



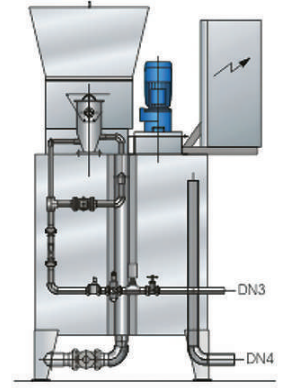
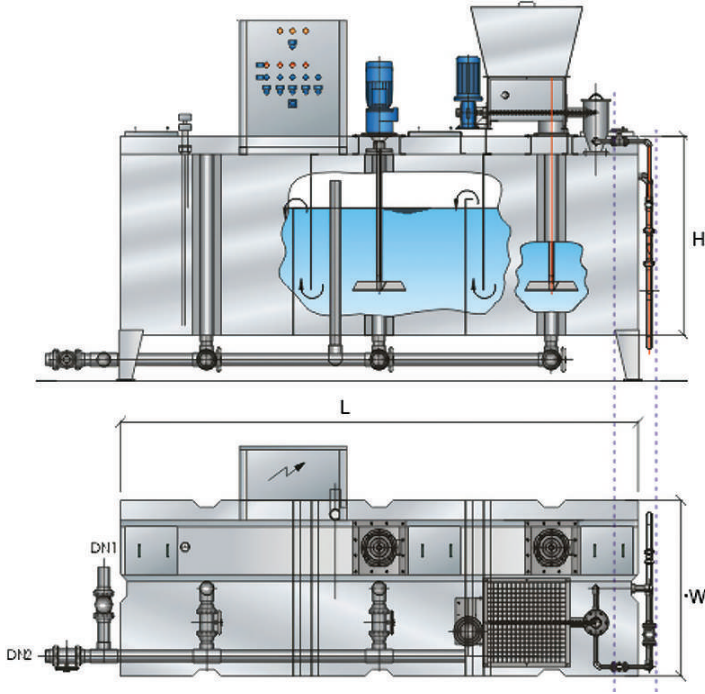
AUTOMATIC POLYMER PREPARATION PLANT - APP

Flocculation is a vital stage in the water treatment, drinking water and wastewater plants. In these processes, polymeric flocculating agents are used to reduce operation costs in coagulation and flocculation systems. Polymer agents, which are long-chain organic molecules, mixed with water produce attraction forces on the suspended solids or sludge particles. These conglomerated flocs ease settling, dewatering or filtering processes. Polymeric agents are also used for other industrial solid/liquid separation applications, such as in chemical industries, petrochemical plants, pulp and paper plants, food industries and others.

Astim designs and manufactures Automatic Polymer Preparation Plants which are suitable for above mentioned processes. Astim standardized ready to use APP type chemical preparation and dosing unit is suitable to prepare and meter polymeric flocculation agents and other suitable materials such as hydrated lime, copperas, etc. The unit can also be supplied with large silos and dry material feeding components.

A standard fully automated APP minimizes operator attention. All operations are performed via a control panel keeping the feeding hopper field with polymer is the only required manual labor for fully automatic continuous operations of the system.





MODEL	TANK VOLUME (m ³)	L	W	H	DN1	DN2	DN3	DN4
APP-1000	1	1.415	975	1.000	25	40	20	40
APP-2000	2	1.915	975	1.000	25	40	25	40
APP-3000	3	2.915	975	1.000	25	40	25	40
APP-4000	4	2.915	1.225	1.250	25	40	32	40
APP-5000	5	2.915	1.225	1.500	40	50	32	50
APP-6000	6	4.416	1.225	1.250	40	50	32	50
APP-7000	7	4.416	1.225	1.500	40	50	40	50
APP-8000	8	4.416	1.476	1.250	40	65	40	65
APP-9000	9	4.416	1.476	1.500	40	65	50	65
APP-10000	10	4.416	1.696	1.500	40	65	50	65

all dimensions in mm

MAJOR COMPONENTS

Polymer feeder consists of a hopper and a specially developed metering screw. The outlet nozzle of the feeder is heated electrically to avoid humidity. Disperser cone is the most important component consisting of an ejector, which effectively mixes and transports the water polymer mixture into the preparation chamber.

Automatic and easily adjustable water supply device is consisting of shut-off valve, solenoid valve, pressure switch and float type flow meter in order to feed the water into the tank, thus allowing controlling the concentration of the solution. The preparation chamber is equipped with a mixer and the maturation chamber is equipped with an agitator to provide full activation of polymer concentrate. Optimal mixing and aging time, properly designed gentle mixing and agitating devices provide the necessary conditions to maximize of long chain polymer molecules. These well engineered stages do not only allow maximum usage of polymer concentrate but also reduce operating cost.

ADDITIONAL FEATURES

The standard plant, which is designed for dry polymers, can be easily converted to handle liquid type polymers. APP is capable of preparing solutions with concentrations from 0.05 to 0.5 %. By changing the speed of the metering screw, the feed rate can be easily adjusted. Also by dilution panels requested concentration can be achieved. Optionally the control panel can be equipped with graphic display and PLC to obtain more comfortable operation. The dosing chamber may also be equipped with agitator upon request.



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