

dametric 

CMK-RMS1

Kit for replacement of
stepping motor equipment in RMS/SD-racks



MANUAL

Content

1	GENERAL	2
2	LIST OF ARTICLES	2
3	WORKING PROCESS AFTER SWITCHING THE POWER OFF	3
3.1	EXCHANGE OF POWER SUPPLY	3
3.2	EXCHANGE OF STEPPING MOTOR	3
3.3	THE CABLE	3
3.4	THE DRIVER CARD	3
3.5	THE CONTROL CARD	3
3.6	CHECK-OUT AFTER SWITCHING THE POWER ON	3

1 General

The CMK-RMS1 kit does include a few pieces for the rebuilding of a 5-phase stepping motor system over to a 2-phase stepping motor in a Valmet refiner.

The Kit is intended for rebuilding of different RMS-systems like: RMS-CD1, RMS-SD1, RMS-DD1 and RMS-EX1.

The old 5-phase equipment based on a the 5-phase stepping motor and driver card from Berger & Lahr isn't available any longer on the market. The new system is based on a standard 2-phase stepping motor.

The Cable and two Cards in the rack are exchanged. Note! The new control card, CMI-RM1, has the same Article No.as the old one, but the new has a higher software revision (4.2) than the old one.

2 List of Articles

<i>Article</i>	<i>Dametric Art.no.</i>	<i>SKC-Art.no</i>	<i>Valmet Art.no.</i>
Motor	CM-2NMHK	SKC1267270	VAL0240564
Drive Card	CMD-RM2	SKC9101601	VAL0173903
Control Card	CMI-RM1 (Rev 4.2)	SKC9068191	VAL0122828
Cable	K-CM25K	SKC1267284	VAL0221968
Power supply	TCL 060-124	SKCXXXXXX	VAL0187585

Documents

Kit	CMK-RMS1	CMK-RMS1 EN.pdf	Attached
Motor	CM-2NMHK	CM-2NMHK EN.pdf	See our Website
Drive Card	CMD-RM2	CMD-RM2 EN.pdf	“
Control Card	CMI-RM1 (Rev 4.2)	CMI-RM1 EN.pdf	“
Cable	K-CM25K	K-CM25K EN.pdf	“
Power supply	TCL 060-124	TRACO-TCL.pdf	Attached

3 Working process after switching the power off

3.1 Exchange of Power Supply

- Remove the old power supply from the system.
RMS-EX1 = terminal K11.
RMS-CD1, RMS-DD1, RMS-SD1 = K2.
- Mount the new power supply (TCL 060-124).
- Connect the primary voltage (85 - 264VAC) according to the manual.
(1 AC Ground, 2 Neutral, 3 Live)
- Connect the output voltage (24VDC) to the terminal in the RMS-rack.
(1 +Vout, 2 +Vout, 3 -Vout)
RMS-EX1: K11/1 +24VDC, 0V = K11/4.
RMS-CD1, RMS-DD1, RMS-SD1 = K2: +24VDC = K2/1, 0V = K2/4

3.2 Exchange of Stepping motor

- Loosen the bellows-type coupling between the control piston and the old stepping motor.
- Loosen the flange screws and demount the motor.
- Position the new motor so it's possible to connect the new cable and mount the screws.
- Mount the bellow between piston and motor.

3.3 The Cable

- Loosen the old (10-wire) cable. Including possible Connection box.
- Connect and cut the new (5-wire) cable to proper length.
- K3 (or K12 on RMS-EX1):

<i>RMS EX1</i>	<i>RMS-CD1, RMS-DD1, RMS-SD1</i>
K12/1 = white	K3/1 = white
K12/2 = brown	K3/2 = brown
K12/3 = green	K3/3 = green
K12/4 = yellow	K3/4 = yellow
K12/11 = screen	K3/11 = screen

Connect an earth wire from K3/11 (K12/11) to ground.

3.4 The Driver Card

- Replace the old CMD-RM1 with CMD-RM2.

3.5 The Control Card

- Replace the old CMI-RM1 with the new (Rev. 4.2).
- Check the manual for CMI-RM1 and adjust the settings according to refiner and stepping motor type. Check and revise the Parameter list: RMS-XX1 PAR.docx

3.6 Check-out after switching the power on

- Check the voltage output. $+24 \pm 0.5$ VDC.
- Check the stepping motor direction.
- Check the speed. Low speed: normally 0.05 mm/s and High speed: normally 0.25 mm/s.