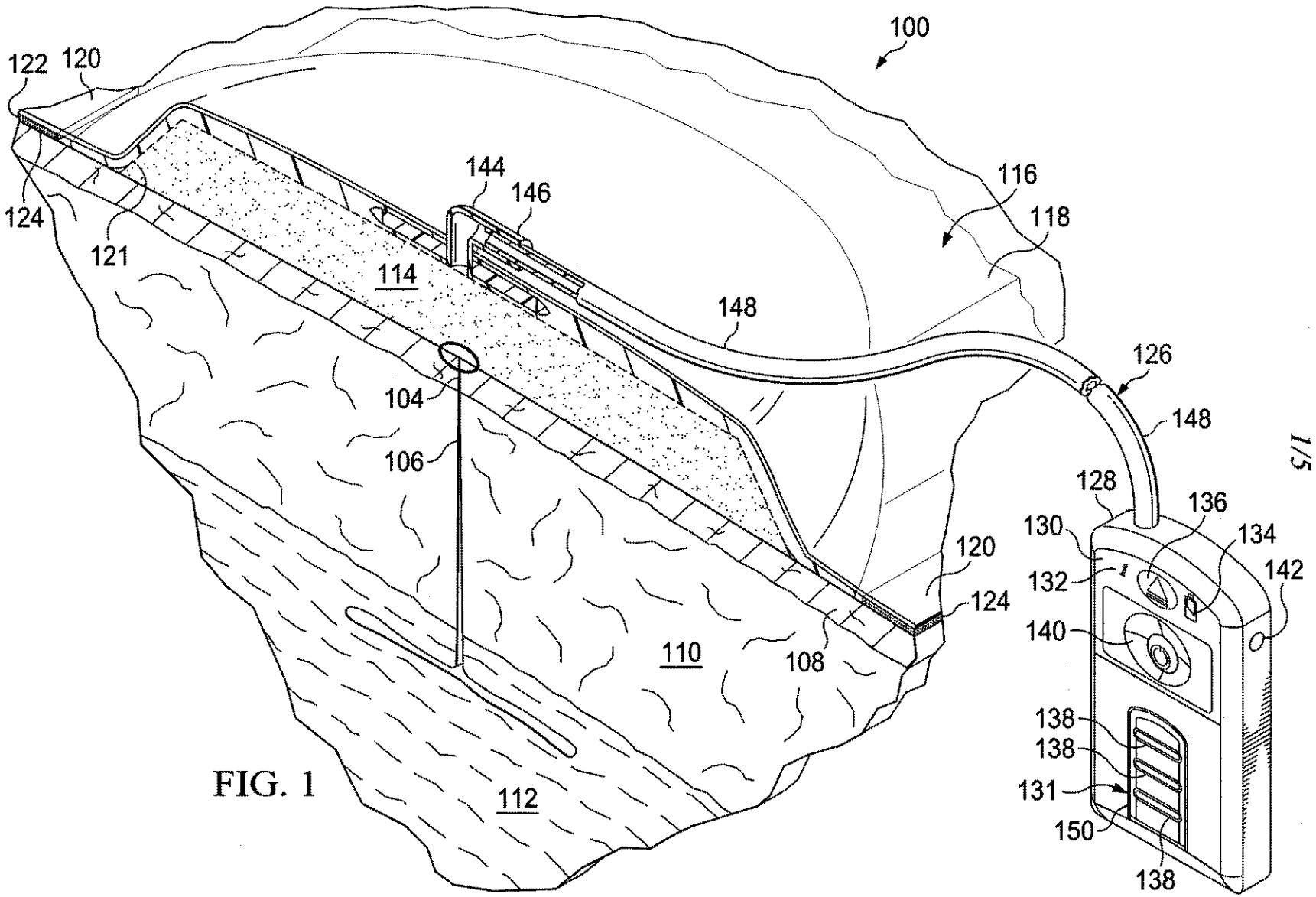

100
122
120
124
121
144
146
116
118
114
148
126
148
104
106
128
136
130
134
120
132
142
124
140
110
108
138
138
131
150
138
112

FIG. 1

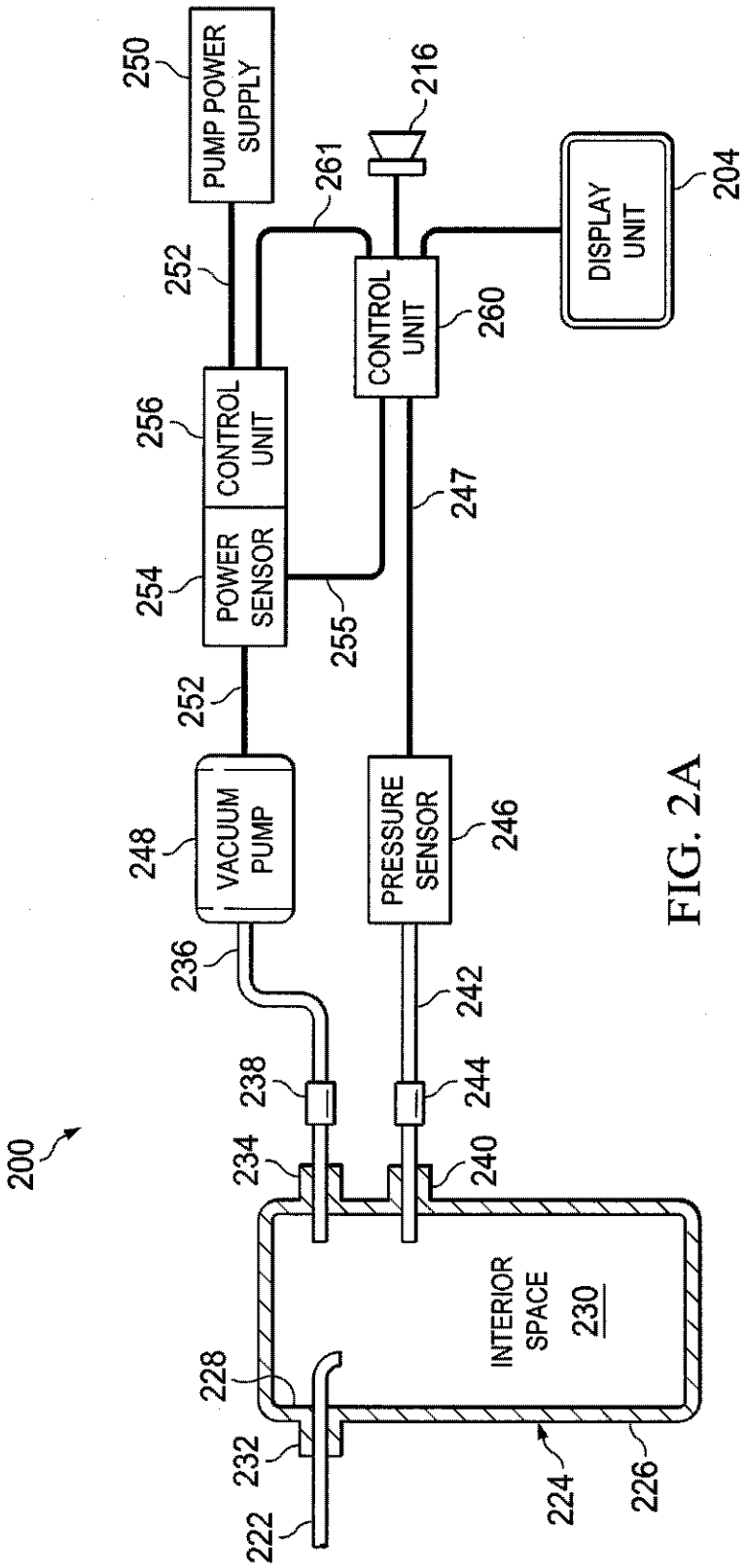

200
250
PUMP POWER SUPPLY
216
261
204
DISPLAY UNIT
252
CONTROL UNIT
260
256
CONTROL UNIT
247
254
POWER SENSOR
255
252
248
VACUUM PUMP
PRESSURE SENSOR
246
236
242
238
244
234
240
INTERIOR SPACE 230
228
232
222
224
226

FIG. 2A

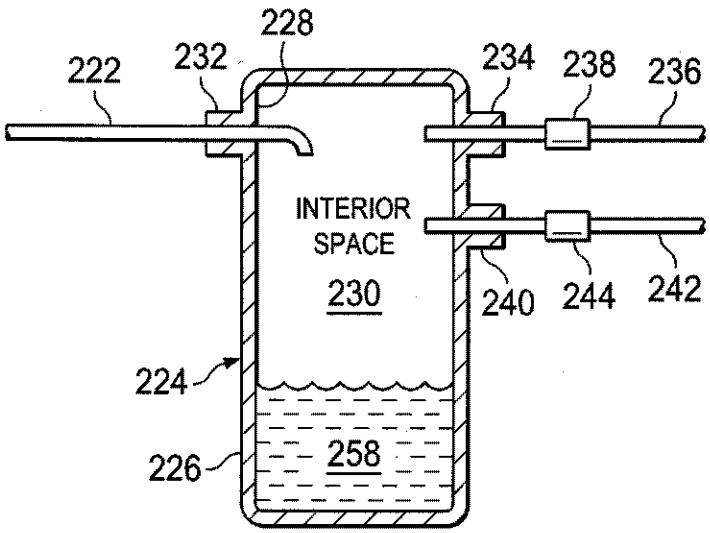

228
222
232
234
238
236
INTERIOR
SPACE
230
240
244
242
224
258
226

FIG. 2B

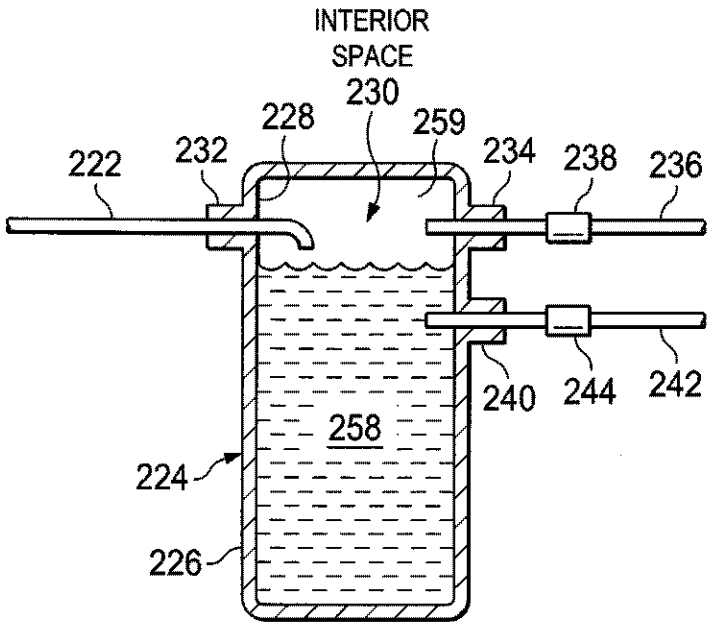

INTERIOR
SPACE
230
228
259
222
232
234
238
236
240
244
242
258
224
226

FIG. 2C

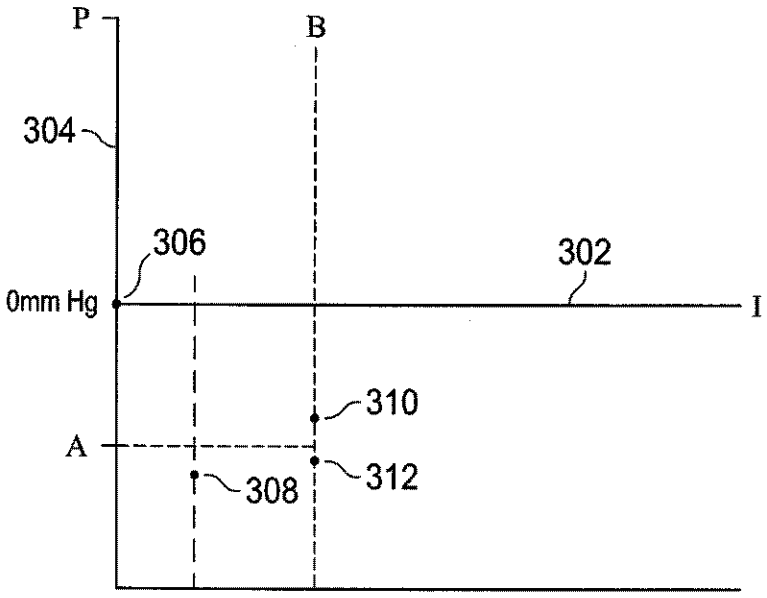

P
B
304
306
302
0mm Hg
I
310
A
308
312

FIG. 3

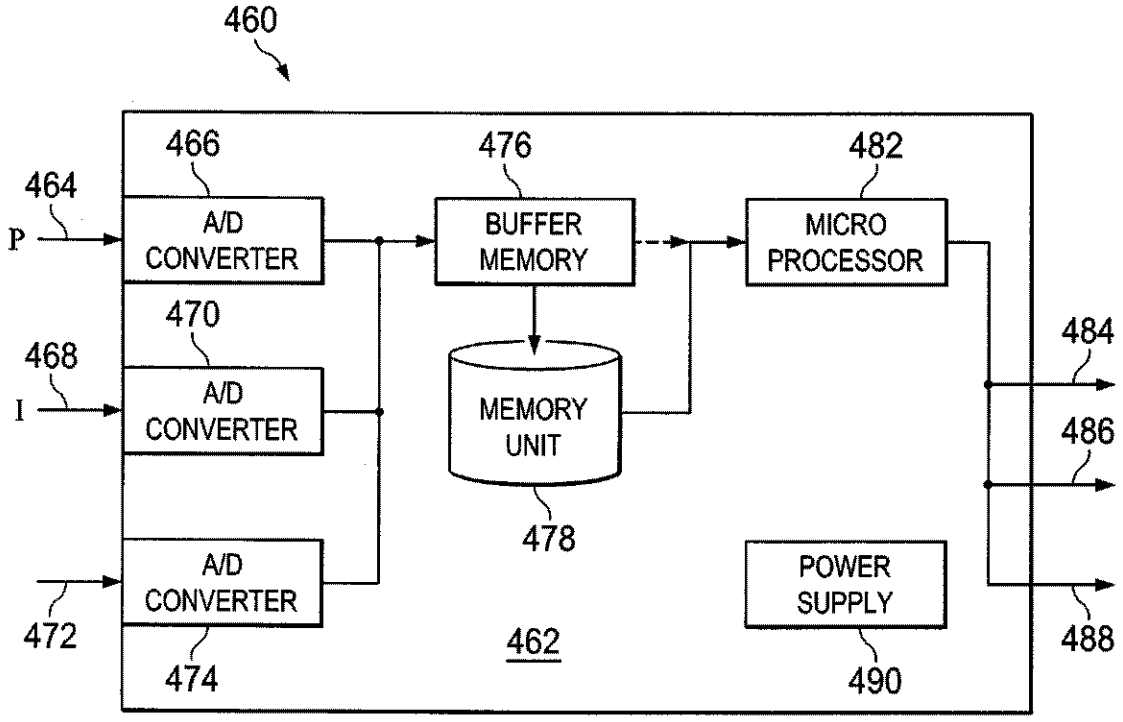

460
466
476
482
464
P
A/D CONVERTER
BUFFER MEMORY
MICRO PROCESSOR
470
484
468
I
A/D CONVERTER
MEMORY UNIT
486
478
A/D CONVERTER
POWER SUPPLY
472
462
488
474
490

FIG. 4

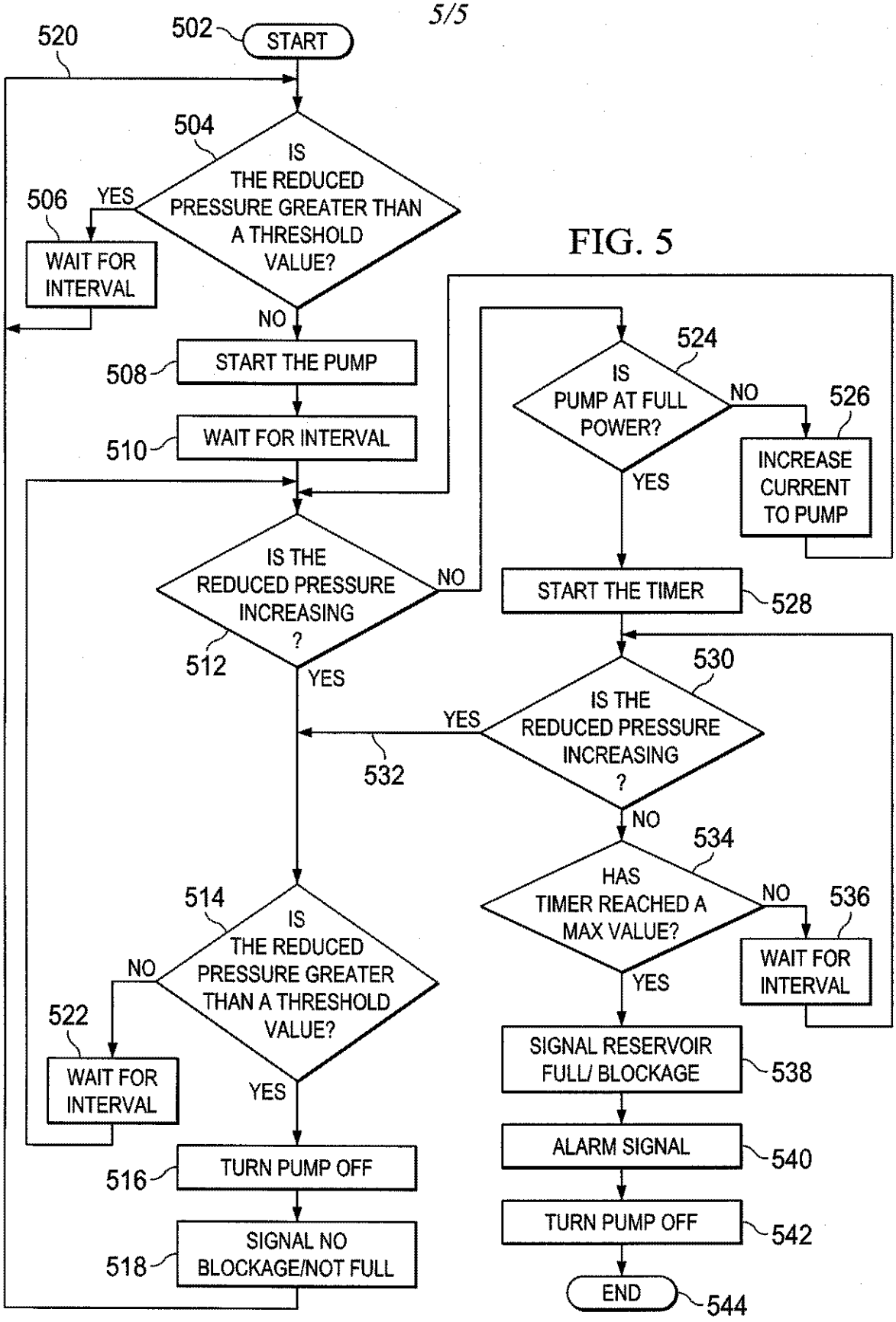

520
502
START
504
IS THE REDUCED PRESSURE GREATER THAN A THRESHOLD VALUE?
506
YES
WAIT FOR INTERVAL
NO
508
START THE PUMP
510
WAIT FOR INTERVAL
IS THE REDUCED PRESSURE INCREASING ?
512
NO
YES
524
IS PUMP AT FULL POWER?
NO
526
INCREASE CURRENT TO PUMP
YES
START THE TIMER
528
530
IS THE REDUCED PRESSURE INCREASING ?
YES
532
NO
534
HAS TIMER REACHED A MAX VALUE?
NO
536
WAIT FOR INTERVAL
YES
514
IS THE REDUCED PRESSURE GREATER THAN A THRESHOLD VALUE?
NO
522
WAIT FOR INTERVAL
YES
516
TURN PUMP OFF
518
SIGNAL NO BLOCKAGE/NOT FULL
SIGNAL RESERVOIR FULL/ BLOCKAGE
538
ALARM SIGNAL
540
TURN PUMP OFF
542
END
544

FIG. 5