S 805/S 815 Flex Separation

Parameter List

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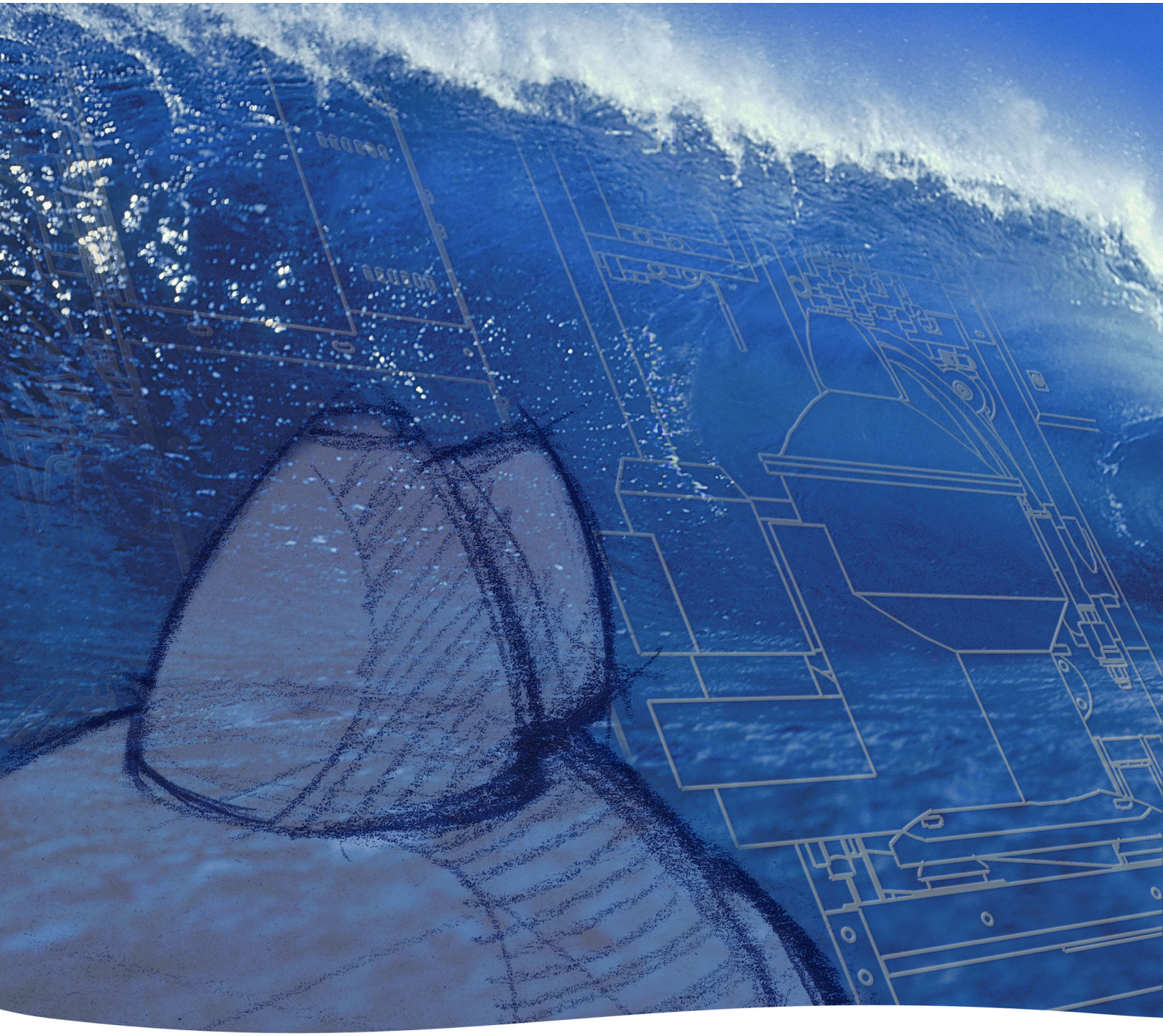

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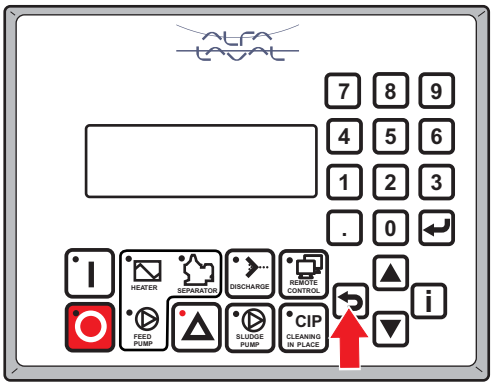
1 Parameter list

1.1 Setting List

To access the Setting List at any time during the operation process press the ‘Return button’ repeatedly until the Setting List is reached.

NOTE

Relevant parameters only are shown on the display.



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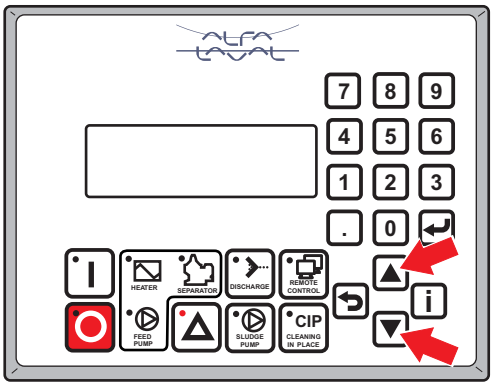
Press the arrow buttons to go up or down in the list. The list consists of the following:



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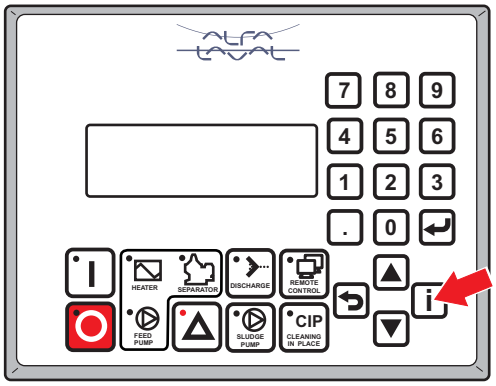
1. Parameters – List of all parameters. Password protected. To go directly to a parameter, enter the parameter number.
2. Time settings – For setting date, time, etc. Password protected. To go directly to a parameter, enter the parameter number.
3. Operation time – Different counters and timers can be read.
4. I/O Test – Here it is possible to activate all outputs and to read the status for all inputs, for testing purposes.
5. Alarm history – List of alarms which have been rectified. The latest alarm shows at the top of the list.
6. System info
7. IP settings
8. Password / Login
9. Set contrast

When in the Parameter Menu a list item is blinking, you can press the ‘Enter’ button to get the parameter list.
To change the value of a parameter or to have some information about the parameter you move the cursor up/down with the arrow button. When the cursor is in front of the desired parameter, press information button to get more information.

Press the ‘Information’ button again to return to your previous position.

You can also change this setting – see below.

Press ‘Enter’ button you will see the actual value, the max value and the min value. You can change the value either by using the number buttons to write in a value, or by choosing a value from the list. Save any change by pressing the ‘Enter’ button.



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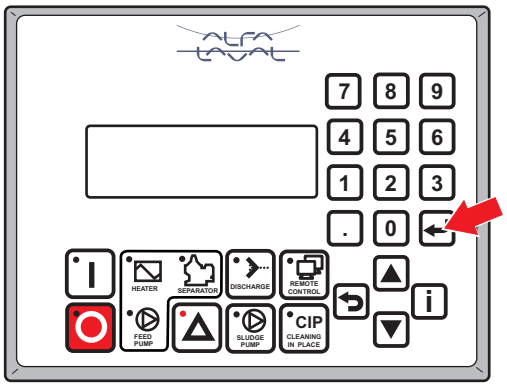

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NOTE

Certain parameters can only be changed by the factory, the chief engineer, or an Alfa Laval service engineer.

Parameters are divided into three password levels:

Level 0 – No password needed.

Level 1 – Possible to protect with password.

Level 2 – Alfa Laval password protected.

@ = These configuration parameters can only be adjusted while the system is in STAND STILL (not visible on the HMI in all other modes). The present configuration is displayed in menu "System info".

Parame-ter	Pass-word level	Denomination	Default value	Unit	Min. value	Max. value
		Presentation on display (has effect on parameters with these measuring units, and on the user dialog)				
P100	0	Display language: English/ German/ Spanish/ French/ Italian/ Portuguese/ Swedish	English			
P101	0	Selection of temp. presentation Celsius/Fahrenheit	°C			
P102	0	Selection of feed flow rate presentation m3/h or USG/h	m3/h			
P103	0	Selection of pressure presentation kPa, bar, psi	bar			
User password required for all following parameters if activated!						
System configuration						
P107	1	Flow correction factor	1,00		0,00	2,00
P110		not used				
P111	1 @	Separator size	0		See Parameters depending on the setting of P111, page 12.	
P112	1	Oil type	HF380		See Parameters depending on the setting of P112, page 13.	
P114	1 @	Vibration sensor installed yes/no	no		Can even be changed in STOP. See also "System without vibration sensor" in the Operating instructions manual.	
P115	1 @	Frame cover switch installed yes/no	no		Can even be changed in STOP. See also "System without frame cover switch" in the Operating instructions manual.	
P116	1	Frame cover switch disabled yes/no (if P115 = yes)	no		See also "System without frame cover switch" in the Operating instructions manual.	

Parameter	Password level	Denomination	Default value	Unit	Min. value	Max. value
P117	1 @	MT60 (water transducer) installed yes/no	yes		See also "System without water transducer" in the Operating instructions manual.	
P118	1 @	Sludge pump installed yes/no	no		Can even be changed in STOP.	

Parameter	Password level	Denomination	Default value	Unit	Min. value	Max. value
P119	1 @	Heater installed no/electric/steam/external	no		Can even be changed in STOP. See also "Control of Heater" in the Operating instructions manual.	
P120	1 @					
		If P119 = electric: heater size	16	kW	7	130
P121	1	If P119 = steam: steam valve transition time	120	s	0	999
P122	1	Deadband heater	0.5	°C (P101)	0	5
P123	1	P-constant heater (if heater controlled) see also P125/P126 (cold start)	75		10	500
P124	1	I-constant heater (if heater controlled)	0.4	min	0.1	10.0
P125	1	Breakpoint cold start (if heater controlled)	50	°C (P101)	0	99
P126	1	Gain factor cold start (if heater controlled)	40	%	1	100
P127	1 @	Feed pump controlled yes/no	no		Can even be changed in STOP.	
P128	1	MT60 on/standby. Standby = MT60 disabled. Discharge every 15 min. (overrides P220). SV10 not activated.	on			
P129	1	Selection of of communication type digital inputs, Modbus TCP	digital inputs		not available if running in "remote"	
P130	1	not used				

Parameter	Password level	Denomination	Default value	Unit	Min. value	Max. value
P131	1 @	Valve in sludge outlet installed no, manual, pneumatic NO, pneumatic NC	no		Can even be changed in STOP.	
P132	1	Vibration sensor disabled yes/no	no			
P133	1	Relay OP1 (function optional output 1)	none		See also “Programmable in- and outputs” in the Operating instructions manual for all alternatives	
P134	1	Relay OP2 (function optional output 2)	none			
P135	1	Relay OP3 (function optional output 3)	none			
P136	1	Relay OP4 (function optional output 4)	none			
P137	1	Relay OP5 (function optional output 5)	none			
P138	1	Relay OP6 (function optional output 6)	none			
P139	1	Opt. input 1 (function optional input 1)	none			
P140	1	Opt. input 2 (function optional input 2)	none			
P141	1	Opt. input 3 (function optional input 3)	none			
P142	1	Opt. input 4 (function optional input 4)	none			
P142	1	Opt. input 5 (function optional input 5)	none			
P144	1	Opt. input 6 (function optional input 6)	none			
P145	1	Cross connection/serial operation	dis-abled		see also “Cross connection/serial operation”	
P146	1	Temperature sensor disabled no, TT1, TT2, TT2 custom	no			
P147	1 @					
		Separator mode 0 = purifier, 1 = alcap	alcap		alcap	purifier
P148	1	not used				
P149	1	Level switch disabled. Run sludge pump 30 s at discharge (overrides P234).	no			

Parameter	Password level	Denomination	Default value	Unit	Min. value	Max. value
Alarm related parameters: delays, limits etc.						
P151		Not used				
P152	1	Power failure alarm used yes/no (common alarm at power failure given yes/no)	yes			
P153	1	High oil pressure limit (PT4), 0.0 = pressure sensor disabled	3,0	bar	0,0	6,0
P154	1	Low oil pressure limit (PT4)	1,2	bar	0,0	6,0
P155	1	not used				
P156	1	not used				
P157	1	Alarm limit high feed pressure (PT1), 0.0 = feed pressure sensor disabled	3,0	bar	0,0	6,0
P158	1	Alarm limit low feed pressure (PT1)	0,2	bar	0,0	6,0
P160		not used				
P161		not used				
P162	2	Alarm limit "A81 Transducer value low"	70	pF	0	320
P163		not used				
P164		not used				
P165		not used				
P166		not used				
P167		not used				
P169	1	Alarm delay "A24 Temperature increase too slow"	15	min	0	60
P170		not used				
P172		not used				
P173	1	Alarm delay “A25 Temperature not decreasing” 0 = no temperature supervision	5	min	0	30
P174		not used				
P175		not used				
P177	1	Alarm limit "A32 Difference TT1/TT2 too large"	10	°C (P101)	0	30
P178	1	Time limit in RECIRCULATION	10	min	0	30
Setpoints						
P223		not used				
P224		not used				
P225		not used				
P226		not used				
P227		not used				

Parame-ter	Pass-word level	Denomination	De-fault value	Unit	Min. value	Max. value
P228	1	SV16 pulse interval in SEPARATION	5	min	1	30
P229		Not used				
P232	1	Draining time operating water and discharge check	15	s	0	30
P234	1	Sludge pump additional/manual running time	10	s	0	30
P235		not used				
P236		not used				
P237		not used				
P238	2	Feed on after discharge	30	s	0	60
P239		not used				
P242		not used				
P256	1	Feed pump stop delay at normal STOP	3	min	0	30
P258	2	Feed on after start discharge	30	s	0	60
P259	1	Alarm limit "A97 Discharge feedback error" if speed sensor not installed (PT1 pressure decrease) 0 = function disabled	0,05	bar	0	1,0
P260	2	SV10 open to fill the bowl in STOP 5 s	5	s	0	300
P262	1	Serial operation: slave discharge frequency (parameter set in master PLC) 0 = no discharge # = every # time master discharges	2		0	10

Parameters depending on the setting of P111

Separator size (P111, default 0)									
Parame-ter	**Pass-word level**	**Description**	**S805, if P147 = alcap**	**S805, if P147 = purifier**	**S815, if P147 = alcap**	**S815, if P147 = purifier**	**Min. value**	**Max. value**	**Unit**
P179		not used							
P180		not used							
P181		not used							
P182		not used							
P220	1	Discharge interval	30	30	30	30	1	300	mm
P231	1	SV15 opening time	1,0	1,0	1,0	1,0	0,1	5,0	s
P233	1	Filling time conditioning/ sealing water	10	30	10	30	0	60	s
P240	1	Filling time displacement water	30	30	30	30	0	300	s
		SV10, constant flow orifice	1,3	1,3	1,3	1,3			l/min
P243	1	SV16 open after dis-charge	15 s	15 s	15 s	15 s	0	120	s
P244	1	SV15 open at start discharge	5,0	5,0	5,0	5,0	0,1	30,0	s
P246		not used							
P247		not used							
P248		not used							
P255		not used							
P257	1	SV16 open at start discharges	15	15	15	15	0	60	s
P109		not used							
P261	1	Filling time seal-ing water after RECIRCULA-TION (if P147 = puri-fier)	---	20	---	20	0	60	s

NOTE

If P111 = 0 (default value), the operator is automatically forced to go through a system configuration procedure to setup the system.

Parameters depending on the setting of P112

Oil type (selected with P112)											
			DO		HFO		LO				
Parameter	**Password level**	**Description**	**GO**	**MDO**	**IF30 IF40 IF60 IF100**	**HF180 HF380 HF460 HF600 HF700**	**LO TP Trunk**	**LO CH Cross head**	**Min. value**	**Max. value**	**Unit**
P183	1	High temperature limit	40		105		100	100	0	115	°C (P101)
P184	1	Low temperature limit	20		85		90	85	0	115	°C (P101)
P249	1	Temperature setpoint	30		98		95	90	0	110	°C (P101)
P187	2	Number of MT60 triggered discharges before alarm "A84 High water content"	5				2		0	20	
P251		MT60 trigger factor (corresponds to 100% increase of the transducer signal)	3,0				1,5		0,1	10,0	pF
P252	1	MT60 trigger limit	100		100		100		0	250	%
P189	2	Alarm limit “A80 Transducer value high"	110				85	78	0	320	pF
P254	2	Reduction of P240 if DO Calculated as P240 * P254	1,0		not valid for this oil type	not valid for this oil type	not valid for this oil type	not valid for this oil type	0,0	1,0	

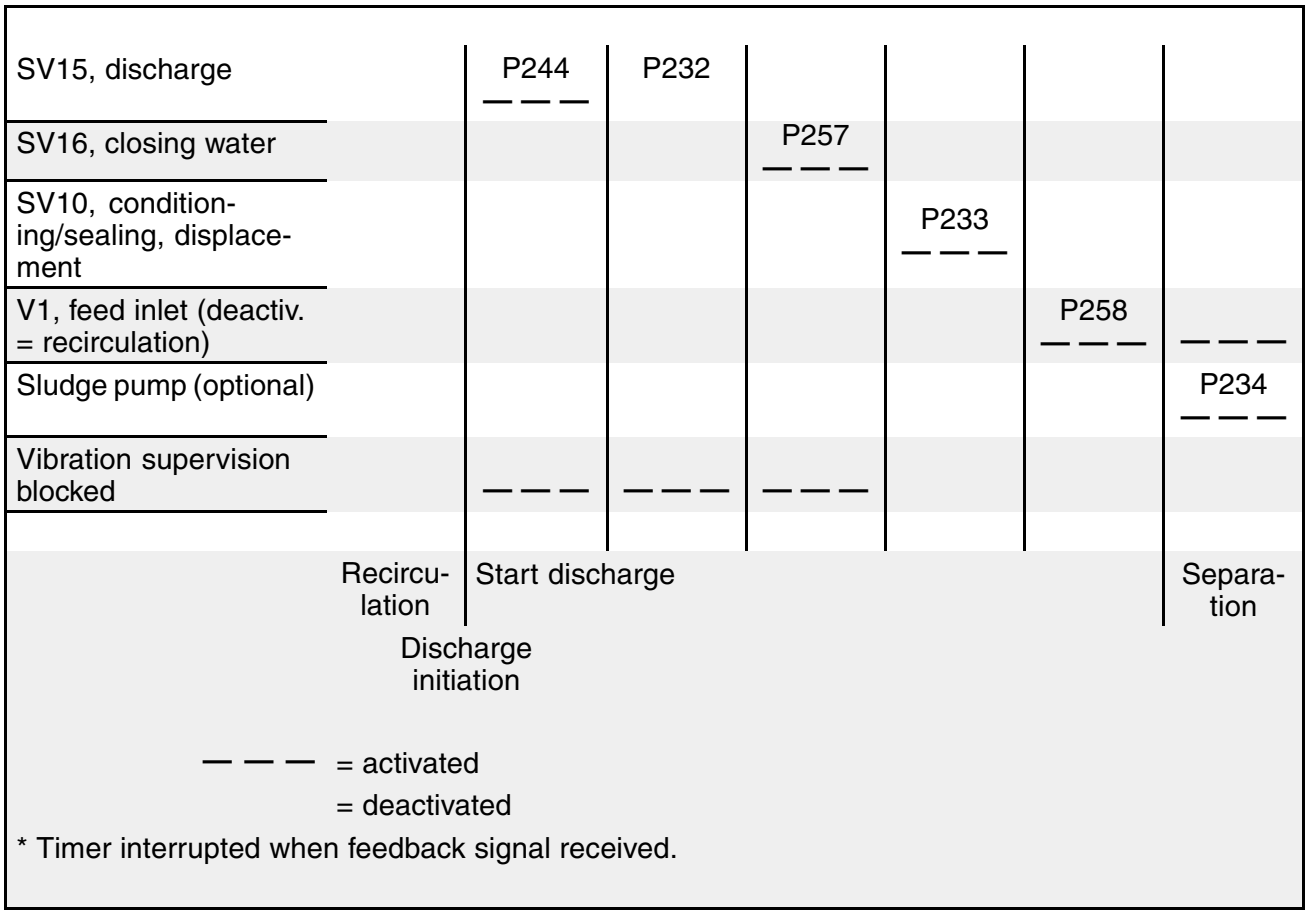
2 Operation Modes

2.1 Change-over Sequence

This sequence is run through when the system changes operation mode from RECIRCULATION to SEPARATION after start (supervision similar as in RECIRCULATION).

A special discharge sequence without displacement is run through. Finally the system ends up in SEPARATION.

The start discharge sequence is:



2.2 Discharge

During discharge two different sequences are run through:

- displacement sequence (step 1)
- discharge sequence (step 2)

The following diagram shows the equipment which is activated during the sequences, the activation pattern and the corresponding timers.

Sequence Diagram

If a combination of low PT4 pressure (P154) and low speed (P180) is detected when the feed is on, the system will go to STOP immediately without waiting the time in P238. Alarm 'A57 Oil leaking from bowl'.