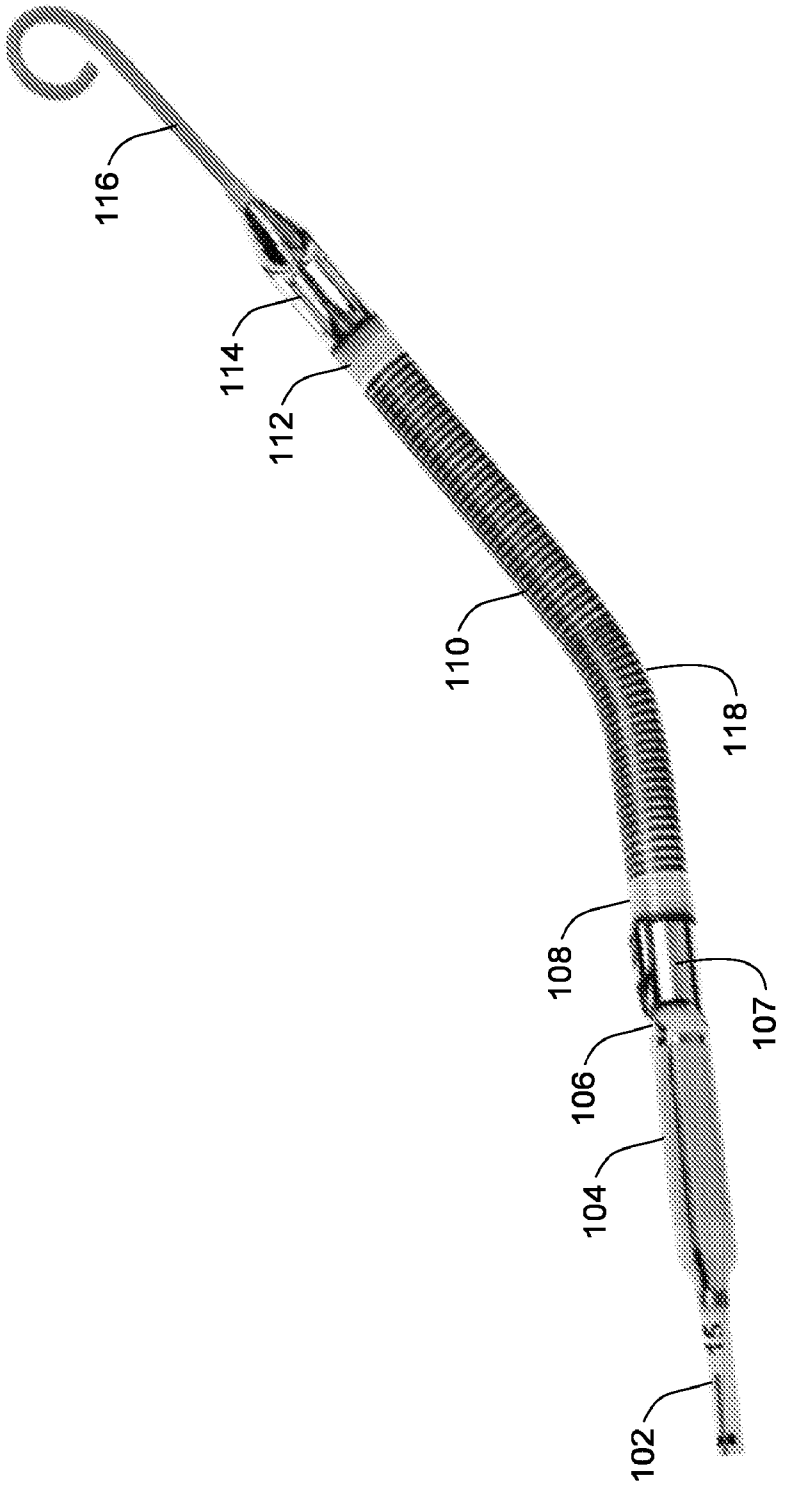


FIG. 1

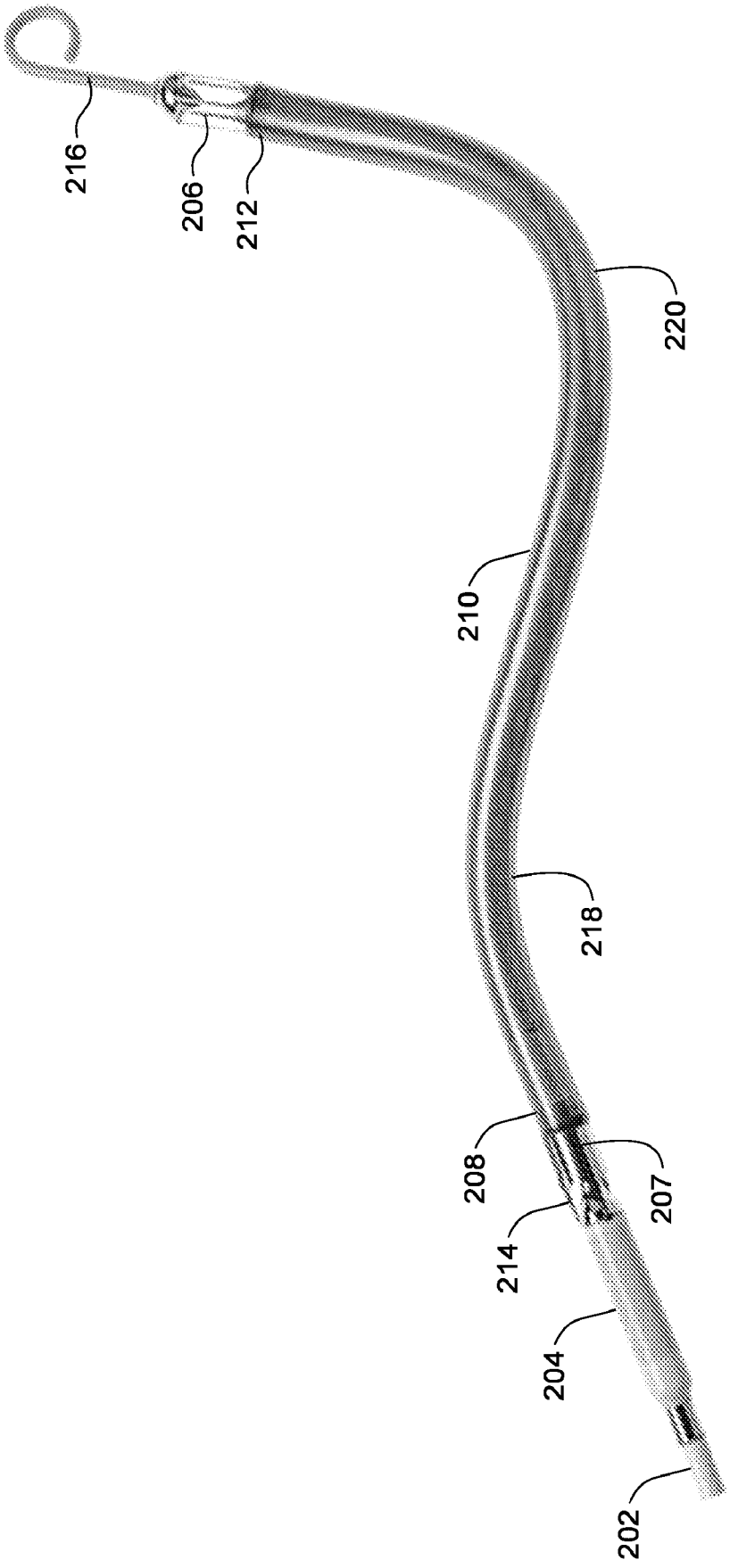


FIG. 2

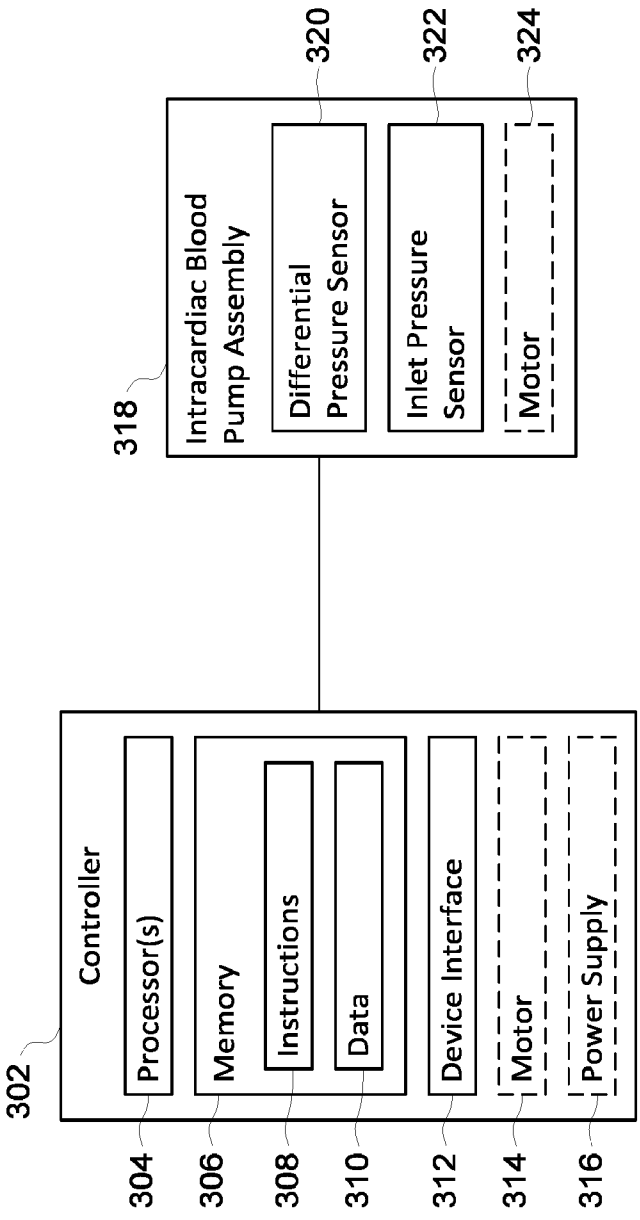

300
302
Controller
Processor(s)
Memory
Instructions
Data
Device Interface
Motor
Power Supply
304
306
308
310
312
314
316
318
Intracardiac Blood Pump Assembly
Differential Pressure Sensor
Inlet Pressure Sensor
Motor
320
322
324

FIG. 3

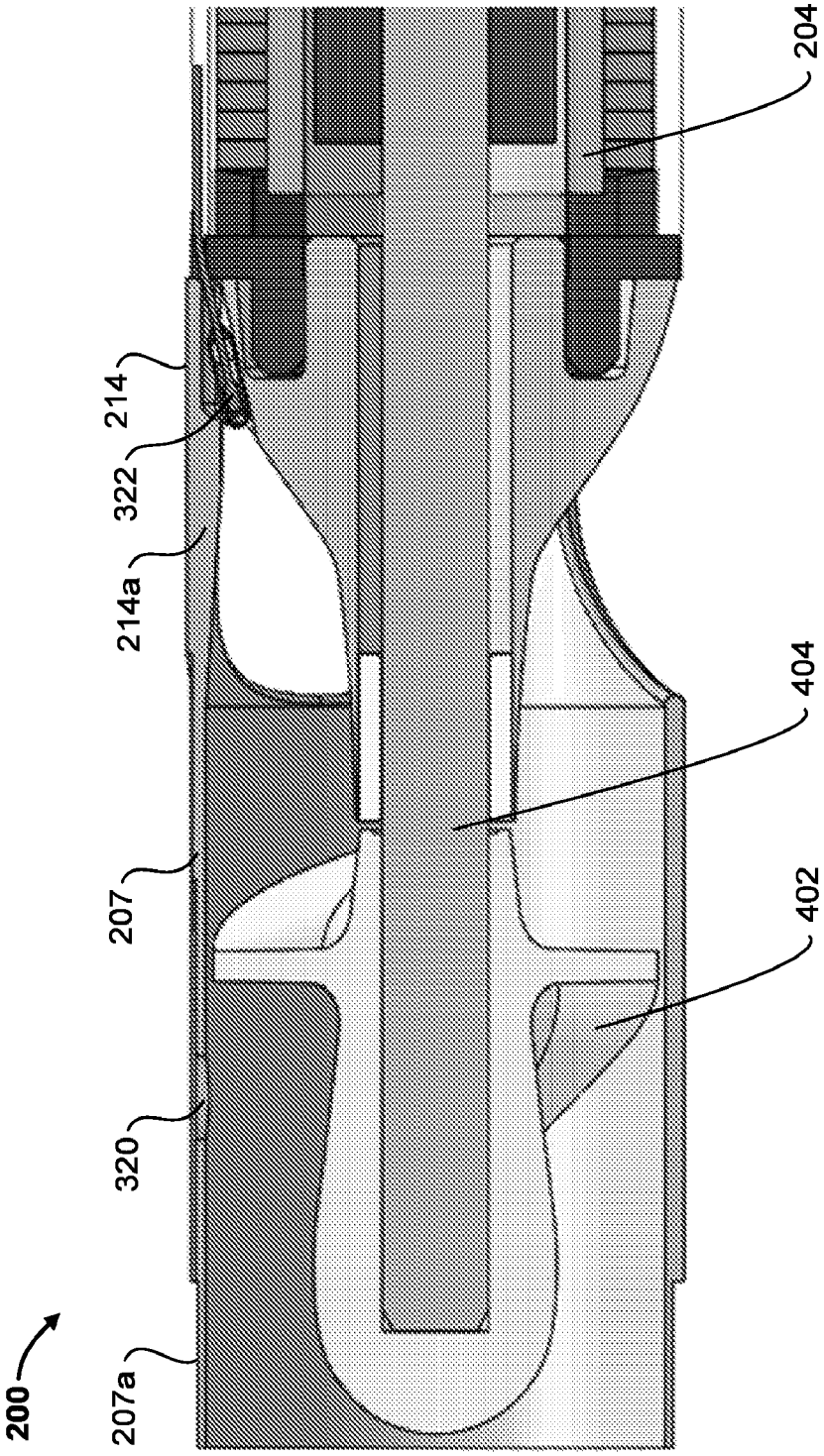
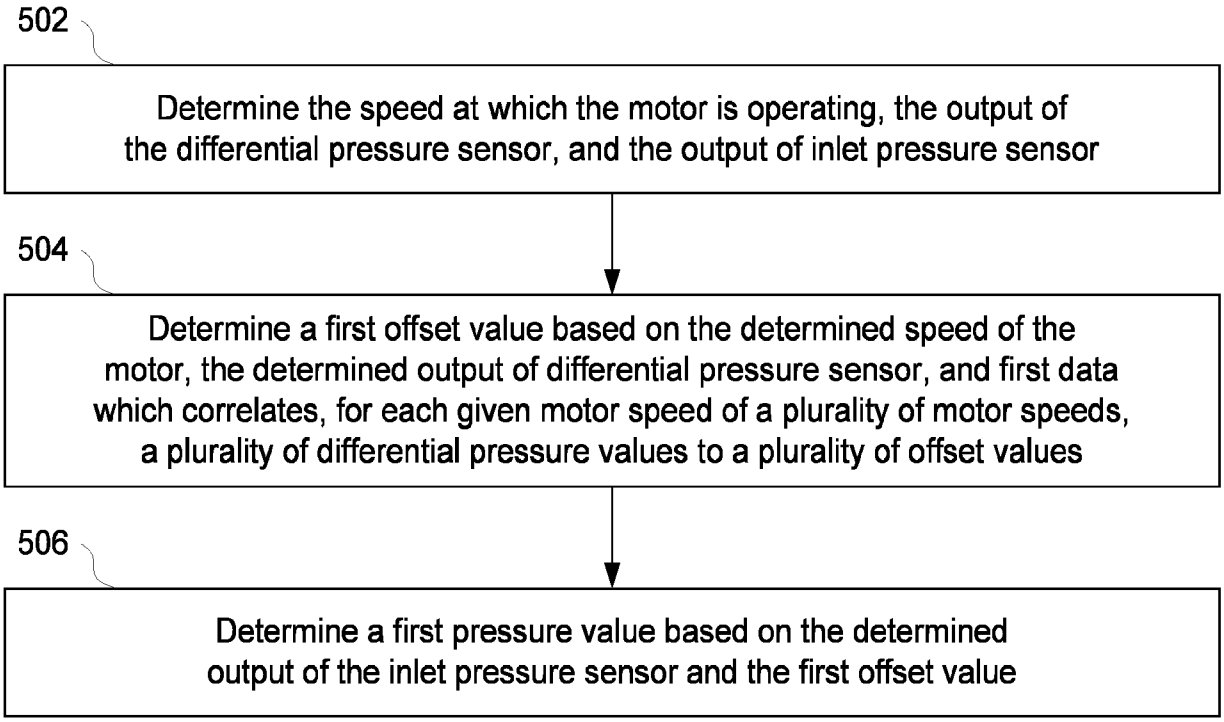


FIG. 4


502
Determine the speed at which the motor is operating, the output of the differential pressure sensor, and the output of inlet pressure sensor
504
Determine a first offset value based on the determined speed of the motor, the determined output of differential pressure sensor, and first data which correlates, for each given motor speed of a plurality of motor speeds, a plurality of differential pressure values to a plurality of offset values
506
Determine a first pressure value based on the determined output of the inlet pressure sensor and the first offset value

500

FIG. 5

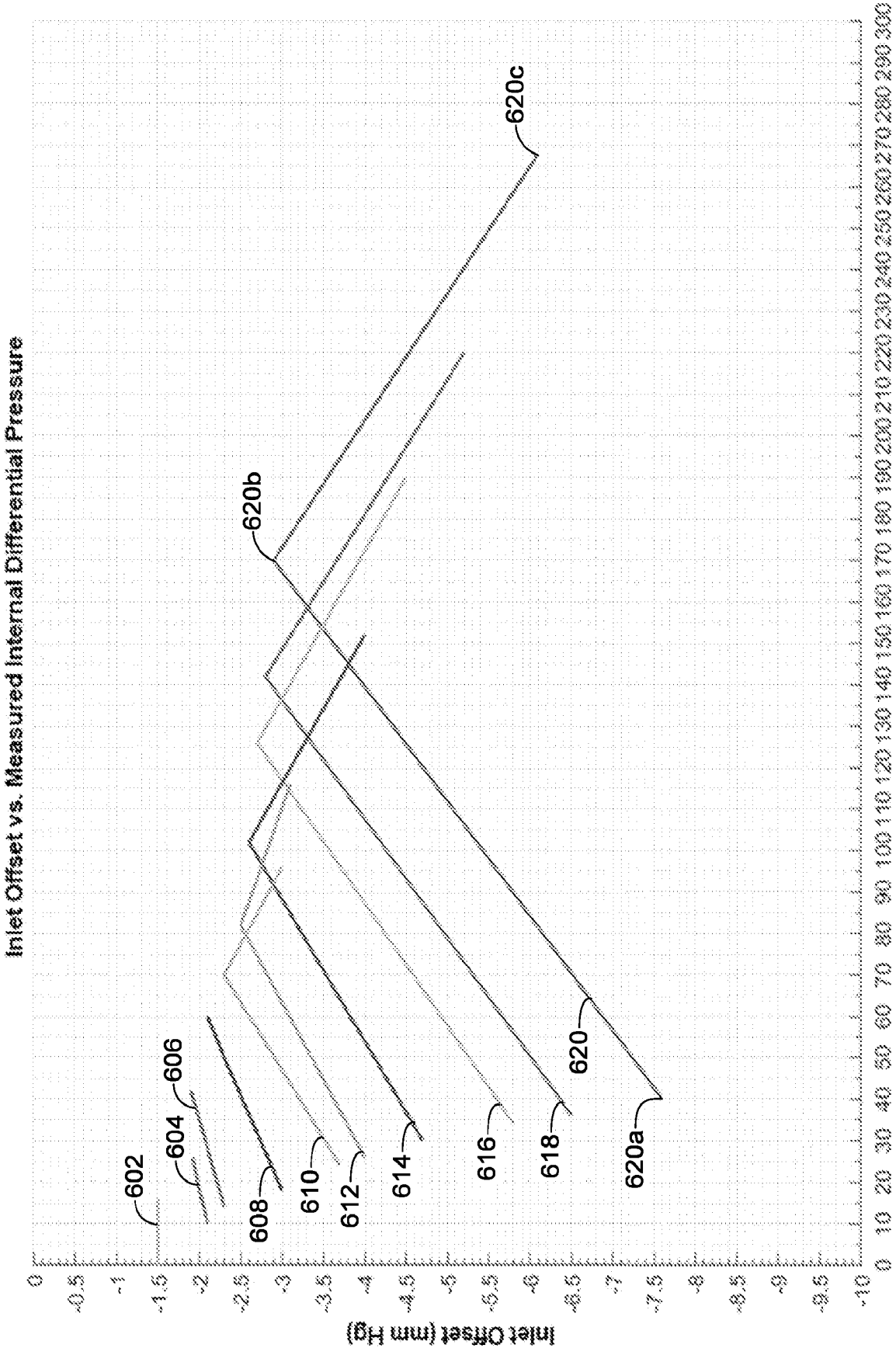
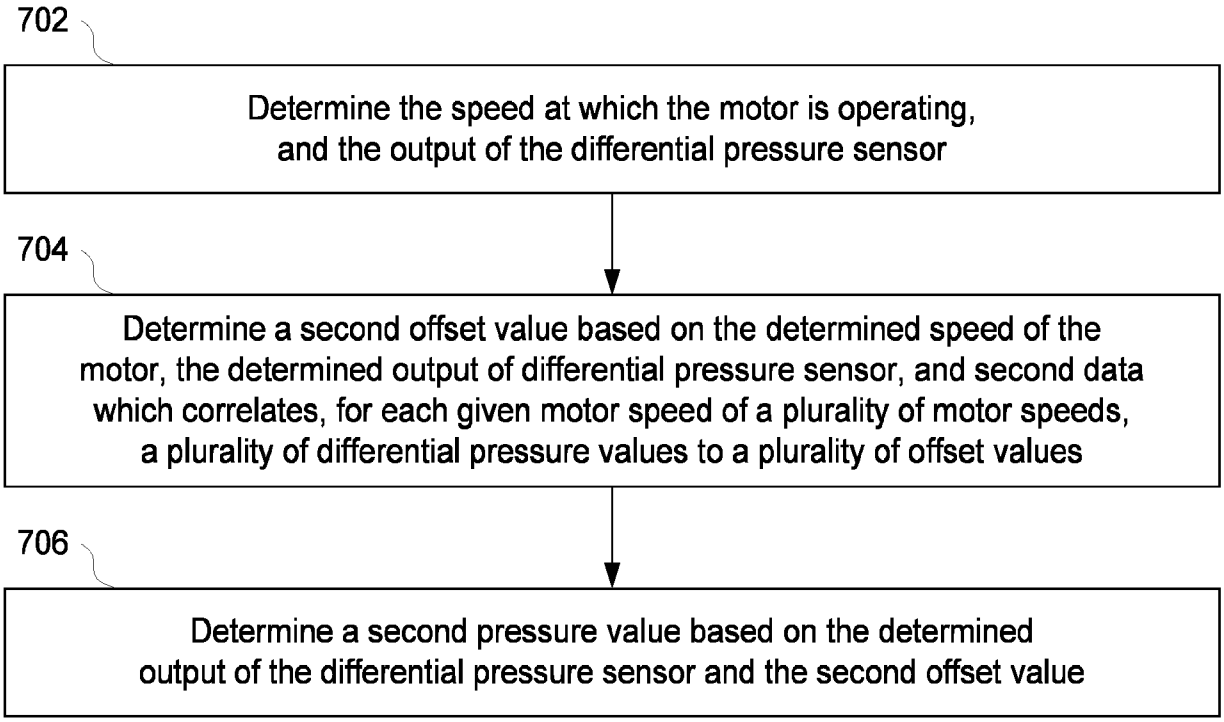

Inlet Offset vs. Measured Internal Differential Pressure
Inlet Offset (mm Hg)
Measured Internal Differential Pressure (mm HG)
0
-0.5
-1
-1.5
-2
-2.5
-3
-3.5
-4
-4.5
-5
-5.5
-6
-6.5
-7
-7.5
-8
-8.5
-9
-9.5
-10
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300
602
604
606
608
610
612
614
616
618
620
620a
620b
620c

FIG. 6


702
Determine the speed at which the motor is operating, and the output of the differential pressure sensor
704
Determine a second offset value based on the determined speed of the motor, the determined output of differential pressure sensor, and second data which correlates, for each given motor speed of a plurality of motor speeds, a plurality of differential pressure values to a plurality of offset values
706
Determine a second pressure value based on the determined output of the differential pressure sensor and the second offset value

700

FIG. 7

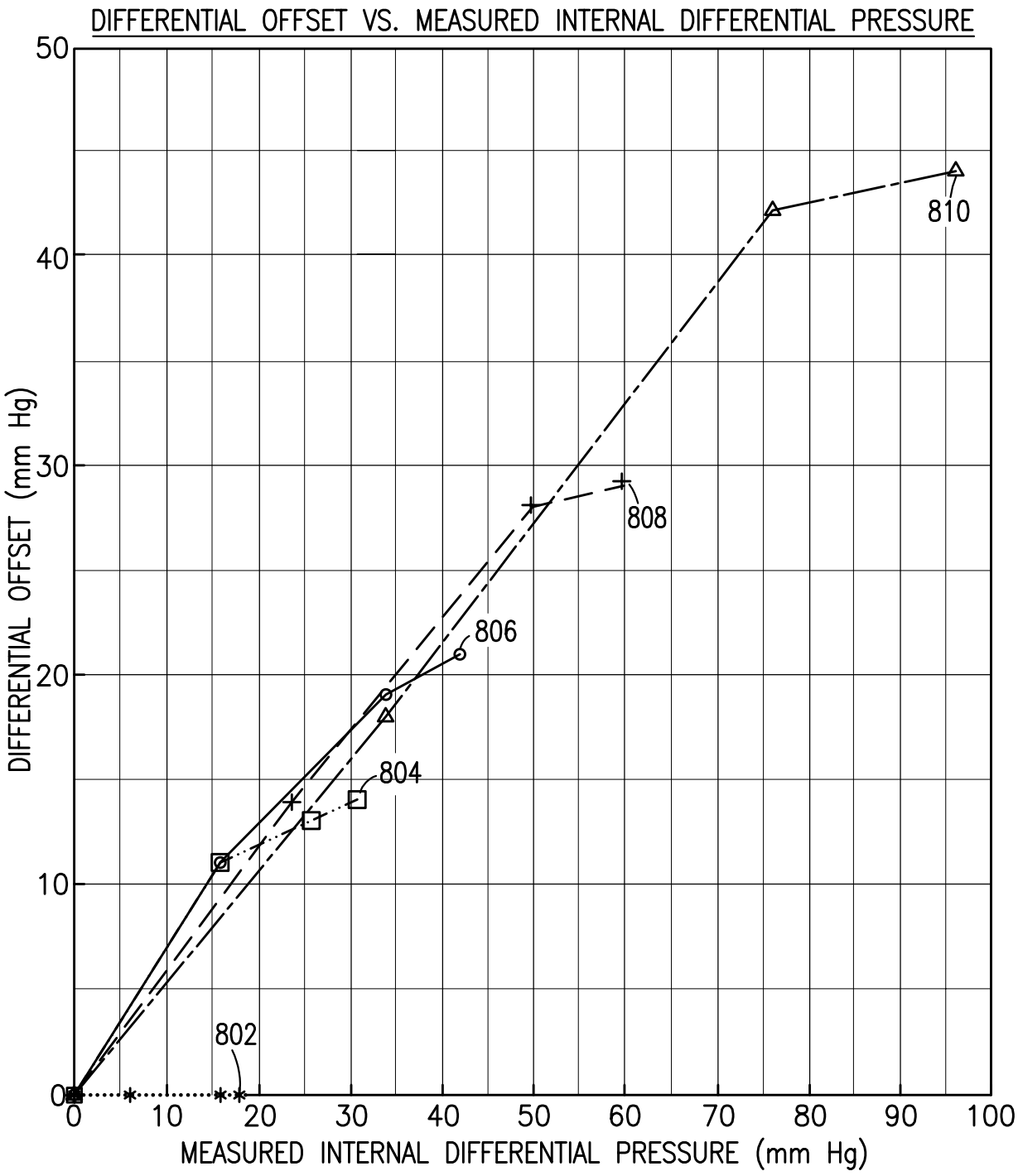

DIFFERENTIAL OFFSET VS. MEASURED INTERNAL DIFFERENTIAL PRESSURE
DIFFERENTIAL OFFSET (mm Hg)
MEASURED INTERNAL DIFFERENTIAL PRESSURE (mm Hg)
0
10
20
30
40
50
60
70
80
90
100
802
804
806
808
810

FIG.8A

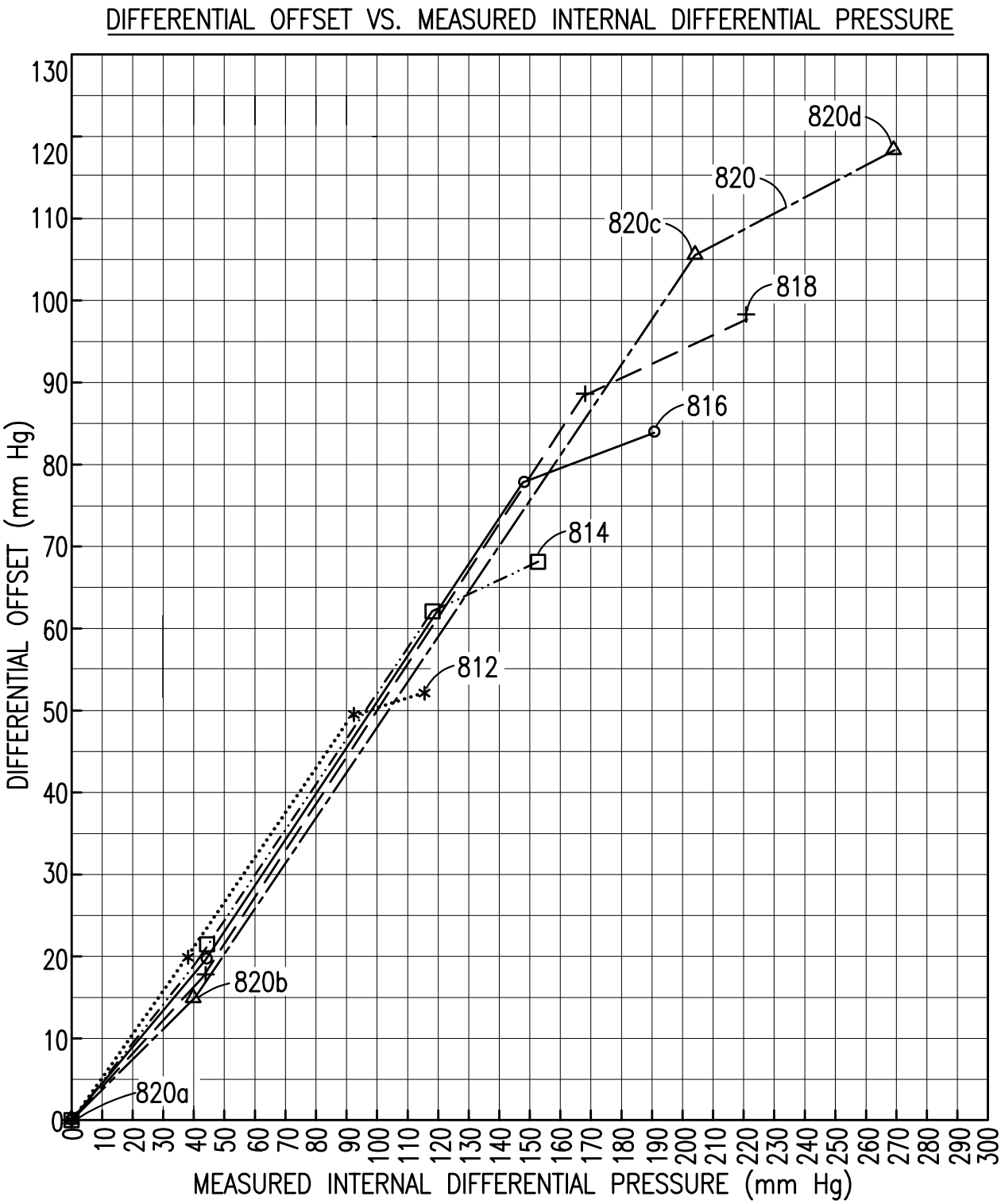
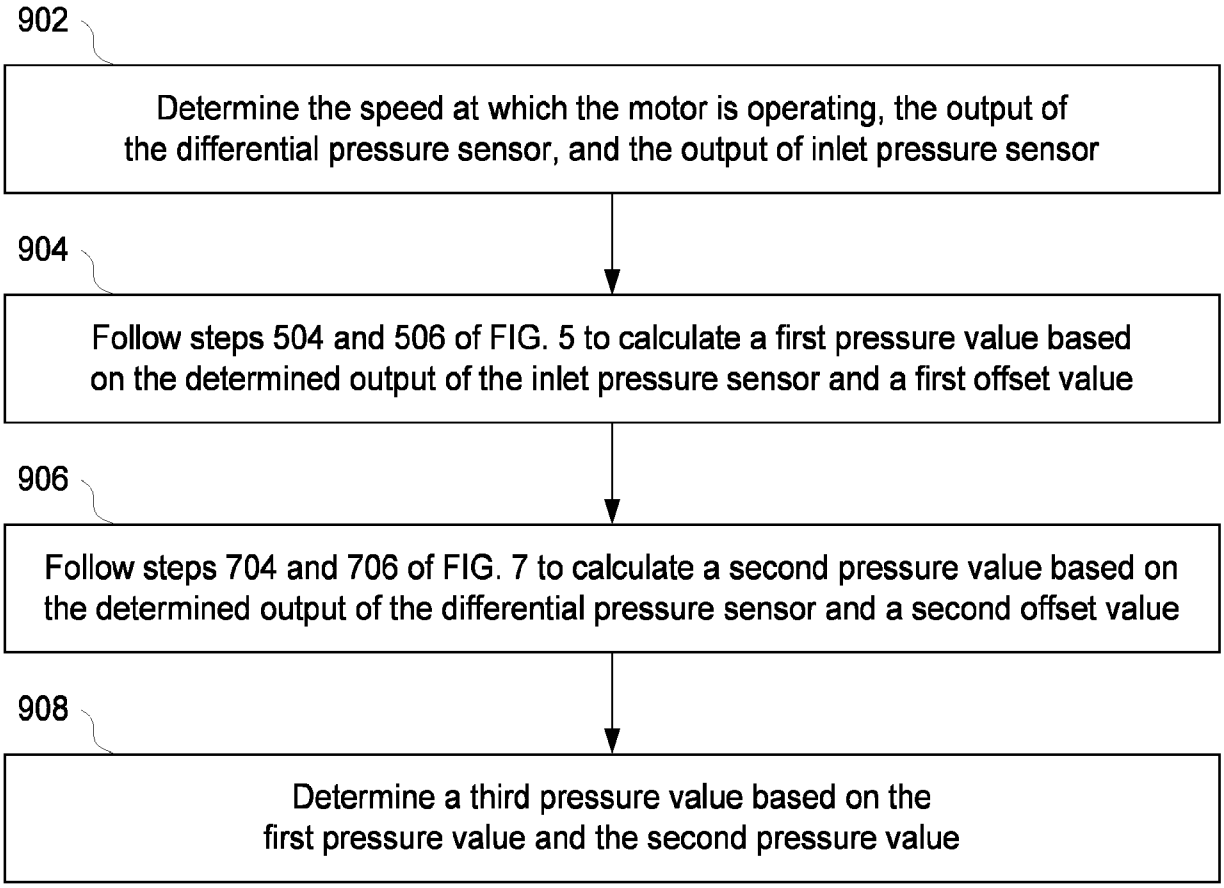

DIFFERENTIAL OFFSET VS. MEASURED INTERNAL DIFFERENTIAL PRESSURE
DIFFERENTIAL OFFSET (mm Hg)
MEASURED INTERNAL DIFFERENTIAL PRESSURE (mm Hg)
820d
820
820c
818
816
814
812
820b
820a

FIG.8B


902
Determine the speed at which the motor is operating, the output of the differential pressure sensor, and the output of inlet pressure sensor
904
Follow steps 504 and 506 of FIG. 5 to calculate a first pressure value based on the determined output of the inlet pressure sensor and a first offset value
906
Follow steps 704 and 706 of FIG. 7 to calculate a second pressure value based on the determined output of the differential pressure sensor and a second offset value
908
Determine a third pressure value based on the first pressure value and the second pressure value

900

FIG. 9