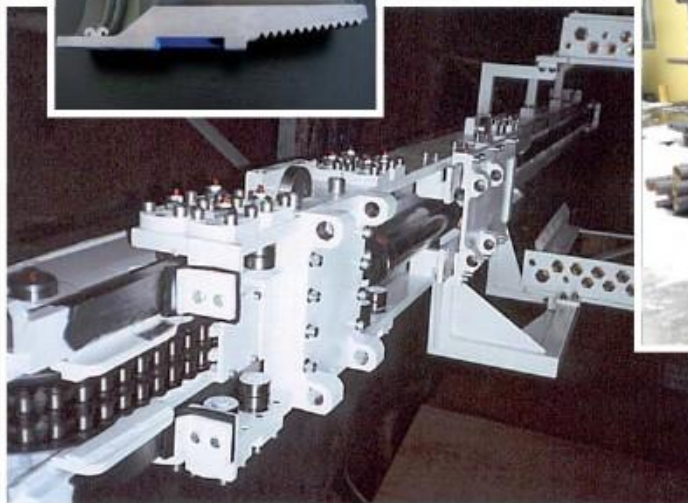


HAPON
SPOL·S R·O·[®]







INJECTION PUMP HAPONIC 1080



is designed for grouting and transport of cement, concrete or other abrasive materials. It is equipped with an electro-hydraulic drive which allows the fine setting of pressure and transport volume as well as setting the maximum injection pressure. Its advantages include easy maintenance and service.

The pump has the option of connecting a hydraulic circuit in two different modes (either higher pressure and lower volume capacity - or lower pressure and higher volume capacity - see table of basic technical data). The machine is equipped with a digital display indicating the number of strokes since reset.

The machine is equipped with a digital display indicating the number of strokes since reset. The pressure of pumped material is indicated by a classic pressure gauge. The plunger seal is lubricated in an oil bath in a clear container thus allowing simple visual monitoring.

The suction and delivery pipes are equipped with three-way taps which facilitate rinsing of the machine without dismantling of the suction and delivery parts, thus enabling easy cleaning.

All control elements are located under a locked cover..This prevents any damage caused by unqualified personnel.

The machine may be equipped with a socket for remote control, so with the aid of a special device the machine can be switched on and off. A digital pressure indicator with 0,5% accuracy and 0,01 MPa.

Differential ability may also be installed. It is possible to ask the supplier to equip the pump with an electronically controlled hydrogenerator, monitoring during grouting, etc.

The machine design also allows several working units to be connected into one technological unit.

TECHNICAL SPECIFICATIONS

	Fast run	Slow run
Max. output pressure	4 MPa	10,5 MPa
Max. supply of material	60 l/min	20 l/min
Power input	5,5 kW	
Dimensions	length 1000 mm	
	width 710 mm	
	height 1320 mm	
	cca 550 kg	

Complete weight (with oil)



FLUSHING PUMP HAPONIC GG 125x500



is plunger pump designed for grouting and transport of cement, concrete or other abrasive materials. It is equipped with an electro-hydraulic drive which allows the fine setting of pressure and transport volume as well as setting the maximum injection pressure.

Its advantages include easy maintenance and service.

The machine is equipped with a digital display indicating the number of strokes since reset.

The pressure of pumped material is indicated by a classic pressure gauge. The plunger seal is lubricated in an oil bath in a clear container thus allowing simple visual monitoring.

The suction and delivery pipes are equipped with three-way taps which facilitate rinsing of the machine without dismantling of the suction and delivery parts, thus enabling easy cleaning

All control elements are located under a locked cover..This prevents any damage caused by unqualified personnel..

TECHNICAL SPECIFICATION

Max. output pressure	4 Mpa
Max. supply of material	250 l/min*
Power input	22 kW
Complete weight (with oil)	1650 kg
The noise level of the machine does not exceeds	88 dB
Dimensions	length 1000 mm width 710 mm height 1320 mm
Power supply	63A



* This data is only theoretical, without taking in to an account of the situation on the working site, which is changing - such as pressure, viscosity and specific weight of pumped material, speed of plungers and others.



INJECTION MIXER HAPONIC IS 250C



Is high output machine for preparation injection mixtures (cement, water, bentonite) for special foundation work in the construction industry.

The machine consists of an activator with circulating pump, mixer and injection pump, which can be removed from the frame and used independently..

The vessel is equipped with water supply pipes (with an outlet fitted with a hose for the machine cleaning) and a pin used for opening of paper bags.

. The layout of the machine is such, that all the controls are operated from one place.

After the activation vessel is filled with the individual components and the circulation pump is switched on, the mixture is sucked from the activation vessel through a delivery pipe and two-way closing valve with tangential inlet back to the vessel. As a result the mixture is intensively mixed and all small solid fragments are splintered. Due to the high output of the COLCRETE mixer, the activation is completed within one minute. After that the mixture is transferred to a vessel, where it is mixed by means of low speed screw and sucked as needed by HP1080 injection pump..

TECHNICAL SPECIFICATION

Power output	cca 5 m ³ /hod
Activation mixer	working volume 250 l circulation pump COLCRETE input 11 kW
Mixer	working volume 320 l screw drive DP100 power input 2,2 kW
Injection pump	Haponic HP1080 power input 5,5kW max. output pressure 4 / 11 MPa max. supply of material 60 / 20 l/min
Dimensions	length 2010 x width 1700 x height 1850 mm
Total power input	20 kW
Total weight	cca 1400 kg



FLUSHING PUMP HAPONIC VP 125/400



is designed to transport concrete or similar materials. Its main use is the pumping of rinsing suspension during rotary drilling. Its advantages include easy maintenance and service

In the extreme situation it is possible for short time to overload the flushing pump and use it as an injection pump. It can be installed directly onto a drilling unit of corresponding dimensions. (eg. open mine drilling units Hausherr). The pump is driven by hydraulic aggregate carriers.

The pump has two drive cylinders arranged above each other, anchored by fixed pistons at each end. There are small canals along the axis of the piston allowing the inflow and outflow of oil. The lateral area of the cylinders moves in a manner which, with the aid of collars and centric a carrier, is then transmitted along the co-axis with arranged plungers between the hydraulic cylinders. The centric carrier joins both plungers, but also allows the plungers a certain radial movement - it is important to the life expectancy of the seal. The operating cylinder, the cylinder head and the hub of the seal are manufactured in one piece, individually for each plunger. Simple valves with a freely floating ball as a closing device are easily dismantled and accessible for cleaning. The seal with a stuffing box flange enables not only a Chevron packing (standard step) to be used but also a packing cord for example, when necessary. The machine is equipped with independent water distribution for seal lubrication.

The VP 125/400-A pump is installed into a simple frame together with the hydraulic aggregate. The entire machine is driven by a 15 kW electric motor, reaching an output of 3,2 MPa without overload.

TECHNICAL SPECIFICATIONS

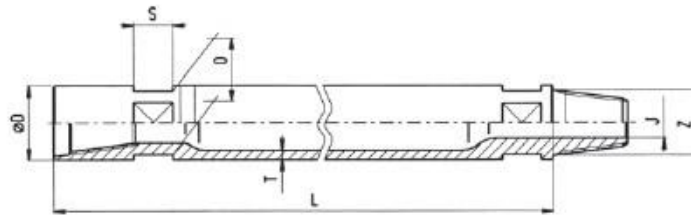
	125/400	125/400A
Max. output pressure	4 MPa	3,2MPa*
Max. supply of material	200 l/min	200 l/min
Power supply		15 kW
Machine weight		cca 1150 kg
Dimensions		
Width	500 mm	1000 mm
Height	750 mm	1100 mm
Lenght	1900 mm	1915 mm



* with regard to the electric motor overload



Drill Rods

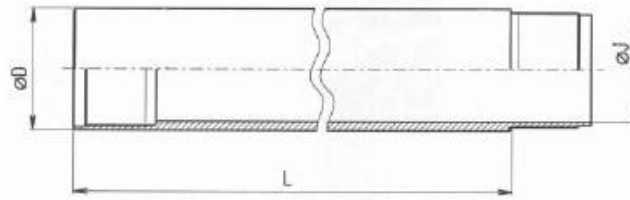


Drill rods (friction or fusion welded) at all popular sizes with nitrided threads to increase resistance against abrasion.

Diameter D	Thread Z	Wall Thickness. T	Length L	Weight	Inside. Diameter J	Square/Width O/S
76	2 3/8" Reg	4	1000	12,-	25	60/40
76	2 3/8" Reg	4	1500	16,-	25	60/40
76	2 3/8" Reg	4	2000	19,-	25	60/40
76	2 3/8" Reg	4	3000	24,-	25	60/40
76	2 3/8" Reg	4	1000	12,-	25	64/40
76	2 3/8" Reg	4	1500	16,-	25	64/40
76	2 3/8" Reg	4	2000	19,-	25	64/40
76	2 3/8" Reg	4	3000	24,-	25	64/40
76	2 3/8" Reg	6,3	1000	17,-	25	64/40
76	2 3/8" Reg	6,3	1500	23,-	25	64/40
76	2 3/8" Reg	6,3	2000	28,-	25	64/40
76	2 3/8" Reg	6,3	3000	39,-	25	64/40
89	2 3/8" Reg	4	1000	16,-	25	65/40
89	2 3/8" Reg	4	1500	20,5	25	65/40
89	2 3/8" Reg	4	2000	25,2	25	65/40
89	2 3/8" Reg	4	3000	34,5	25	65/40
89	2 3/8" Reg	6,3	1000	19,-	25	65/40
89	2 3/8" Reg	6,3	1500	25,-	25	65/40
89	2 3/8" Reg	6,3	2000	31,-	25	65/40
89	2 3/8" Reg	6,3	3000	43,-	25	65/40
89	2 3/8" Reg	4	1000	16,-	25	76/40
89	2 3/8" Reg	4	1500	20,5	25	76/40
89	2 3/8" Reg	4	2000	25,2	25	76/40
89	2 3/8" Reg	4	3000	34,5	25	76/40

Diameter D	Thread Z	Wall Thickness T	Length L	Weight	Inside Diameter D	Square/Width O/S
89	2 3/8" Reg	6,3	1000	19,-	25	76/40
89	2 3/8" Reg	6,3	1500	25,-	25	76/40
89	2 3/8" Reg	6,3	2000	31,-	25	76/40
89	2 3/8" Reg	6,3	3000	43,-	25	76/40
89	2 7/8" Reg	6,3	1000	20,-	31,75	76/40
89	2 7/8" Reg	6,3	1500	26,-	31,75	76/40
89	2 7/8" Reg	6,3	2000	32,-	31,75	76/40
89	2 7/8" Reg	6,3	3000	44,-	31,75	76/40
89	2 3/8" IF	6,3	1000	18,-	44,5	76/40
89	2 3/8" IF	6,3	1500	24,-	44,5	76/40
89	2 3/8" IF	6,3	2000	30,-	44,5	76/40
89	2 3/8" IF	6,3	3000	42,-	44,5	76/40
89	2 3/8" IF	6,3	6000	78,-	44,5	76/40
114	2 7/8" Reg	6,3	1000	27,6	55	95/40
114	2 7/8" Reg	6,3	1500	36,-	55	95/40
114	2 7/8" Reg	6,3	3000	61,5	55	95/40
114	3 1/2" Reg	6,3	1000	27,6	38	95/40
114	3 1/2" Reg	6,3	1500	36,-	38	95/40
114	3 1/2" Reg	6,3	2000	44,8	38	95/40
114	3 1/2" Reg	6,3	3000	61,5	38	95/40
114	3 1/2" Reg	6,3	6000	112,2	38	95/40
114	3 1/2" Reg	8	1000	31,7	38	95/40
114	3 1/2" Reg	8	1500	42,2	38	95/40
114	3 1/2" Reg	8	2000	53,-	38	95/40
114	3 1/2" Reg	8	3000	73,8	38	95/40
114	3 1/2" Reg	8	6000	136,5	38	95/40
127	3 1/2" IF	9,5	1000	40,7	66	108/40
127	3 1/2" IF	9,5	1500	55,15	66	108/40
127	3 1/2" IF	9,5	2000	69,6	66	108/40
127	3 1/2" IF	9,5	3000	98,5	66	108/40
140	4 1/2" Reg	8	1000	42,5	54	127/40
140	4 1/2" Reg	8	1500	55,4	54	127/40
140	4 1/2" Reg	8	2000	68,4	54	127/40
140	4 1/2" Reg	8	3000	94,3	54	127/40

Casing



Diameter D	Inside Diameter J
108	95,4
108	93
108	92
108	90
108	88
108	86
108	83
114	101,4
114	99
114	98
114	96
114	94
114	92
114	89
121	108,4
121	106
121	105
121	103
121	101
121	99
121	96
133	120,4
133	118
133	117
133	115
133	113
133	111
133	108
140	127,4
141	125
142	124
143	122
144	120
145	118
146	115

Diameter D	Inside Diameter J
146	133,4
146	131
146	130
146	128
146	126
147	124
148	121
152	139,4
152	137
152	136
152	134
152	132
152	130
152	127
168	155,4
168	153
168	152
168	150
168	148
168	146
168	143
178	165,4
178	163
178	162
178	160
178	158
178	156
178	153
194	181,4
194	179
194	178
194	176
194	174
194	172
194	169

Diameter D	Inside Diameter J
219	206,4
219	204
219	203
219	201
219	199
219	197
219	194

245	232,4
245	230
245	229
245	227
245	225
245	223
245	220

254	247,7
254	239
254	238
254	236
254	234
254	232
254	229

Diameter D	Inside Diameter J
273	260,4
273	258
273	257
273	255
273	253
273	251
273	248

324	311,4
324	309
324	308
324	306
324	304
324	302
324	299

419	406,4
419	404
419	403
419	401
419	399
419	397
419	394

Large profile threaded casings

Diameter D	Inside Diameter J
355,6*	333,6
406,4	381,4
457	432
508	483
559	534

Diameter D	Inside Diameter J
610	585
660	630
711	681
762	732
813	781



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