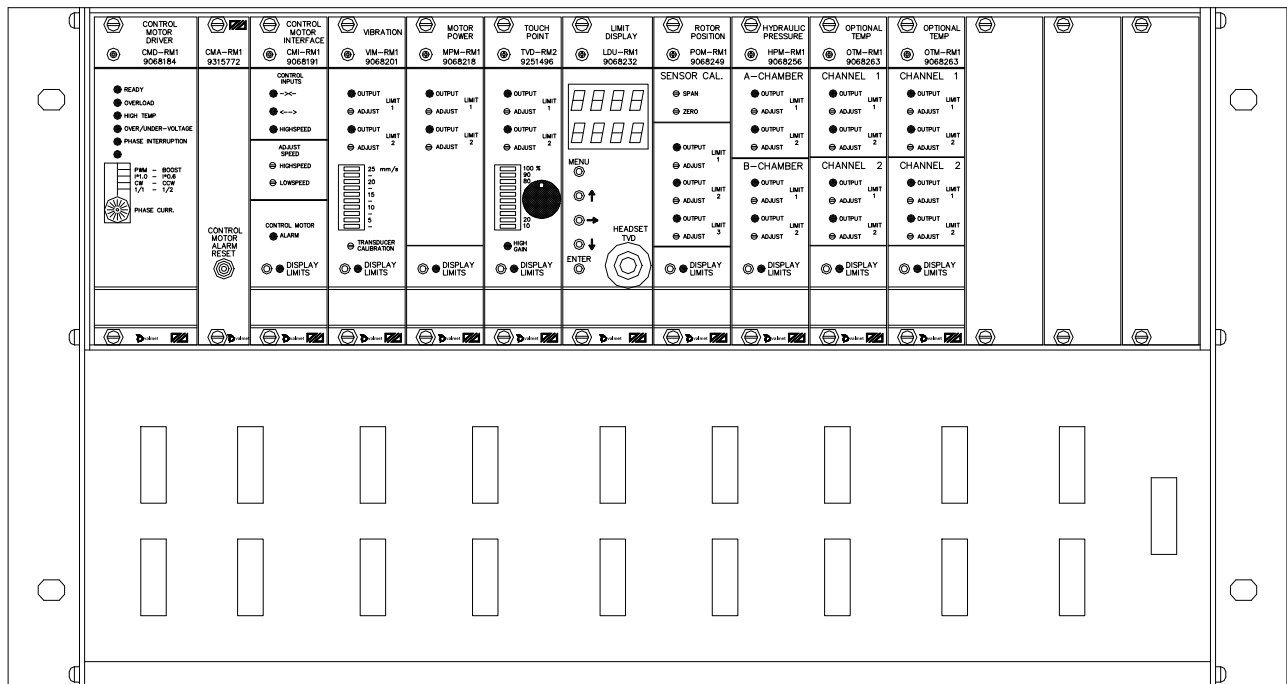




PROGRAMMING RMS-EX1



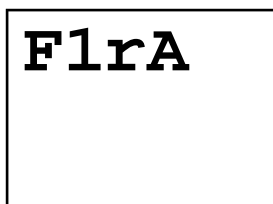
PROGRAMMERS MANUAL FOR THE RMS-EX1 SYSTEM

CONTENTS

1.	GENERAL.....	2
2.	SELECT MENU.....	3
3.	PARAMETERS FOR THE RANGES "F1rA"	4
4.	PARAMETERS FOR THE PRODUCTION POSITION "F2Pr" (if RMC is enabled).....	5
5.	PARAMETERS FOR THE TOUCH POINT "F3tP" (if RMC is enabled).....	5
6.	PARAMETERS FOR THE PLATE WEAR "F4PL" (if RMC is enabled)	6
7.	DISPLAY MESSAGES.....	6
8.	CONTACT	7

1. GENERAL

Start the programming function

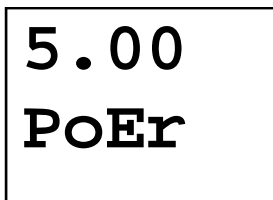


MENU	Starts/ends the programming function
↑	Step to the previous menu
→	
↓	Step to the next menu
ENTER	Start the selected menu

Press the MENU button to start the programming function. The upper display row indicates the name of the menu and the "↑" and "↓" buttons are used to step between the menus.

If the RMC control function is not used, the menus are not displayed and only the range parameters can be reached.

Select parameter

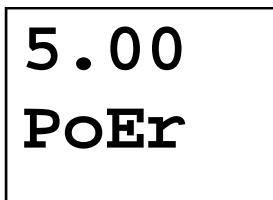


MENU	Return to menu select
↑	Step to the previous parameter
→	
↓	Step to the next parameter
ENTER	Edit the selected parameter

The upper row indicates the value and the lower the name of the parameter.

Use the "↑" and "↓" buttons to step between the parameters and push the "ENTER" button to edit.

Edit (the display flickers)



MENU	Quit edit and return to parameter select
↑	Increase the value
→	Get the default value
↓	Decrease the value
ENTER	Save the value

The display is flickering to indicate that the value can be changed.

Use the "↑" and "↓" buttons to change the value. Press the "ENTER" button to save the value (the flickering stops), or press the "MENU" button to return without saving.

Press the "MENU" button to return to selection of the parameters, press the "MENU" button again to return to the menu selection and finally press the "MENU" button to end the programming function (the display is turned off).

2. SELECT MENU

The parameters can be shown in two ways depending of the setting of the "ErCE" parameter.

- Four menus are shown if the RMC function (Rotor Movement Control) is enabled (the "ErCE" parameter is set to "1"):
 - F1rA Parameters for the Ranges
 - F2Pr Parameters for the Production Position
 - F3tP Parameters for the Touch Point
 - F4Pt Parameters for the Plate Wear
- If the RMC is disabled (the "ErCE" parameter is set to "0"), only the parameters under the "F1rA" menu can be reached. The other parameters have no effect.
 - F1rA Parameters for the Ranges

Menu content

F1rA	Parameters for the ranges
	PoEr Main Motor Power
	FdPL FeedGuard, Piston Length
	FdSd FeedGuard, Safe Distance
	Fdto FeedGuard, Timeout
	PoS� Position Transmitter Stroke Length
	HP-A HPM-A, Range
	HP-b HPM-B, Range
	FrbF FeedGuard result, POM value before FG
	FrAF FeedGuard result, POM value after FG
	FrdI FeedGuard result, Difference
	ErCE RMC function
	dISP Display
F2Pr	Parameters for the Production Position
	PrPO Production Position Offset
	PrPS Production Position Set (predetermined manual value)
	PrLP Production Power Limit, Power
	PrLT Production Power Limit, Time
	PrP0...9 Production Position 0..9 (10 values)
	Potr POT-transmitter reversed (for Board refiners)
F3tP	Parameters for the Touch Point
	tPLE Touch Point Level
	tPtI Touch Point Time
	tPFU Touch Point Function (auto/semi/manual)
	tPP0...9 Touch Point Position (10 values)
F4PL	Parameters for the Plate Wear
	PLrE Plate Wear Reset
	PLoF Start Position for the Plate Wear
	PLdI Plate Wear

3. PARAMETERS FOR THE RANGES “F1rA”

PoEr Main Motor Power

Parameter for the nominal main motor power. Step between 0.05 and 50 MW in steps of 1, 2 or 5 MW (depending of the range). The default value is 5 MW.

FdPL FeedGuard Piston Length

This parameter is set depending of the rotor travel at FeedGuard Reset. Set to 0 (zero) if the FeedGuard valve is not used. Step between 0 and 5.0 mm in steps of 0.1 mm. The default value is 1.0 mm.

FdSd FeedGuard Safe Distance

The rotor will backed off this safe distance at FeedGuard.
Step between 0 and 5.0 mm in steps of 0.1 mm. The default value is 1.0 mm.

Fdto FeedGuard Timeout

The total time that the FeedGuard reset can use. A time alarm will be generated if the FeedGuard sequence is longer than the set time. Step between 5 and 30s in steps of 1s. The default value is 10s.

PoS� Position Transmitter Stroke Length

The stroke length of the rotor position transmitter. For the POT-50 it is 50 mm. Step between 10 and 200 mm in steps of 10 mm. The default value is 50 mm.

HP-A HPM A-chamber Range

The parameter for nominal A-chamber pressure. Step between 10 and 150 ton in steps of 0.5 ton. The default value is 50 ton.

HP-b HPM B-chamber Range

The parameter for nominal B-chamber pressure. Step between 10 and 150 ton in steps of 0.5 ton. The default value is 50 ton.

FrbF FeedGuard result, POM value before FG

The FrbF value is the POM value app. 0.5s before the FG Reset was activated. The value cannot be changed.

FrAF FeedGuard result, POM value after FG

The "FrAF" value is the POM value after the rotor has travelled the distance that corresponds to the calculated FG distance ("FdPL" + "FdSd"). The LDU unit measures the pulses (0.01mm/pulse) from the CMI unit.

FrdI FeedGuard result, Difference

"FrdI" is the difference between the "FrbF" and the "FrAF". The FG Contact signal will be generated if the result is within the allowed interval. If outside, the FG Alarm instead will be generated. The low limit is 100 % of "FdPL" + 50 % of "FdSd".
The high limit is 100 % of "FdPL" + 150 % of "FdSd".

ErCE RMC function

Set the parameter to "1" if the RMC function is used (RMC = Rotor Movement Control). If "0", only the parameters in this menu can be changed while the others are of no interest.

dISP Display

Set the parameter to 1 for a PDU-display or to 2 for communication with an Operators panel.

4. PARAMETERS FOR THE PRODUCTION POSITION "F2Pr"

This menu is shown if the RMC is enabled.

PrPo Production Position Offset

The distance between the 'Production Position' and the 'Production Start Position'. Step between 0.1 och 20 mm in steps of 0.1 mm, default value is 2.0 mm.

PrPS Production Position Set (predetermined manual value)

Set to 0 for normal RMC function. Set to any other value for a predetermined 'Production Start Position'. Step between 0 and 50 mm in steps of 0.1 mm, default value is 0.0 mm.

PrLP Production Power Limit, Power

The minimum main motor power to save a new 'Production Position'. Step between 0 and 100 % main motor power in steps of 1 %, default value is 50 %.

PrLt Production Power Limit, Time

The minimum time to save a new 'Production Position'. Step between 0 and 600 hours in steps of 1 hour, default value is 10 hours.

PrP0...9 Production Position 0...9 (10 values)

The parameter is saved at the FeedGuard Reset if the main motor power is higher than the "PrLP" parameter and has been higher for a longer time than the "PrLt" parameter.

Should normally not be changed but the 0-position can be set between 0 and 50 mm in steps of 0.01 mm. The 1 to 9 positions cannot be changed. The parameters are shifted one step for each new value that is stored. Pos 0 is the latest, pos 9 is the oldest.

Potr POT-transmitter reversed (for Board refiners)

Set to 1 to reverse the rotor position transmitter reading (50.00 in the inner position, 0.00 in the outer). Step between 0 and 1, default value is 0.

5. PARAMETERS FOR THE TOUCH POINT "F3tP"

This menu is shown if the RMC is enabled.

tPLE Touch Point Level

The minimum TVD level to accept the Touch Position. Step between 0 and 100 % level in steps of 5 %, default value is 40 %.

tPtI Touch Point Time

The minimum time to accept the Touch Position. Step between 0 and 5 s in steps of 0.1 s, default value is 0.5s.

tPFU Touch Point Function (auto/semi/manual)

A 0 means that the function is disabled, 1 means manual and 2 means semiautomatic Touch Point sequence. Step between 0 and 2, default value is 1.

tPP0...9 Touch Point Position (10 values)

The parameter is stored when a Touch Point is accepted (the TVD-level is higher than the "tPLE" for a time longer than the "tPtI"). The parameters cannot be changed and the parameters are shifted one position for each new stored Touch Position, "tPP0" is the latest, "tPP9" is the oldest.

6. PARAMETERS FOR THE PLATE WEAR "F4PL"

This menu is shown if the RMC is enabled.

PLrE Plate Wear Reset

A "0" value disabled the plate wear measurement, a "1" is the normal value and a "2" means that the RMC function is not calibrated. The parameter is automatically set to "2" if the TVD signal disappears for more than 10 seconds or if the rotor position indicates an abnormal value. A "2" also means that the RMC function does not have a valid starting position.

Step between 0 and 2, default value is 1. If a value of "2" is set by mistake, it can be manually set to a "1" to get the previous starting position back. The parameter is automatically changed from a "2" to a "1" during calibration of the RMC function.

PLoF Start Position for the Plate Wear

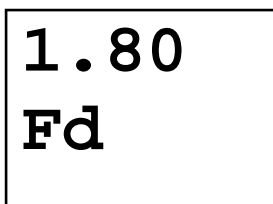
The parameter holds the first 'Production Start Position' after a change of the plates. The parameter should normally not be changed but can be set between 0 and 50 mm in steps of 0.01 mm.

PLdl Plate Wear

Calculated plate wear. The parameter cannot be changed.

7. DISPLAY MESSAGES

FEED GUARD ACTIVATED



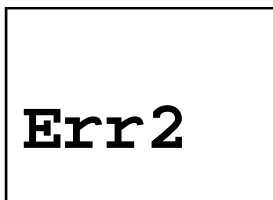
MENU	Not used
↑	Not used
→	Not used
↓	Not used
ENTER	Not used

The display indicates "Fd" and the actual Rotor Position value when a FeedGuard Reset is activated. The value is changing while the stepping motor is working (app. 4 – 10 s).

The display is showing the relative rotor travel on the upper line and a "FdCO" or "FdAL" on the lower line when the FeedGuard retraction is completed.

The display is turned off when the FG-reset signal is reactivated or if the MENU button is pushed. An activated FG-reset signal will force the unit out of any other programming function.

RMS IDENTIFICATION ERROR



MENU	Not used
↑	Not used
→	Not used
↓	Not used
ENTER	Not used

"Error 2" is lit up if a "DISPLAY LIMITS" button on any RMS unit is pushed in and the LDU unit cannot identify it. An electrical failure in the RMS-interface is the probable cause.

The RMS-unit might still be working in respect of the measured value and the comparison of the limits.

The message will remain for about 2 s and is repeated if the same RMS unit is activated again.

8. CONTACT

Sales, development, production and service:

Dametric AB

Jägerhorns Väg 19, 141 75 Kungens Kurva, Sweden

Phone: +46-8 556 477 00

Telefax: +46-8 556 477 29

e-mail: service@dametric.se

Web site: www.dametric.se

