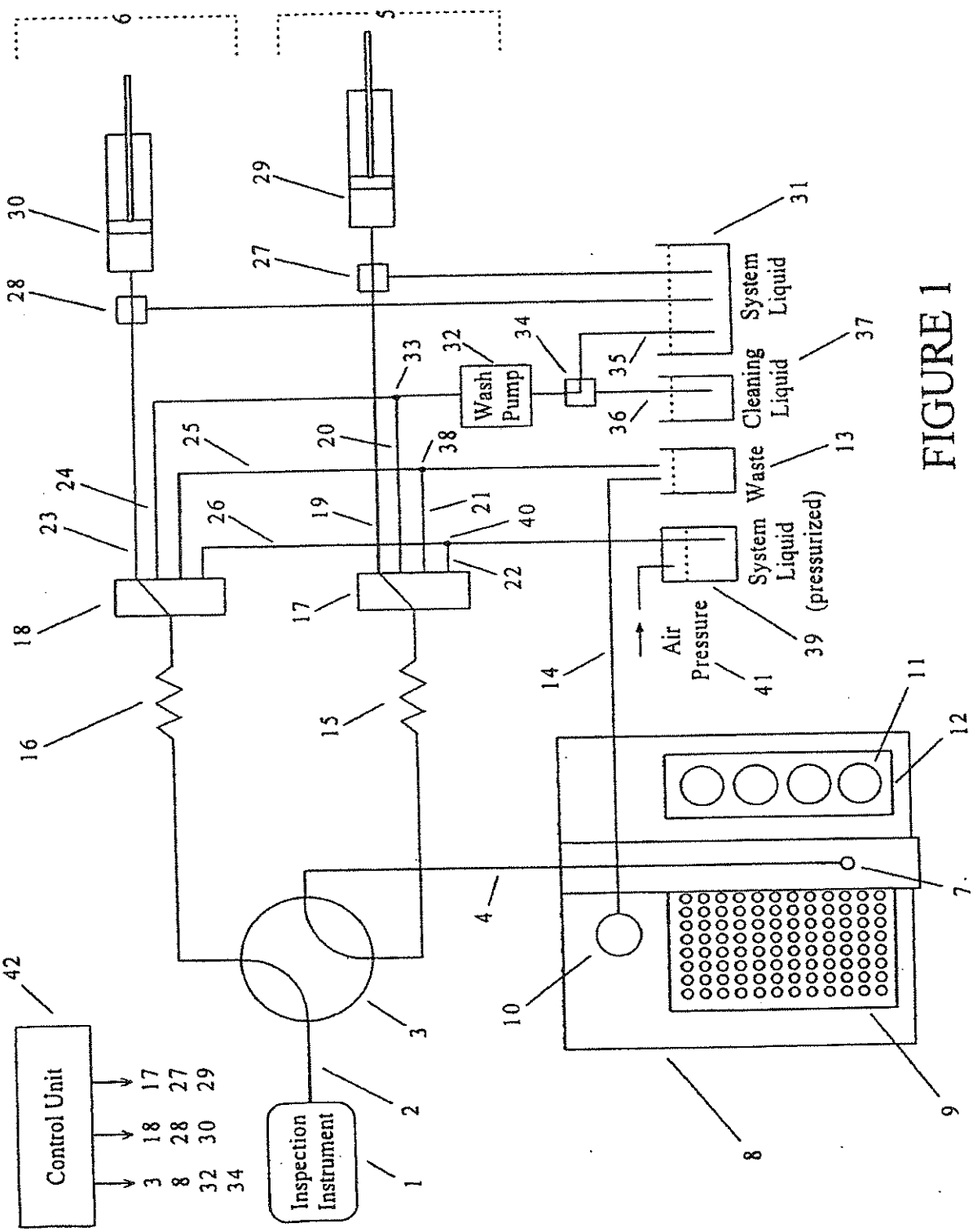

Control Unit
Inspection Instrument
Wash Pump
System Liquid
Cleaning Liquid
Waste
System Liquid (pressurized)
Air Pressure
1
2
3
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FIGURE 1

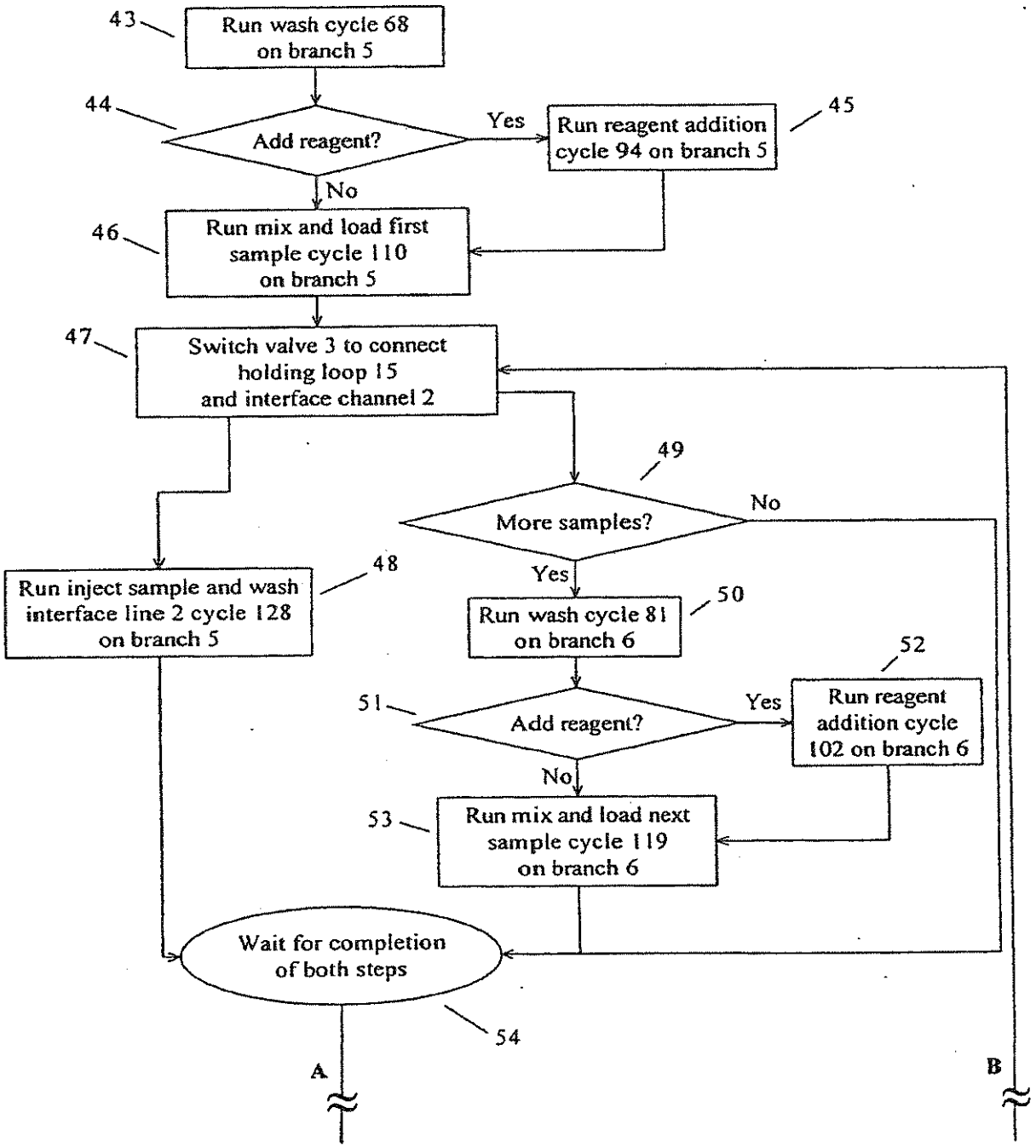

43
Run wash cycle 68 on branch 5
44
Add reagent?
Yes
45
Run reagent addition cycle 94 on branch 5
No
46
Run mix and load first sample cycle 110 on branch 5
47
Switch valve 3 to connect holding loop 15 and interface channel 2
49
More samples?
No
Yes
48
Run inject sample and wash interface line 2 cycle 128 on branch 5
50
Run wash cycle 81 on branch 6
52
51
Add reagent?
Yes
Run reagent addition cycle 102 on branch 6
No
53
Run mix and load next sample cycle 119 on branch 6
Wait for completion of both steps
54
A
B

FIGURE 2A

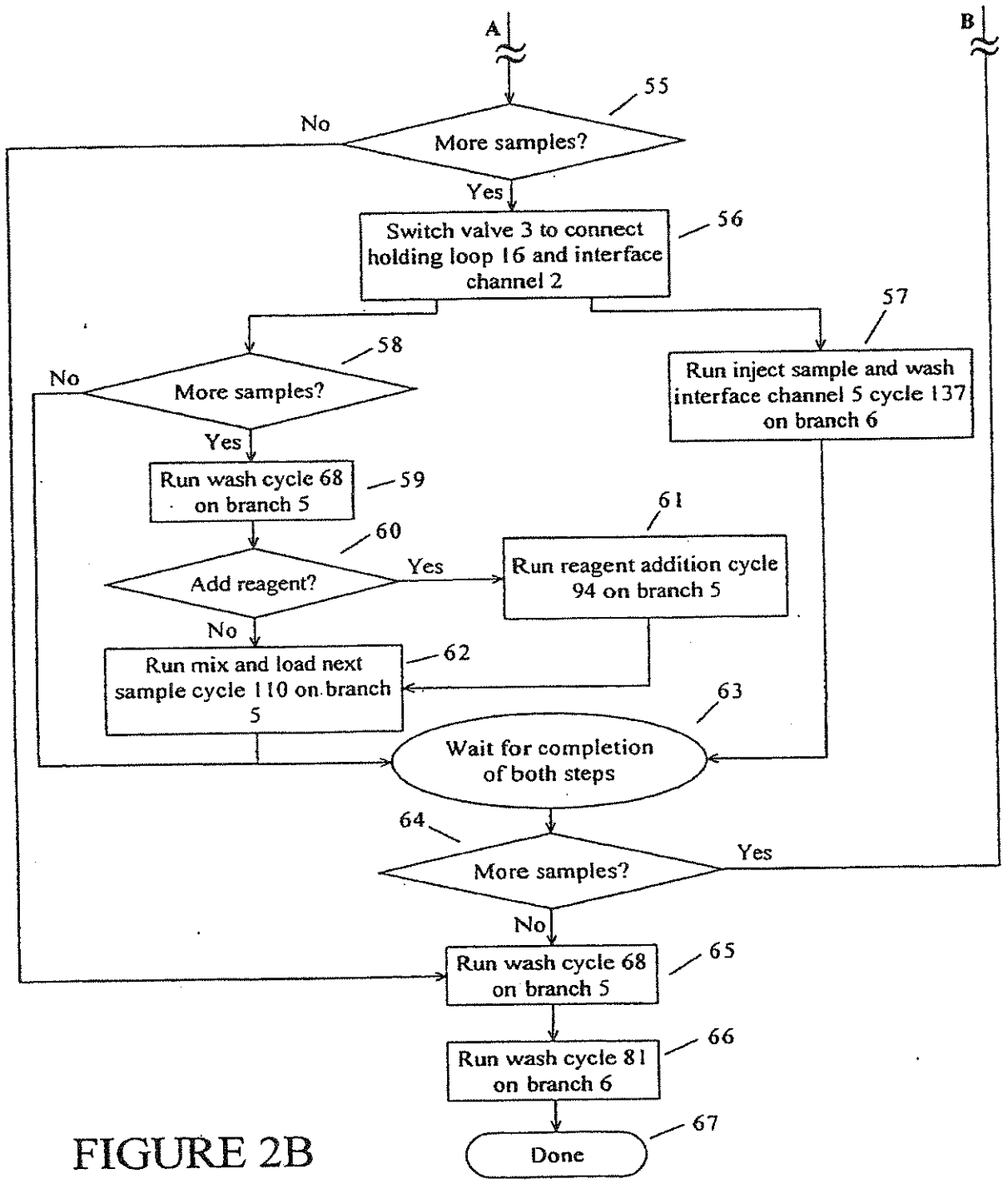

A
B
55
More samples?
No
Yes
Switch valve 3 to connect holding loop 16 and interface channel 2
56
57
58
More samples?
No
Yes
Run inject sample and wash interface channel 5 cycle 137 on branch 6
Run wash cycle 68 on branch 5
59
61
60
Add reagent?
Yes
Run reagent addition cycle 94 on branch 5
No
Run mix and load next sample cycle 110 on branch 5
62
63
Wait for completion of both steps
64
More samples?
Yes
No
Run wash cycle 68 on branch 5
65
Run wash cycle 81 on branch 6
66
Done
67

FIGURE 2B

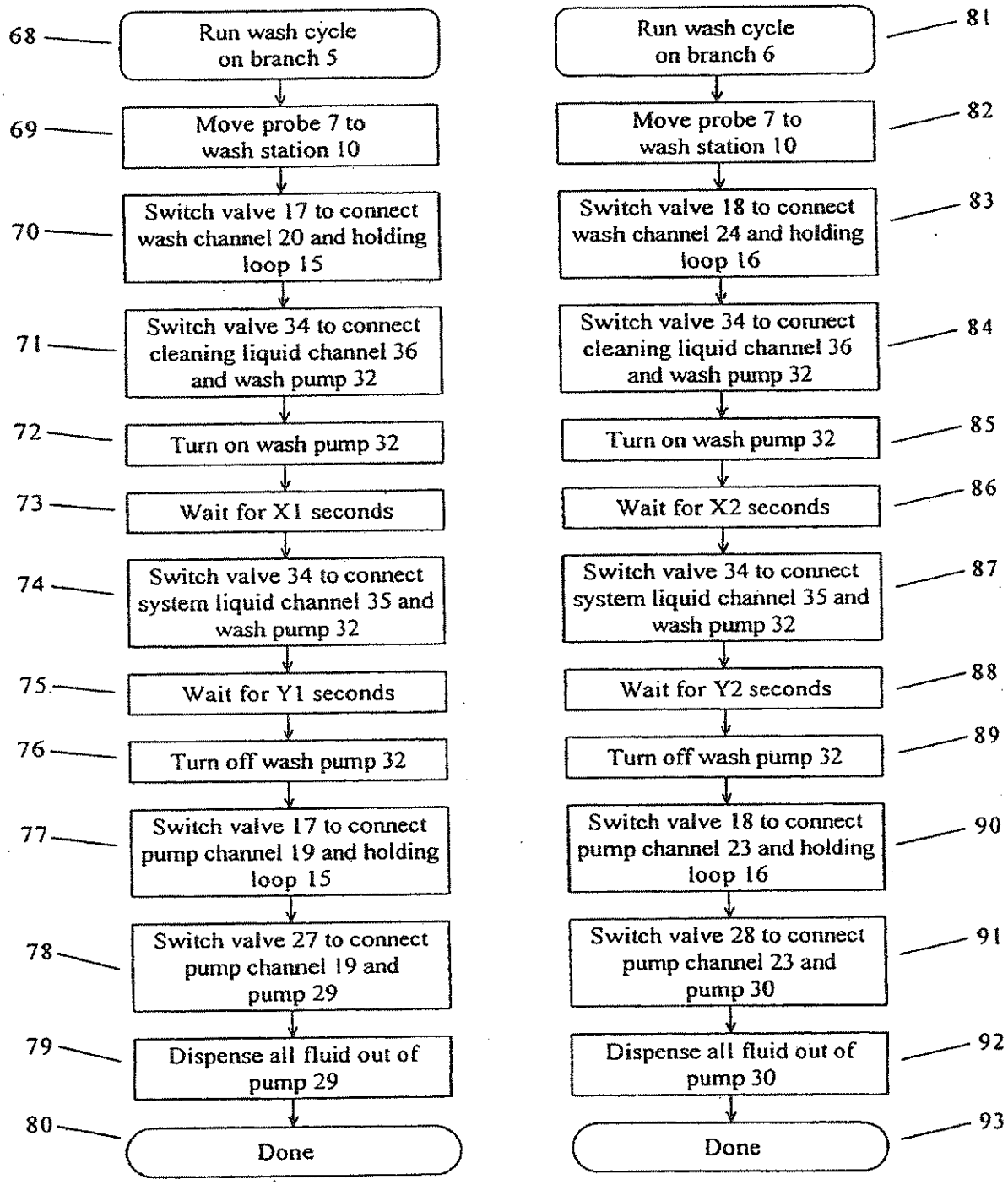

68
Run wash cycle on branch 5
69
Move probe 7 to wash station 10
70
Switch valve 17 to connect wash channel 20 and holding loop 15
71
Switch valve 34 to connect cleaning liquid channel 36 and wash pump 32
72
Turn on wash pump 32
73
Wait for X1 seconds
74
Switch valve 34 to connect system liquid channel 35 and wash pump 32
75
Wait for Y1 seconds
76
Turn off wash pump 32
77
Switch valve 17 to connect pump channel 19 and holding loop 15
78
Switch valve 27 to connect pump channel 19 and pump 29
79
Dispense all fluid out of pump 29
80
Done
81
Run wash cycle on branch 6
82
Move probe 7 to wash station 10
83
Switch valve 18 to connect wash channel 24 and holding loop 16
84
Switch valve 34 to connect cleaning liquid channel 36 and wash pump 32
85
Turn on wash pump 32
86
Wait for X2 seconds
87
Switch valve 34 to connect system liquid channel 35 and wash pump 32
88
Wait for Y2 seconds
89
Turn off wash pump 32
90
Switch valve 18 to connect pump channel 23 and holding loop 16
91
Switch valve 28 to connect pump channel 23 and pump 30
92
Dispense all fluid out of pump 30
93
Done

FIGURE 3

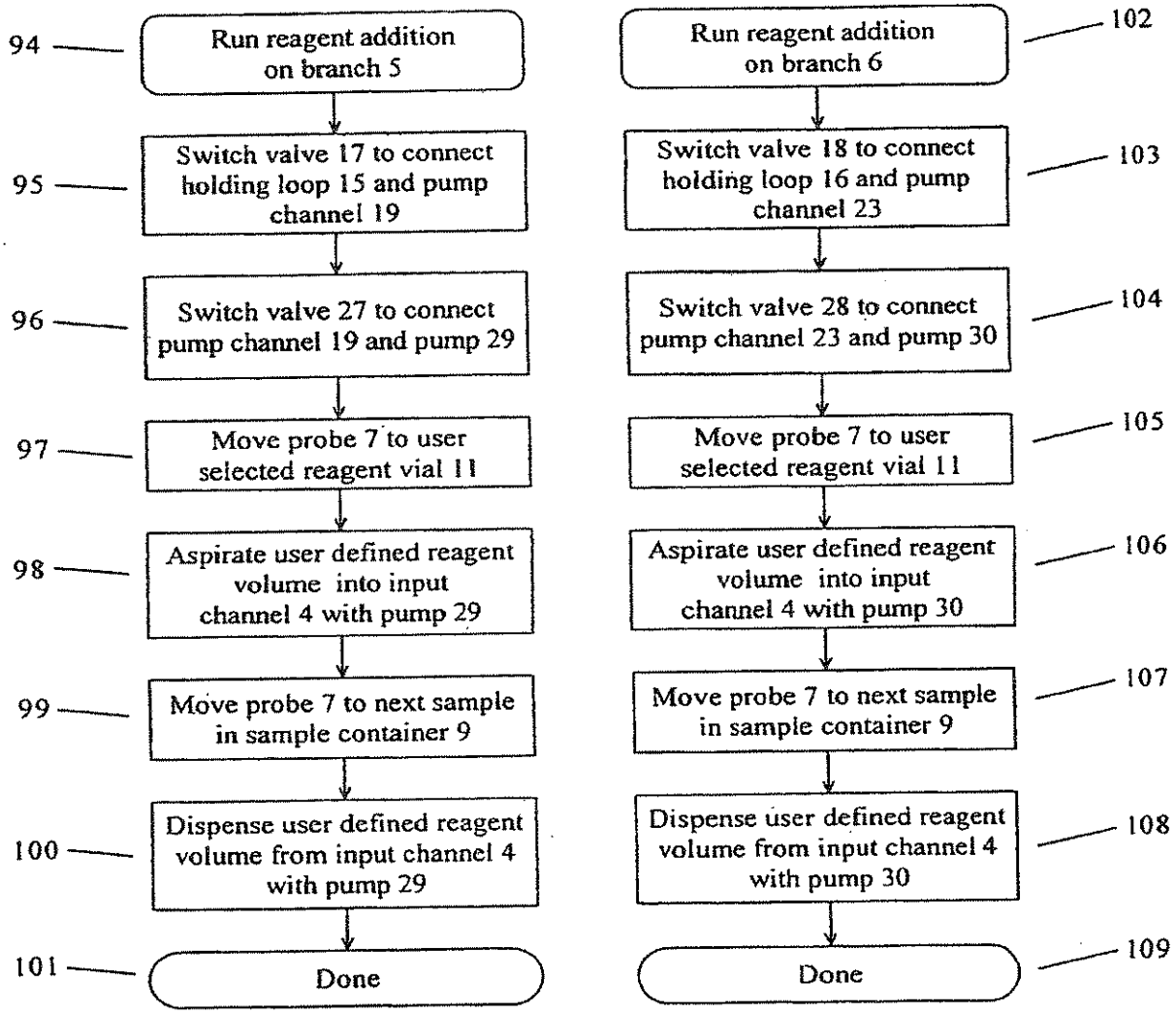

94
Run reagent addition on branch 5
95
Switch valve 17 to connect holding loop 15 and pump channel 19
96
Switch valve 27 to connect pump channel 19 and pump 29
97
Move probe 7 to user selected reagent vial 11
98
Aspirate user defined reagent volume into input channel 4 with pump 29
99
Move probe 7 to next sample in sample container 9
100
Dispense user defined reagent volume from input channel 4 with pump 29
101
Done
102
Run reagent addition on branch 6
103
Switch valve 18 to connect holding loop 16 and pump channel 23
104
Switch valve 28 to connect pump channel 23 and pump 30
105
Move probe 7 to user selected reagent vial 11
106
Aspirate user defined reagent volume into input channel 4 with pump 30
107
Move probe 7 to next sample in sample container 9
108
Dispense user defined reagent volume from input channel 4 with pump 30
109
Done

FIGURE 4

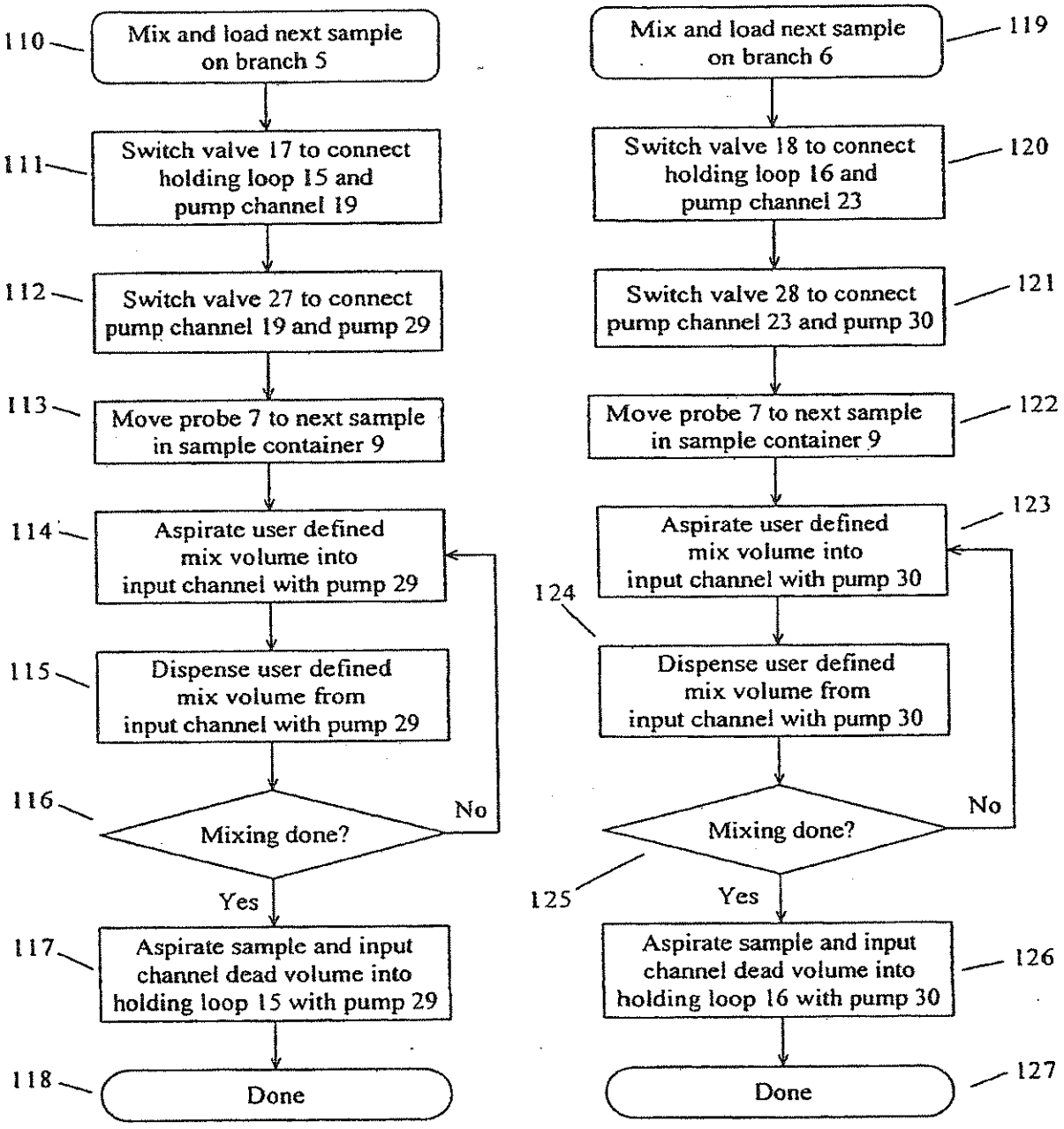

110
Mix and load next sample on branch 5
111
Switch valve 17 to connect holding loop 15 and pump channel 19
112
Switch valve 27 to connect pump channel 19 and pump 29
113
Move probe 7 to next sample in sample container 9
114
Aspirate user defined mix volume into input channel with pump 29
115
Dispense user defined mix volume from input channel with pump 29
116
Mixing done?
No
Yes
117
Aspirate sample and input channel dead volume into holding loop 15 with pump 29
118
Done
119
Mix and load next sample on branch 6
120
Switch valve 18 to connect holding loop 16 and pump channel 23
121
Switch valve 28 to connect pump channel 23 and pump 30
122
Move probe 7 to next sample in sample container 9
123
Aspirate user defined mix volume into input channel with pump 30
124
Dispense user defined mix volume from input channel with pump 30
125
Mixing done?
No
Yes
126
Aspirate sample and input channel dead volume into holding loop 16 with pump 30
127
Done

FIGURE 5

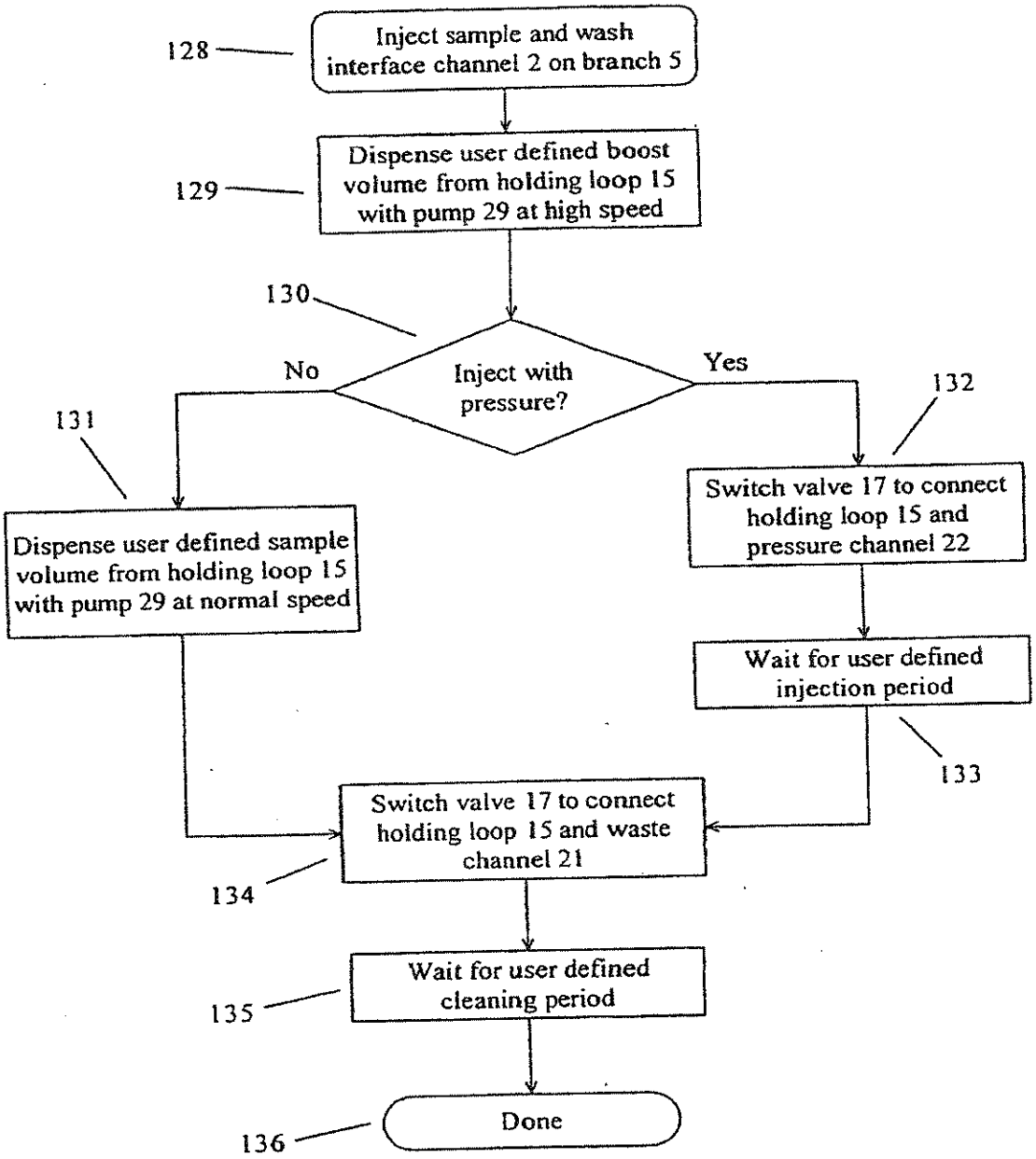

128
Inject sample and wash interface channel 2 on branch 5
129
Dispense user defined boost volume from holding loop 15 with pump 29 at high speed
130
Inject with pressure?
No
Yes
131
132
Dispense user defined sample volume from holding loop 15 with pump 29 at normal speed
Switch valve 17 to connect holding loop 15 and pressure channel 22
Wait for user defined injection period
133
Switch valve 17 to connect holding loop 15 and waste channel 21
134
Wait for user defined cleaning period
135
Done
136

FIGURE 6A

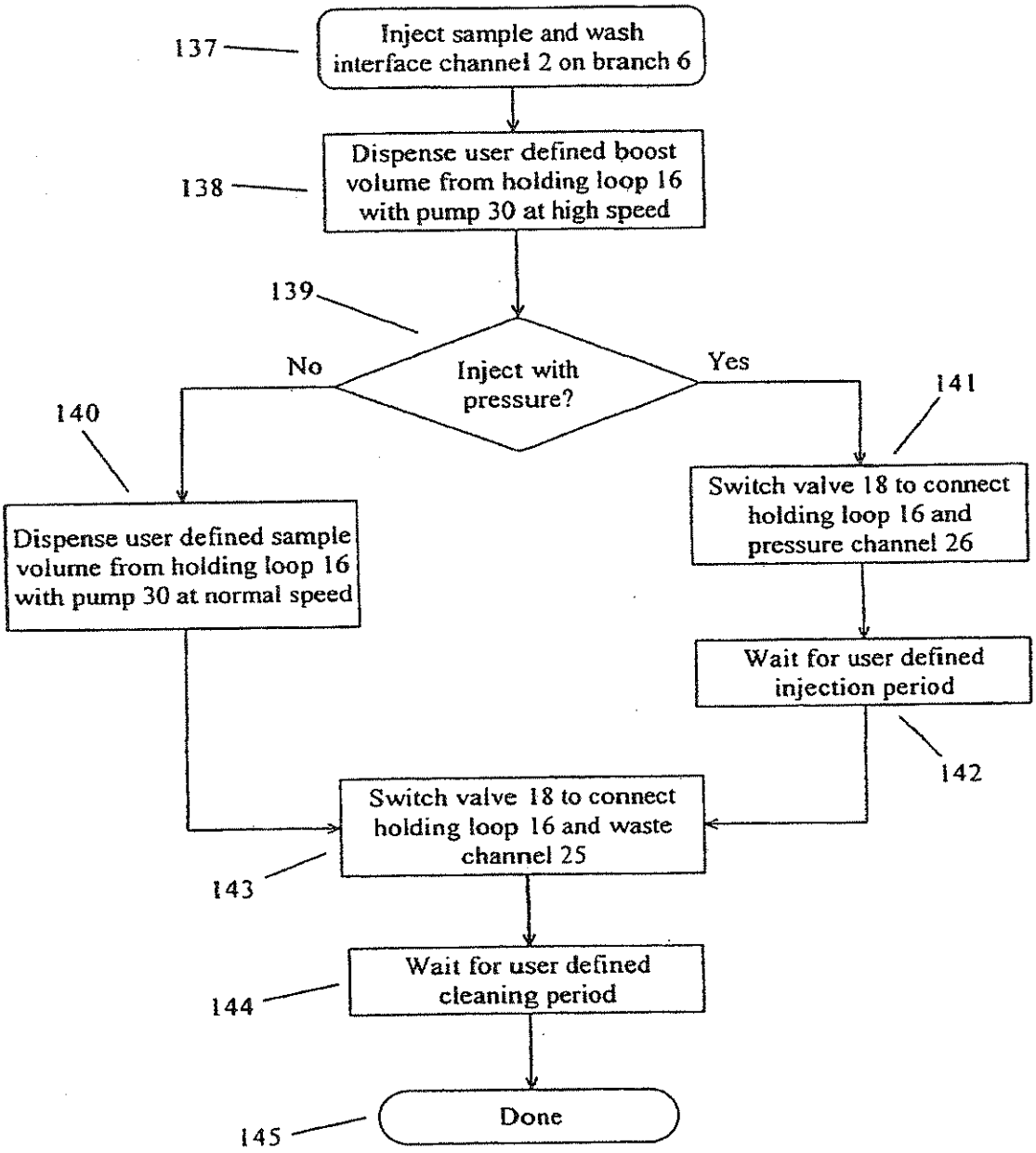

137
Inject sample and wash interface channel 2 on branch 6
138
Dispense user defined boost volume from holding loop 16 with pump 30 at high speed
139
Inject with pressure?
No
Yes
140
141
Dispense user defined sample volume from holding loop 16 with pump 30 at normal speed
Switch valve 18 to connect holding loop 16 and pressure channel 26
Wait for user defined injection period
142
Switch valve 18 to connect holding loop 16 and waste channel 25
143
Wait for user defined cleaning period
144
Done
145

FIGURE 6B