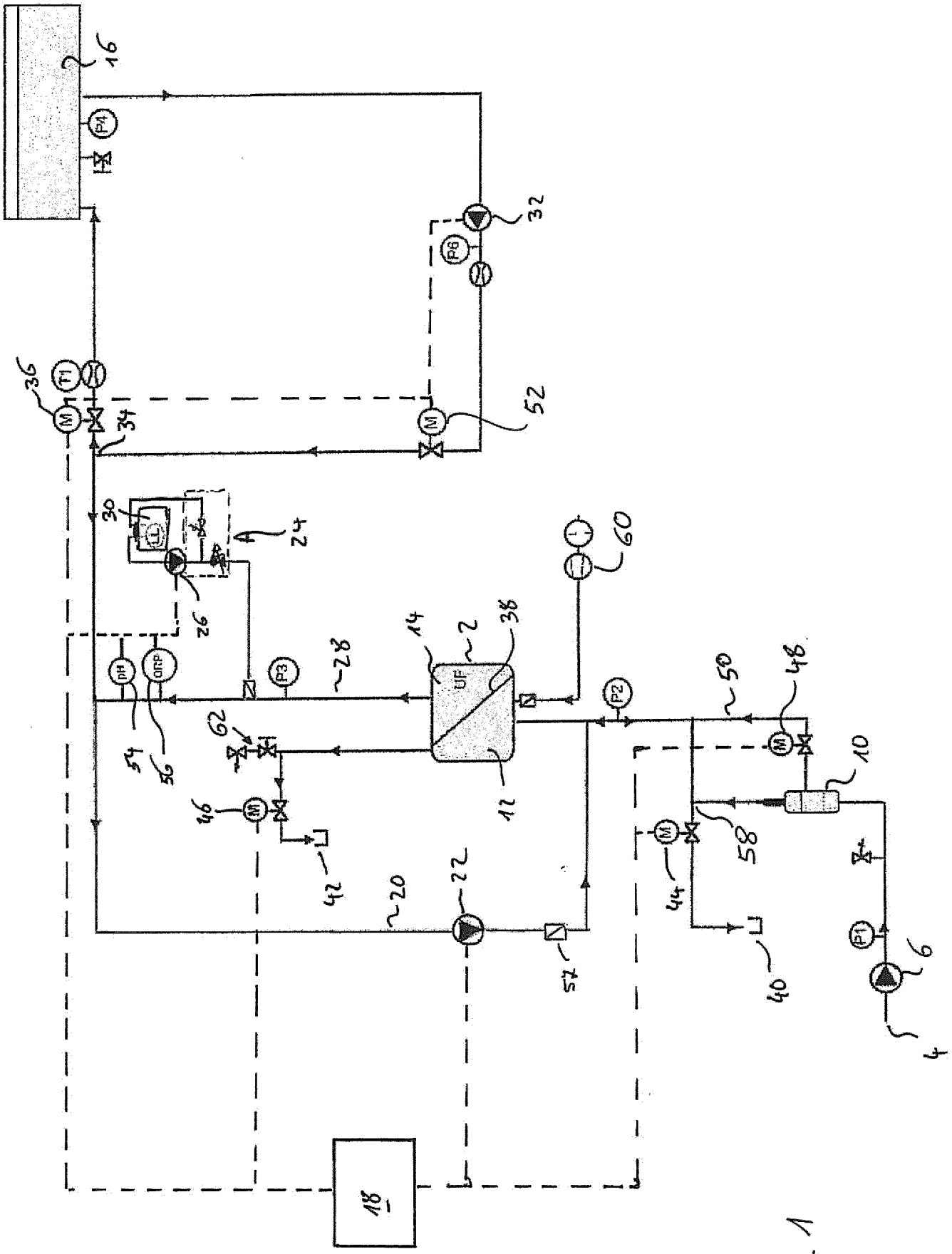

16
32
52
36
34
30
24
26
60
14
2
38
28
50
48
62
10
58
46
42
12
20
22
44
40
57
6
4
18
UF

Fig. 1

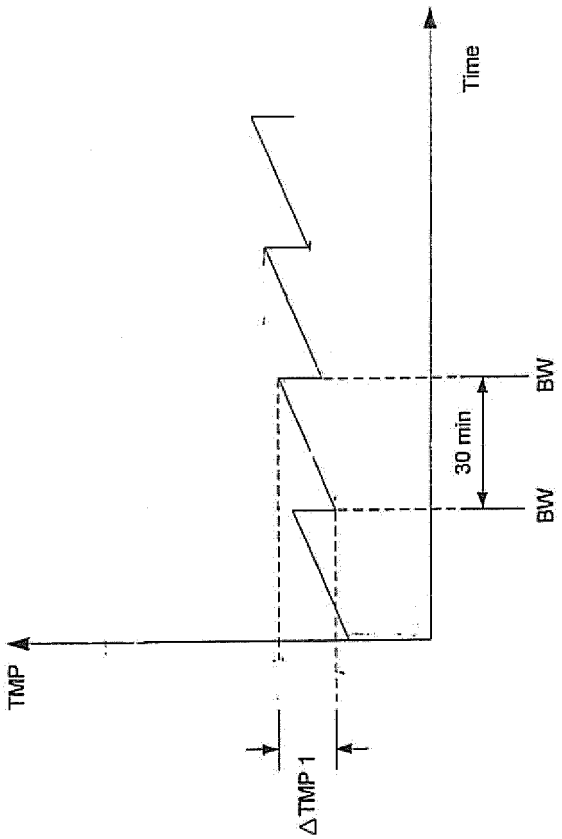

Time
BW
30 min
BW
TMP
ΔTMP 1

Fig. 3

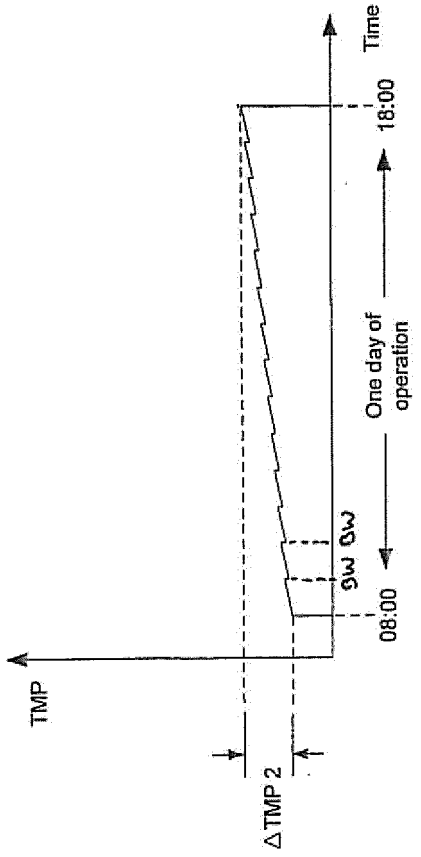

Time
18:00
One day of operation
SW SW
08:00
TMP
ΔTMP 2

Fig. 2

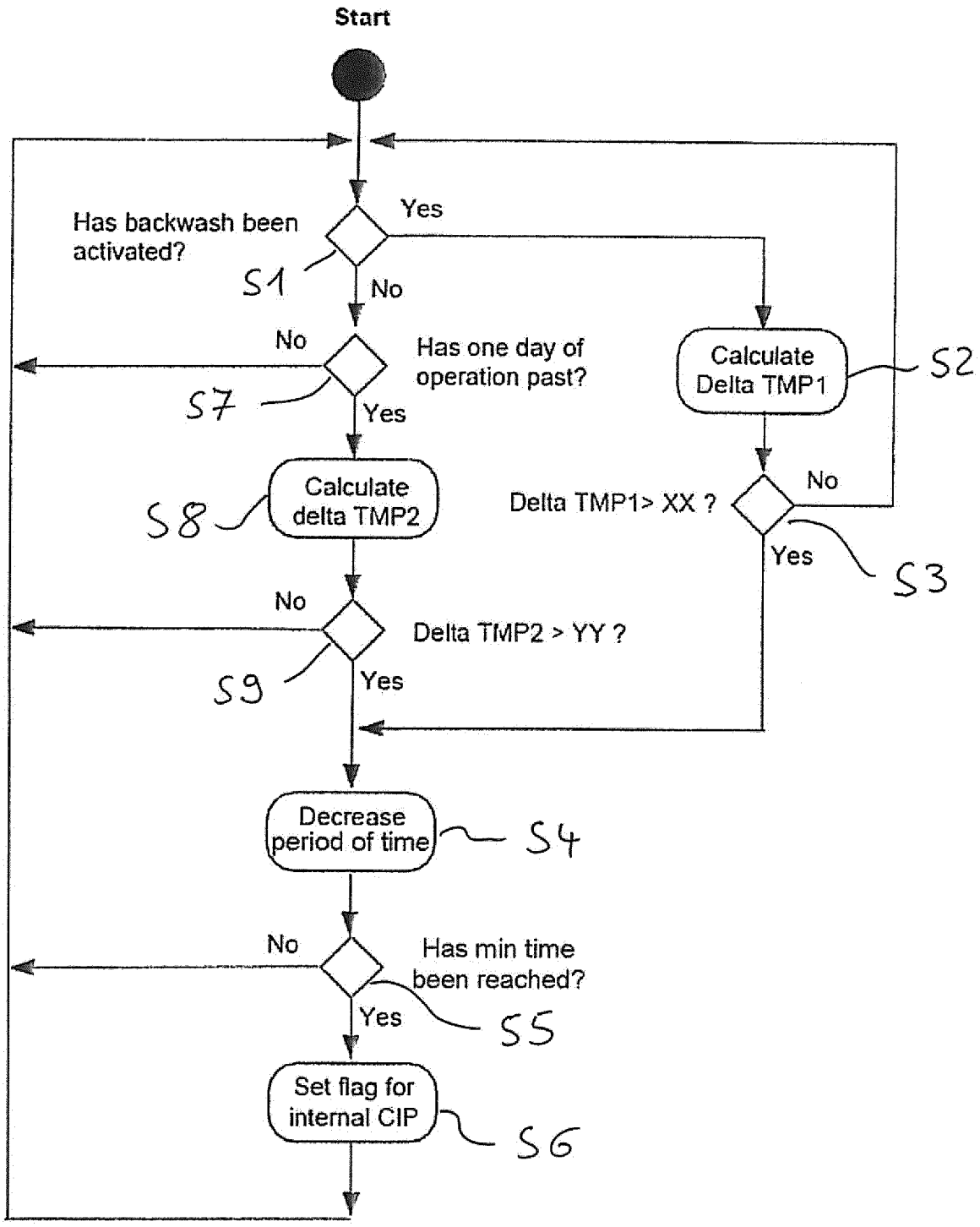

Start
Has backwash been activated?
S1
Yes
No
No
Has one day of operation past?
S7
Yes
Calculate Delta TMP1
S2
Delta TMP1> XX ?
No
Yes
S3
Calculate delta TMP2
S8
No
Delta TMP2 > YY ?
S9
Yes
Decrease period of time
S4
No
Has min time been reached?
Yes
S5
Set flag for internal CIP
S6

Fig. 4

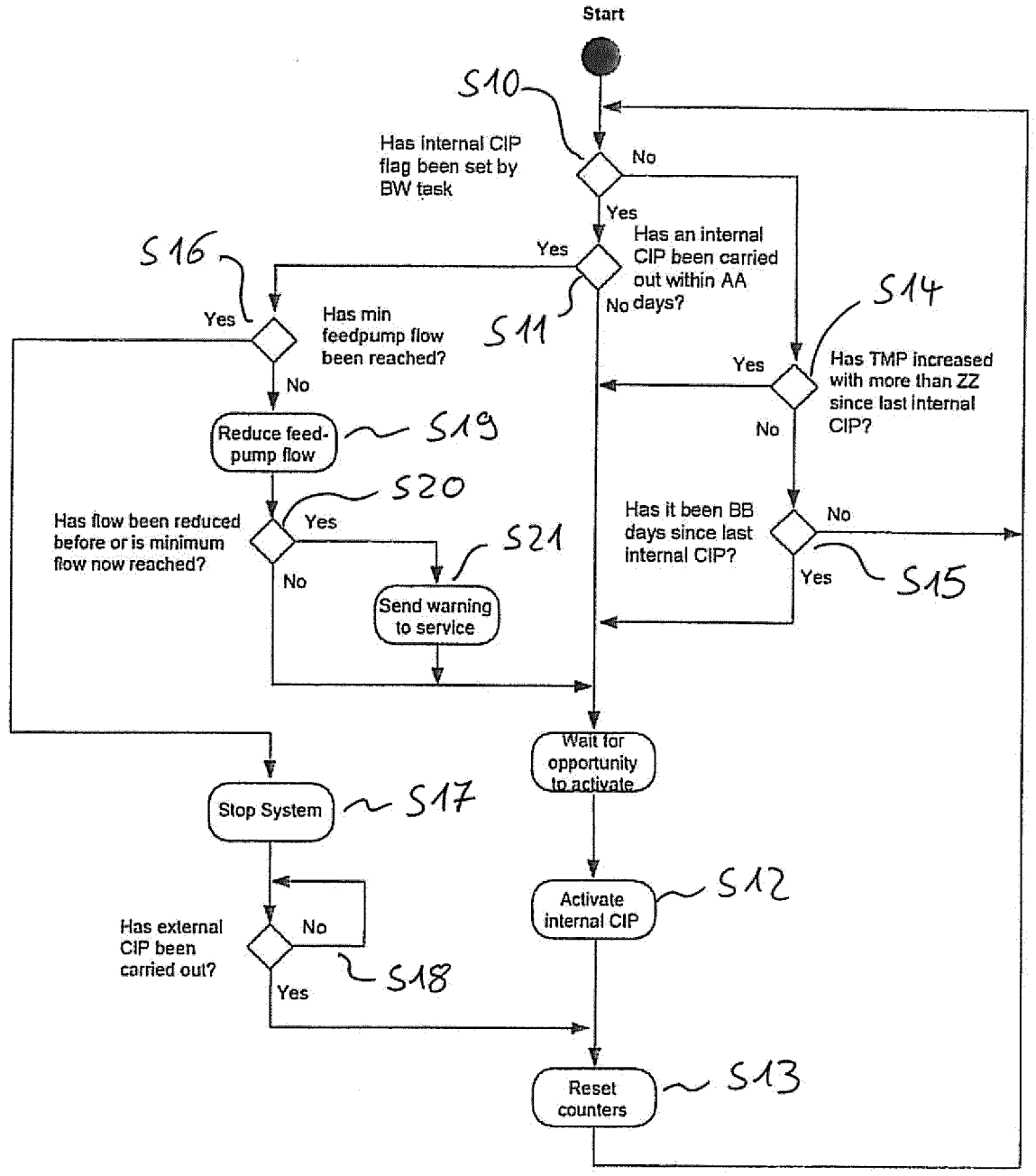

Start
S10
Has internal CIP flag been set by BW task
No
Yes
Has an internal CIP been carried out within AA days?
Yes
No
S11
S14
Has TMP increased with more than ZZ since last internal CIP?
Yes
No
S16
Has min feedpump flow been reached?
Yes
No
Reduce feed-pump flow
S19
S20
Has flow been reduced before or is minimum flow now reached?
Yes
No
S21
Send warning to service
Has it been BB days since last internal CIP?
No
Yes
S15
Wait for opportunity to activate
Stop System
S17
Activate internal CIP
S12
Has external CIP been carried out?
No
Yes
S18
Reset counters
S13

Fig.5