

Grout pumps



Häny low-wear plunger type grout pumps are available as single or double acting units. The unique control of the suction stroke prevents sedimentation of material on the suction valves. This eliminates the need for mechanically controlled valves even when pumping viscous grouts or mortar with particle sizes of up to 8 mm. These pumps therefore, are suitable for all grouting work as well as for the pumping of backfill mortar behind tunnel liners.

GROUTING SYSTEMS



HÄNY

The Plunger Pump System

The difference between the plunger and the piston pump system is that the plunger system does not require any close tolerance parts such as cylinders or precise piston seals, etc. The plunger is sealed by a simple maintenance-free seal. Plungers with various diameters can be mounted on the ZMP 700 series of pumps. This grants the highest possible pressure and output ranges flexibility for each individual model.

Automatic Pressure Control (APC)

The ZMP 700 pumps are equipped with control valves which allow precise pre-setting of the maximum grout pressure. When the pre-set pressure is reached, the pump delivers only as much grout as the injection point will take at the pre-set pressure. If there is no more grout take, the pump automatically stops and maintains the pressure for any time period. Low pressures of only 1 bar can be pre-set on some models. The APC system guarantees safe grouting of delicate formations without risking hazardous overpressure.

Flow control

The built-in flow control permits the setting of a maximum flow rate. With this feature, slow penetration of soft ground can be achieved without risking segregation of the grout or creating new voids. The flow control together with the APC pressure control system allows the use of these pumps for permeability tests.

Valves

The grout valves are made of high grade alloy steel for long life. The valve seats are reversible. The special design of the hydraulic system provides for a high speed suction stroke of the plunger, which creates a relatively high grout velocity in the suction valves. Thus, heavy particles will be flushed away and the valves are kept clear. The design of the valves allows pumping of grouts with low water/cement ratios or sanded grouts with a particle size of up to 8 mm.



ZMP 610V/611V
Economic single acting,
pump for all applications



ZMP 625V
Double acting pump for all
applications



ZMP 710V
Versatile single acting,
pump for all applications



ZMP 712V
Economic single acting,
pump for all applications



ZMP 725V
Versatile high capacity double acting
pump for all applications

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

Maintenance

In the design of these pumps, Häny has paid great attention to simple maintenance and easy cleaning. The suction and discharge valves can be dismantled quickly. The plunger seal consists of maintenance free, wear resistant seal rings.

Modular Pump System

The pumps of the ZMP 700 series are designed as an interchangeable modular system. The pump modules are identical on both single and double acting units. Thus wear and spare parts are also identical throughout the entire line which simplifies the stocking of spare parts.

ZMP 810V

Single acting high-pressure grout pump

ZMP 812V

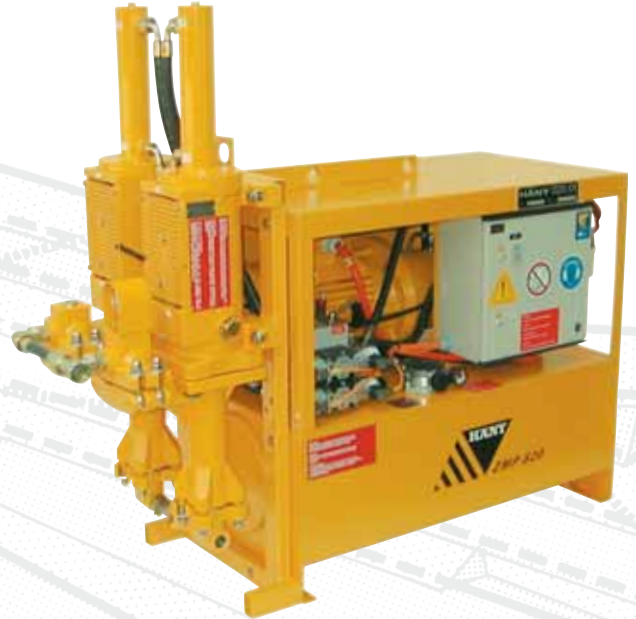
Single acting, economic high-pressure grout pump

ZMP 820V

Double acting, high-pressure grout pump

ZMP 826V

Double acting high-pressure grout pump with high pressure/high output characteristics



Häny single acting grout pumps

Model	ZMP	610V	611V	710V			712V			810V	812V	
Plunger ø	mm	65	65	85	105	120	85	105	120	60	60	
Capacity max. (W/C ratio = 1)	m³/h	1.5	2	3.9	5.5	7.5	2.4	3.8	4.9	1.9	1.3	
Pressure max.	bar	100	75	100	68	50	88	58	44	200	177	
Pressure min.	bar	3	3	2	1.5	1	2.5	2	1.5	12	12	
Particle size max.	mm	5	5	8			8			3	3	
Motor rating	50 Hz	kW	5.5	5.5	5.5			7.5			15	7.5
	60 Hz	kW	6.3	6.3	6.3			8.6			17	8.6

Häny double acting grout pumps

Model	ZMP	625V	725V			726V			820V	826V	
Plunger ø	mm	65	85	105	120	85	105	120	60	60	
Capacity max. (W/C ratio = 1)	m³/h	2	5.9	9	11.7	6.5	9.9	13	3.4	3.2	
Pressure max.	bar	100	100	68	50	100	68	50	200	200	
Pressure min.	bar	3	2	1.5	1	8	5	4	12	15	
Particle size max.	mm	5	8			8			3	3	
Motor rating	50 Hz	kW	5.5	9.2			30			18.5	30
	60 Hz	kW	6.3	10.5			36			21	36



1) Channel Tunnel Rail Link-CTRL Contract 240: PLC controlled backfill plant with ZMP 712 and ZMP 725 grout pumps. London.

2) Grout plant with automated mixing of grout with high sand content up to 8 mm particle size and ZMP 726 high performance pump. Birmingham AL, USA.



3) Automated mixing plant MCI 2000/726 with ZMP 726 high performance pump for the transport of grout suspension (W/C ratio 0.7) over a distance of 3,750 m. Boston.

4) Automated mixing plant MCI 2000/725 with 2 grout pumps ZMP 725 to supply 2 drill rigs for soil-mixing. Bangkok.



5) Grout plant with automated weigh-batching and four grout pumps for general grouting work. Bratislava.

6) Grout plant with 2 pumps ZMP 712 for consolidation grouting. Madrid.

Häny AG reserves the right to make improvements and modifications to their equipment without notice.

GROUTING SYSTEMS

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Häny AG • Buechstrasse 20 • CH-8645 Jona/Switzerland
Tel. +41 44 925 41 11 • Fax +41 44 923 62 45 • info@haeny.com • www.haeny.com