.mivalt.eu, +420 775 660 062