

# HIGH SHEAR COLLOIDAL MIXERS



## HCM

The HCM line of high-shear (colloidal) mixers is recognized worldwide for its excellent mixing performance, efficiency and wear resistance. The HCM mixers will effectively mix water with bentonite, cement, micro-fine cement and other admixtures. Sand up to 8 mm particle size can be added on the smaller models HCM 300 and HCM 600. The mixers can be equipped with a weighbatching system to automatically batch and mix up to 3 dry components with water.



Model	HCM	100	300	600	800	2500
Capacity, max. (W/Z ratio = 1)	m <sup>3</sup> /h	2	5	8	20	40
Circulation capacity	l/min	540	1100	1400	2400	4800
Usable content	Litres	100	260	550	800	2500
Maximum particle size	mm	3	8	8	3	-
Motor rating 50 Hz	kW	3	5.5	9	22	45
Motor rating 60 Hz	kW	3.6	6.6	11	25	52

# AGITATORS

## HRW

The HRW agitators are used as holding tanks between the HCM batch mixers and the pump. Through the slowly revolving agitator, the grout suspensions are homogenized and possible air bubbles removed.



Model	HRW	160	350	800	1200	3000
Usable content	l	160	350	800	1200	3000
Motor rating 50 Hz	kW	0.75	0.55	0.55	1.5	3
Motor rating 60 Hz	kW	0.9	0.66	0.66	1.8	3.6

# GROUT PUMPS



## ZMP 600/ZMP 700 SERIES

A full range of ZMP Grout Pumps cover almost every grouting requirement. These low-wear plunger type pumps handle a wide variety of grout mixes from neat cement suspensions to backfill mortar with sand up to 8 mm particle size. All pumps are equipped with the Automatic Pressure Control System (APC). With this system, the maximum pressure can be preset on the hydraulic power pack. Whenever the preset pressure is reached, the pump automatically adjusts its output according to the grout take of the ground. Whenever the grout take ceases, the pump stops and maintains the pressure. The output can also be controlled by adjusting the pump to the requirement of the particular work. The ZMP 700 series can be equipped with different plunger units to cover a wide range of applications. The plunger units can be changed on site within a few minutes.

Model	ZMP	610	625	710			711			712			725			726			
Vertical/Horizontal		V	V	V/H			V/H			V/H			V/H			H			
Plunger unit dia.	mm	65	65	85	105	120	85	105	120	85	105	120	85	105	120	85	105	120	
Capacity, max. (W/C ratio = 1)	m <sup>3</sup> /h	1.2	2	4	5.3	8	3	4	6	2.4	3.6	4.8	5.7	8.5	11	6.6	8.8	13	
Pressure, max.	bar	100	100	100	68	50	20	14	10	90	58	45	100	68	50	100	68	50	
Particle size, max.	mm	5	5	8			8			8			8			8			
Motor rating 50 Hz	50 Hz	kW	4	5.5	5.5			4			7.5			9			30		
Motor rating 60 Hz	60 Hz	kW	4.8	6.6	6.6			4.8			9			11			34		



**ZMP 610**  
Single acting vertical pump



**ZMP 710**  
Single acting pump for all applications



**ZMP 625**  
Double acting vertical pump



**ZMP 725**  
Double acting versatile pump with high capacity for grouting and backfilling



**ZMP 711**  
Low cost pump for all applications up to 20 bar pressure



**ZMP 726**  
Double acting pump with high pressure/high output characteristics for long distance pumping and jet grouting

**ZMP 712**  
Single acting economic pump for all applications