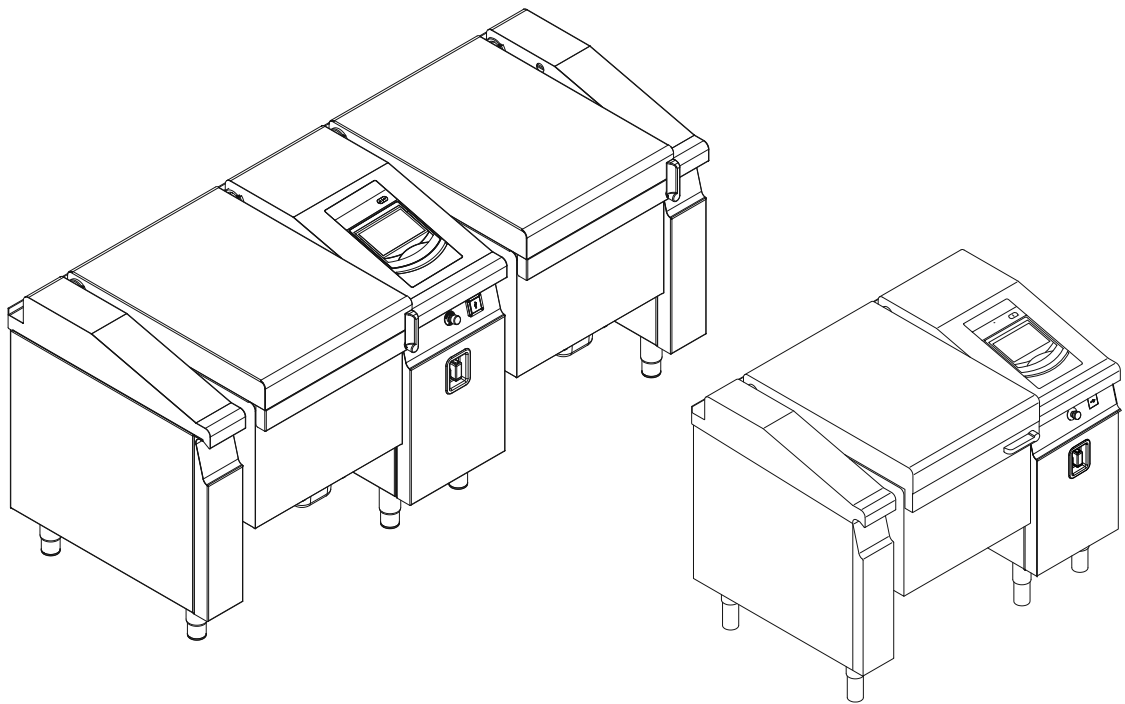




Maintenance instructions

FlexiChef



Translation from the original document • 4426201-00AWDE-A • 11/5/2019

Unit	Type of energy	Unit type	Version	Model
FlexiChef FlexiChef Marine	Electric	Suspended unit	Tiltable Deep frying Pressure cooking Cleaning	FIEKMP1...
		Pedestal unit		FCEKMP1... FCEKMP3...
FlexiChef Team				FCEKMP2...

Manufacturer

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1 Introduction

1.1 About this manual

The maintenance instructions contain information:

- About the safe maintenance of the unit.

Observe the following notes and adhere to them:

- Read the maintenance instructions completely before starting maintenance.
- Read the Operating instructions before operating the unit.

Target group The target group for the maintenance instructions is trained technical personnel, who are familiar with maintaining and operating the unit.

Figures All figures in this manual are intended as examples. Discrepancies can arise between this and the actual unit.

2 Safety instructions

Maintenance may be carried out only by operators who have previously attended product-specific MKN service training for this unit.

The maintenance personnel must be familiar with regional regulations and observe them.

The maintenance personnel must observe the safety information in these maintenance instructions.

The maintenance personnel must also observe the "Safety information" chapter in the installation instructions and operating instructions of the unit.

Organizational measures **Risk of property damage and personal injury from lack of organizational measures**

- Inform the operators present prior to starting the maintenance work.
- Discuss how to respond to an emergency prior to starting the maintenance work.
- Use equipment and protective gear suitable for the activity.

Electrical connection **Danger of electric shock from live components.**

- Prior to working on the electrical system, switch off the unit, disconnect the electrical system from the mains and prevent power from being switched on again. Check to ensure the system is dead.
- Use only insulated tools.

Improper maintenance **Risk of physical damage and personal injury from improper maintenance**

- Service the unit only as specified in these maintenance instructions.
- Use only original spare parts.

Concluding activities **Risk of damage to property and personal injury from improper connections**

- Reactivate all safety devices and check that they function properly.

3 Description of the unit

3.1 Overview of the unit

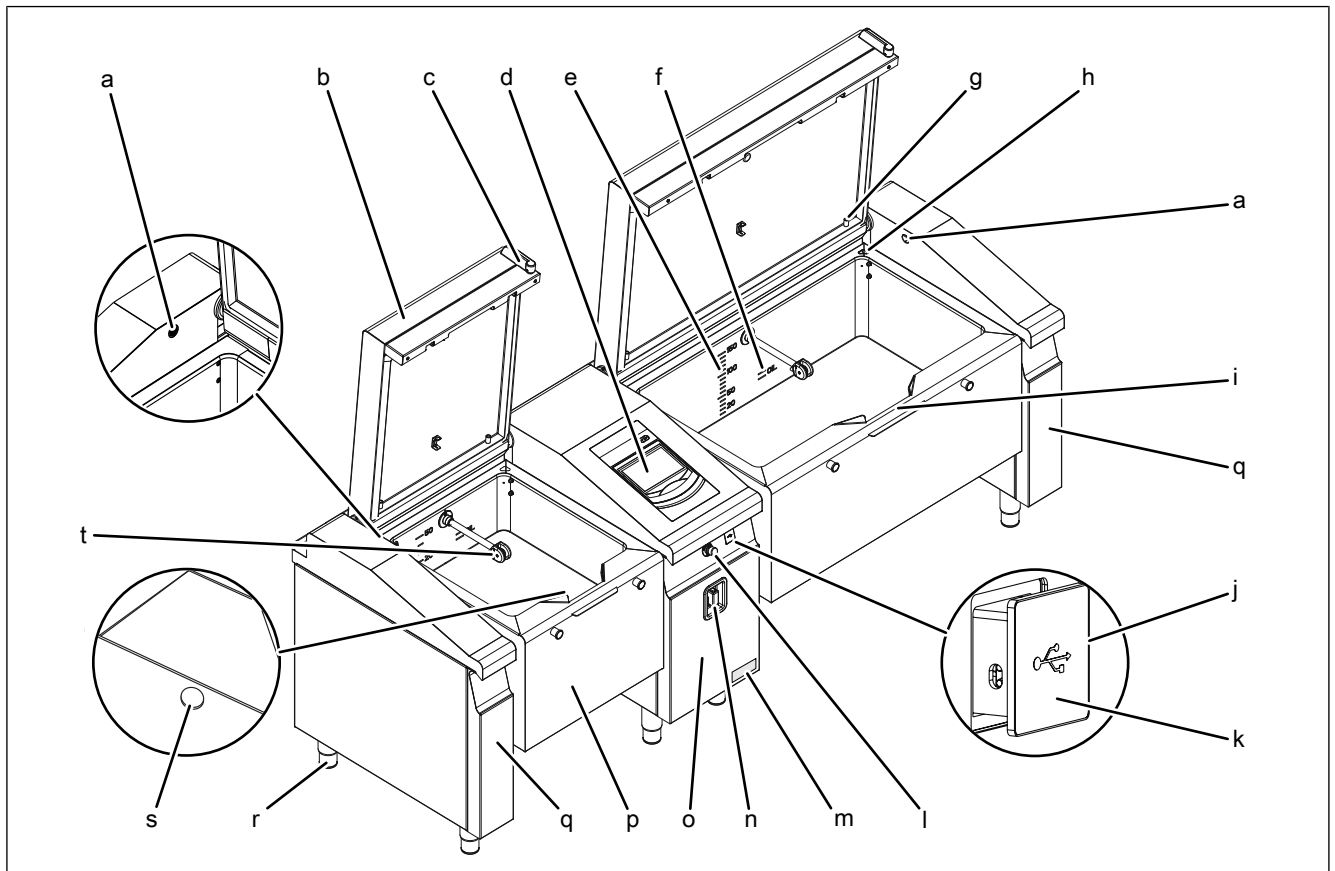


Image: Tilttable unit with pressure cooking and cleaning

- | | | | |
|---|---------------------------------|---|-----------------------------|
| a | Water inlet | k | MultiPort |
| b | Lid | l | <i>Emergency off switch</i> |
| c | Lid handle (optional) | m | Nameplate |
| d | Operating unit | n | Hand shower |
| e | Fill-level mark <i>Water</i> | o | Operating spar |
| f | Fill-level mark for "OIL" | p | Pan |
| g | Core temperature sensor | q | Side arm |
| h | Pressure relief line (optional) | r | Unit leg |
| i | Spout | s | Drain |
| j | USB port | t | Cleaning lance (optional) |

3.2 Detail view

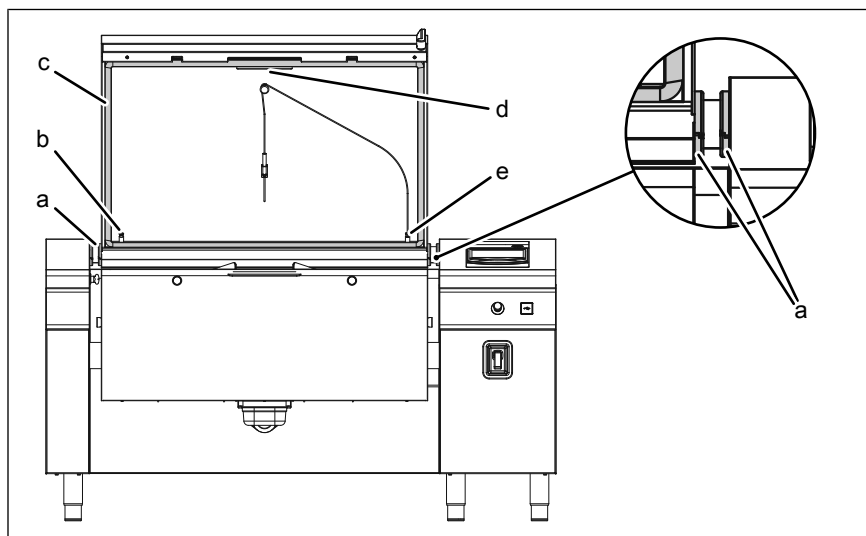


Image: Front view

- a Lid seal ring
- b Blind plug
- c Lid seal
- d Splash guard
- e Core temperature sensor fitting

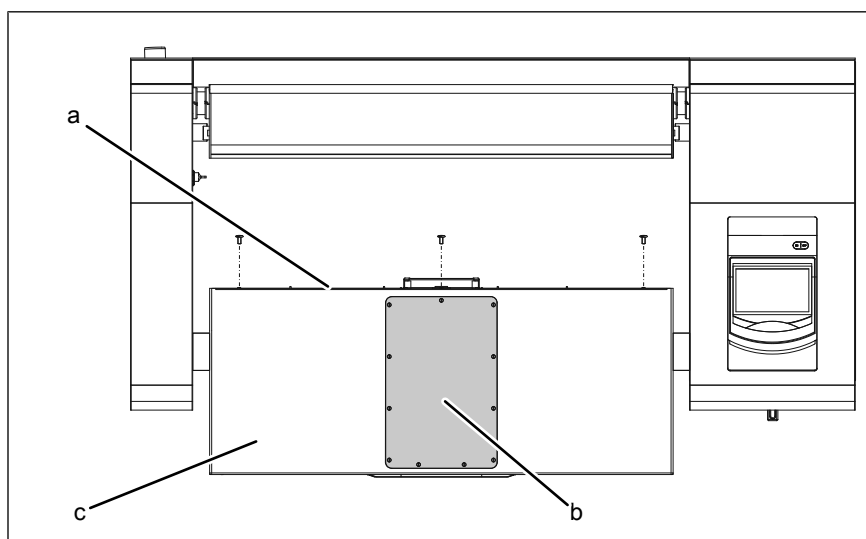


Image: Pan in the final position

- a Pan bottom cover
- b Maintenance flap
- c Pan in the final position

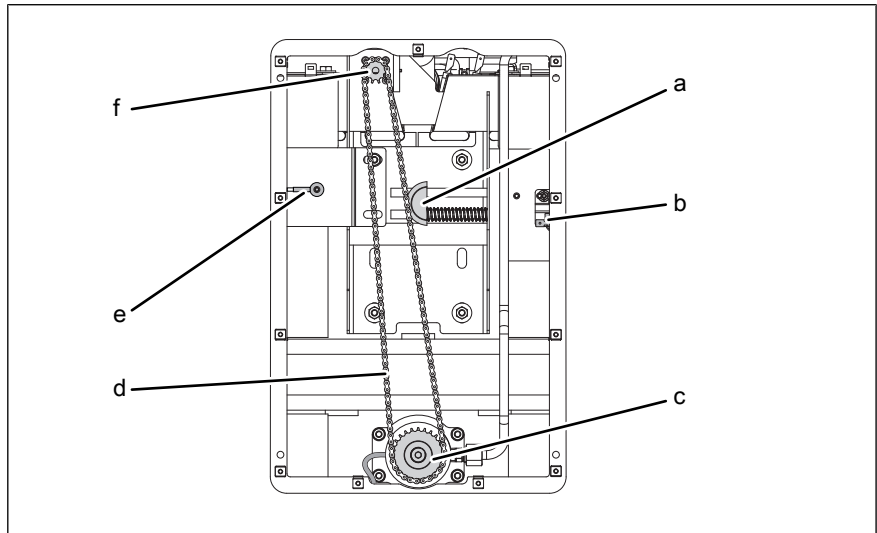


Image: Maintenance flap opened

- | | |
|-------------------|----------------------|
| a Chain tensioner | d Chain |
| b Thermal switch | e Temperature sensor |
| c Large sprocket | f Small sprocket |

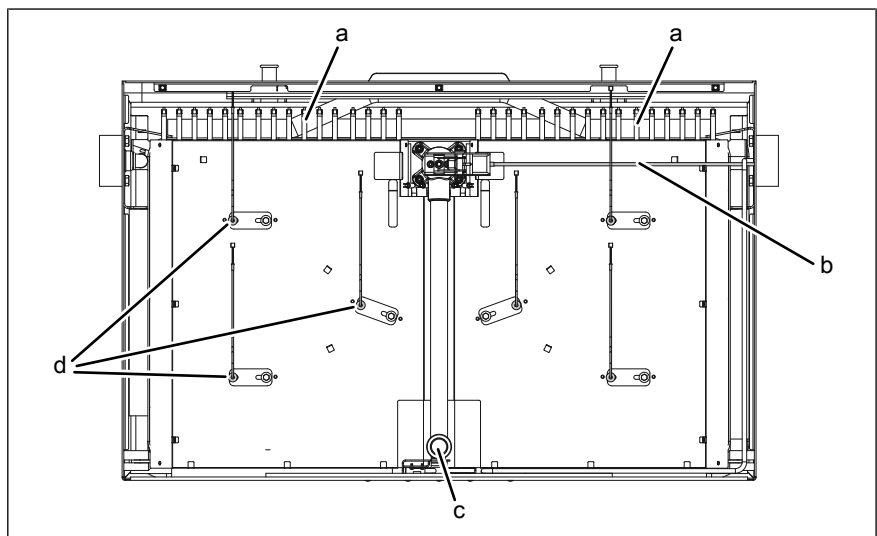


Image: Pan bottom opened

- | | |
|--------------------------|----------------------|
| a Heating element | c Drain pipe |
| b Bowden cable for drain | d Temperature sensor |

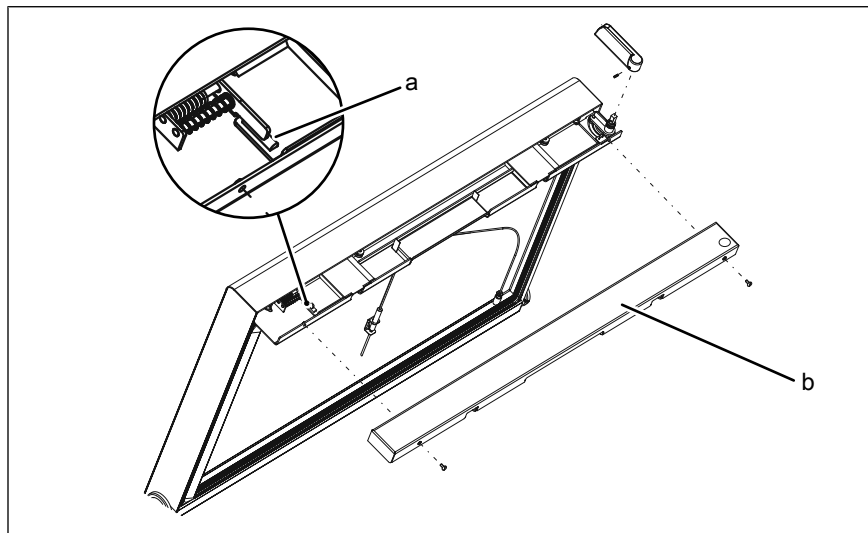


Image: Locking mechanism cover

a Retaining magnet

b Locking mechanism cover

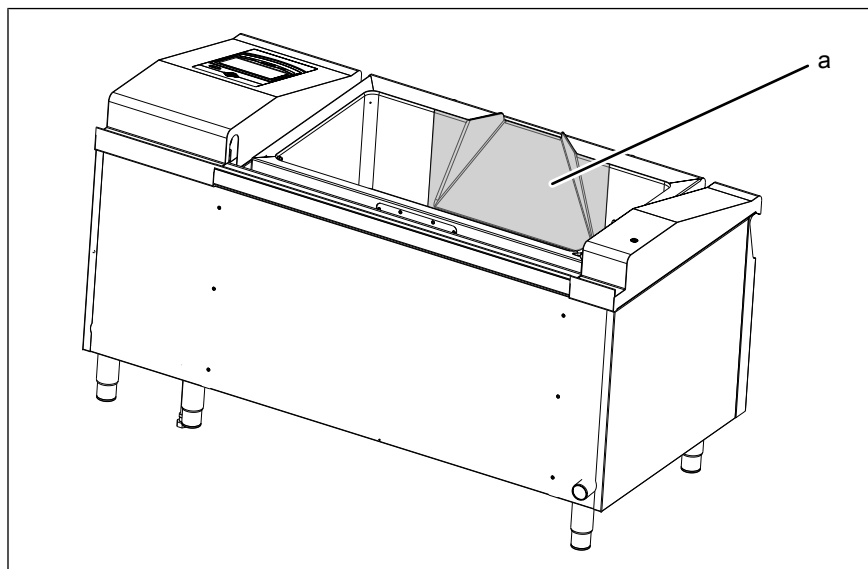


Image: Inside view, pan spout

a Spout

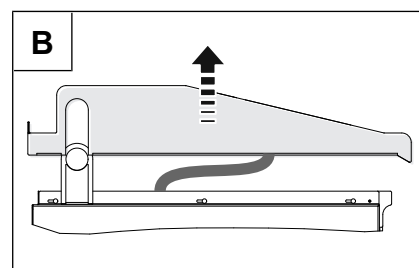
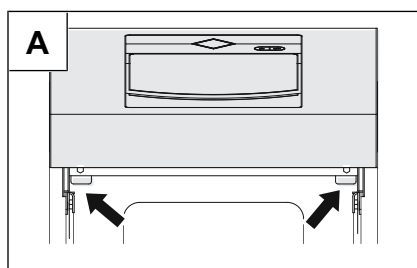


Image: A Locking mechanism B Cover of operating spar

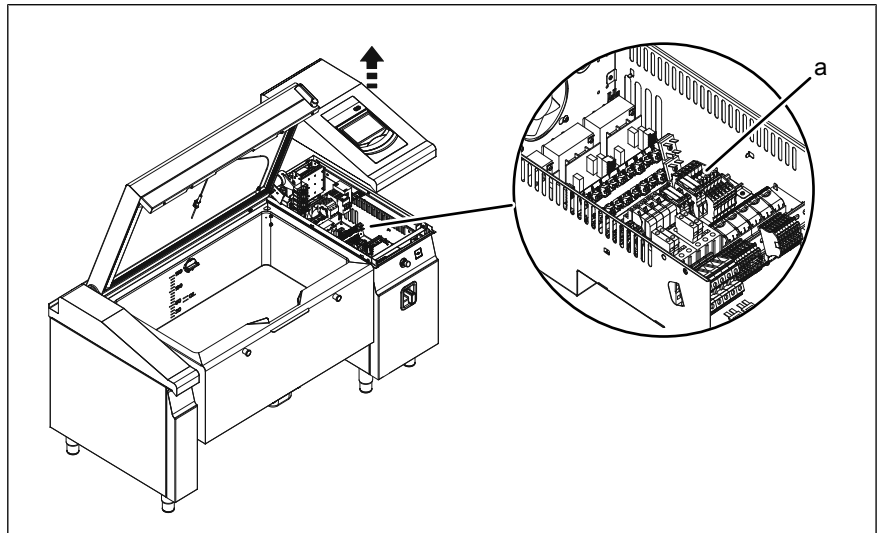


Image: Operating spar with electronics

a Blocking diodes

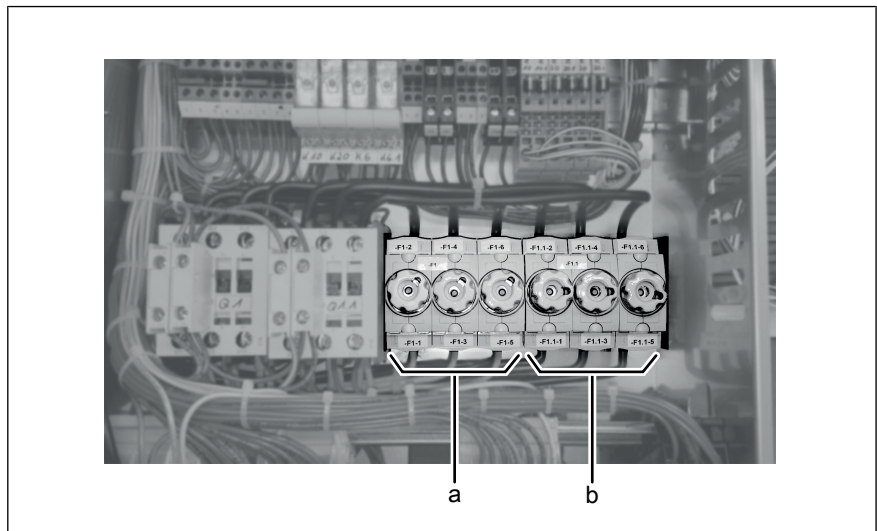


Image: Seating of the fuses

a F1

b F1.1

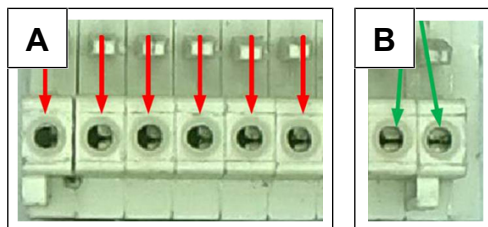


Image: Bottom sensor plug-in connections on the STL board
A: Plug-in connections open (not OK); B: Plug-in connections OK

Description of the unit

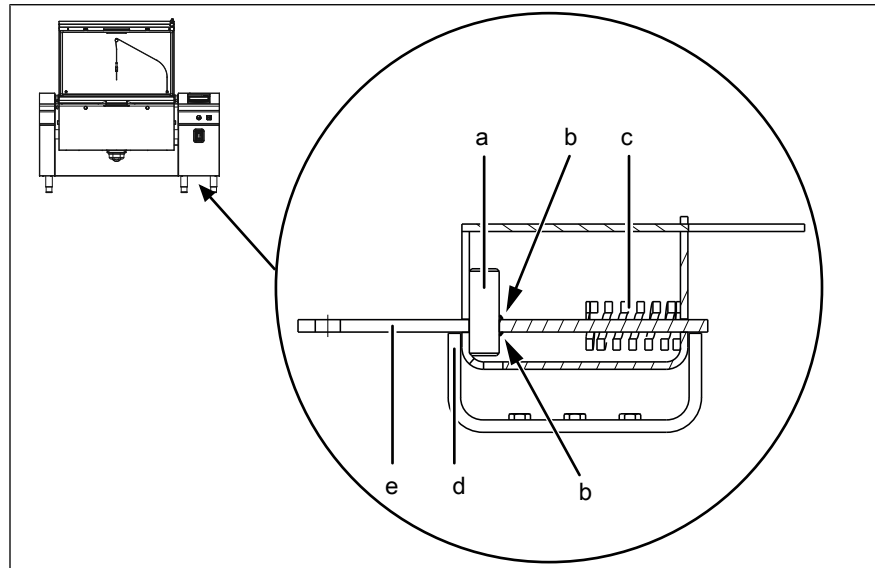


Image: Top view of weld locations for locking bolts on the holder for the tilting motor

- | | |
|------------------|------------------------|
| a Locking bolt | d Bracket |
| b Weld locations | e Tilting motor holder |
| c Spring | |

3.3 Unit and connection data

All models	
Drinking water connection	
Type of water	Drinking water, cold Drinking water, warm
Maximum water temperature (°C)	60
Flow rate, (l/min)	13 — 17
Carbonate hardness CaCO ₃ , mmol/l (°dH)	< 2.5 (< 14)
Chloride Cl (mg/l)	< 50
Iron Fe (mg/l)	< 0.1
Connection pressure kPa (bar)	200 — 600 (2 — 6)
Connection size (")	3/4 cap nut, flexible hose DN 20
Operating environment	
Temperature (°C)	5 — 40
Relative air moisture (%) non-condensing	95
Data interfaces	
USB port	USB 1.0 only for USB sticks
HACCP	RJ45 network cable (CAT5)
Power optimization system	
Connection terminal (mm ²)	1.5

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All models	
Waste water connection	
Waste water type	Dirty water, maximum 80 °C
Line length	HAT pipe DN 50*, if < 3 m with a drop of at least 8 % or 4°
Line length	HAT pipe DN 70*, if > 3 m with a drop of at least 4 % or 2°
Maximum flow rate with permanent connection (l/min)	50 FlexiChef / 2 x 50 FlexiChef Team
Maximum flow rate with floor channel (l/min)	70
* Marine version in stainless steel	

4 Carrying out maintenance

Order data	
Date:	
Name and location of customer:	
Company performing the work:	
Order number:	

General information	Yes	No
Information from the nameplate entered? SN: _____ Typ: _____ E: _____ Bez: _____ Item-Nr.: _____ (if listed)	<input type="checkbox"/>	<input type="checkbox"/>

4.1 Visual inspection

Checking the nameplate			OK	
Test criteria		Remarks / values	Yes	No
Present Legibility			<input type="checkbox"/>	<input type="checkbox"/>

Inspecting for external damage on the unit			OK	
Test criteria		Remarks / values	Yes	No
Dents Scratches Cracks Function-impairing damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the hand shower			OK	
Test criteria		Remarks / values	Yes	No
Roll-up mechanism Damage to hose and shower head Function Leaktightness			<input type="checkbox"/>	<input type="checkbox"/>

Checking the emergency off			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the USB port			OK	
Test criteria		Remarks / values	Yes	No
Damage Ease of movement			<input type="checkbox"/>	<input type="checkbox"/>

Checking the lid seal rings			OK	
Test criteria		Remarks / values	Yes	No
(see "Detailed view") Pinched areas Cracks			<input type="checkbox"/>	<input type="checkbox"/>

Checking the lid seal			OK	
Test criteria		Remarks / values	Yes	No
(see "Detailed view") Pinched areas Cracks Secure attachment			<input type="checkbox"/>	<input type="checkbox"/>

Checking the core temperature sensor			OK	
Test criteria		Remarks / values	Yes	No
Correct attachment Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the pan			OK	
Test criteria		Remarks / values	Yes	No
Cracks at welds Cracks in the spout			<input type="checkbox"/>	<input type="checkbox"/>

Checking the splash guard on the lid			OK	
Test criteria		Remarks / values	Yes	No
(see "Detailed view") Secure attachment Deformation			<input type="checkbox"/>	<input type="checkbox"/>

Checking the lid lock			OK	
Test criteria		Remarks / values	Yes	No
Ease of movement Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the operating unit			OK	
Test criteria		Remarks / values	Yes	No
Cracks and scratches in touchscreen and membrane keypad Membrane detached Touchscreen blind Ingress of moisture			<input type="checkbox"/>	<input type="checkbox"/>

Carrying out maintenance

Checking the pan drain			OK	
Test criteria		Remarks / values	Yes	No
Sufficient guideway (7 — 10 mm) Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the housing seal			OK	
Test criteria		Remarks / values	Yes	No
Missing Hanging out Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the pan operating position			OK	
Test criteria		Remarks / values	Yes	No
Correct seating on eccentric pins			<input type="checkbox"/>	<input type="checkbox"/>

Checking the fitting on the core temperature sensor and blind plug			OK	
Test criteria		Remarks / values	Yes	No
(see "Detailed view") Secure attachment Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the water inlet and water outlet on-site			OK	
Test criteria		Remarks / values	Yes	No
(see "Unit and connection data") Incline Connection size Siphon Vent			<input type="checkbox"/>	<input type="checkbox"/>

Checking unit alignment			OK	
Test criteria		Remarks / values	Yes	No
Horizontal installation Diagonal alignment (max. 5 mm)			<input type="checkbox"/>	<input type="checkbox"/>

Checking the unit legs			OK	
Test criteria		Remarks / values	Yes	No
Damage Angled			<input type="checkbox"/>	<input type="checkbox"/>

4.2 Unit function

Checking lid function			OK	
Test criteria		Remarks / values	Yes	No
Noise Easily movable Shaking motion Locks and unlocks properly			<input type="checkbox"/>	<input type="checkbox"/>

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Checking pan function			OK	
Test criteria		Remarks / values	Yes	No
Noise Easily movable Blockage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the lid lock eccentric pins			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Tightened to 50 Nm Secured with threadlocker (moderately strong)			<input type="checkbox"/>	<input type="checkbox"/>

Action				
Tilt pan to the final position				
Open the maintenance flap (see "Detail view")				

Checking the temperature sensor, thermal switch and electrical cable			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Damage Horizontal installation of temperature sensor (PT 100) (see "Detailed view")			<input type="checkbox"/>	<input type="checkbox"/>

Checking the small sprocket of the cleaning motor			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Setscrew tight If setscrew loose, secure with threadlocker (moderately strong).			<input type="checkbox"/>	<input type="checkbox"/>

Checking the chain, cleaning flange and motor			OK	
Test criteria		Remarks / values	Yes	No
Corrosion Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the chain			OK	
Test criteria		Remarks / values	Yes	No
Wear If chain play excessive, retension chain.			<input type="checkbox"/>	<input type="checkbox"/>

Visually inspecting the cleaning components			OK	
Test criteria		Remarks / values	Yes	No
Leaktightness Damage			<input type="checkbox"/>	<input type="checkbox"/>

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Carrying out maintenance

Checking the pan drain seal			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Hardened Damage			<input type="checkbox"/>	<input type="checkbox"/>

Action
Open <i>Unit functions</i> menu
Open <i>Relay test</i> menu

Check relay test for SpaceClean drive			OK	
Test criteria		Remarks / values	Yes	No
Function			<input type="checkbox"/>	<input type="checkbox"/>

Action
Close maintenance flap

Action
Open pan bottom cover (see "Detail view")

Checking the heating element			OK	
Test criteria		Remarks / values	Yes	No
Secure attachments of all lines and terminal lugs Corrosion Damage Condition of terminal lugs			<input type="checkbox"/>	<input type="checkbox"/>

Checking the pan drain wiper			OK	
Test criteria		Remarks / values	Yes	No
Wear Damage Grease on covering of pan bottom (visual)			<input type="checkbox"/>	<input type="checkbox"/>

Checking the pan bottom temperature sensor			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Damage Condition			<input type="checkbox"/>	<input type="checkbox"/>

Checking the Bowden cable for the pan drain			OK	
Test criteria		Remarks / values	Yes	No
Corrosion Pinched areas Damage			<input type="checkbox"/>	<input type="checkbox"/>

Action
Close pan bottom cover
Tilt pan to operating position

4.3 Function check

Action
Open <i>Manual cooking</i> menu

Checking zone grilling			OK	
Test criteria		Remarks / values	Yes	No
Switch on the heating zones in succession and check the heating of each operating heating zone (temperature sensor status information in the Service menu).			<input type="checkbox"/>	<input type="checkbox"/>

Action
Open <i>Unit functions</i> menu

Checking the flow rate at the water inlet			OK	
Test criteria		Remarks / values	Yes	No
Cold water (13 — 17 l/min) Hot water (13 — 17 l/min)			<input type="checkbox"/>	<input type="checkbox"/>

Action
Open at least 2 additional water consumers

Water inlet flow rate reference measurement			OK	
Test criteria		Remarks / values	Yes	No
Cold water (13 — 17 l/min) Hot water (13 — 17 l/min)			<input type="checkbox"/>	<input type="checkbox"/>

Checking the hot water temperature			OK	
Test criteria		Remarks / values	Yes	No
Measure the temperature with the core temperature sensor (max. 60 °C)			<input type="checkbox"/>	<input type="checkbox"/>

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Carrying out maintenance

Checking the cleaning lance flange cover			OK	
Test criteria		Remarks / values	Yes	No
Ease of movement Threads damaged Replace bayonet connection seal if damaged			<input type="checkbox"/>	<input type="checkbox"/>

Checking the T-handle for the threaded plug			OK	
Test criteria		Remarks / values	Yes	No
Deformation Damage If function impaired, replace flange cover holder.			<input type="checkbox"/>	<input type="checkbox"/>

Action
Open Unit information menu

Checking the software and firmware			OK	
Test criteria		Remarks / values	Yes	No
Up to date			<input type="checkbox"/>	<input type="checkbox"/>
Software version:				
Firmware version: (On FlexiChef Team, left and right side separately)				
Software and firmware compatible				

Checking the unit settings			OK	
Test criteria		Remarks / values	Yes	No
Settings correct: Date Time Altitude			<input type="checkbox"/>	<input type="checkbox"/>

Backing up the device configuration			OK	
Test criteria		Remarks / values	Yes	No
Back up MMI configuration Back up I/O configuration			<input type="checkbox"/>	<input type="checkbox"/>

Checking the service settings			OK	
Test criteria		Remarks / values	Yes	No
Actual and desired state of status information			<input type="checkbox"/>	<input type="checkbox"/>

Checking the unit configuration			OK	
Test criteria		Remarks / values	Yes	No
Configuration differs from data on the nameplate			<input type="checkbox"/>	<input type="checkbox"/>

4.4 Unit

Action
Open the lid lock cover (see "Detail view")

Checking the lid lock			OK	
Test criteria		Remarks / values	Yes	No
Cracks Deformation Magnet attached securely			<input type="checkbox"/>	<input type="checkbox"/>

Action
Close the lid lock cover

Action
Open the front panel of the operating spar
Open the operating spar cover (see "Detail view")
Open the front panel of the side arm
Open the side arm cover

Checking fan			OK	
Test criteria		Remarks / values	Yes	No
Fan function MMI Fan function SSR Dirt			<input type="checkbox"/>	<input type="checkbox"/>

Action
Disconnect unit from power

Checking the water assembly			OK	
Test criteria		Remarks / values	Yes	No
Leaktightness Damage to hoses and connections Screw clamp on pump inlet hose present If Y-clamp installed, replace with screw clamp.			<input type="checkbox"/>	<input type="checkbox"/>

Checking the hot and cold water valves			OK	
Test criteria		Remarks / values	Yes	No
Leaktightness Function			<input type="checkbox"/>	<input type="checkbox"/>

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Carrying out maintenance

Checking the locking bolts on the bracket			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Welded (see "Detailed view") Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the protective conductor from MMI to bracket			OK	
Test criteria		Remarks / values	Yes	No
Damage Secure attachment Broken cable			<input type="checkbox"/>	<input type="checkbox"/>

Action
Remove circuit board metal cover (if present)

Replaced the battery on the I/O board			OK	
Test criteria	Interval: 1 year	Remarks / values	Yes	No
Ensure that an SD card is present			<input type="checkbox"/>	<input type="checkbox"/>
Replace battery				
Restore the MMI and configuration in the Service level.				

Checking the ribbon and image transmission cable on the MMI			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment of adhesive If not yet glued or adhesive loose, fasten with hot glue (see Service instructions).			<input type="checkbox"/>	<input type="checkbox"/>

Checking the plug-in contacts of the bottom sensors on the STL board			OK	
Test criteria		Remarks / values	Yes	No
Opening or displacing the metal contacts inside the connector (see "Detail view") Secure attachment			<input type="checkbox"/>	<input type="checkbox"/>

Checking the blocking diodes (Only on units until June 2014)			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment on V10 and V11 (FlexiChef Team V10.1 and V11.1) If blocking diodes loose, rebend or replace prongs.			<input type="checkbox"/>	<input type="checkbox"/>

Checking the plug-in contacts on the I/O board			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment			<input type="checkbox"/>	<input type="checkbox"/>

Checking the electrical connection line terminals			OK	
Test criteria		Remarks / values	Yes	No
Connection line tight Retighten loose connection terminals.			<input type="checkbox"/>	<input type="checkbox"/>

Checking the screw retainers (Only FlexiChef Team)			OK	
Test criteria		Remarks / values	Yes	No
(see "Detailed view") Discoloration Secure attachment Retighten or replace screw retainers			<input type="checkbox"/>	<input type="checkbox"/>

Checking the STL board reset cable			OK	
Test criteria		Remarks / values	Yes	No
Damage Secure attachment			<input type="checkbox"/>	<input type="checkbox"/>

Checking the emergency off			OK	
Test criteria		Remarks / values	Yes	No
Damaged cable Cable attached securely Button attached securely			<input type="checkbox"/>	<input type="checkbox"/>

Checking the screws on the drain motor			OK	
Test criteria		Remarks / values	Yes	No
Damage Secure attachment If necessary, glue on			<input type="checkbox"/>	<input type="checkbox"/>

Checking the pressure switch on the high-pressure pump			OK	
Test criteria		Remarks / values	Yes	No
Seal condition Corrosion Function			<input type="checkbox"/>	<input type="checkbox"/>

Checking the water inlet sieve on the high-pressure pump			OK	
Test criteria		Remarks / values	Yes	No
Dirt If dirty, clean.			<input type="checkbox"/>	<input type="checkbox"/>

Checking the housing seal			OK	
Test criteria		Remarks / values	Yes	No
Missing Hanging out Damage			<input type="checkbox"/>	<input type="checkbox"/>

Carrying out maintenance

Checking hoses and connections			OK	
Test criteria		Remarks / values	Yes	No
Secure attachment Leaktightness Damage			<input type="checkbox"/>	<input type="checkbox"/>

Checking the float switch in the water box (Only FlexiChef until June 2014)			OK	
Test criteria		Remarks / values	Yes	No
Calcification Damage Function			<input type="checkbox"/>	<input type="checkbox"/>

Action
Close the covers

4.5 Function test

Action
Run the cleaning program briefly (2 min)
Insert the cleaning lance

Checking cleaning			OK	
Test criteria		Remarks / values	Yes	No
Water stream sound uniform during operation			<input type="checkbox"/>	<input type="checkbox"/>

Checking the cleaning lance			OK	
Test criteria		Remarks / values	Yes	No
Corrosion Calcification of nozzles Ease of movement Damaged threads Setscrew tight in orbital head Replace bayonet connection seal if damaged			<input type="checkbox"/>	<input type="checkbox"/>

Checking the cleaning pressure			OK	
Test criteria		Remarks / values	Yes	No
Operating pressure of high-pressure pump 160 bar			<input type="checkbox"/>	<input type="checkbox"/>

Action
Open <i>Unit functions</i> menu
Start the safety valve test

Test safety valve			OK	
Test criteria		Remarks / values	Yes	No
Automatic test successful If safety valve test not successful, replace the safety valve			<input type="checkbox"/>	<input type="checkbox"/>

Action
Start the safety temperature limiter test

Checking the safety temperature limiter			OK	
Test criteria		Remarks / values	Yes	No
Automatic test successful Sensor values in status level plausible Reset not possible until 265 °C			<input type="checkbox"/>	<input type="checkbox"/>

Action
Close the front panels

Notes and remarks

5 Acceptance of maintenance

The maintenance was performed by:			
Company	Installation fitter	Place, date	Signature / Stamp

Confirmation of customer:			
Customer	Function	Place, date	Signature / Stamp

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