



**POWDER**  
**Polymer Preparation Unit KD37**



# Polymer Preparation Unit, Powder KD37

The KD 37 polymer preparation unit is a newly developed polymer preparation unit for powder polymers which can also be used for liquid polymers.

The polymer preparation unit is constructed entirely in stainless steel quality SS 304.

The polymer preparation unit is designed as one combined unit containing dosing unit, mixing- & maturation tank, control cabinet and polymer pump (for ready-to-use solution).

The polymer preparation unit is designed for a maturity period of minimum 60 minutes for mixtures of 0.5%.

The control system is built into a stainless steel control cabinet equipped with a logic module which handles powder dosing and polymer admixture control.

The unit is fully automatic and when the solution has been adjusted, the unit works without further interference - except for polymer filling. An optional polymer handling system can also take care of this.

The unit is designed with 3 tanks in series. In the first tank polymer and water are mixed. This mixing is performed in two different ways: water and polymer are mixed by means of a water nozzle and a heavy mixing of the solution is performed. When tank no. one is filled, the solution flows into tank no. two. The purpose of this tank is to mature the solution. In tank two a slow mixing

is performed. When tank two is filled, the mixture flows into tank no. three. The third tank is the consumption tank and a slow mixing is also performed in this tank ensuring a uniform mixture.

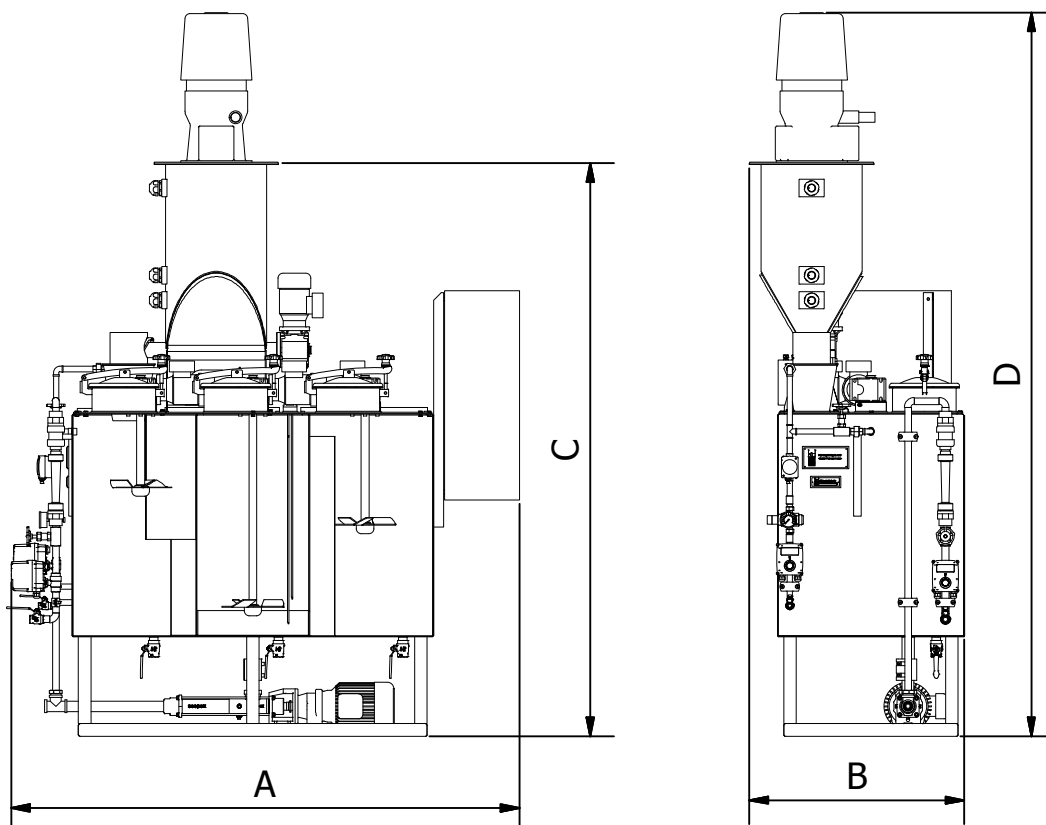
The powder is filled into the hopper manually (option for automatic powder handling, see elsewhere). The hopper has 3 level indicators for powder level indication. The hopper is equipped with heating which ensures a dry and viscous polymer. This heating is regulated automatically by means of a thermostat.

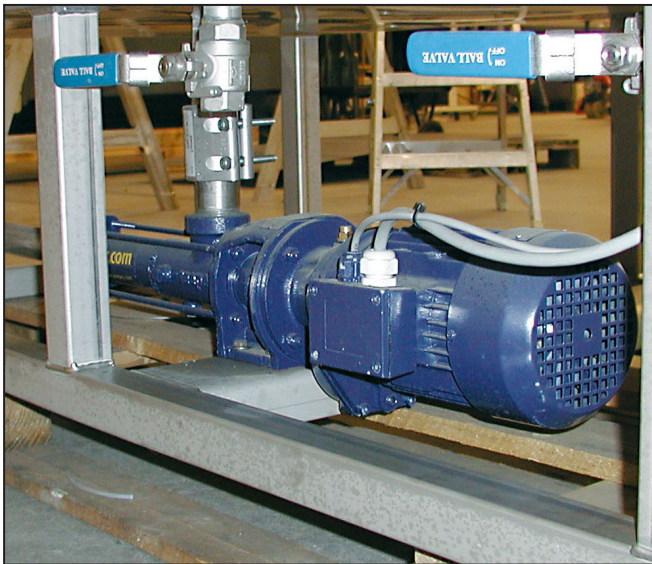
The water inlet is equipped with pressure regulator and water meter in order to achieve correct water pressure and water flow.

Water and polymer admixture is performed automatically by means of level indicators in consumption tank no. three. When a certain amount of solution has been used, the filling sequence starts automatically.

Powder dosing unit and solution pump is controlled by frequency regulation permitting a precise calculation and regulation of concentration and polymer flow.

Alarms for insufficient water, water pressure, polymer, etc. are shown on the display. Polymer preparation unit, alarms, etc. are operated by potential free signals.





**Options:**

Commissioning

Digital powder weighing instrument and stop watch.

Powder handling

The polymer preparation unit can be equipped with automatic powder handling from sacks by means of a powder suction device which automatically sucks powder from the sack to the powder container.

Liquid polymer

The unit can be equipped with a pump for liquid polymer.



Model	KD 37-250	KD 37-500	KD 37-750	KD 37-1000	KD 37-1250	KD 37-1500	KD 37-2000	KD 37-2500
A [mm]	1890	2040	2340	2190	2490	2490	2940	3690
B [mm]	862	862	862	1062	1062	1062	1062	1062
C [mm]	2200	2300	2300	2500	2500	2700	2700	2700
D [mm]	2805	2902	2905	3105	3105	3305	3305	3305
Volume [liter]	440	710	890	1325	1610	1950	2465	3320
Polymer [Kg] <sup>1)</sup>	2,20	3,55	4,45	6,63	8,05	9,76	12,33	16,60
Sludge load [kgSS] <sup>2)</sup>	367	592	742	1104	1342	1627	2054	2767
Pump capacity [l/h]	500	750	1000	1500	2000	2500	3000	3500
Water connection	DN15	DN15	DN15	DN20	DN20	DN20	DN25	DN25
Connection after diluting	DN20	DN20	DN25	DN32	DN40	DN50	DN50	DN50
Polymerconnection, dim.	DN32	DN32	DN40	DN40	DN50	DN60	DN80	DN80
Power	2,00 kW	2,20 kW	2,50 kW	3,00 kW	3,20 kW	3,50 kW	4,00 kW	4,50 kW
<b>Specifications</b>								
Material	Stainless steel EN1.4301, dip-pickled after manufacturing							
Gear drive	NordGear							
Pump for polymer solution	Seepex							

<sup>1)</sup> Polymer consumption at max. concentration 0,5%

<sup>2)</sup> The polymer consumption is assumed to be maximum 6 kg activated polymer pr. ton SS



01.2015 GB