

Service Note



YL9110 Pump (S.N number: SNLC-202107-01)

A history of HPLC pump head change

Update date: July.12th, 2021

The pump head design has been upgraded 3 times for better performance. There are 3 versions of pump heads and each version is divided into manufacturing periods, which are ver.1 for the pumps manufactured in 2000~2009, ver.2 for those in 2010~May 2014, ver.3 for the ones in June 2014~Current. More information on the spare parts is described in this service note and replace the spare parts according to pump head type.

Pump Head Ver.	Manufacturing Periods
Ver.1	2000~2009
Ver.2	2010~May, 2014
Ver.3	June, 2014~Current



Figure 1. Ver.3 – Flom Pump Head, Check Valve, and Seal

Service Note



I. Ver.1 Pump Head – SEI Pump Head Assembly (2000~2009)

Ver.1 Pump head has different type of high and low pressure seal and the high pressure seal of this pump head is discontinued but low pressure seal is in our stock.

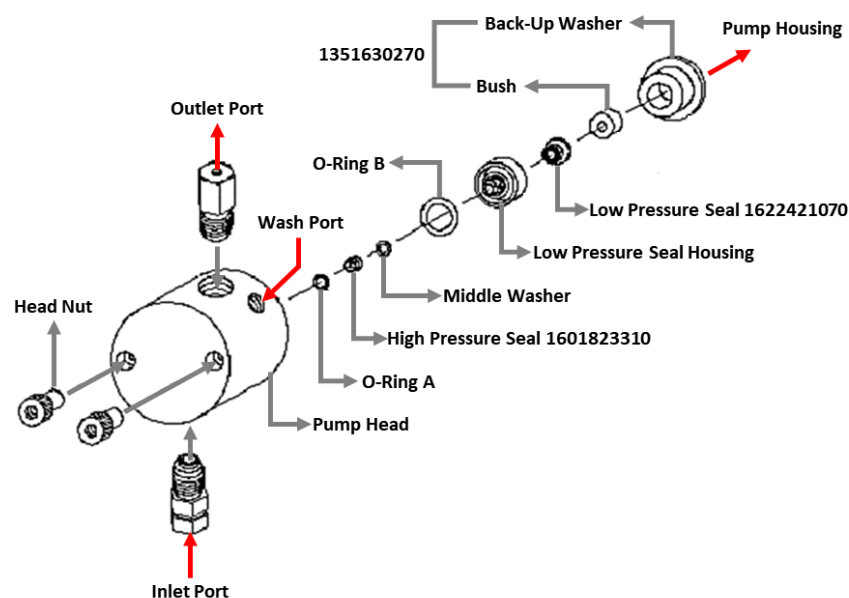


Figure 2. Ver.1 pump head assembly for analytical scale

Table 1. Components of the ver.1 pump head

Category	Figure	Part no.	Description
Analytical		1601823310	High Pressure Seal for Isocratic Pump, Gradient Pump (old) for 930D (Discontinued)
Analytical		1622421070	Low Pressure Seal for Isocratic Pump, Gradient Pump(new)
Analytical Semi-Prep		1602424070	Inlet/Outlet Check Valve Cartridge only
Narrow-Bore		1602424131	Inlet/Outlet Check Valve/Cartridge only
Analytical		1602423270	Zirconium Plunger
Semi-Prep		1602424000	Semi-prep Plunger
Narrow-Bore		1602424011	Narrow Bore Zirconium Plunger

*Low Pressure Seal Housing which is for Pump Head is not continued to provide anymore.

Service Note



II. Ver.2 Pump Head – SEI Pump Head Assembly(2010~May, 2014)

Ver.2 Pump head has same type of high and low pressure seal and both are in our stock and this is same with low pressure seal of ver.1 pump head.

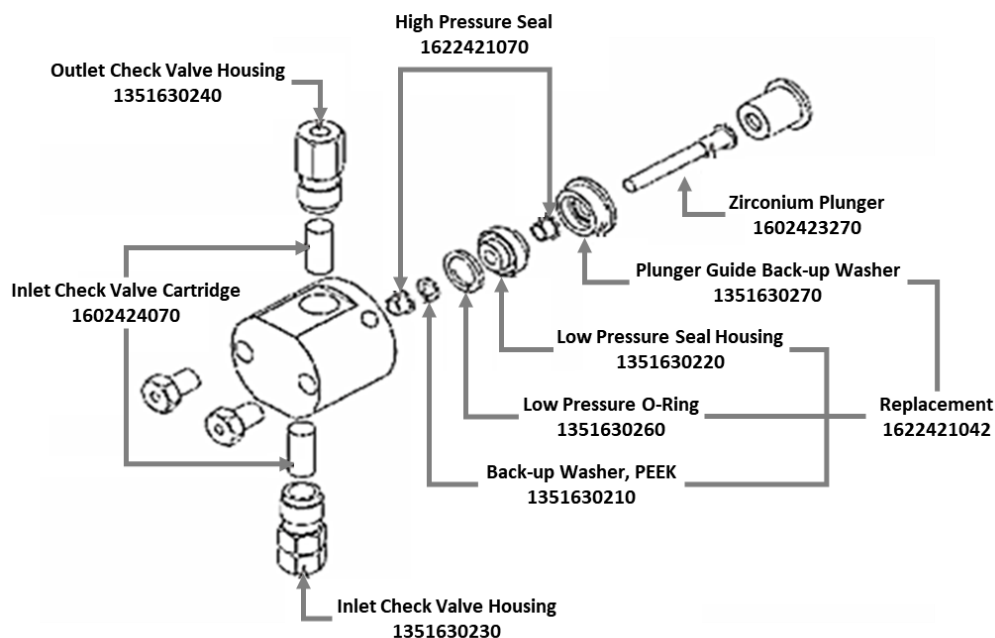


Figure 3. Ver.2 pump head assembly for analytical scale

Table 2. Components of the ver.2 pump head

Cateroty	Figure	Part no.	Description
Analytical		1622421070	High&Low Pressure Seal for Isocratic Pump, Gradient Pump(new)
Semi-Prep		9312423501	Semi-prep SELA, BSE X207769, 0.1875, 70-4503
Narrow-Bore		1602424012	Narrow Bore Seal, Polycon 10830, 0.0787 DIA, 70-4506
Analytical Semi-Prep		1602424070	Inlet/Outlet Check Valve Cartridge only
Narrow-Bore		1602424131	Inlet/Outlet Check Valve/Cartridge only
Analytical		1602423270	Zirconium Plunger
Semi-Prep		1602424000	Semi-prep Plunger
Narrow-Bore		1602424011	Narrow Bore Zirconium Plunger

Service Note



III. Ver.3 Pump Head – Flom Pump Head Assembly (June, 2014~Current)

Ver. 3 Pump head has same type of high and low pressure seal and both are in our stock and this is different with ver.2 pump head seal. And, the serial number of ver.3 components applied is shown in Supplement 1.

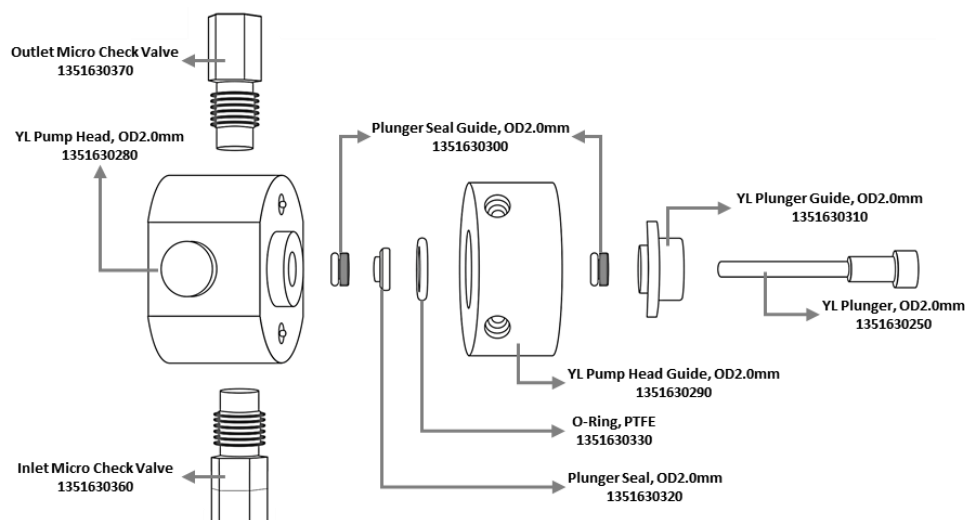


Figure 4. Ver.3 pump head assembly for analytical scale

Table 3. Components of the ver.3 pump head

Category	Figure	Part no.	Description
Analytical		1351630320	High/Low Pressure Plunger Seal (white o-ring)
Semi-Prep		1351630304	Plunger Seal, OD 3/16"
Narrow-Bore		1351630302	Plunger Seal, OD2.0mm
Analytical Semi-Prep		1351630370	1/16" 2-ball Check Valve, 10-32 (Outlet)
Analytical Semi-Prep		1351630360	1/16" 2-ball Check Valve, 10-32 (Inlet)
Narrow-Bore		1351630371	YL Peek 1/16" 2-ball Check Valve, 10-32 (Outlet)
Narrow-Bore		1351630361	YL Peek 1/16" 2-ball Check Valve, 10-32 (Inlet)
Analytical		1351630250	Zirconium Plunger
Semi-Prep		1351630252	Semi-prep Plunger
Narrow-Bore		1351630251	Narrow Bore Zirconium Plunger

Service Note



Supplement 1. Serial Number Information

The following is the serial numbers of pump model applied with ver.3 pump head. The serial number of semi-prep and narrow bore scale pump will be updated without any notification in the next revised service note.

Model	Serial Number (SN)
YL9110 Quaternary	Q2863140613~
YL9111 Binary	B2196141117~
YL9112 Isocratic	I1264140603~
YL9300 Pump	UL0075140903~
SP930D Solvent Delivery Pump	930D-1603~
YL9200 Single Pump	SP0024141210~

	Pump Head	High Pressure Seal	Low Pressure Seal	Check Valve	Plunger
Ver. 1	- SEI Pump Head (Old type) - Assay	Discontinued - High Pressure Seal for Isocratic Pump, Gradient Pump(old) for 930D - P/N 1601823310	- Low Pressure Seal for Isocratic Pump, Gradient Pump(new) - P/N 1622421070	- Inlet/Outlet Check Valve Cartridge only (Analytical) - Inlet Check Valve/Cartridge only (Narrow bore) - P/N 1602424070 - P/N 1602424131	- Zirconium Plunger (Analytical) - Semi-prep Plunger - Narrow Bore Zirconium Plunger - P/N 1602423270 - P/N 1602424000 - P/N 1602424011
Ver. 2	- SEI Pump Head (New type) - Assay	- High&Low Pressure Seal for Isocratic Pump, Gradient Pump(new) - Semi-prep SELA, BSE X207769, 0.1875, 70-4503 - Narrow Bore Seal, Polycon 10830, 0.0787 DIA, 70-4506 - P/N 1622421070 - P/N 9312423501 - P/N 1602424012	1/16" 2-ball Check Valve, (Outlet) 1/16" 2-ball Check Valve, (Inlet) - YL Peek 1/16" 2-ball Check Valve, (Outlet) - YL Peek 1/16" 2-ball Check Valve, (Inlet) 1351630370 1351630360 1351630371 1351630361	- Zirconium Plunger (Analytical) - Semi-prep Plunger - Narrow Bore Zirconium Plunger - P/N 1602423270 - P/N 1602424000 - P/N 1602424011	- Zirconium Plunger (Analytical) - Semi-prep Plunger - Narrow Bore Zirconium Plunger - P/N 1351630250 - P/N 1351630252 - P/N 1351630251
Ver. 3	- YL Pump Head, OD3.2mm (A) - YL Pump Head Guide, OD3.2mm (A) - YL Pump Head, OD 3/16" (S) - YL Pump Head Guide, OD 3/16" (S) - YL Pump Head Guide, OD2.0mm (N) - YL Pump Head Guide, OD2.0mm (N) - P/N 1351630280 - P/N 1351630290 - P/N 1351630282 - P/N 1351630293 - P/N 1351630281 - P/N 1351630292	- High/Low Pressure Plunger Seal (white o-ring) - Plunger Seal, OD 3/16" - Plunger Seal, OD2.0mm - P/N 1351630320 - P/N 1351630304 - P/N 1351630302			

* Ver.1 pump head has different type of high and low pressure seal and the high pressure seal of this head is discontinued but low pressure seal is in our stock.

** Ver.2 pump head has same type of high and low pressure seal and both are in our stock and this is same with low pressure seal of ver.1 pump head.

*** Ver.3 pump head has same type of high and low pressure seal and both are in our stock and this is different with ver.2 head seal.

■ : Analytical scale ■ : Semi-Prep scale ■ : Narrow-Bore scale