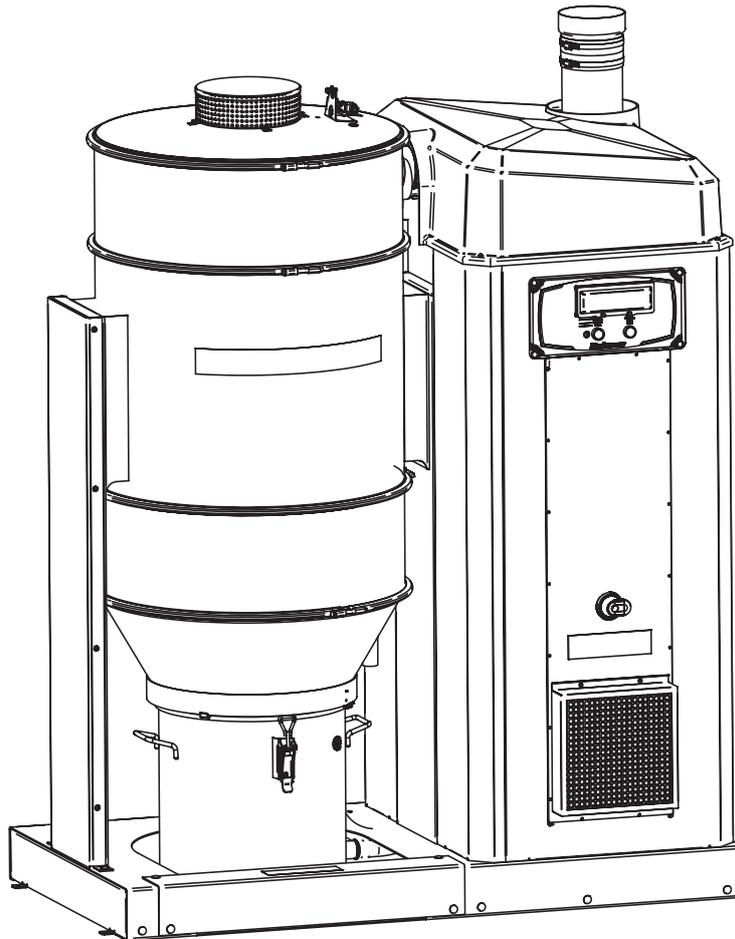


Compact dust collectors

FlexPAK dust and fume collector

800/1000



Original update
ORIGINAL UPDATE

EN

Update to 144830: Machining chips and swarf extraction

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1 Reason for update to 144830

From software revision 2160681-3, a new functionality, machining chips and swarf extraction, has been added to FlexPAK 800. This function adds new parameter settings, and changes current electrical diagrams.

2 Description of machining chips and swarf extraction

If FlexPAK is used for machining chips and swarf extraction, it is recommend that the unit be configured for this purpose. See '3.0.3 CoolTmp' below.

When the fan temperature reaches the temperature set in CoolTmp, CoolTmp activates CoolTmr to open the filter cleaning valve for a set period of time to let air into system to cool down the fan.

NOTE! During the cooling cycle, all vacuum is lost in the system so there is no waste extraction.

When the time set in CoolTmr has elapsed, the filter cleaning valve is closed, and vacuum is established in the system so waste extraction can start again.

To activate machining, first set the temperature limit parameters in CoolTmp. Set "On=97" and "Off=96". Next set the maximum cooling cycle time limit in CoolTmr. Set TH>0. For example, set "TH=5" for a five second cooling cycle time limit.

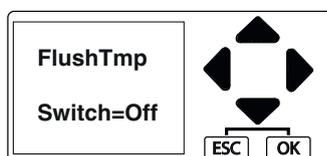
See also Figure 6 below for a description of how machining works.

3 Changes to parameter settings: Accessories, customer connections

3.0.1 FlushTMP activation

NOTE! From software revision 2160681-3, the FlushTMP activation menu is not available so it cannot be used. Use the FlushTMP menu to activate FlushTMP. See section '3.0.2 FlushTmp'.

Menu for activating FlushTMP supervision. See Section '3.0.2 FlushTmp'.



Switch=Off is the default setting; FlushTMP is deactivated.
To activate FlushTMP, set Switch=On.

3.0.2 FlushTmp

Menu for temperature settings for regulating the fan’s outgoing air with the help of the flush valve (SFV1). When the air temperature of outgoing air reaches the value set by FlushTMP, the flush valve (SFV1) opens to let in air in the system to reduce the outgoing air’s temperature.

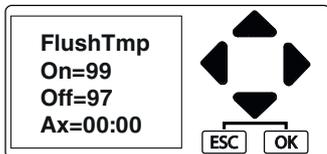
Note that when the valve is open, the vacuum level from the workstations pipes leading to the main pipe can be reduced. However, the flow in the main pipe partially increases flushing out dirt and debris.

The default settings for FlushTmp; FlushTmp is not activated:



On=110: The temperature limit that is set to open flushing valve 1 (SFV1). The default setting is 110°C (230°F).
 Off= 97 (207°F): The temperature limit that is set to close the flush valve. The default setting is 97°C (207°F).
 Ax=00:00: The current temperature of air exiting the system.

To activate FlushTmp, use the following settings:

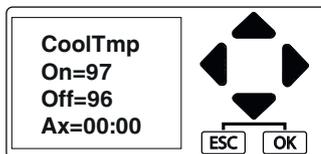


On=99: The temperature limit that is set to open flushing valve 1 (SFV1). The default setting is 110°C (230°F).
 Off= 97 (207°F): The temperature limit that is set to close the flush valve. The default setting is 97°C (207°F).
 Ax=00:00: The current temperature of air exiting the system.

3.0.3 CoolTmp

Menu for setting CoolTmp. See section ‘3.0.4 CoolTmr’.

The default settings for CoolTmp:



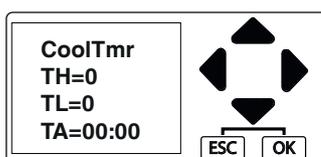
On=97: The default temperature limit that is set to open Cleaning Valve V1 “SCV”. The default setting is 97°C (207°F).
 Off= 96: This parameter is set to (CoolTmp On -1), The default setting is 96°C (205°F). Always set Off to On minus 1°C (On = 97-1 = 96).
 Ax=00:00: The current temperature of air exiting the system.

3.0.4 CoolTmr

CoolTmr cools the unit by open Cleaning Valve V1 “SCV” to cool the vacuum pump. The CoolTmr timer function is started by CoolTmp.

When the fan’s outgoing air temperature is over the CoolTmp threshold, “On=97”, CoolTmr is activated and opens Cleaning Valve V1 (SCV).It keeps the valve open for (TH=X seconds), and then closes the valve independent of whether the fan’s outgoing air temperature is over the CoolTmp threshold “On=97”, or below the threshold level CoolTmp Off “Off=96”. Set the TH parameter to maximum allowed cooling time in X seconds.

The default settings for CoolTmr; CoolTmr is not activated:



TH= 0 seconds: the Cleaning Valve V1in is opened for 0 seconds. TH= 0 is the default setting. To activate CoolTM, set CoolTM TH > 0 seconds (e.g. TH= 5).
 TL= 0 seconds: (The default setting, do not change).
 TA= Ta=00:00: The elapsed time since the Cooling cycle was activated.

To activate CoolTmr, use the following settings:



TH= 5 seconds: the Cleaning Valve V1in is opened for 5 seconds. TH= 0 is the default setting. To activate CoolTM, set CoolTM TH > 0 seconds (e.g TH= 5).

TL= 0 seconds: (The default setting, do not change).

TA= Ta=00:00: The elapsed time since the Cooling cycle was activated.

4 PLC menu update

The PLC menu is updated with the addition of FlushTMP activation:

1. FlushTMR	2. MFDPS-FC	3. MFDPS-Wr	4. DPFClean
5. OTTmr	6. CFDPS-AI	7. PSIFC	8. PSCFlush
9. FlushCy1	10. FlushCy2	11. FlushTMP activation	12. FlushTMP
13. CoolTMP	14. CoolTmr	15. BRSTmr	16. AEBTme
17. BinAuto	18. BLI-Wr	19. BLI-Empt AEB-TVFD	20. LiAuto
21. AEB-TVFD	22. BinOpnTm	23. Emtyldli	24. TVFDAdv
25. TVFDO AI	26. TVFDC-AI BRSTmr	27. LSOTmr	28. Presep
29. PresepTm			

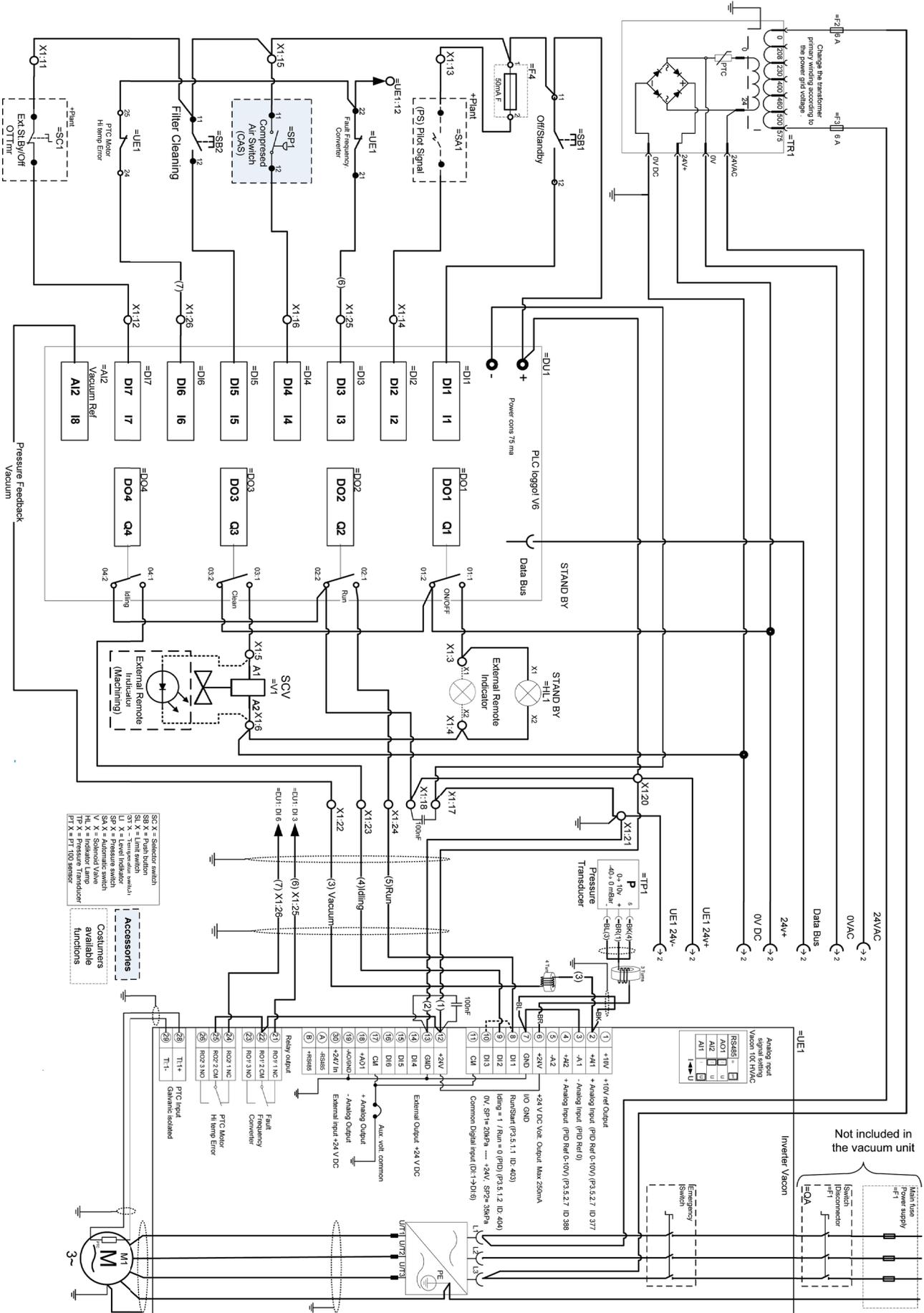
5 Figure changes

For the power circuit, control circuit and terminal connection diagrams, see the following figures:

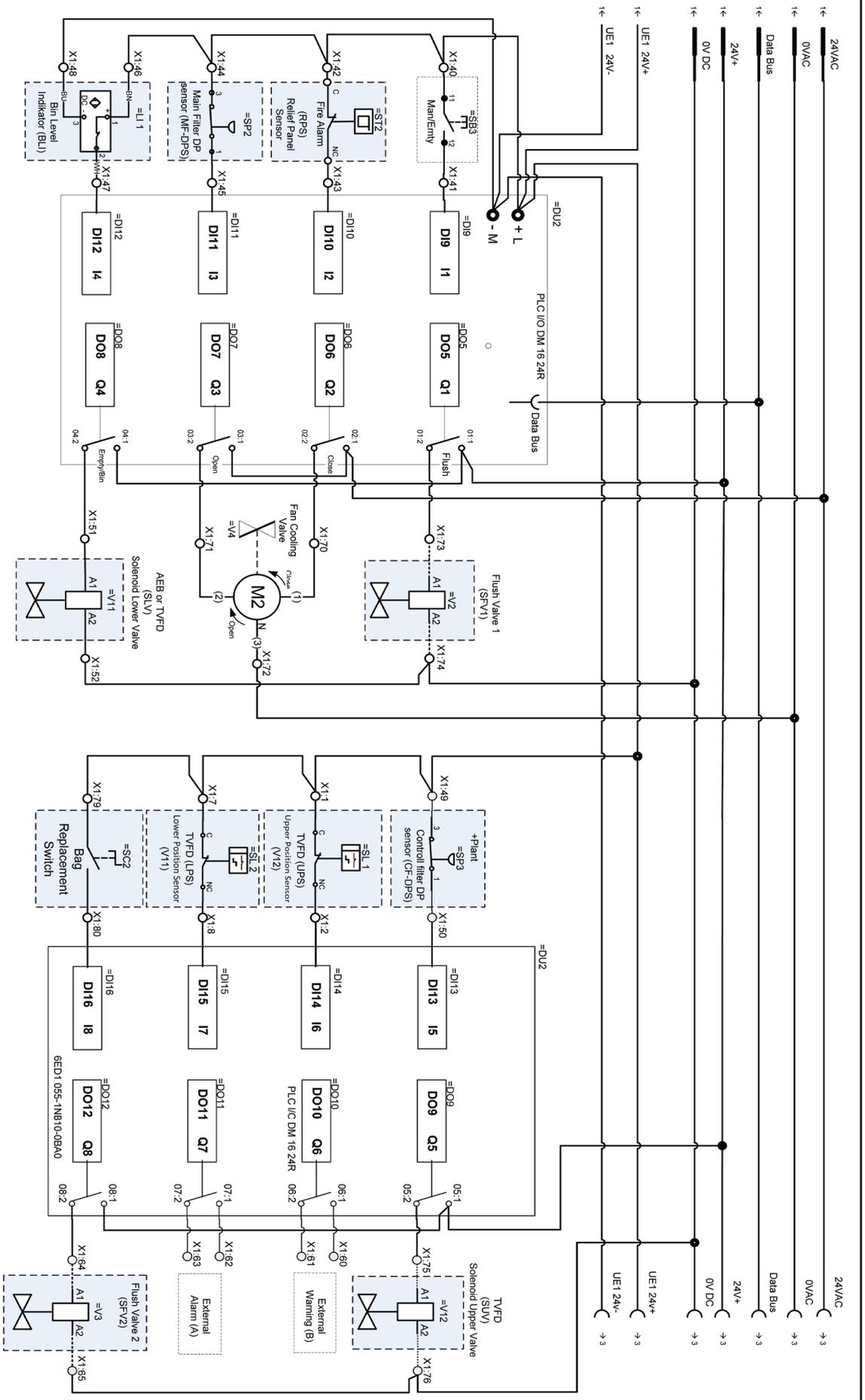
- Loggo PLC (DU1) and Frequency Converter (UE1), see Figure 1 (Figure 19 in the user manual).
- Digital I/O Extension Module (DU2), see Figure 2 (Figure 20 in the user manual).
- PT100 Extension Module (DU3), see Figure 3 (Figure 21 in the user manual).
- Layout Terminal X1 and Frequency Converter (UE1), see Figure 4 (Figure 18 in the user manual).

There is one new figures:

- Figure 5 is a diagram of how machining swarf and chips removal works.



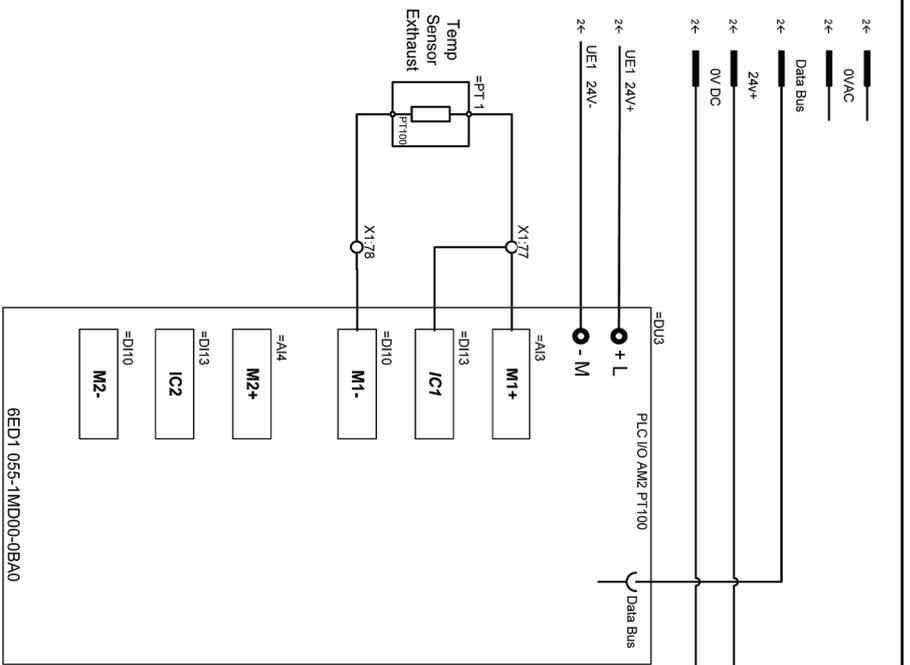
Circuit Diagram FlexPAK 800 - 1000
Loggo PLC (DU1) and Frequency Converter (UE1)



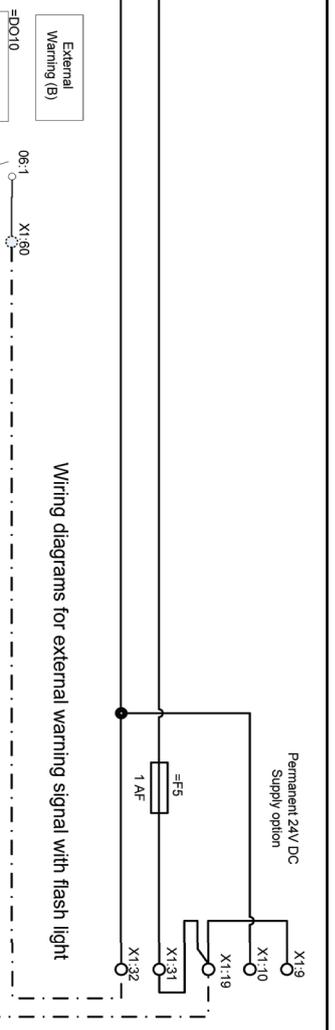
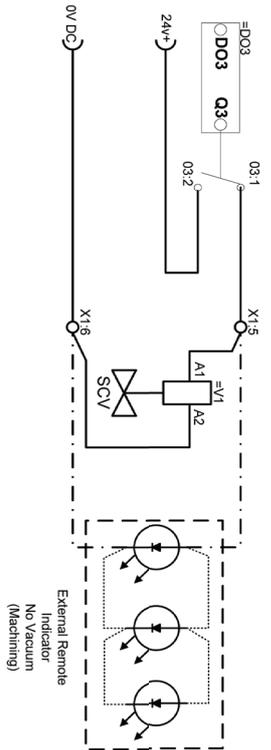
- SC X = Selector switch
- SB X = Push button
- ST X = Temperature switch
- LT X = Level indicator
- SP X = Pressure switch
- SL X = Solenoid Valve
- HL X = Indicator Lamp
- FT X = Pressure Transducer
- PT X = PT 100 sensor

- Accessories
- Costumes available
- Functions

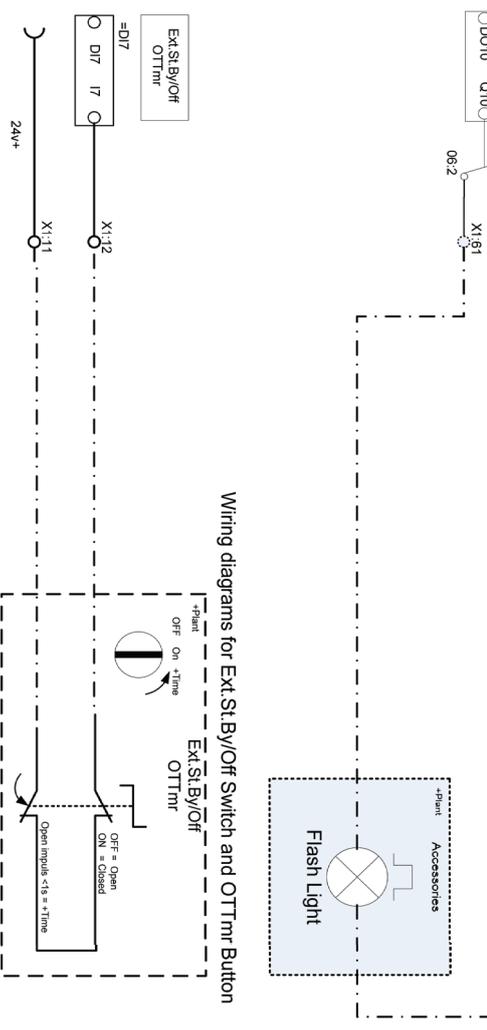
Circuit Diagram FlexPAK 800 - 1000
Digital I/O Extension Modul (DU2)



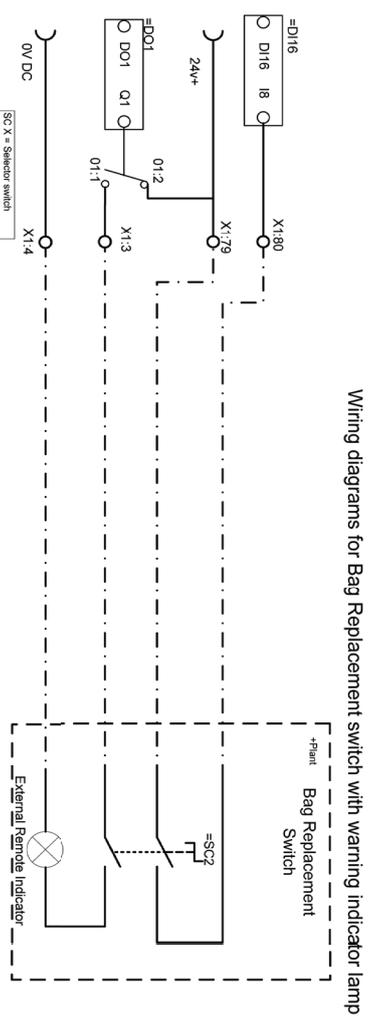
Wiring diagrams for "no vacuum in the system" Indicator lamp (Red) On = No vacuum in the system (Machining)



Wiring diagrams for external warning signal with flash light



Wiring diagrams for Ext.St.By/Off Switch and OTTmr Button



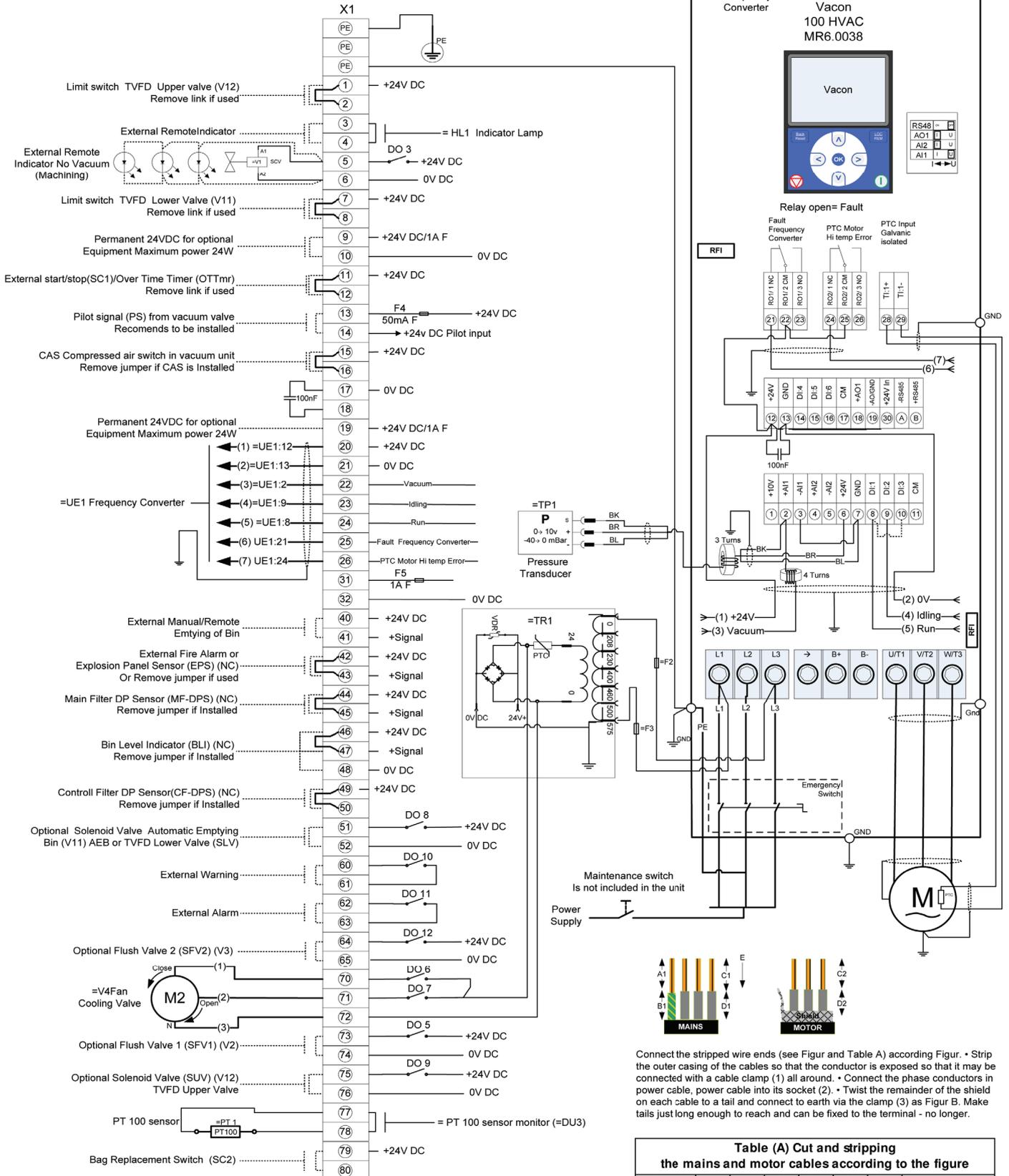
Wiring diagrams for Bag Replacement switch with warning indicator lamp

- SCX = Selector switch
- SBX = Push button
- SLX = Limit switch
- STX = Temperature switch
- SPX = Pressure switch
- LSX = Level indicator
- SA X = Solenoid Valve
- V X = Solenoid Valve
- HL X = Indicator Lamp
- PT X = PT 100 sensor

Circuit Diagram FlexPAK 800 - 1000
PT100 Extension Module (DU3)

4 Customer Connection and Extra equipment or Accessories

Internal Connection



Circuit Diagram FlexPAK 800 - 1000

Layout Terminal X1 and Frequency Converter (UE1)

Connect the stripped wire ends (see Figur and Table A) according Figur. • Strip the outer casing of the cables so that the conductor is exposed so that it may be connected with a cable clamp (1) all around. • Connect the phase conductors in power cable, power cable into its socket (2). • Twist the remainder of the shield on each cable to a tail and connect to earth with the clamp (3) as Figur B. Make tails just long enough to reach and can be fixed to the terminal - no longer.

Type	A1	B1	C1	D1	C2	D2	E
380-480V	20	90	15	60	15	60	Leave as short
208-240V	20	80	20	80	20	80	as possible

5

