



Replacement Spare Parts for HPLC Pumps

Sapphire Pistons, Piston Seals
and Pumphead Check valves

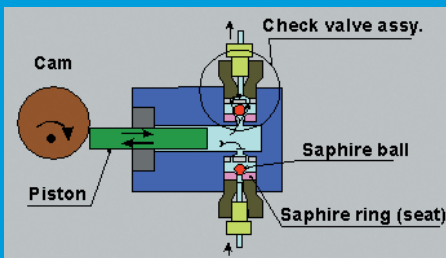
Introduction

Original HPLC Pump manufacturers (OEM's) have always priced their spare parts extremely high, because a considerable number of users are unaware that these products can be purchased separately, at much lower costs.

HPLC Pump Head

The function of an HPLC pump is to deliver the mobile phase to the HPLC column via the sample injection system at a very precise flow rate. This ensures that the sample elution time and thus the identification of the separated sample components are a constant factor, assuming all solvent conditions, including temperature are also constant. Therefore, it is essential that the HPLC pump works at its optimum condition with zero variation in the delivered flow rates.

Mechanical Parts of an HPLC Pump Head



Assuming all electrical components are working correctly, there are three moving parts in the pump head that must work with a 100% efficiency, to ensure flow rate accuracy. These are the;

Piston, made from industrial sapphire, or zirconium

Piston seal, usually consisting of a graphite filled PTFE ring, with a circular stainless steel spring inside the ring. PTFE provides a “non-stick” surface to allow the sapphire piston to glide smoothly through the seal, with the graphite providing extra strength, and thus increased lifetime. The spring is incorporated to allow the PTFE ring to “return” to its original shape after the movement of the sapphire piston through its centre.



Check valves, consist of stainless steel housings, containing a sapphire seat and ruby ball to provide the seal inside the pump head. There is an inlet and an outlet check valve, allowing the solvent to flow into the pump head at atmospheric pressure, with the piston causing the mobile phase to be sent to the sample injection at high pressures, at anything up to 6000 psi (400bar). The check valves act as sophisticated “non-return valves”.



HPLC pumps have a piston movement rate of 1-2 up to 23 strokes per second, depending on the manufacturer.

Therefore, it is essential that high quality and hard working components are used in the pump head, allowing the HPLC pump to operate for as long a period as possible.

HPLC Pump component Manufacturers

Due to the specialisation of the products, virtually all of the pistons, seals and check valves used by the OEM's, are manufactured by a small number of companies worldwide.

We have sourced our products from the very same component manufacturers that supply the HPLC pump OEM's, ensuring that the products we supply will work 100% in every case.

Every HPLC pump user who purchases their spares from us is guaranteed a **zero risk** in doing so.

“We guarantee that our prices are at least 25% lower!”

Huge savings can be achieved of up to 70% purchasing from our range of HPLC pump spares.



Routine HPLC Pump Maintenance

Another large expense for HPLC users involves using the HPLC pump service engineers to fix routine HPLC pump problems, for example leaking pump heads, or the inability of the pump to maintain high enough pressures.

Whilst it is always sensible to have annual or bi-annual maintenance visits to ensure your hardware adheres to regulatory standards, HPLC users can easily undertake their own routine HPLC pump maintenance, thus making considerable savings.

Our components have been fully tested to provide a performance, as least as good as the OEM's products.

There is also the added convenience of being able to order parts, on a single purchase order, for all HPLC pumps in a laboratory, irrespective of the company that was the original manufacturer.

Ordering Information

Please study the lists of HPLC Pump spares that we have available. Simply contact us by any way you feel comfortable with. We take orders over the telephone, by fax, post and of course by email.

Other HPLC products available from Avonchem Diagnostics Ltd;

- HPLC Detector Lamps (Deuterium, Tungsten, Mercury, etc)
- Autosampler vials
- HPLC Columns
- HPLC solvents

All at competitive prices

Please contact us for further information on these products.



Cat.No.	Make & Model / Part Description	OEM Reference
	ABI - any refer to DIONEX - 300C	
	ACS - 300, 400, 500 Series	
PST-ACS1	Piston Assembly - Sapphire	1 / 22148
SE-ACS1	Piston Seal - Black	1 / 22626
CV-ACSC	Check Valve Cartridge	Equiv. to 1 / 22229
CV-ACSB	Check Valve Body	N / A
	AGILENT - 1050, 1090, 1100	
PST-AG1	1050 & 1100 Piston Assembly - Sapphire	5063-6586
PST-AG2	1090 Piston Assembly - Sapphire	3080-0672
SE-AG1	Piston Seal - Black All Models	5062-8516
SE-AG2	Piston Seal - Yellow All Models	0905-1420
SE-AG3	Wash Seal - 1050 & 1100	0905-1175
CV-AG1	Inlet / Outlet Check Valve Assembly 1090	79835-25211
CV-AG2	Inlet / Outlet Check Valve Cartridge 1090	79835-67101
CV-AG3	Inlet / Outlet Check Valve Cartridge 1090	N / A
	ALCOTT - any refer to BISCHOFF - 2200	
	ALTEX - any refer to BECKMAN - same	
	ANSPEC - SM 909 refer to BISCHOFF - 2200	
	BAS - PM-60 refer to KNAUER - 64	
	BECKMAN - 100	
PST-BE1	Piston Assembly - Sapphire	100-07
SE-BE1	Piston Seal - Black	887138
PST-BEG1	Piston Guide Assembly	243045
CV-BE1	Inlet Check Valve Assembly	243038
CV-BE2	Outlet Check Valve Assembly	243040
	Alternate Check Valves :	
CV-BE3	Inlet Check Valve Cartridge	240620
CV-BE4	Outlet Check Valve Cartridge	240621
CV-BE5	Outlet Check Valve Cartridge Filter	240619
	BECKMAN - 110	
PST-BE2	Piston Assembly - Sapphire	243053
SE-BE1	Piston Seal - Black	887138
PST-BEG1	Piston Guide Assembly	243045
CV-BE6	Inlet Check Valve Assembly	243054
CV-BE2	Outlet Check Valve Assembly	243040
	Alternate Check Valves :	
CV-BE3	Inlet Check Valve Cartridge	240620
CV-BE4	Outlet Check Valve Cartridge	240621
CV-BE5	Outlet Check Valve Cartridge Filter	240619
	BECKMAN - 112	
PST-BE2	Piston Assembly - Sapphire	243053
SE-BE2	Piston Seal - Black	236797
CV-BE1	Inlet Check Valve Assembly	243038
CV-BE2	Outlet Check Valve Assembly	243040
	Alternate Check Valves :	
CV-BE3	Inlet Check Valve Cartridges	240620
CV-BE4	Outlet Check Valve Cartridges	240621
CV-BE5	Outlet Check Valve Cartridge Filter	240619
	BECKMAN - 114, 116, 118, 125, 126, 127, 128	
PST-BK2	Piston Assembly - Sapphire	240714
SE-BE3	Piston Seal - Black	237162
SE-BE4	Piston Seal - Clear	N / A
SE-BE5	Secondary Seal - Grey	238627
CV-BE1	Inlet Check Valve Assembly	243038
CV-BE2	Outlet Check Valve Assembly	243040

Cat.No.	Make & Model / Part Description	OEM Reference
Alternate Check Valves :		
CV-BE3	Inlet Check Valve Cartridges	240620
CV-BE4	Outlet Check Valve Cartridges	240621
CV-BE5	Outlet Check Valve Cartridge Filter	240619
BIO-RAD - 1330, 1350, 2700		
PST-BR1	Piston Assembly - Sapphire	125-0304
SE-BR1	Piston Seal - Black	125-0302
SE-BR2	Piston Seal - Yellow	N / A
CV-BR1	Inlet Check Valve Assembly	125-0306
CV-BR2	Outlet Check Valve Assembly	125-0307
BIOTEK INSTRUMENTS - any refer to KONTRON - same		
BISCHOFF - 2200, 2250, 2500 Analytical		
PST-BIS1	Piston Assembly - Sapphire	2200-0210
SE-BIS1	Primary Piston Seal - Black	2200-0211
SE-BIS2	Primary Piston Seal - Clear	N / A
PST-BISBR1	Sapphire Backing Ring	N / A
SE-BIS3	Secondary Piston Seal - Black	N / A
CV-BIS1	Inlet Check Valve Cartridge	2200-0220
CV-BIS2	Inlet Check Valve Housing	2200-0240
CV-BIS3	Outlet Check Valve Cartridge	2200-0230
CV-BIS4	Outlet Check Valve Housing	2200-0240
BISCHOFF - 2200, 2250, 2500 Microflow		
PST-BIS2	Piston Assembly - Sapphire	2200-1210
SE-BIS4	Piston Seal - Black	2200-0112
PST-BISBR2	Sapphire Backing Ring	N / A
CV-BIS5	Inlet Check Valve Cartridge	2200-0120
CV-BIS2	Inlet Check Valve Housing	2200-0240
CV-BIS6	Outlet Check Valve Cartridge	2200-0130
CV-BIS4	Outlet Check Valve Housing	2200-0240
CECIL - 1000 refer to KNAUER - 64		
CECIL - 1100 refer to KNAUER - K120		
DIONEX - AGP, DQP, DRP, DXP, GPM-1, GPM-2, 2000, 4000		
PST-DX1	Piston Assembly - Sapphire	036904
SE-DX1	Piston Seal with Spring	040859
SE-DX2	Piston Seal with O Ring	035686
SE-DX3	Back Up Seal	036901
CV-DX1	Inlet Check Valve Assembly	038273
CV-DX2	Outlet Check Valve Assembly - Old	038272
CV-DX3	Outlet Check Valve Assembly - New	042761
DIONEX - 300C, 300CP, M480, P580, P680 Analytical, Ultimate 3000		
PST-DX2	Piston Assembly - Sapphire NOT FOR ULTIMATE	2267.003
SE-DX4	Piston Seal - Black	N / A
SE-DX5	Piston Seal - Yellow	2266.030
SE-DX6	Seal Backing Ring	5005.200
SE-DX7	Piston Seal Kit - Yellow	6025.201
SE-DX8	Piston Seal Kit - Yellow	6025.2010A
SE-DX9	Piston Seal Kit - Black	6025.201
SE-DX10	Piston Seal Kit - Black	6025.2011A
SE-DX11	Ring Seal - PTFE	2266.008
SE-DX12	Wash Seal	2266.0304B
CV-DX4	Inlet Check Valve Assembly - Cartridge Type	5020.210
CV-DX5	Outlet Check Valve Assembly - Cartridge Type	5020.220
CV-DX6	Inlet / Outlet Check Valve Cartridge	5020.230
DIONEX - 300C, 300CP, M480, P580, P680 Preparative		
PST-DX3	Piston Assembly - Alumina	2267.080
SE-DX13	Piston Seal - Black	2266.080
CV-DX7	Inlet Check Valve Assembly	5005.320
CV-DX8	Outlet Check Valve Assembly	5005.310
CV-DX9	Inlet / Outlet Check Valve Repair Kit	N / A

Cat.No.	Make & Model / Part Description	OEM Reference
ASN-DX1	DIONEX - Miscellaneous Autosampler Needle Port Seal	5805.133
PST-ESA1 SE-ESA1 CV-ESA1 CV-ESA2 CV-ESA3	ESA - 580 Piston Assembly - Sapphire Piston Seal - Black Inlet Check Valve Assembly - Cartridge Type Outlet Check Valve Assembly - Cartridge Type Inlet / Outlet Check Valve Cartridge	70-1166 70-3602 Equiv. to 70-0734 Equiv. to 70-0735 N / A
PST-ESA2 SE-ESA1 CV-ESA4 CV-ESA2 CV-ESA3	ESA - 582 Piston Assembly - Zirconia Piston Seal - Black Inlet Check Valve Assembly - Cartridge Type Outlet Check Valve Assembly - Cartridge Type Inlet / Outlet Check Valve Cartridge	70-4086 70-3602 Equiv. to 70-4056 Equiv. to 70-4057 N / A
PST-FX1 SE-FX1 SE-FX2 SE-FX3 CV-FX1	FLUX - Rheos 2000 & 4000 Piston Assembly - Zirconia Piston Seal - Black Piston Seal - Clear Secondary Seal - Clear Check Valve Cartridge	10004 90001 N / A 90002 N / A
PST-GBC1 SE-GBC1 SE-GBC2 CV-GBC1	GBC - LC 1110 Piston Assembly - Sapphire Piston Seal - Black Piston Seal - Yellow Check Valve Cartridge	251-0010 100-3101 N / A N / A
PST-GBC2 SE-GBC3 SE-GBC4 CV-GBC2	GBC - LC 1120 Piston Assembly - Sapphire Piston Seal - Black c/w Back Up Piston Seal - Yellow c/w Back Up Check Valve Cartridge	951.00-15 200-0006 N / A N / A
PST-GBC2 SE-GBC3 SE-GBC4 CV-GBC3	GBC - LC 1150 Piston Assembly - Sapphire Piston Seal - Black c/w Back Up Piston Seal - Yellow c/w Back Up Check Valve Cartridge	951.00-15 200-0006 N / A 200-0007
	GBC - 1500 refer to KNAUER - 64	
PST-GE1 SE-GE1 SE-GE2 SE-GE3 CV-GE1	GE - AKTA Explorer 10 & 100 Piston Assembly - 10 Piston Seal Kit - 10 Piston Seal Kit - 100 Piston Seal Kit - 100 Check Valve Cartridge Kit	N / A 18-1120-77 18-1112-04 18-1113-12 N / A
PST-GIL1 SE-GIL1 SE-GIL2 SE-GILBR1 CV-GIL1 CV-GIL2 CV-GIL3 CV-GIL4 CV-GIL5 CV-GIL6 CV-GIL7 CV-GIL8	GILSON - 30X SC & WSC 5ml Head SC Piston Assembly - Sapphire Piston Seal - Black Piston Seal - Yellow Backing Ring for Seals Inlet Check Valve Body Inlet Check Valve Cartridge Outlet Check Valve Body Outlet Check Valve Cartridge Outlet Check Valve Washer Blank Outlet Check Valve Filter Inlet Check Valve Cartridge Outlet Check Valve Cartridge	E 500008 400112 400120 E 50014 E 50131 E 50082 E 50121 E 50085 E 45329 E 45333 Equiv. to 3650170 Equiv. to 3650180
PST-GIL2 PST-GIL3 SE-GIL3 SE-GIL4	GILSON - 30X SC & WSC 10ml Head SC Piston Assembly - Sapphire WSC Piston Assembly - Sapphire Piston Seal - Black Piston Seal - Yellow	E 50009 E 50010 400111 400121

Cat.No.	Make & Model / Part Description	OEM Reference
SE-GILBR2	Backing Ring for Seals	E 50015
CV-GIL1	Inlet Check Valve Body	E 50131
CV-GIL2	Inlet Check Valve Cartridge	E 50082
CV-GIL3	Outlet Check Valve Body	E 50121
CV-GIL4	Outlet Check Valve Cartridge	E 50085
CV-GIL5	Outlet Check Valve Washer Blank	E 45329
CV-GIL6	Outlet Check Valve Filter	E 45333
CV-GIL7	Inlet Check Valve Cartridge	Equiv. to 3650170
CV-GIL8	Outlet Check Valve Cartridge	Equiv. to 3650180
GILSON - 30X SC & WSC 25ml Head		
PST-GIL4	SC Piston Assembly - Sapphire	E 50011
SE-GIL5	Piston Seal - Black	400117
SE-GIL6	Piston Seal - Yellow	400122
SE-GILBR3	Backing Ring for Seals	E 50016
CV-GIL1	Inlet Check Valve Body	E 50131
CV-GIL2	Inlet Check Valve Cartridge	E 50082
CV-GIL3	Outlet Check Valve Body	E 50121
CV-GIL4	Outlet Check Valve Cartridge	E 50085
CV-GIL5	Outlet Check Valve Washer Blank	E 45329
CV-GIL6	Outlet Check Valve Filter	E 45333
CV-GIL7	Inlet Check Valve Cartridge	Equiv. to 3650170
CV-GIL8	Outlet Check Valve Cartridge	Equiv. to 3650180
GILSON 30X SC & WSC 50ml Head		
SE-GIL7	Piston Seal - Black	400116
SE-GIL8	Piston Seal - Yellow	400123
GILSON 30X SC& WSC 100ml Head		
SE-GIL9	Piston Seal - Black	400103
SE-GIL10	Piston Seal - Yellow	400124
GILSON 32X H1 & H2		
SE-GIL11	H1 Piston Seal - Black	38013222
SE-GIL12	H1 Piston Seal - Yellow	38013220
SE-GIL13	H2 Piston Seal - Black	38013224
SE-GIL14	H2 Piston Seal - Yellow	38013223
CV-GIL7	H1 Inlet Check Valve Cartridge	Equiv. to 3650170
CV-GIL8	H1 & H2 Outlet Check Valve Cartridge	Equiv. to 3650180
GILSON - Miscellaneous		
TMK-GIL1	Titanium Mixer Kit	N / A
GYNKOTEK - any refer to DIONEX - same		
HPLC TECH - RR-066 L refer to ACS - 300		
HEWLETT PACKARD - 1050, 1090, 1100 refer to AGILENT - same		
ICI - K 35 refer to GBC - LC 1110		
JASCO - PU-880, PU-980, PU-1580, BIP 1		
PST-JAS1	Piston Assembly - Sapphire	107 JA
SE-JAS1	Piston Seal - Yellow	150 JA
SE-JAS2	Piston Seal - Black	148 JA
CV-JAS1	Inlet Check Valve Assembly (Isocratic)	404 JA
CV-JAS2	Inlet Check Valve Assembly (Gradient)	406 JA
CV-JAS3	Outlet Check Valve Assembly	405 JA
CV-JAS4	Check Valve Cartridge	N / A
JASCO - PU-1580 Semi-Microflow		
PST-JAS2	Piston Assembly - Zirconia	2305-0013A
SE-JAS3	Piston Seal - Grey	6778-H126A
SE-JAS4	Piston Seal - Yellow	N / A
CV-JAS5	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 6778-H123A
CV-JAS6	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 6778-H124A
CV-JAS7	Inlet / Outlet Check Valve Cartridge	N / A

Cat.No.	Make & Model / Part Description	OEM Reference
KNAUER - 64 Analytical		
PST-KNR1	Point End Piston - Sapphire	N / A
PST-KNR2	Point End Piston Assembly - Sapphire	6207530040
PST-KNR3	Round End Piston - Sapphire	N / A
PST-KNR4	Round End Piston Assembly - Sapphire	N / A
SE-KNR1	Piston Seal - Black	N / A
SE-KNR2	Seal Kit - Black	6207520540
SE-KNR3	Piston Seal - Clear	N / A
SE-KNR4	Seal Kit - Clear	N / A
PST-KNRBR1	Sapphire Backing Ring	3205341010
CV-KNR1	Check Valve Cartridge	6306415000
KNAUER - 64 Microflow		
PST-KNR5	Piston Assembly - Sapphire	N / A
SE-KNR5	Piston Seal - Grey	N / A
SE-KNR6	Seal Kit	6207520580
PST-KNRBR2	Sapphire Backing Ring	N / A
CV-KNR1	Check Valve Cartridge	6306415000
KNAUER - 64 Preparative		
PST-KNR6	Piston Assembly Point End - Alumina	N / A
PST-KNR7	Piston Assembly Round End - Alumina	N / A
SE-KNR7	Piston Seal - Grey	N / A
SE-KNR8	Seal Kit	N / A
PST-KNRBR3	Ceramic Backing Ring	N / A
CV-KNR1	Check Valve Cartridge	6306415000
KNAUER - MicroStar, MiniStar, Maxi Star, K120, K500, K501, K1000, K1001		
PST-KNR8	Piston Assembly - Sapphire	A1410-1
PST-KNR9	Piston Assembly - Zirconia	A1410
SE-KNR1	Piston Seal - Black	N / A
SE-KNR3	Piston Seal - Clear	N / A
SE-KNR9	Secondary Seal - Black	N/A
SE-KNR10	Piston Seal Kit - Black (w/o Sec. Seals)	A1414
SE-KNR11	Piston Seal Kit - Black (c/w Sec. Seals)	A1514
SE-KNR12	Piston Seal Kit - Clear (c/w Sec. Seals)	A1515
CV-KNR1	Check Valve Cartridge	A0684
KONTRON - 320 M, 325 M		
PST-KON1	Piston Assembly - Sapphire	96-90015
SE-KON1	Piston Seal - Black (Standard)	35-99005
SE-KON2	Piston Seal - Black (Improved)	35-99010
SE-KON3	Piston Seal - Yellow	35-99017
SE-KON4	Piston Seal - Clear	35-99011
CV-KON1	Inlet Check Valve Assembly (Isocratic)	92-90007
CV-KON2	Inlet Check Valve Assembly (Gradient)	92-90016
CV-KON3	Outlet Check Valve Assembly	92-0008
CV-KON4	Check Valve Cartridge	N / A
KONTRON - 410, 414		
PST-KON2	Piston Assembly - Sapphire	N / A
SE-KON5	Piston Seal - Black	35-30011
CV-KON5	Inlet Check Valve Assembly	92-00626
CV-KON6	Outlet Check Valve Assembly	87-00462
KONTRON - 420 L		
PST-KON3	Piston Assembly - Sapphire	92-00834
SE-KON6	Primary Piston Seal - Black	35-99004
SE-KON7	Secondary Piston Seal - Clear	35-30018
SE-KON8	P.T.F.E. Gasket	87-00699
CV-KON7	Inlet Check Valve Assembly	92-90003
CV-KON8	Outlet Check Valve Assembly	92-90005
KONTRON - 420 MDA		
PST-KON4	Piston Assembly - Sapphire	92-90084
SE-KON1	Piston Seal - Black (Standard)	35-99005
SE-KON2	Piston Seal - Black (Improved)	35-99010
SE-KON3	Piston Seal - Yellow	35-99017
SE-KON4	Piston Seal - Clear	35-99011
CV-KON1	Inlet Check Valve Assembly (Isocratic)	92-90007

Cat.No.	Make & Model / Part Description	OEM Reference
CV-KON2	Inlet Check Valve Assembly (Gradient)	92-90016
CV-KON3	Outlet Check Valve Assembly	92-90008
CV-KON4	Check Valve Cartridge	N / A
KONTRON - 420 M		
PST-KON5	Piston Assembly - Sapphire	92-00833
SE-KON9	Primary Piston Seal - Black	35-99002
SE-KON10	Primary Piston Seal - Clear	35-30024
SE-KON11	Primary Piston Seal - Red	35-99014
SE-KON12	Secondary Piston Seal - Clear	35-30016
SE-KON13	P.T.F.E. Gasket	87-00692
CV-KON1	Inlet Check Valve Assembly (Isocratic)	92-90007
CV-KON2	Inlet Check Valve Assembly (Gradient)	92-90016
CV-KON3	Outlet Check Valve Assembly	92-90008
CV-KON9	Dummy Check Valve Assembly	N / A
CV-KON4	Check Valve Cartridge	N / A
KONTRON - 420 S		
PST-KON6	Piston Assembly - Sapphire	92-00832
SE-KON14	Primary Piston Seal - Black	35-99003
SE-KON15	Secondary Piston Seal - Clear	35-30020
SE-KON13	P.T.F.E. Gasket	87-00692
CV-KON1	Inlet Check Valve Assembly (Isocratic)	92-90007
CV-KON2	Inlet Check Valve Assembly (Gradient)	92-90016
CV-KON3	Outlet Check Valve Assembly	92-90008
CV-KON9	Dummy Check Valve Assembly	N / A
CV-KON4	Check Valve Cartridge	N / A
KONTRON - 420 SDA		
PST-KON7	Piston Assembly - Sapphire	92-90083
SE-KON16	Primary Piston Seal - Black	35-99008
SE-KON17	Primary Piston seal - Yellow	35-99027
SE-KON13	P.T.F.E. Gasket	87-00692
CV-KON1	Inlet Check Valve Assembly (Isocratic)	92-90007
CV-KON2	Inlet Check Valve Assembly (Gradient)	92-90016
CV-KON3	Outlet Check Valve Assembly	92-90008
CV-KON9	Dummy Check Valve Assembly	N / A
CV-KON4	Check Valve Cartridge	N / A
KONTRON - 500, 522, 525		
PST-KON8	Piston Assembly - Zirconia	67-90030
SE-KON18	Piston Seal - Yellow	35-99025
SE-KON19	Piston Seal - Black	35-99025C
CV-KON10	Inlet Check Valve Assembly	92-90277
CV-KON3	Outlet Check Valve Assembly	92-90278
CV-KON4	Check Valve Cartridge	N / A
KRATOS - SF 400 Analytical		
PST-KRA1	Piston Assembly - Sapphire	1400-1970
SE-KRA1	Piston Seal - Black	7200-0088
SE-KRA2	Piston Seal - Yellow	N / A
SE-KRABR1	Seal Backing Ring	N / A
SE-KRA3	Piston Seal Kit	N / A
SE-KRA4	Wash Seal	N / A
CV-KRA1	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 7200-0060
CV-KRA2	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 7200-0062
CV-KRA3	Inlet / Outlet Check Valve Cartridge	N / A
KRATOS - SF 480 Preparative		
PST-KRA2	Piston Assembly - Zirconia	N / A
SE-KRA5	Piston Seal - Black	N / A
CV-KRA4	Inlet Check Valve Assembly	7200-0060
CV-KRA5	Outlet Check Valve Assembly	7200-0062
CV-KRA6	Inlet / Outlet Check Valve Repair Kit	N / A
LDC - any refer to THERMO SEPARATIONS - same		
LKB PHARMACIA - ALPHA PLUS refer to ACS - 300		

Cat.No.	Make & Model / Part Description	OEM Reference
LKB PHARMACIA - 2150, 2248, 2249, 2250 Analytical		
PST-LKB1	Piston Assembly - Sapphire (2150 only)	80-1035-52
PST-LKB2	Piston Assembly - Sapphire (2248, 2249, 2250)	80-1045-57
SE-LKB1	Piston Seal - Black	80-1037-39
SE-LKBRR1	Seal Backing Ring	80-1035-46
CV-LKB1	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 80-1035-19
CV-LKB2	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 80-1035-20
CV-LKB3	Inlet / Outlet Check Valve Cartridge	N / A
MSI - CONCEPT SERIES I to IV 10ml/min		
PST-MSI1	Piston Assembly - Sapphire	121486
SE-MSI1	Piston Seal - Yellow	N / A
SE-MSI2	Piston Seal - Black	N / A
SE-MSI3	Wash Seal - Yellow	N / A
CV-MSI1	Inlet / Outlet Check Valve Cartridge	N / A
MERCK HITACHI - 655, L6000, L6200		
PST-MER1	Piston Assembly - Sapphire	635-1021
SE-MER1	Piston Seal - Black	655-1080
SE-MER2	Piston Seal - Clear	N / A
CV-MER1	Inlet Check Valve Assembly - Cartridge Type	Equiv. To 885-1330
CV-MER2	Outlet Check Valve Assembly - Cartridge Type	Equiv. To 885-1331
CV-MER3	Inlet / Outlet Check Valve Cartridge	N / A
MERCK HITACHI - L2100, L2130, L7100, L7110		
PST-MER1	Piston Assembly - Sapphire	635-1021
SE-MER1	Piston Seal - Black	655-1080
SE-MER2	Piston Seal - Clear	N / A
CV-MER4	Inlet Check Valve Assembly - Cartridge Type	Equiv. To 810-1004
CV-MER5	Outlet Check Valve Assembly - Cartridge Type	Equiv. To 810-1005
CV-MER6	Inlet / Outlet Check Valve Cartridge	N / A
METROHM - any refer to BISCHOFF - 2200		
MICROMERITICS - 760 refer to BISCHOFF - 2200		
MILTON ROY - MINIPUMP refer to LDC - CONSTAMETRIC		
PERKIN ELMER - SERIES 1, 2, 3, 4, 10		
SE-PER1	H. P. Piston Seal - Black	0990-7328
SE-PER2	H. P. Piston Seal - Yellow	0990-7324
SE-PER3	H. P. Seal Backing Ring	0254-2076
SE-PER4	L. P. Piston Seal - Black	0990-7330
SE-PER5	L. P. Piston Seal - Yellow	0990-7339
PERKIN ELMER - SERIES 200, 400, 410, 620, Model 250, Integral 4000		
PST-PER1	H. P. Piston Assembly - Sapphire	N2600124
PST-PER2	L. P. Piston Assembly - Sapphire	N2600104
SE-PER1	H. P. Piston Seal - Black	09907328
SE-PER2	H. P. Piston Seal - Yellow	09907324
SE-PER3	H. P. Seal Backing Ring	02542076
OR-PER1	P. T. F. E. O Ring	09902128
SE-PER4	L. P. Piston Seal - Black	09907330
SE-PER5	L. P. Piston Seal - Yellow	09907339
SE-PERGB1	L.P. Seal Guide Bush	02542313
CV-PER1	Inlet / Intermediate Check Valve Assembly	02540177
CV-PER2	Outlet Check Valve Assembly	02540197
CV-PER3	Inlet / Intermediate / Outlet Check Valve Washer	02542150
CV-PER4	Inlet / Intermediate / Outlet Check Valve Cartridge	N / A
PERKIN ELMER - SERIES 200 Micro		
PST-PER3	H.P. Piston Assembly - Sapphire	N2910511
PST-PER4	L.P. Piston Assembly - Sapphire	N2910512
SE-PER6	H. P. Piston Seal - Yellow c/w Back Up	09923367
OR-PER1	P. T. F. E. O Ring	09902128
SE-PER7	L. P. Piston Seal - Black	09923366
SE-PER8	L. P. Piston Seal - Yellow	N / A
SE-PER9	L. P. Seal Guide Bush	N2915006
CV-PER1	Inlet / Intermediate Check Valve Assembly	02540177
CV-PER2	Outlet Check Valve Assembly	02540197

Cat.No.	Make & Model / Part Description	OEM Reference
CV-PER3	Inlet / Intermediate / Outlet Check Valve Washer	02452150
CV-PER4	Inlet / Intermediate / Outlet Check Valve Cartridge	N / A
	PERKIN ELMER - SERIES 604 refer to LDC - CONSTAMETRIC	
	PHARMACIA - P3500 refer to DIONEX - 300C	
	PHILLIPS SCIENTIFIC - any refer to UNICAM - same	
	PYE (UNICAM) - XPD refer to BECKMAN - 100	
	PYE (UNICAM) - XPS refer to BECKMAN - 110	
	RANK HILGER - AAA refer to LDC - CONSTAMETRIC	
	RAININ - 200 & 300 refer to GILSON - 30X	
	SEVERN ANALYTICAL - any refer to DIONEX - 300C	
	SHIMADZU - LC-3, LC-4, LC-5	
PST-SHZ1	Piston Assembly - Sapphire	228-08355-91
SE-SHZ1	Piston Seal - Black (was Grey)	228-35145 (was 228-11999)
SE-SHZ2	Piston Seal - Yellow	228-21975
CV-SHZ1	Inlet Check Valve Assembly	228-12353-91
CV-SHZ2	Outlet Check Valve Assembly	228-09054
CV-SHZ3	Inlet / Outlet Check Valve Rebuild Kit	228-11200-91
CV-SHZ4	Inlet / Outlet Check Valve Cartridge	N / A
	SHIMADZU - LC-6, LC-6A	
PST-SHZ2	Piston Assembly - Sapphire	228-12904-93
SE-SHZ1	Piston Seal - Black (was Grey)	228-35145 (was 228-11999)
SE-SHZ2	Piston Seal - Yellow	228-21975
CV-SHZ1	Inlet Check Valve Assembly	228-12353-91
CV-SHZ2	Outlet Check Valve Assembly	228-09054-93
CV-SHZ3	Inlet / Outlet Check Valve Rebuild Kit	22811200-91
CV-SHZ4	Inlet / Outlet Check Valve Cartridge	N / A
BA-SHZ1	Bearing Assembly	228-14167-11
	SHIMADZU - LC-8	
SE-SHZ3	Piston Seal - Grey	228-18092
SE-SHZ4	Secondary Seal - Black	228-18306
CV-SHZ2	Outlet Check Valve Assembly	228-09054-93
CV-SHZ3	Outlet Check Valve Rebuild Kit	228-11200-91
CV-SHZ4	Outlet Check Valve Cartridge	N / A
	SHIMADZU - LC-9, LC-10AD, LC-600	
PST-SHZ3	Piston Assembly - Sapphire	228-18523-91
SE-SHZ5	Piston Seal - Black (was Grey)	228-35146 (was 228-18745)
SE-SHZ6	Piston Seal - Yellow	228-32628-91
CV-SHZ5	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 228-18522-91
CV-SHZ6	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 228-18522-92
CV-SHZ7	Inlet / Outlet Check Valve Cartridge	N / A
	SHIMADZU - LC-10 ADVP, LCMS 2010A, Prominence LC-20AD/B	
PST-SHZ4	Piston Assembly - Zirconia	228-35601-91
SE-SHZ5	Piston Seal - Black	228-35146
SE-SHZ6	Piston Seal - Yellow	228-32628-91
CV-SHZ8	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 228-39093-92
CV-SHZ9	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 228-34976-91
CV-SHZ10	Inlet / Outlet Check Valve Cartridge	N / A
	SHIMADZU - LC-10 AS	
PST-SHZ5	Piston Assembly - Sapphire	228-17019-00
SE-SHZ1	Piston Seal - Black	228-35145-00
SE-SHZ2	Piston Seal - Yellow	228-21975
SE-SHZ7	Wash Seal - White	228-28499
CV-SHZ1	Inlet Check Valve Assembly	228-12353-91
CV-SHZ2	Outlet Check Valve Assembly	228-090540-93
CV-SHZ3	Inlet / Outlet Check Valve Rebuild Kit	228-11200-91
CV-SHZ4	Inlet / Outlet Check Valve Cartridge	N / A

Cat.No.	Make & Model / Part Description	OEM Reference
SHIMADZU - LC-10 AT		
SE-SHZ1	Piston Seal - Black	338-35145-00
SE-SHZ2	Piston Seal - Yellow	228-21975-00
SE-SHZ7	Wash Seal - White	228-28499-00
CV-SHZ11	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 288-32166-91
CV-SHZ4	Inlet Check Valve Cartridge	N / A
CV-SHZ9	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 288-32531-92
CV-SHZ10	Outlet Check Valve Cartridge	N / A
SHIMADZU - LC-10 ATPV, Prominence LC-20AT		
PST-SHZ6	Piston Assembly - Zirconia	228-35009-92
PST-SHZ7	Piston Assembly - Sapphire	228-35009-91
SE-SHZ1	Piston Seal - Black	228-35145-00
SE-SHZ2	Piston Seal - Yellow	228-21975-00
SE-SHZ7	Wash Seal - White	228-28499-00
CV-SHZ11	Inlet Check Valve Assembly - Cartridge Type	Equiv. to 228-32166-91
CV-SHZ4	Inlet Check Valve Cartridge	N / A
CV-SHZ9	Outlet Check Valve Assembly - Cartridge Type	Equiv. to 228-34976-91
CV-SHZ10	Outlet Check Valve Cartridge	N / A
SHIMADZU - SIL-10ADVP		
PST-SHZ8	Piston Assembly - Sapphire	228-35010-91
SE-SHZ1	Piston Seal - Black	228-35145
SPECTRA-PHYSICS - any refer to THERMO SEPARATIONS - same		
SUNCHROM - SUNFLOW 100 refer to KNAUER - K120		
THERMO-SEPARATIONS - 8100, 8700		
PST-TSP1	Piston Assembly - Sapphire	A 1593-010
SE-TSP1	Piston Seal - Yellow	N / A
SE-TSP2	Piston Seal - Black	N / A
CV-TSP1	Inlet Check Valve Assembly	A 3485-010
CV-TSP2	Outlet Check Valve Assembly	A 3480-010
THERMO SEPARATIONS - 8800, 8810, ISOCHROM, P-SERIES		
PST-TSP2	Piston Assembly - Sapphire	A 3102-010
PST-TSPGB1	Piston Guide Bush	A 5018-010
PST-TSPRS1	Piston Return Spring	A 4448-010
SE-TSP3	Piston Seal - Yellow	A 2962-010
SE-TSP4	Piston Seal - Black	A 2962-020
SE-TSP5	Piston Seal - Clear (New)	A 2962-050
SE-TSP6	Piston Seal - Clear (Old)	N / A
SE-TSP7	Seal Assembly Tool	A 3216-010
SE-TSP8	Piston Wash Seal - White	A 2963-010
SE-TSP9	Seal Housing Washer - Old	A 2973-010
SE-TSP10	Seal Housing Washer - New	A 4848-010
CV-TSP1	Inlet Check Valve Assembly	A 3495-010
CV-TSP2	Outlet Check Valve Assembly	A 3490-010
CV-TSP3	Transducer Check Valve Assembly	A 3990-010
CV-TSP4	Inlet / Outlet / Transducer Check Valve Rebuild Kit	A 3995-010
CV-TSP5	Inlet / Outlet Check Valve Cartridge	N / A
CV-TSP6	Inlet Reservoir Filter Assembly	A 4929-010
CV-TSP7	Back Flush Kit	A 4114-010
CV-TSP8	Purge Valve Stem	A 4412-010
THERMO SEPARATIONS - 8800, 8810, ISOCHROM, P-SERIES INERT BIO VERSION		
PST-TSP2	Piston Assembly - Sapphire	A 3102-010
PST-TSPGB1	Piston Guide Bush	A 5018-010
SE-TSP11	Piston Seal - Black	N / A
SE-TSP12	Piston Seal - Yellow	A 3207-010
SE-TSP13	Piston Seal - Clear (New)	N / A
SE-TSP7	Seal Assembly Tool	A 3216-010
SE-TSP8	Piston Wash Seal - White	A 2963-010
SE-TSP9	Seal Housing Washer - Old	A 2973-010
SE-TSP10	Seal Housing Washer - New	A 4848-010
CV-TSP9	Inlet Check Valve Assembly	A 3893-010
CV-TSP10	Transducer Check Valve Assembly	A 3894-010
CV-TSP8	Purge Valve Stem	A 4412-010
CV-TSP7	Back Flush Kit	A 4114-010

Cat.No.	Make & Model / Part Description	OEM Reference
CV-TSP11	Inlet Reservoir Filter Assembly	A 4258-010
PST-TSPRS1	Piston Return Spring	A 4448-010
THERMO SEPARATIONS - CONSTAMETRIC I, II, III, 3000, 4000		
PST-TSP3	Piston Assembly - Sapphire	8013060000
SE-TSP14	Piston Seal - Black	2061290010
SE-TSP15	Piston Seal - Yellow	2062340000
SE-TSP16	Standard Seal Kit - Black	8015980000
SE-TSP17	Standard Seal Kit - Yellow	8018920010
SE-TSP18	Improved Seal Kit - Black	N / A
SE-TSP19	Improved Seal Kit - Yellow	N / A
SE-TSP20	Crosshead Spring	9160282000
CV-TSP12	Inlet Check Valve Assembly Cartridge Type	9009470010
CV-TSP13	Outlet Check Valve Assembly Cartridge Type	9009470020
CV-TSP14	Inlet / Outlet Check Valve Cartridge	9009470000
CV-TSP15	Inlet Nut and Ferrule	1960066976
CV-TSP16	Outlet Nut and Ferrule	1960066975
CV-TSP17	Inlet / Outlet Check Valve Cartridge 4100 Only	9009460000
THERMO SEPARATIONS - Surveyor LC		
PST-TSP4	Piston Assembly - Zirconia	00950-30020Z
PST-TSP5	Piston Assembly - Sapphire	00950-30020S
SE-TSP21	Piston Seal - Black	00950-30004B
SE-TSP22	Piston Seal - Yellow	00950-30004Y
SE-TSP23	Wash Seal White	00950-30025
CV-TSP17	Inlet Check Valve Assembly - Cartridge Type	00950-30026
CV-TSP18	Inlet Check Valve Cartridge	N / A
CV-TSP19	Outlet Check Valve Assembly - Cartridge Type	00950-30021
CV-TSP20	Outlet Check Valve Cartridge	N / A
THERMO SEPARATIONS - Surveyor MS		
PST-TSP6	Piston Assembly - Zirconia	00201-11324
SE-TSP24	Piston Seal - Black	00107-18110
SE-TSP25	Piston Seal - Clear	00107-18111
SE-TSP26	Wash Seal - Clear	00107-18114
CV-TSP21	Inlet / Outlet Check Valve Cartridge	00110-05110
UNICAM - Crystal 200		
PST-UNI1	Piston Assembly - Sapphire	4013-229-56381
SE-UNI1	Primary Piston Seal - Black	4013-229-64181
SE-UNI2	Secondary Piston Seal - White	4013-229-56401
SE-UNI3	PTFE Film Sealing Washer	4013-229-57221
CV-UNI1	Inlet Check Valve Cartridge	4013-229-56411
CV-UNI2	Outlet Check Valve Cartridge	4013-229-56411
CV-UNI3	Ball Check Valve	4013-229-56421
CV-UNI4	Ceramic Ball Guide	4013-229-56451
PFR-UNI1	Polymer Flange Ring	4013-229-56431
PFR-UNI2	Polymer Retaining Ring	4013-229-56461
PST-UNI2	Sapphire Pump Head Liner	4013-229-56471
PST-UNIBR1	Backing Ring	4013-229-55691
PST-UNI4	Ceramic Bush - Wash Assembly	4013-229-56472
UNICAM - 4010, 4012, 4015		
PST-UNI2	Piston Assembly - Sapphire	4013-172-01041
SE-UNI5	Piston Seal - Black	2613-080-90803
UNICAM - 4100		
PST-UNI3	Piston Assembly - Sapphire	4013-172-49661
SE-UNI3	Piston Seal - Black	4013-228-36541
SE-UNI4	Piston Seal - Clear	4013-228-36661
CV-UNI5	Inlet / Outlet Check Valve Cartridge	4013-227-9999
CV-UNI6	Check Valve Washer	4013-229-81891
VARIAN - LC-920 refer to Merck-Hitachi - L2130		
VARIAN - 2010, 2210, 2510		
PST-VAR1	Piston Assembly - Sapphire	00-997261-08
SE-VAR1	Piston Seal - Yellow	00-997261-37
SE-VAR2	Piston Seal - Black	N / A
CV-VAR1	Inlet Check Valve Assembly	00-997261-09

Cat.No.	Make & Model / Part Description	OEM Reference
CV-VAR2 CV-VAR3	Outlet Check Valve Assembly Inlet / Outlet Check Valve Cartridge	00-997261-10 N / A
	VARIAN - 5000, 5500, 5600	
PST-VAR2 SE-VAR3 CV-VAR4 SE-VAR4	Piston Assembly - Sapphire Piston Seal - Black Inlet Valve O Ring Dynamic Seal - Black	03-905337-00 27-459632-00 27-402107-00 03-905065-00
	VARIAN - 9000, 9010, 9012, 230, Star	
PST-VAR3 SE-VAR5 SE-VAR6 CV-VAR5 CV-VAR6	Piston Assembly - Sapphire Piston Seal - Yellow Piston Seal - Black Active Inlet Check Valve Assembly Outlet Check Valve Assembly	03-919102-90 03-919101-00 N / A 03-919089-00 03-919465-00
	WATERS - M45, M501 (100ul head)	
PST-WAT1 SE-WAT1 SE-WAT2 CV-WAT1 CV-WAT2 CV-WAT3 CV-WAT4 CV-WAT5 CV-WAT6 CV-WAT7	Piston Assembly - Sapphire Piston Seal - Black Piston Seal - Clear Inlet Check Valve Assembly Inlet Check Valve Repair Kit Outlet Check Valve Assembly Ball & Seat Type Outlet Check Valve Repair Kit for 25216 Outlet Check Valve Assembly Actuator Type Outlet Check Valve Repair Kit for 25028 Performance Plus Sapphire Check Valve Cartridge	WAT026524 WAT026613 WAT022934 WAT025214 WAT060495 WAT025216 WAT026014 WAT025028 WAT026016 700000254
	Avonchem Alternate Check Valves :	
CV-WAT8 CV-WAT9 CV-WAT10 CV-WAT11	Inlet / Outlet Check Valve Body Inlet / Outlet Check Valve Cartridge Inlet Check Valve Adapter Outlet Check Valve Adapter	N / A N / A N / A N / A
	WATERS - M510, M590, M600, M610, M6000 (100ul head)	
PST-WAT2 PST-WAT3 SE-WAT1 SE-WAT2 CV-WAT1 CV-WAT2 CV-WAT5 CV-WAT6 CV-WAT3 CV-WAT4 CV-WAT7	P.M. Kit for 600 Pump Piston Assembly - Sapphire Piston Seal - Black Piston Seal - Clear Inlet Check Valve Assembly Inlet Check Valve Repair Kit Outlet Check Valve Assembly Actuator Type Outlet Check Valve Repair Kit for 25028 Outlet Check Valve Assembly Ball & Seat Type Outlet Check Valve Repair Kit for 25216 Performance Plus Sapphire Check Valve Cartridge	WAT052675 WAT025656 WAT026613 WAT022934 WAT025214 WAT060495 WAT025028 WAT026016 WAT025216 WAT026014 700000254
	Avonchem Alternate Check Valves :	
CV-WAT8 CV-WAT9 CV-WAT10 CV-WAT11	Inlet / Outlet Check Valve Body Inlet / Outlet Check Valve Cartridge Inlet Check Valve Adapter Outlet Check Valve Adapter	N / A N / A N / A N / A
	WATERS - M510EF, M590EF, M600EF, M610EF, M6000EF (225ul head)	
PST-WAT4 SE-WAT3 SE-WAT4 CV-WAT12 CV-WAT13 CV-WAT14 CV-WAT15	Piston Assembly - Sapphire Piston Seal - Grey Piston Seal - Yellow Inlet Check Valve Assembly Inlet Check Valve Repair Kit Outlet Check Valve Assembly Outlet Check Valve Repair Kit	WAT060304 WAT026644 700002282 WAT060307 WAT088223 WAT033326 WAT088223
	WATERS - M515 (100ul head)	
PST-WAT5 PST-WAT6 SE-WAT1 SE-WAT2 CV-WAT1 CV-WAT2 CV-WAT3	P.M. Kit for 515 Pump Piston Assembly - Sapphire Piston Seal - Black Piston Seal - Clear Inlet Check Valve Assembly Inlet Check Valve Repair Kit Outlet Check Valve Assembly	WAT052587 WAT207069 WAT026613 WAT022934 WAT025214 WAT060495 WAT025216

Cat.No.	Make & Model / Part Description	OEM Reference
CV-WAT4	Outlet Check Valve Repair Kit	WAT026014
CV-WAT7	Performance Plus Sapphire Check Valve Cartridge	70000254
Avonchem Alternate Check Valves :		
CV-WAT8	Inlet / Outlet Check Valve Body	N / A
CV-WAT9	Inlet / Outlet Check Valve Cartridge	N / A
CV-WAT10	Inlet Check Valve Adapter	N / A
CV-WAT11	Outlet Check Valve Adapter	N / A
WATERS - 616, 625, 626 (50ul head)		
PST-WAT7	P.M. Kit for 616 Pump	WAT052672
PST-WAT8	Plunger Kit and Rod	WAT031788
SE-WAT5	Seal Kit	WAT031790
CV-WAT16	Inlet / Outlet Check Valve Cartridge - 616	WAT024960
CV-WAT17	Inlet / Outlet Check Valve Cartridge - 625 & 626	WAT024120
WATERS - 1525 Micro (50ul head)		
PST-WAT9	Piston Assembly - Sapphire	WAT030547
SE-WAT6	Seal Kit	WAT034515
CV-WAT18	Performance Plus C/V Cartridge	700002275
WATERS - 1525 Analytical (100ul head)		
PST-WAT10	Piston Assembly - Sapphire	WAS207069
SE-WAT2	Piston Seal - Clear	WAT022934
SE-WAT1	Piston Seal - Black	WAT026613
CV-WAT19	Performance Plus Sapphire Check Valve Cartridge	700000254
WATERS - 1525 EF (225ul head)		
PST-WAT4	Piston Assembly - Sapphire	WAT060304
SE-WAT3	Piston Seal - Grey	WAT026644
SE-WAT4	Piston Seal - Yellow	700002282
CV-WAT12	Inlet Check Valve Assembly	WAT060307
CV-WAT3	Outlet Check Valve Assembly	WAT025216
WATERS - Alliance 2690, 2695, 2790, 2795		
PST-WAT11	P.M. Kit for Alliance 2690 +	WAT270944
PST-WAT12	Piston Assembly - Sapphire	WAT270959
SE-WAT7	Piston Seal - Yellow	(WAT270488 = pk of 2) WAT270789
SE-WAT8	Piston Seal - Black	(WAT270938 = pk of 2) WAT270790
SE-WAT9	Piston Seal - Clear	(WAT271066 = pk of 2) N / A
SE-WAT10	Seal Wash - Plunger Seal - Yellow	(700001326 = pk of 2) WAT270160
SE-WAT11	Seal Wash - Face Seal - White	(WAT271018 = pk of 2) WAT271051
SE-WAT12	Face Seal - Spring loaded - Yellow	(WAT271017 = pk of 2) WAT270163
SE-WAT13	Face Seal - Spring less - Beige	(WAT270939 = pk of 4) Alternative to WAT270163
SE-WAT14	Wash Tube Kit Seal - Clear	(WAT270939 = pk of 4) WAT270668
CV-WAT20	Check Valve Cartridge	(WAT270940 = pk of 4) Equiv. To WAT270669 (WAT270941 = pk of 2)
WATERS - Miscellaneous		
SR-WAT1	Solvent Reservoir Filter 10um	WAT025531
SE-WAT15	HPMV V1 + V2 Needle Seal - Yellow	WAT045454



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