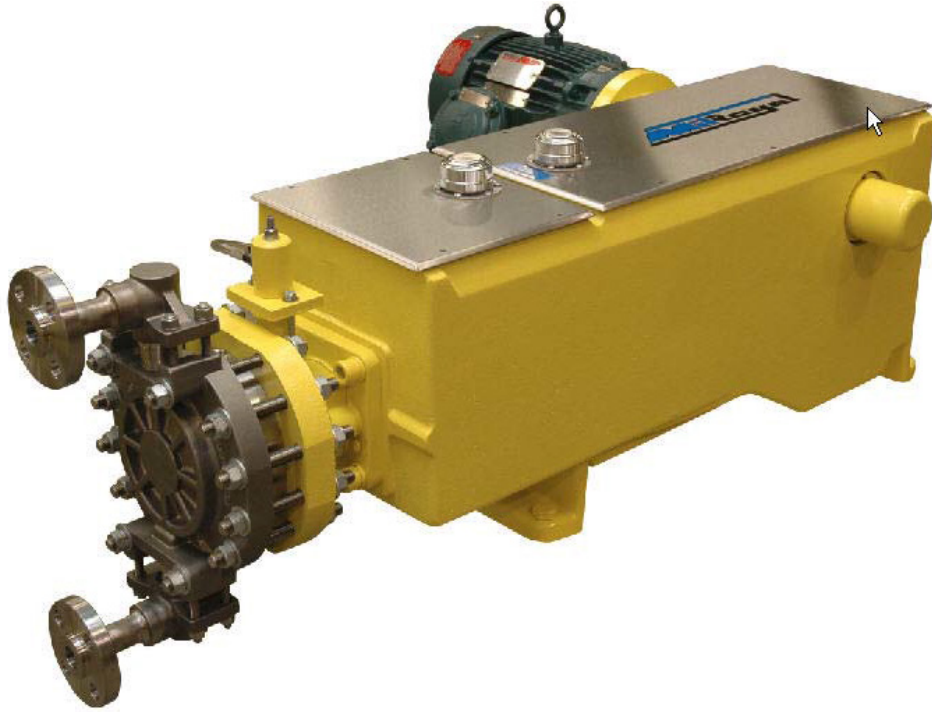




High Performance Diaphragm Liquid End (HPD)

Milroyal B, C & D IOM

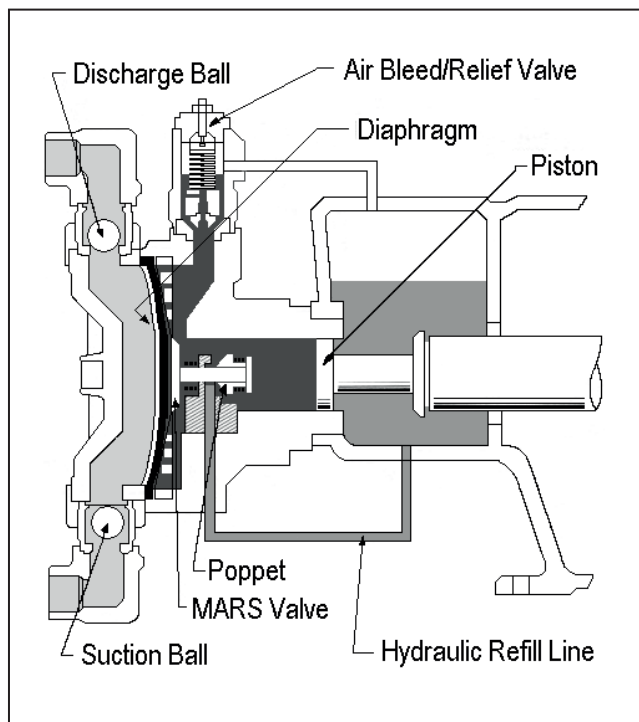


Figure 1. Principle of Operation-Suction.

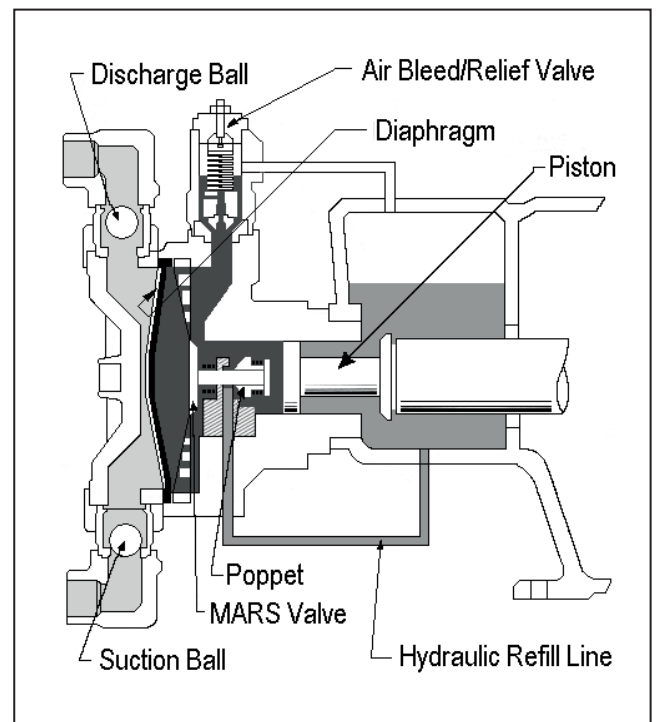


Figure 2. Principle of Operation-Discharge.

SECTION 4 - MAINTENANCE

RECOMMENDED SPARE PARTS

Be Prepared. To avoid delays in repairs, the following spare parts should be ordered for each pump:

One Routine Preventive Maintenance Kit (RPM), which contains replacements for those parts which are subject to wear; specifically the ball checks, check valve seats, gaskets, and the hydraulic fluid strainer (*See RPM Kits below*).

Milroyal®	Plunger Diameter	Liquid End Material	Kit Part Number
D	1"	316SS	RPM-0011-011
		Alloy 20	RPM-0011-015
		PVC	RPM-0011-052
	1.25", 1.5"	316SS	RPM-0011-021
		Alloy 20	RPM-0011-025
	1.25	PVC	RPM-0011-052
	1.5	PVC	RPM-0011-062
B	7/16", 9/16", 5/8" & 1"	316SS	RPM-0011-011
		Alloy 20	RPM-0011-015
		PVC	RPM-0011-052
	1.25", 1.5"	316SS	RPM-0011-021
		Alloy 20	RPM-0011-025
	1.25	PVC	RPM-0011-052
	1.5"	PVC	RPM-0011-062
	2", & 2.5"	316SS	RPM-0011-031
		Alloy 20	RPM-0011-035
		PVC	RPM-0011-062
	3.5" & 4"	316SS	RPM109
		Alloy 20	RPM110
		PVC	RPM-0011-072
		C-22	RPM 111

Table 3. Milroyal D, B, & C RPM Kits

C	3/4", 7/8", 1", 1.25"	316SS,	RPM-0011-021
		Alloy 20	RPM-0011-025
	1.5", 2"	316SS	RPM-0011-031
		Alloy 20	RPM-0011-035
	2.5", 3", 3.5"	316SS,	RPM109
		Alloy 20	RPM110
		PVC	RPM-0011-072
		C-22	RPM 111
	5", 5.75"	316SS	RPM197
		PVC	RPM013

Table 3. Milroyal D, B, & C RPM Kits (Cont)

Replacing these parts annually with an RPM kit can reduce the possibility of unexpected downtime and will help to extend pump life.

Parts orders must include the following information:

1. Serial number (found on nameplate)
2. Model number (found on nameplate)
3. Quantity required
4. Part number
5. Part description

Always include the serial and model numbers in all correspondence regarding the unit. Liquid ends with double balls requires 2 kits.

RPM Kits do not contain diaphragms.
See *diaphragm replacement later in section 4.*



Pump	Plunger Diameter	Diaphragm Diameter	Metallic	Plastic
Milroyal D	ALL	4.2"	Figure 5	Figure 6
Milroyal B	1", 1 1/4"	4.2"	Figure 7	Figure 8
Milroyal C	7/8", 1"	4.2"	Figure 9	N/A
Milroyal B	1 1/2", 2", 2 1/2"	6.5	Figure 7	Figure 8
Milroyal C	1 1/4", 1 1/2", 2"	6.5	Figure 9	N/A
Milroyal B	3 1/2", 4"	10.5	Figure 7	Figure 8
Milroyal C	2 1/2", 3 1/2"	10.5	Figure 9	Figure 11
Milroyal C	5", 5 3/4"	14.4	Figure 10	Figure 11

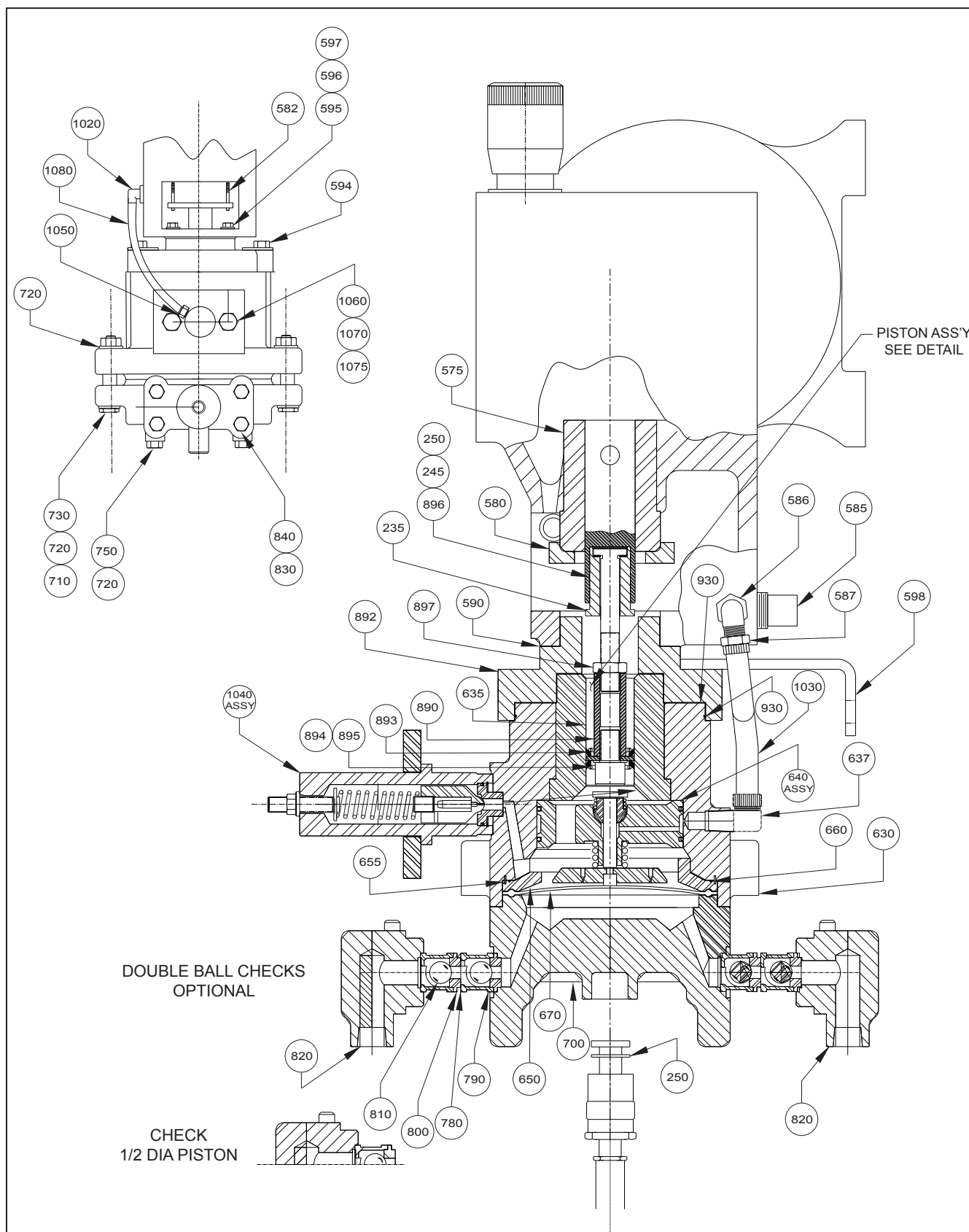


Figure 5. Milroyal D HPD Metallic Liquid End Assembly (102-2906-000 Sheet 7)



Figure 6. Milroyal D HPD Plastic Liquid End Assembly (DWG. 102-2906-000 Sheet 6)

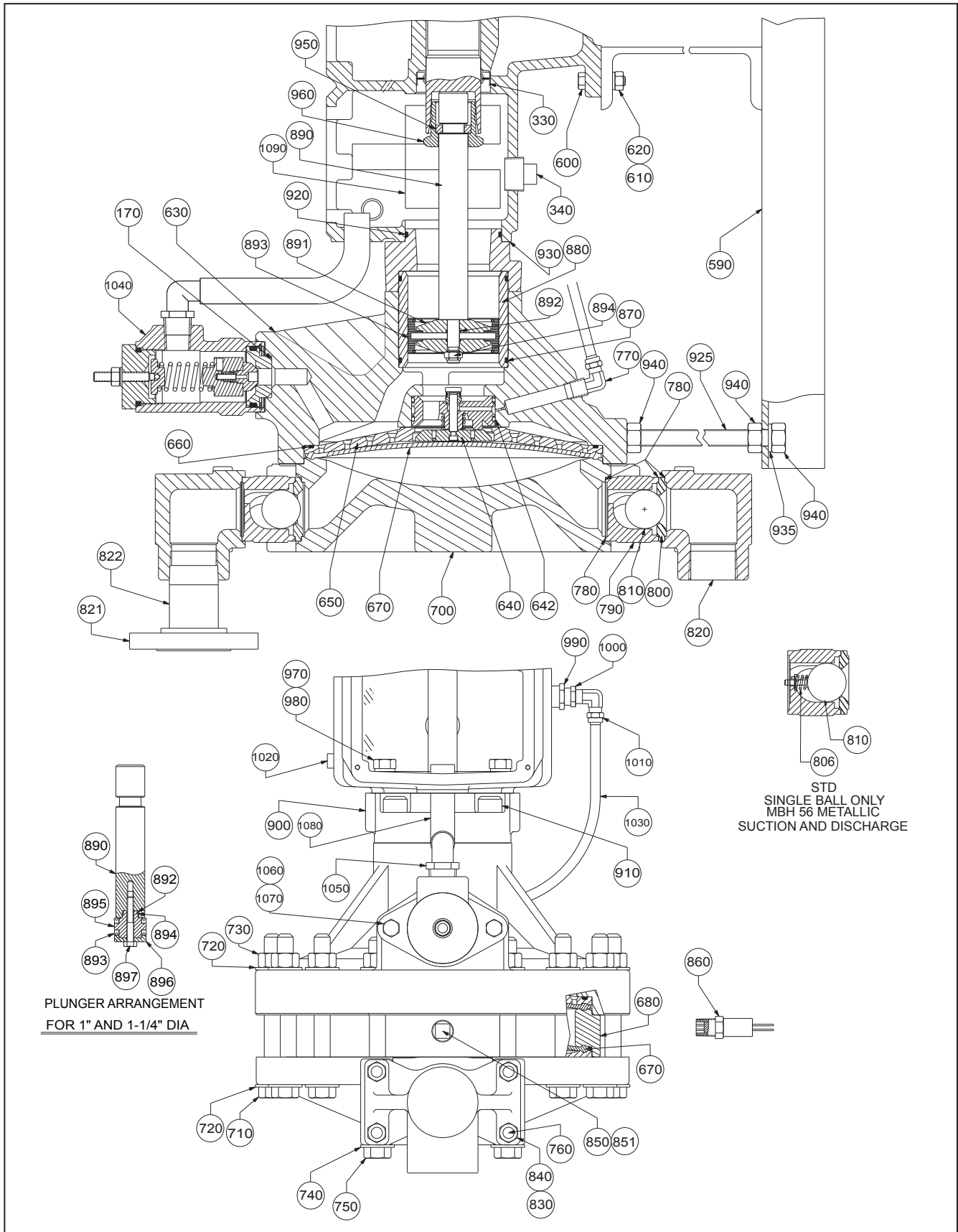


Figure 7. Milroyal B HPD Metallic Liquid End Assembly (DWG. 102-2095-000 Sheet 3)

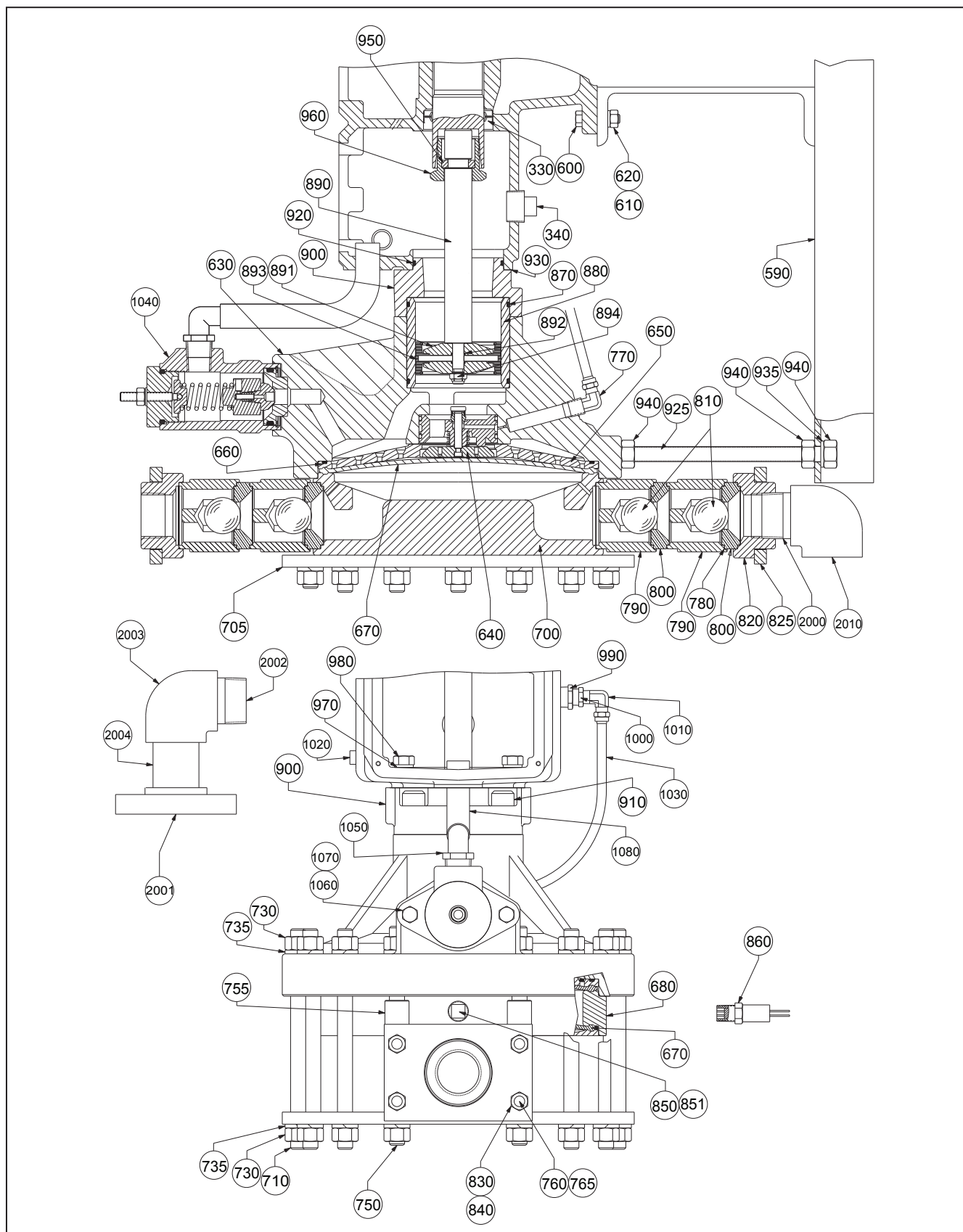


Figure 8. Milroyal B HPD Plastic Liquid End Assembly (DWG. 102-2095-000 Sheet 4)

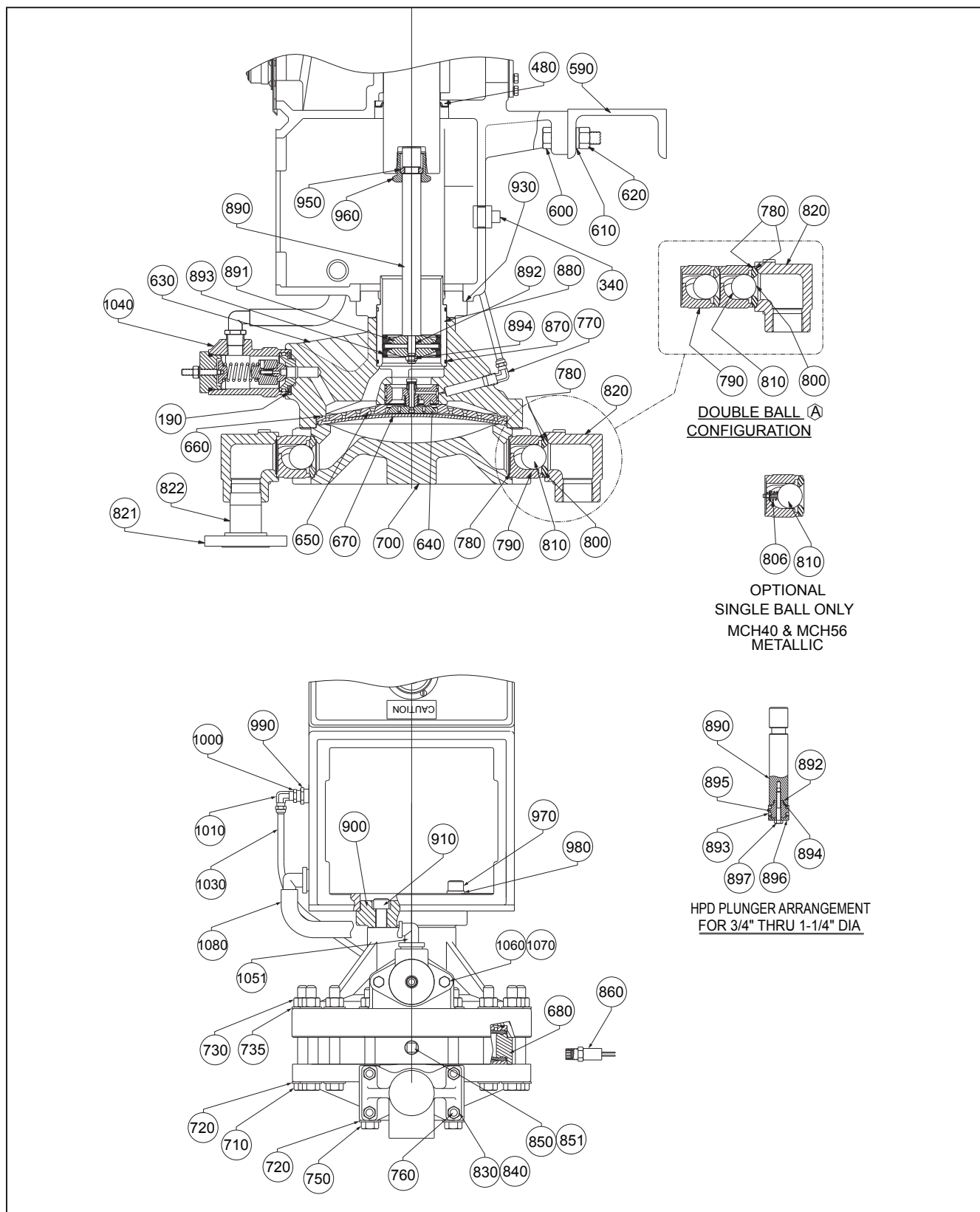
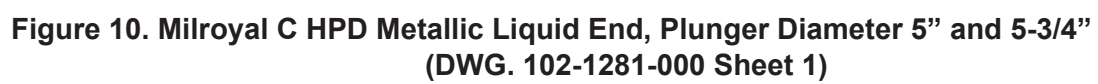


Figure 9. Milroyal C HPD Metallic Liquid End (DWG. 102-2285-000 Sheet 4)



**Figure 10. Milroyal C HPD Metallic Liquid End, Plunger Diameter 5" and 5-3/4"
(DWG. 102-1281-000 Sheet 1)**

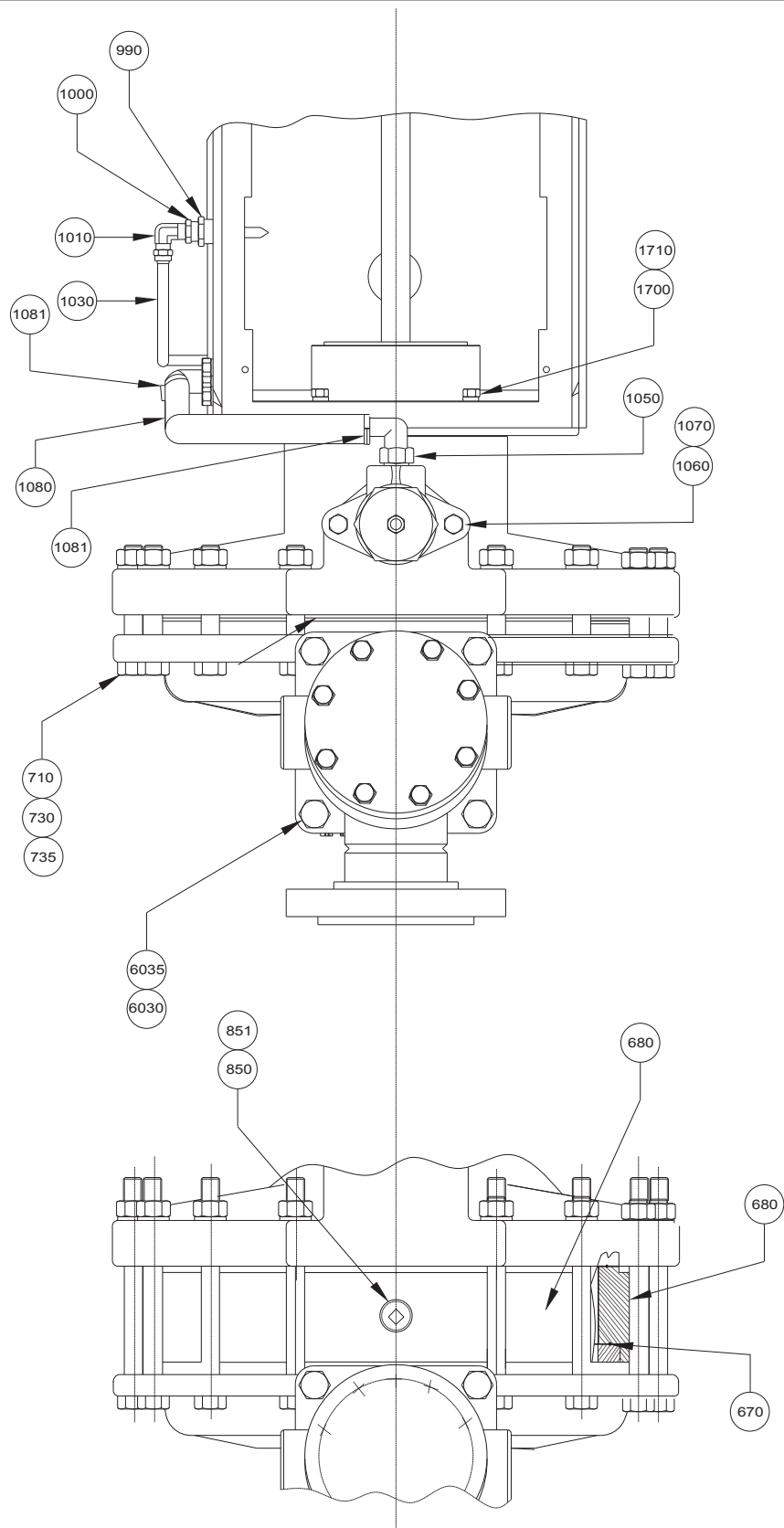


Figure 10. Milroyal C HPD Metallic Liquid End, Plunger Diameter 5" and 5-3/4" (DWG. 102-1281-000 Sheet 2)

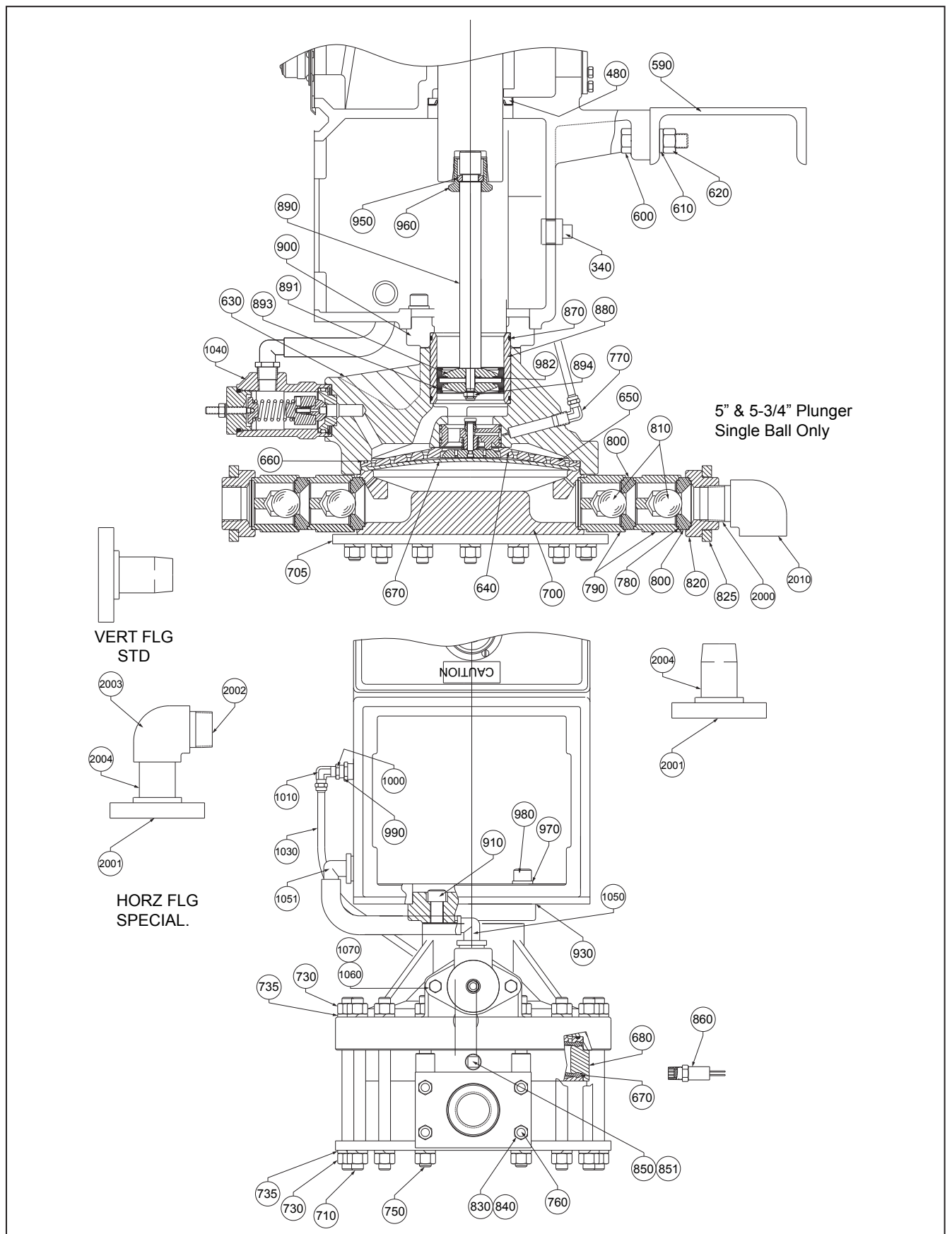


Figure 11. Milroyal C, HPD Plastic Liquid End Assembly (DWG. 102-2285-000 Sheet 5)