

Säljaren åtar sig att för köparens räkning utföra leverans enligt nedan.

Köpet finansieras genom leasingbolag, varför det formella köpet görs av annan part som meddelas senare.

1

**Omfattning / Scope**

Delivery of two (2) HÄNY Grout Plants according to the following specification:

<u>Units</u>	<u>Description</u>	
2	<b>GROUT PLANT MCI 650/610-625</b> For mounting on a platform approx. 650 x 240 cm, consisting of:	
1	<b>HIGH-SHEAR MIXER HCM 300</b>	
	Mixing Pump	TMP 22
	Circulation capacity	1 400 l/min
	Speed of mixing pump	1 750 min <sup>-1</sup>
	Specific gravity $\gamma$ max.	1.88 kg/dm <sup>3</sup>
	Usable content	260 l
	Mixing capacity (w/c ratio = 1) approx.	6 m <sup>3</sup> /h
	Electric motor 400 V	9 kW
2	<b>AGITATOR HRW 350</b>	
	Tank content	350 l
	Electric motor 400 V, 50 Hz, 1 450 min <sup>-1</sup>	0,55 kW
2	<b>GROUT PUMP ZMP 610V</b>	
	Max. output	25 l/min
	Max. pressure	100 bar
	Min. pressure	3 bar
	Max. grain size	5 mm
	Electric motor 400 V, 50 Hz, 1 450 min <sup>-1</sup>	5,5 kW

2	<b>GROUT PUMP ZMP 625V</b>	33 l/min
	Max. output	100 bar
	Max. pressure	3 bar
	Min. pressure	5 mm
	Max. grain size	5,5 kW
	Electric motor 400 V, 50 Hz, 1 450 min <sup>-1</sup>	

1 **QUICK DRAIN INSTALLATION** for mixer with 2½" valve

1 **COMPRESSOR UNIT** for the pneumatic valves  
Electric motor 400 V, 50 Hz, 1 450 min<sup>-1</sup> 1,1 kW

1 **DOSING PUMP "ZYKLO V 25-2 SPG"**  
Gear pump for liquid additive, controlled by  
the main panel of the batching system.  
Material: GGG25/40 and steel

**Technical data:**

Motor	0,55 kW, 750 min <sup>-1</sup> , 400 V, 50 Hz
Output	25 l/min
Pressure	3,5 bar
Suction	1¼"
Delivery	1¼"

1 **WEIGHT-BATCH SYSTEM HWS 080 FOR HCM MIXERS**

**FUNCTION**

The system allows to mix water and up to three dry components. The water is fed directly into the mixer. Following the water, the cement is fed from the silo by a screw conveyor. Precise dosing of the individual components is guaranteed by a sophisticated weighing system in the mixer.

As soon as the mixing cycle is completed, the suspension can be transferred into the holding tank.

**Programming**

Through two 7.5" Touch Panels the weight of water and cement can be entered. Liquid additives can be dosed by entering the quantity in litres. Different recipes can be entered and called up as required.

**Dosing / Weighing**

The individual mixing components are fed into the mixer in a pre-selected order where they are weighed. First the water is fed, followed by cement and additive. The control automatically optimizes the dosing procedure. After approx. 5 mixing cycles, the accuracy is better than 3 %.

The individual functions are interlocked to eliminate false functions, such as filling of the holding tank if there is not enough room to take the whole mix, or feeding of the dry components if there is no water in the mixer.

All the functions are indicated on the screen. The plant can be operated manually as well as fully automatic. The high voltage part of the control comprises the motor starters and relays for all electric equipment of the plant as well as the starters for two Ahlm silos with screw conveyor, agitator and vibrator. A frequency converter with water cooling controls the speed of the mixing pump (1 750 min<sup>-1</sup>).

**RECORD**

A batch record of each mixing cycle with consumption record (total of consumed components) is stored on a USB memory stick and can be transferred to a PC. A separate USB printer interface is also provided for direct printing on site.

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#### RECORDING SYSTEM HFR 004

The HFR recording system is designed to measure and to record pressure and flow for grouting operations with cement based grouts of 4 grout lines simultaneously.

#### Measuring range:

Flow: 0 to 100 l/min  
Pressure (version with stroke counter): 0 to 100 bar

**HFR control and recording unit** without PS option, including "WINMES" software for data processing on PC.

The program allows:

- Data transfer from MEMORY CARDS
- Erasing of MEMORY CARDS
- Display and printing of individual grouting operations with graphics of pressure and flow rate versus time
- Display and printing of a daily summary of the individual grouting operations
- Possibility to save the summary in the ASCII format for further processing in a spreadsheet program e.g. EXCEL™

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#### STROKE COUNTER

4

**PRESSURE TRANSDUCER** with 5 m cable and plug mounted on grout pumps ZMP 610/625.

2

#### Leveransklausul / Delivery Clause

Ex Works, packing not included. Delivery shall be made by Schenker. Refer to ODENs contract id: 38955

#### Delivery Address:

Br. Ahlm Maskin AB

Fabriksgatan 11

SE-274 23 SKURUP

SWEDEN (Phone: +46 411 430 25; Fax: +46 411 438 38)

#### DIMENSIONS of the GROUT PLANT:

Length approx.: 6 500 mm  
Width: 2 500 mm  
Height approx.: 2 000 mm  
Weight approx.: 4 500 kg

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#### Leveranstider / Delivery time

Leverans Ex Works, 8 weeks after order.

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#### Guarantee

1 year according to the "General conditions of contract for the supply of machinery and spare parts" of the Swiss Association of Machinery Manufacturers (VSM) of 2006.

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#### Ersättning /Price

Price for 2 plants as described above with 1 mixer HCM 300, 2 agitators HRW 350, 2 pumps ZMP 610, 2 pumps ZMP 625, 1 dosing pump for liquid additives, automatic weigh-batching and recording. Design and manufacturing of platform including mounting of equipment by ODEN. For the electric wiring, ODEN will have an electrician available to assist HÄNYs electrical engineer during wiring.

- OPTIONS FOR HÄNY ACCESSORIES**  
4 Automatic Pump Control PS  
1 Programme Module "Burst"  
(only available with option PS)  
1 Programme Module "Lugeon"  
1 Programme Module "GIN"  
(only available with option PS)

**ACCESSORIES**

3 MEMORY CARD 1 MB  
(especially formatted for this process)

it

1 OMNI DRIVE, MEMORY CARD INTERFACE  
for PC incl. software

1 Teleservice module for fix installation in control  
Unit for connection to mobile or standard analogue  
telephone net. With this module we can connect to  
the main control to check the control or make  
program modifications.  
The SIM card for GSM has to be set for data transfer.  
(for weigh-batch controls HWS 060/080/100)

**Included in the price are:**

Wiring and testing of the equipment (mounted on platform by ODEN) in Sweden and commis-  
sioning and instruction of the personnel by one of HÄNY's engineers in the Stockholm area for 2  
days (including travelling time). An electrician shall be made available by ODEN to assist  
HÄNY's electrical engineer for one or two days for wiring.

- 5 **Betalning / Payment conditions**  
1/3 when placing the order  
1/3 after successful test run at HÄNY's works  
1/3 after delivery  
  
Payment is made 30 days after receiving the invoice.
- 6 **Fakturering / Invoicing**  
The invoice shall be sent to the Financing company:  
Name and adress will be communicated later.

Beställning sänds i två exemplar varav ett exemplar motses i retur inom 8 dagar med Er  
påskrift för godkännande.

Sollentuna 2008-

Oslo 2008-

ODEN Anläggningsentreprenad AB

Sigurd Stave Maskin A/S

Björn Andersson

Bo Hjerpe

Project: Oden

GROUT PLANT TYPE HÄNY

Item	Part no. Description	Quantity	Unit	Unit price	Total price CHF
10	2518-KB-00 RE-Pos. 10 <b>GROUT PLANT MCI 650/610-625</b> 400 V, 50 Hz, consisting of:		1 PCE		
	1 HCM 300W mixer, TMP 22 1750 rpm with water valve		2516-DU-96		
	2 Agitator HRW 350 with 2 level probes and closed cover		2517-EA-95		
	2 Grout pump ZMP 610 with pressure transducer and special valve seats		2511-GS-85		
	2 Grout pump ZMP 625 with pressure transducer and special valve seats		2511-GM-85		
	1 Additive tank 200L with dosing pump ZYKLO V 25-2 ST6WG		2518-JH-99		
	1 Compressor 1.1 kW, 400 V		1005166		
	1 Electric control HWS 080 compl. with frequency converter for HCM 300 and integrated Teleservice module		2650-DR-99		
	1 Recording System HFR 004 integrated in main control panel with the following options: 4 x PS Automatic pump control 1 Program module "Burst"		2505-CA-00		



Sigurd Stave Maskin A/S  
 PO Box 6159  
 N-0602 OSLO

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Item	Part no. Description	Quantity	Unit	Unit price	Total price CHF
	1 Program module "Lugeon"				
	1 Program module "GIN"				
	1 CD WINMES 5.38 software	2505-CG-11			
	1 Set pneumatic components	2518-KA-96			
	1 Set of hose conn. HCM to HRW	2518-KA-99			
	1 Set of hose conn. HRW to ZMP pumps	2518-KA-98			
	1 Set of hose conn. Dosing Pump - HCM	2518-KA-97			
	8 Fastening plate	2263-KF-11			
	1 Set of labels	2518-KA-95			
20	2505-AB-99 RE-Pos. 20 Memory card 1 MB	3	PCE		
30	1007095 RE-Pos. 30 OmniDrive USB2 Memory Card Interface	1	PCE		

No. 680

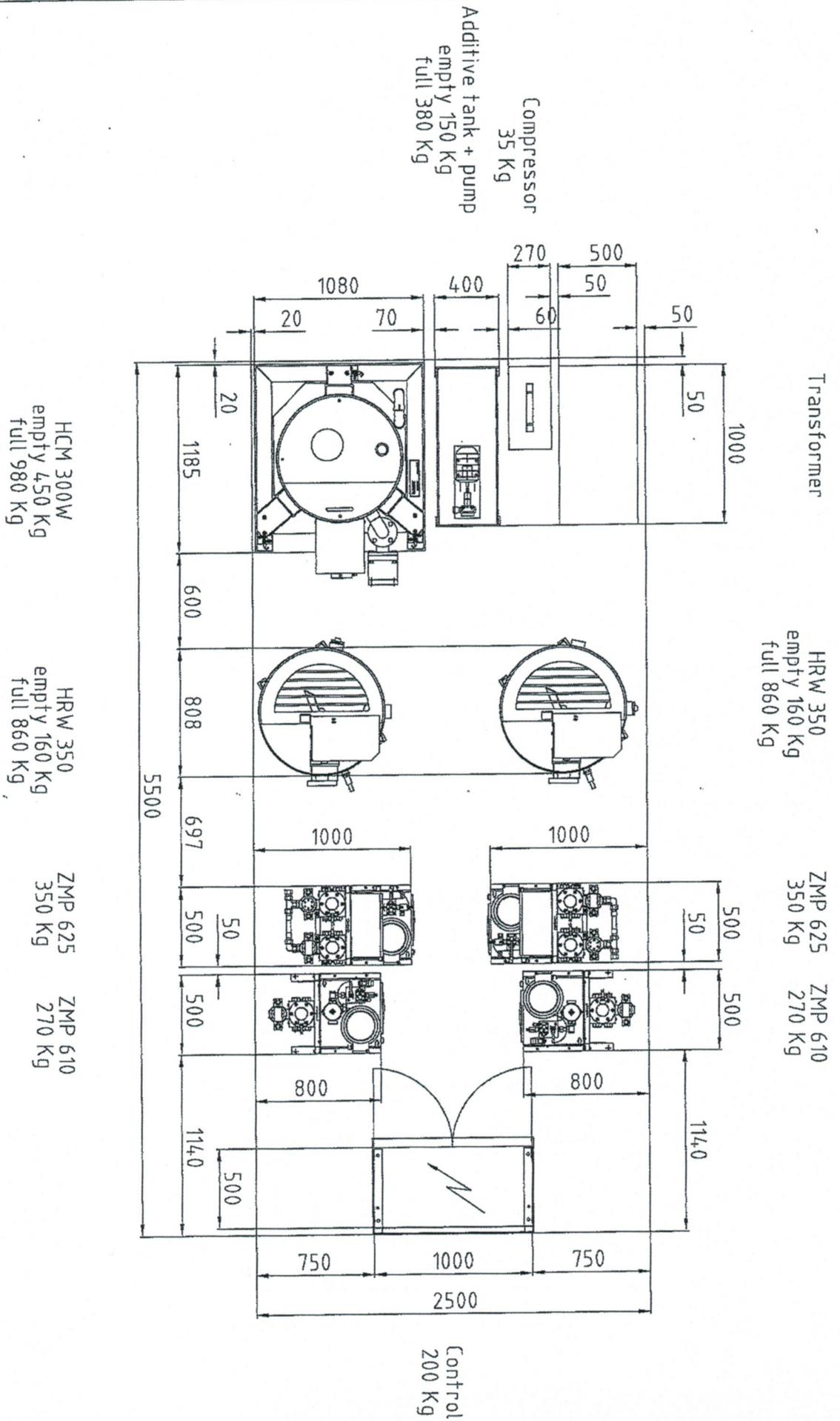
## SPARE PARTS LIST



MCI 1000/2x610/2x625  
2518-KB-00

Nos / m / l / kg per unit	Description	Dimension	Item No.	Part No.
1	High shear colloidal mixer		680.100	2516-DU-96
2	Agitator HRW 350		680.200	2517-EA-95
1	Electric control for MCI 1000/2x610/2x625		680.250	2650-DR-99
2	Grout pump ZMP 610		680.300	2511-GS-85
2	Grout pump ZMP 625		680.400	2511-GM-85
1	Additive tank 200 l with dosing pump V25	1.1 kW, 400 V, 50 Hz 160 l/min, 20 bar	680.450	2518-JH-99
1	Air compressor		680.550	1005166
1	Pneumatics for MCI 1000/2x610/2x625		680.600	2518-KA-96
1	Box for air service unit		680.601	1007234
1	Air service unit with pressure gauge	3/8"	680.602	1006477
1	Pneum. valve battery		680.603	1007227
1	Plug with cable	25m	680.604	1006457
1	Suction line HCM - HRW -HRW		680.750	2518-KA-95
1	Manifold	DN 65 / PN16	680.751	2516-DE-99
4	Gasket for pinch valve		680.752	1003441
2	Pinch valve	DN 65 / PN 10/16	680.753	1001005
1	Diaphragm for pinch valve	DN 65	680.753A	1001006
*	O-Ring for pinch valve	∅ 102 x 4	680.753B	1001007
*	Butterfly valve with pneumatic drive	DN 65 / PN 16	680.754	1006260
3	Screwed flange	2 1/2"	680.755	A-1447
4	Barrel nipple	2 1/2" x 70	680.756	1007320
1	Hex. nipple	2 1/2" x 150	680.757	A-1705
2	Elbow	2 1/2"	680.758	A-3161
1	Long sweep bend	2 1/2"	680.759	A-2545
2	Bend	2 1/2"	680.760	1002029
1	Bend	2 1/2"	680.761	A-1018
3 m	Hose	∅ 87/75	680.762	D-2647
5	Hose clamp	80-90	680.763	H-5269
1	Quick coupling (male)	AG 2"	680.765	1004010
1	Quick coupling (female) with hose connection	∅ 65	680.766	1004011
1	Suction line HRW - ZMP 610 / 625		680.800	2518-KA-95
2	Threaded flange	DN 65 / PN 10	680.801	2517-ED-95
2	Butterfly valve	DN 65 / 2 x 2 1/2"	680.802	1004531
2	T-piece	2 1/2" / 2 x 1"	680.803	2517-GG-95
2	Manifold	2 1/2" / 1"	680.804	2517-GE-95
1	Manifold	1"	680.805	2517-GF-95
1	Blank cover with connection	2 1/2"	680.806	2517-GH-95
4	Drain cover	GF R - 2 1/2" PN 100	680.807	2518-EZ-95
7	Quick coupling	GV 25 R - 2 1/2"	680.808	1004621
*	Gasket for quick coupling		680.809	1004622
6	Union	1"	680.810	1000296
1	Union elbow	1"	680.811	1007236
6	Lubricated valve	1"	680.812	A-3168
12	Adapter	1"	680.813	A-3516
12	Quick coupling	M 25 / 1"	680.814	H-3277
12	Quick coupling	F 25 / S 25	680.815	H-3279
*	Gasket	1"	680.815A	D-2094
2	Elbow	1"	680.816	A-1142
6	Screw coupling	1" 1131-FT	680.817	A-3167
6	Gasket		680.817A	1006842
2 m	Grout hose	∅ 39/25	680.820	D-2112
3 m	Grout hose	∅ 39/25	680.821	D-2112
8 m	Grout hose	∅ 39/25	680.822	D-2112
12	Hose clamp	∅ 32-40	680.823	H-3611
1	Connection line Dosing Pump - HCM		680.900	2518-KA-95
2	GEKA Quick coupling with hose connection	ID 25	680.901	1007217
2 m	Hose	ID 25 x 4.5	680.902	1007350
2	Hose clamp	∅ 19 - 44	680.903	H-4339
2	Quick release coupling	1/2"	680.904	H-3263
1	Hex.nipple	1" - 1/2"	680.905	A-1325
1	Pneumatic valve	1/2"	680.906	1006497
0.5 m	Tube	1/2"	680.907	R-1815
2	Bend	1/2"	680.908	A-1030
0.4 m	Tube	1/2"	680.909	R-1815
1	Hose connection	1/2" / ID 19	680.910	1006255
0.5 m	Hose	∅ 22/19	680.911	D-2164
2	Hose clamp	∅ 19 - 44	680.912	H-4339

\* Recommended spare parts



HÄNY	
Model	AO
Serial No.	MC-008301 000 1 A
Year	
Location	
Notes	

