Fig.1

Fig.2

Centralized Lubrication System for grease
Special execution

Progressive system for grease

Application:
Customer !XXX Milano
Lubrication system for 64 points (SKF ball bearings)
of an Horizontal Belt Filter

Type of pump:
GMF-C/7V/97/M/0/0/8/0/0/0/V/1/X

Type of progressive distributors :
VPB-BN

Special executions:
1) Stainless steel AISI 304 cabinet:
- External dimensions : 600x1000x400mm;
- Double door, electric panel and hydraulic components (Fig. 1÷9)

2) Electric panel for pump working's check and lubricant's level check (Fig. 2÷5),

3) Woerner stainless steel progressive distributors series VPB-BN

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Fig.3

Fig.4

Fig.5

Details of control lights

- Power
- Failure: lubricant level or pump's motor overtension

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Fig.6

Fig.7

Details of pump's housing equipped with removable grease tray (for grease collection, from checking valves, in case of overpressure on pumping elements).

Fig.8

Fig.9

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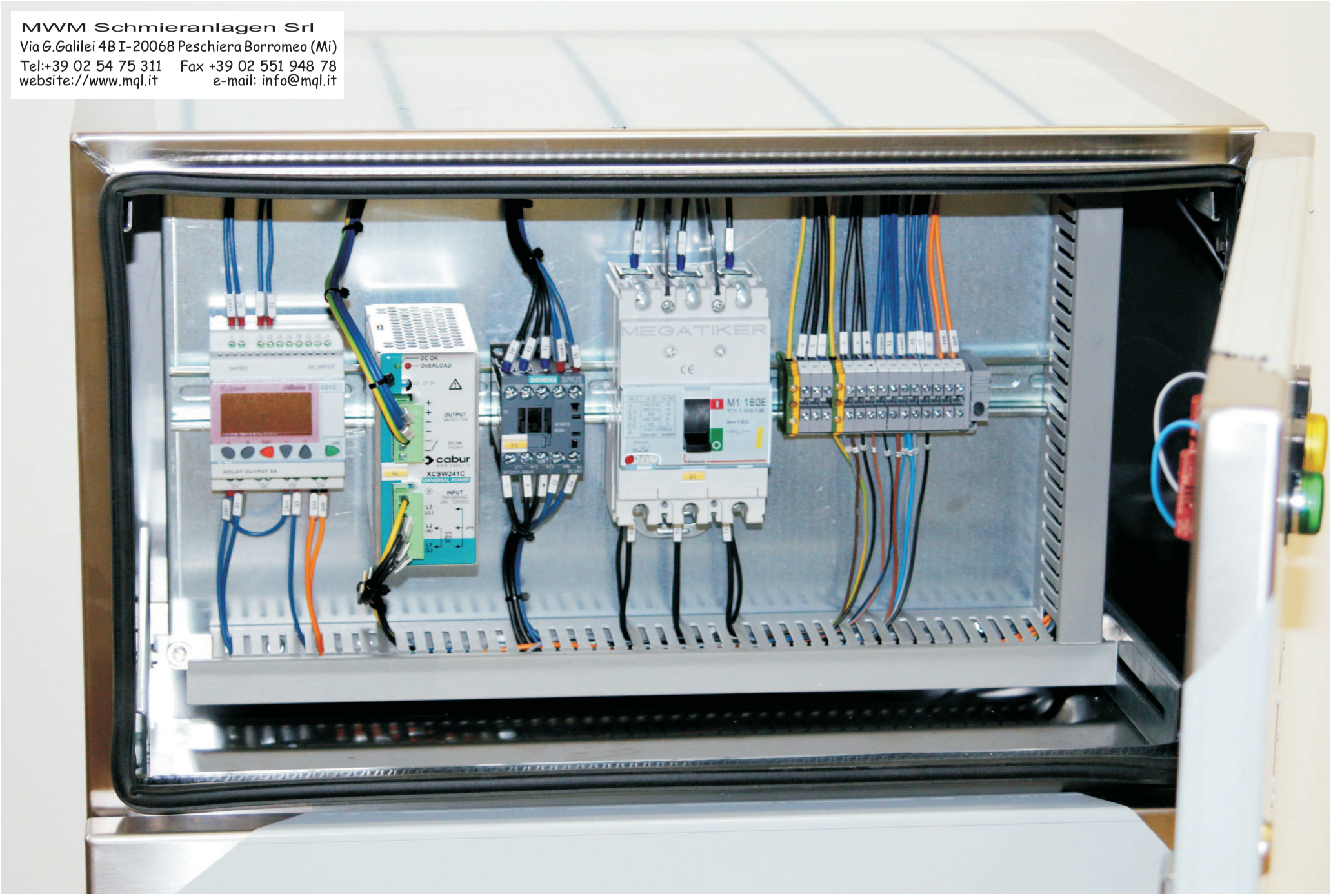

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ELECTRIC PANEL

SE010714_FLSmidth

Drawing 3	Of 3	Follows -
	LM 140513	Date 05/02/2014
		Designer 2M

Functional Parameters Screen

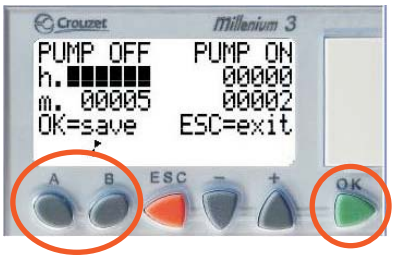


Fig. 4

Pump On Screen

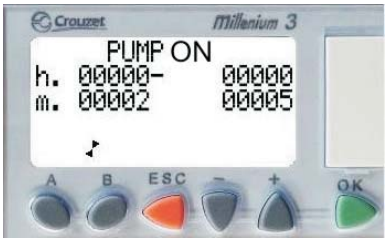
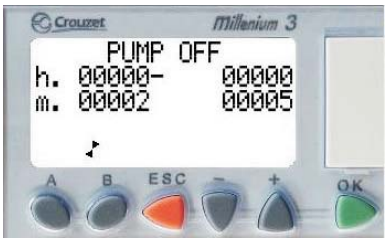


Fig. 5

Pump Off Screen



Minimal Level Fault Signal

Electric Fault Signal

Programming and set-up instructions:

- Functional parameter modification
Functional parameters which can be changed are:
1) Pump active time;
2) Pump inactive time.

To modify parameters carry out following operations:
- Press A+B for 3 seconds at least to activate changing mode;
- Press + o - to select the parameter you need to modify (PUMP ON: hours/minutes; PUMP OFF: hours/minutes);
- Press OK to confirm the choice;
- Press + o - to increase or decrease the value;
- Press OK to confirm the selected value;
- Press ESC to exit the changing mode and return to the previous screen .

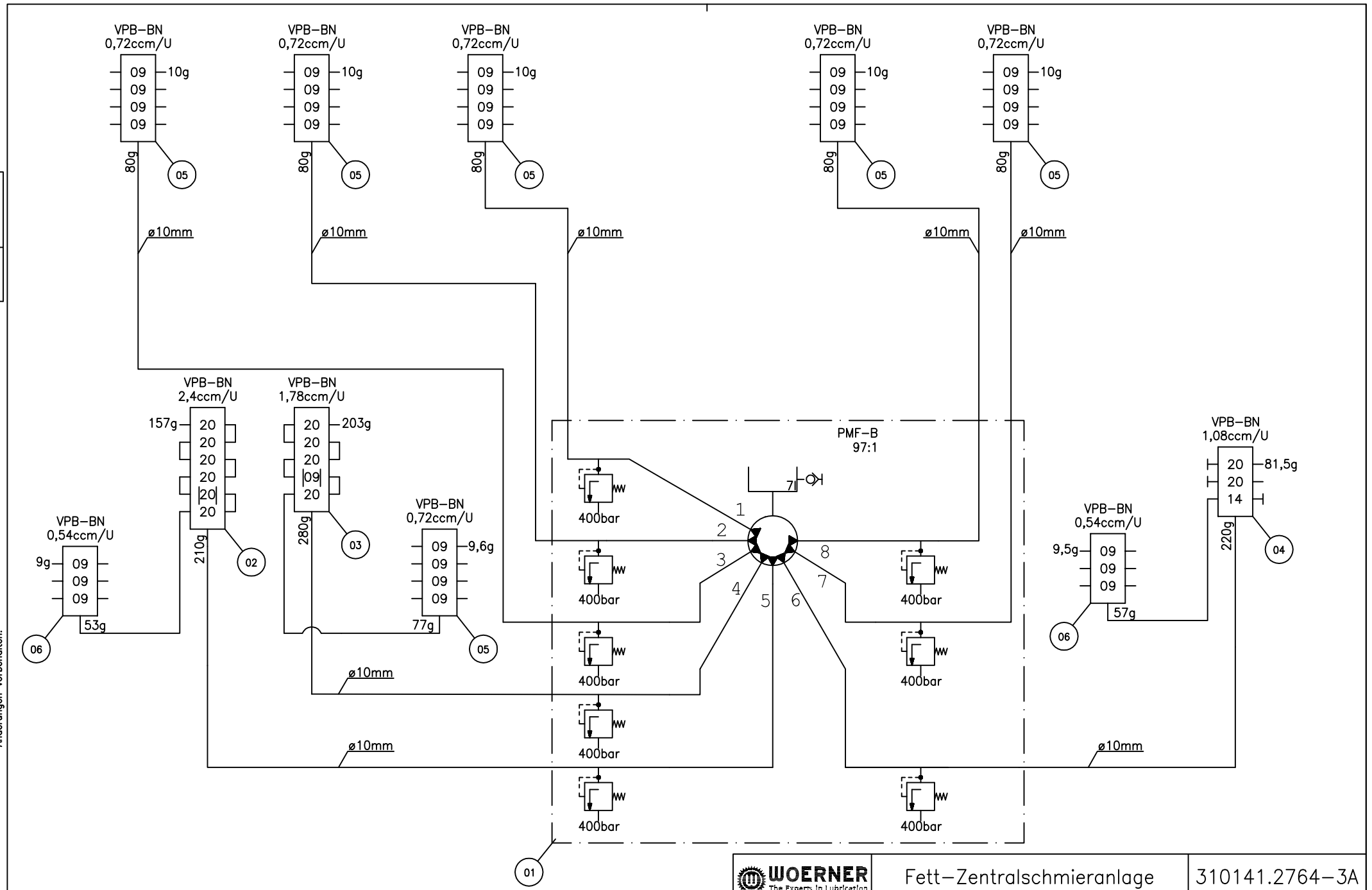
Full scale values of minutes is presetted in a range from 1 to 59.
Full scale values of hours is presetted in a range from 0 to 32.767.
The system automatically returns to the previous screen after 3 minutes, from the access to the changing mode, without an exit confirmation (ESC).

Only a qualified person can change the functional parameters.

- Fault signals
The system gives a fault signal if :
- grease reachs the minimal level;
- electric fault of either pump's motor or contactor.

Alarm output O4 (OUT4) is presetted NC, therefore the signal is interrupted in case of fault. It is possible to use output O3 (OUT3) as NO, the signal is closed in case of fault.

- Reset (only contactor)
After checking and resolving the fault problem, press ESC.



Datum	17.01.2014	
Name	cep	
Ersatz für		

WOERNER
The Experts in Lubrication

Fett–Zentralschmieranlage
64–Schmierstellen

310141.2764–3A

Grease quantity and Regulation pumping elements

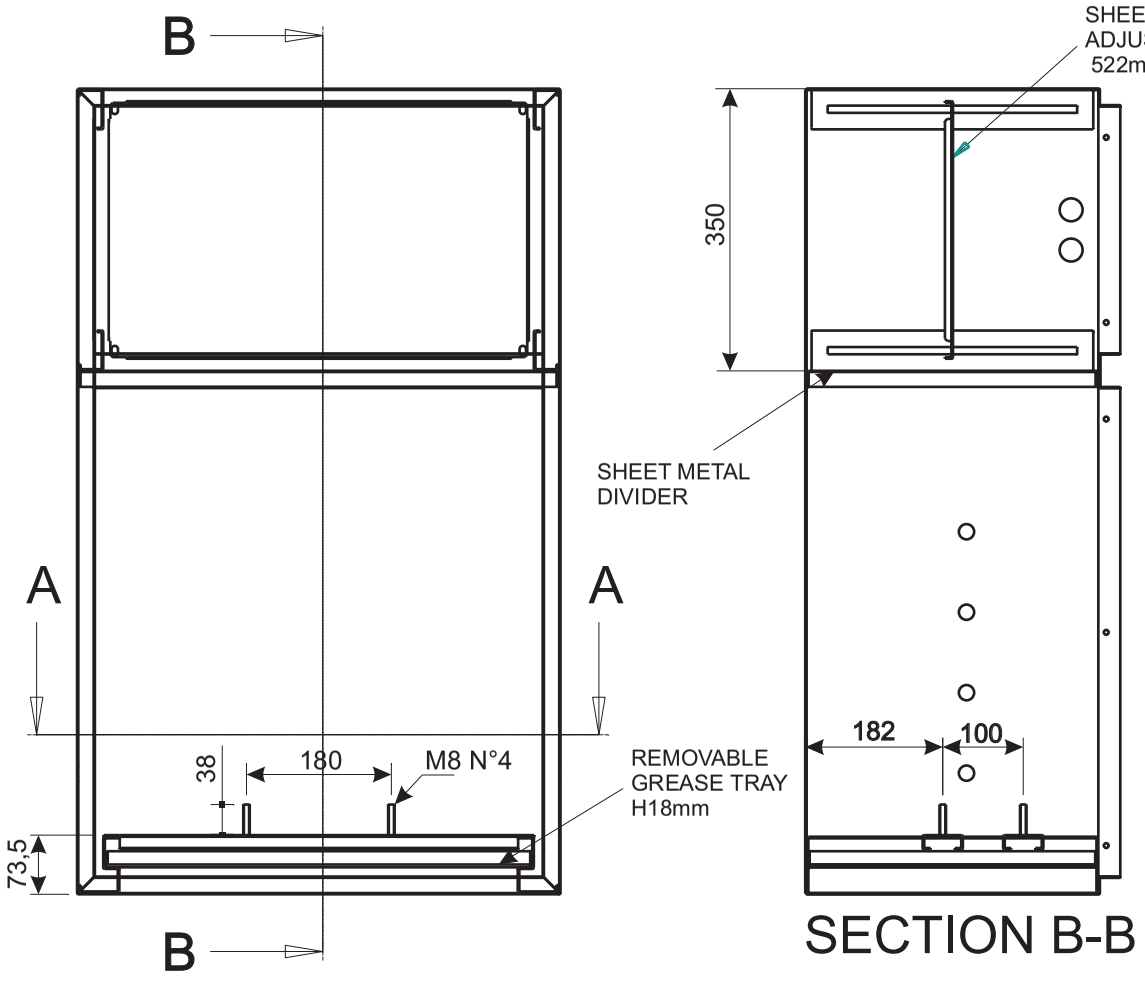
Pumping element	Metered quantity gr	Regulation pumping element	Metered volume %	Type of Progressive Distributor	Parts List Position LM140513	Drawing position 310141.2764-3A	Lubrication points type	quantity	
							Type of bearing	Quantity	Points
1	80	5 notchs	27%	VPB-BN/8/0/0/0/09/09/09/09/V	25	05	8x Ø40	10 gr	8
2	80	5 notchs	27%	VPB-BN/8/0/0/0/09/09/09/09/V	25	05	8x Ø40	10 gr	8
3	80	5 notchs	27%	VPB-BN/8/0/0/0/09/09/09/09/V	25	05	8x Ø40	10 gr	8
4	280	max (18 notchs)	100%	VPB-BN/10/0/0/0/20/09/20/20/20/V	23	03+05	8x Ø40 + 1xØ200	(8x10)+200	9
5	210	14 notchs	78%	VPB-BN/12/0/0/0/20/20/20/20/20/20/V	22	02+06	6x Ø40 + 1xØ180	(6x10)+150	7
6	220	14 notchs	78%	VPB-BN/6/0/0/0/14/20/20/V	24	04+06	6x Ø40 + 2xØ110		8
7	80	5 notchs	27%	VPB-BN/8/0/0/0/09/09/09/09/V	25	05	8x Ø40	10 gr	8
8	80	5 notchs	27%	VPB-BN/8/0/0/0/09/09/09/09/V	25	05	8x Ø40	10 gr	8
								Total	**64**

Flow for each pumping element: 1,12 cm3/min

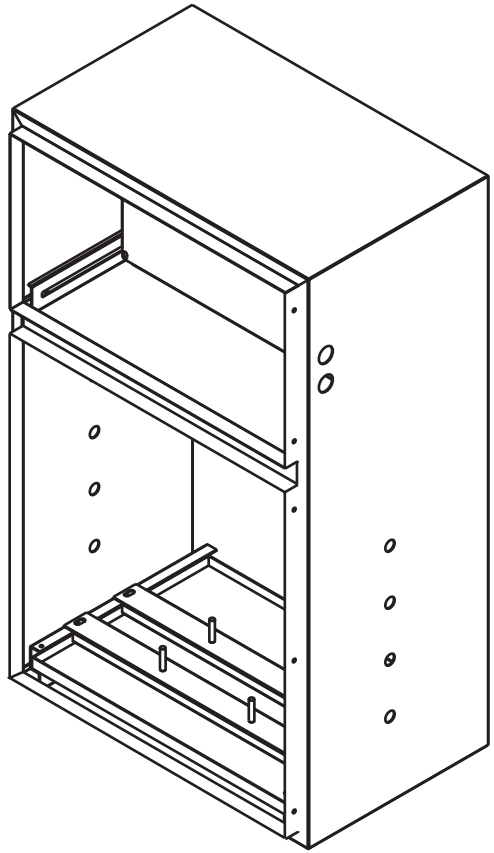
Pump's working time: 250 min

For example: 10 lubrication cycles per year - 25 minutes
For example 250min * 1,12 cm3 = 280 gr

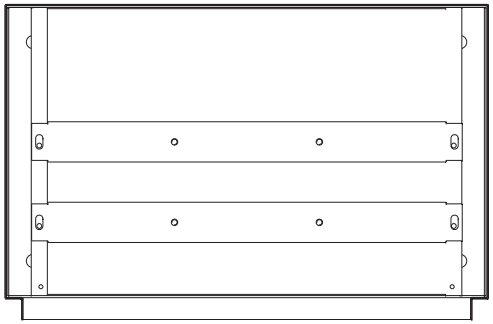
Required grease quantity - Annual requirements		
Type of bearing	gr	Lubrication points
Bearings Ø40 mm	10	60
Bearings Ø110 mm	80	2
Bearingsi Ø180 mm	150	1
Bearings Ø200 mm	200	1
	Total	**64**



SECTION B-B



SECTION VIEWS WITHOUT DOORS
AND SHEET METAL BASES H100



SECTION A-A

n°	Descrizione modifica	data	autore
Tolleranze: Grado FINE UNI EN 22768-1	Special stainless steel cabinet MWM Code F904701 Drawing **DQ 034114**		
	Mat.: Stainless steel AISI304		
SCHMIERANLAGEN		Designer: Claudio Arezzi Date: 17/01/2014	Sheet 2/2

Test Report Nr. 1XX-VV
Unit type: MWM-LM 140153

Start test: **time:** _____ **date:** _____
Stop test: **time:** _____ **date:** _____
Total testing time: _____

Customer: Customer-Milano
Order Nr. : 1
Date of the order: 17.12.2013
Requested delivery: 20.02. 2014

Components:

- Woerner Pump type:
PMF-B.B/7V/97/M/0/0/8/0/0/0/V/1/0
Registration Nr: 261914-__ 2014/2

Accessories:
- Binary level switch ON-OFF type:
Li5142 L=273 mm
with climatic Tube E43100L=264 mm

- Control and monitoring el. unit:
MWM LM 140515 with PLC
PLC software: F305060

- Special stainless steel cabinet
MWM Design DQ 034114

Test procedure:

Functional checks:

- ☐ **1) Check electrical wirings**
- ☐ **2) Pump Working check**
- ☐ **3) Check Level switch**
- ☐ **4) PLC Software running**
- **5) Fault signal:**
- ☐ **- level fault**
- ☐ **- motor relais**

Notes:

Test Operator:

_____ **CG**
_____ **DP**
_____ **MN**

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