



Simply Quality

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## HPLC PUMP SPARES

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YOUR **GLOBAL SCIENCE** PARTNER

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### Introduction

**Greyhound Chromatography & Allied Chemicals** was established in 1981 and is today a leading manufacturer and distributor of chromatography consumables, reference standards and chemicals to laboratories around the world. Working with clients directly from our offices in the UK or through our network of authorised distributors, you can be sure of finding products of the finest quality at highly competitive prices with prompt delivery times, all of which has made 'Greyhound' a leading global source of GC and LC products to the clinical, educational, pharmaceutical, environmental and industrial sectors.

Greyhound offers over **1 million products** making us the first choice when sourcing chromatography and chemical products. Our customer focussed sales team can arrange shipments which meet with our clients specific requirements either as a single shipment or a regular call-off arrangement which ensures your products arrive the day before you need them so that work flow is never interrupted.

As an **ISO 9000:2015** accredited company the Greyhound team prides itself on the quality of its products and the service it provides to our clients. Our quality procedures ensure our supply lines are continuously monitored so only the best service and support provided.

We are privileged to supply many of the worlds largest companies and international organisations as well as the smallest independent laboratories each of which benefit from our individual customer support and technical assistance tailored to their specific requirements.

It is our goal to provide each of our clients with the finest products, backed by an unrivalled level of customer service and support .

### Greyhound Q-Range™ HPLC Pump Spares

Whether you require a replacement check valve, seal, piston or other spare part, Greyhound offers an extensive range to fit all the leading brands of HPLC pumps. Every part is subject to rigorous inspection and quality control procedures to ensure that the parts you receive provide maximum performance and a long working life.

**Greyhound Q-Range™ HPLC Pump Spares** are manufactured to the highest specifications, matching the Original HPLC Pump Manufacturers (OEM) specifications, giving you peace of mind that when replacing the parts in your pump, your system will be up and running at maximum efficiency in no time and at a significant cost saving of up to 70% or more.

By purchasing **Greyhound Q-Range™ HPLC Pump Spares** you can save not only on the cost of the replacement part(s) but by carrying out the routine maintenance yourself, you can also avoid the cost of calling on an HPLC pump engineer to fix a leaking seal or piston. We do recommend, however, that all pumps undergo a scheduled maintenance every 1 or 2 years to ensure regulatory standards are met.

Many laboratories use a range of different pump models in their laboratory, by using **Greyhound Q-Range™ HPLC Pump Spares** you can purchase all your parts from one **single source** along with your chromatography consumables and chemical requirements saving you even more time and money.

**Special contract / call-off rates** are available for all our products, please call or email our sales department (0151 649 4001, sales@greyhoundchrom.com) to discuss our extensive product range and how Greyhound can assist you to make considerable financial savings.

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## Tech Tips

### When should I change key pump parts?

#### SAPPHIRE PLUNGERS

Replacement of is often indicated by a leak at the pump head, The sapphire plunger should be inspected with a magnifier whenever the head is disassembled to replace the plunger seals. If any scratches, a worn area or a flat area are observed, the plunger should be replaced.

#### PISTON SEALS

Replacement is usually carried out during routing maintenance, however more frequent replacement may be necessary if high salt buffer concentrations are being used or if the plungers are scratched or worn. Seals may also need to be replaced if the system fails a leak test.

#### PLUNGER SEALS

Other than routine maintenance, seals may require changing if high salt buffer concentrations are being used of if the plungers are scratched or worn. Seals may also need to be replaced if the system fails a leak test.

## ORDERING INFORMATION

Orders can be placed by -  
Post, Phone, Email or Online

Tel: (+44) 0 151 649 4000

Fax: (+44) 0 151 649 4001

E: [info@greyhoundchrom.com](mailto:info@greyhoundchrom.com)

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and Allied Chemicals**  
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[www.greyhoundchrom.com](http://www.greyhoundchrom.com)

### ACS - 300, 400, 500 Series

Product	OEM Reference	Part #
Piston Assembly - Sapphire	1 / 22148	24-100000
Piston Seal - Black	1 / 22626	24-100001
Check Valve Cartridge	1 / 22229	24-100002
Check Valve Body	N / A	24-100003

### AGILENT - 1050, 1090, 1100, 1200

Product	OEM Reference	Part #
1050, 1100 & 1200 Piston Assembly - Sapphire	5063-6586	24-100010
1090 Piston Assembly - Sapphire	3080-0672	24-100011
1290 Piston Assembly - Ceramic 100ul	5067-5678	24-100012
Piston Seal - Black All Models	5063-6589 (pk/2)	24-100013
Piston Seal - Yellow All Models	0905-1420	24-100014
Wash Seal - Black - 1050, 1100 & 1200	0905-1175	24-100015
Wash Seal - Yellow - 1050, 1100 & 1200	0905-1718	24-100016
Metering Seal - Yellow - 1260	0905-1717	24-100017
PTFE Purge Valve Frit (pk/5)	01018-22707	24-100018
Inlet / Outlet Check Valve Cartridge 1090	79835-67101	24-100019

### BECKMAN - 100

Product	OEM Reference	Part #
Piston Assembly - Sapphire	100-07	24-100020
Piston Seal - Black	887138	24-100021
Piston Guide Assembly	243045	24-100022
Inlet Check Valve Assembly	243038	24-100023
Outlet Check Valve Assembly	243040	24-100024
<b>Q-Range™ Alternate Check Valves</b>		
Inlet Check Valve Cartridge	240620	24-100025
Outlet Check Valve Cartridge	240621	24-100026
Outlet Check Valve Cartridge Filter	240619	24-100027

**BECKMAN - 110**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	243053	24-100030
Piston Seal - Black	887138	24-100021
Piston Guide Assembly	243045	24-100022
Inlet Check Valve Assembly	243054	24-100031
Outlet Check Valve Assembly	243040	24-100024
<b>Q-Range™ Alternate Check Valves</b>		
Inlet Check Valve Cartridge	240620	24-100025
Outlet Check Valve Cartridge	240621	24-100026
Outlet Check Valve Cartridge Filter	240619	24-100027

**BECKMAN - 112**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	243053	24-100030
Piston Seal - Black	236797	24-100040
Inlet Check Valve Assembly	243038	24-100023
Outlet Check Valve Assembly	243040	24-100024

**Q-Range™ Alternate Check Valves**

Inlet Check Valve Cartridges	240620	24-100025
Outlet Check Valve Cartridges	240621	24-100026
Outlet Check Valve Cartridge Filter	240619	24-100027

**BECKMAN - 114, 116, 118, 125, 126, 127, 128**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	240714	24-100050
Piston Seal - Black	237162	24-100051
Piston Seal - Clear	N / A	24-100052
Secondary Seal - Grey	238627	24-100053
Inlet Check Valve Assembly	243038	24-100023
Outlet Check Valve Assembly	243040	24-100024

**Q-Range™ Alternate Check Valves**

Inlet Check Valve Cartridge	240620	24-100025
Outlet Check Valve Cartridge	240621	24-100026
Outlet Check Valve Cartridge Filter	240619	24-100027

**BIO-RAD - 1330, 1350, 2700**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	125-0304	24-100060
Piston Seal - Black	125-0302	24-100061
Piston Seal - Yellow	N / A	24-100062
Inlet Check Valve Assembly	125-0306	24-100063
Outlet Check Valve Assembly	125-0307	24-100064

**BISCHOFF - 2200, 2250, 2500 Analytical**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	2200-0210	24-100070
Primary Piston Seal - Black	2200-0211	24-100071
Primary Piston Seal - Clear	N / A	24-100072
Sapphire Backing Ring	N / A	24-100073
Secondary Piston Seal - Black	N / A	24-100074
Inlet Check Valve Cartridge	2200-0220	24-100075
Inlet Check Valve Housing	2200-0240	24-100076
Outlet Check Valve Cartridge	2200-0230	24-100077
Outlet Check Valve Housing	2200-0240	24-100076

**BISCHOFF - 2200, 2250, 2500 Microflow**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	2200-1210	24-100080
Piston Seal - Black	2200-0112	24-100081
Piston Seal - Yellow	N / A	24-100082
Sapphire Backing Ring	N / A	24-100083
Inlet Check Valve Cartridge	2200-0120	24-100084
Inlet Check Valve Housing	2200-0240	24-100076
Outlet Check Valve Cartridge	2200-0130	24-100085
Outlet Check Valve Housing	2200-0240	24-100076

**DIONEX - AGP, DQP, DRP, DXP, GPM-1, GPM-2, 2000, 4000**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	036904	24-100090
Piston Seal with Spring	040859	24-100091
Piston Seal with O-Ring	035686	24-100092
Back Up Seal	036901	24-100093
Inlet Check Valve Assembly	038273	24-100094
Outlet Check Valve Assembly - Old	038272	24-100095
Outlet Check Valve Assembly - New	042761	24-100096

**DIONEX - 300C, 300CP, M480, P580, P680 Analytical, Ultimate 3000**

Product	OEM Reference	Part #
Piston Assembly - Sapphire (not for Ultimate)	2267.0032	24-100100
Piston Seal - Black	6040.0306	24-100101
Piston Seal - Yellow	2266.0304	24-100102
Piston Seal - Inert	6266.0305	24-100103
Seal Backing Ring	5005.2004	24-100104
Piston Seal Kit - Yellow (1 seal + 1 backing ring)	6025.201	24-100105
Piston Seal Kit - Yellow (2 seals + 1 backing ring)	6025.2010A	24-100106
Piston Seal Kit - Yellow (2 seals )	6040.0304	24-100107
Piston Seal Kit - Black (1 seal + 1 backing ring)	6025.2011	24-100108
Piston Seal Kit - Black (2 seals + 1 backing ring)	6025.2011A	24-100109
Ring Seal - PTFE	2266.0081	24-100110
Wash Seal	2266.0304B	24-100111
Flush Seal Kit	6040.2208	24-100112
Inlet Check Valve Assembly - Cartridge Type	5020.21	24-100113
Outlet Check Valve Assembly - Cartridge Type	5020.22	24-100114
Inlet / Outlet Check Valve Cartridge	5020.23	24-100115
Inlet / Outlet Check Valve Cartridge - Ceramic	6041.2301	24-100116

**DIONEX - 300C, 300CP, M480, P580, P680 Preparative**

Product	OEM Reference	Part #
Piston Assembly - Alumina	2267.0802	24-100120
Piston Seal - Black	2266.0804	24-100121
Inlet Check Valve Assembly	5005.32	24-100122
Outlet Check Valve Assembly	5005.31	24-100123
Inlet / Outlet Check Valve Repair Kit	N / A	24-100124

**DIONEX - ICS 3000 & ICS 5000**

Product	OEM Reference	Part #
Piston Seal - Yellow (O-Ring energiser)	064946	24-100130
Wash Seal - Yellow (No energiser)	063382	24-100131
O Ring for Wash Chamber - Black	040695	24-100132
O Ring for Wash Chamber - White	062080	24-100133

**DIONEX - Miscellaneous**

Product	OEM Reference	Part #
Autosampler Needle Port Seal - Ultimate	6820.0038	24-100140
Autosampler Needle Port Seal - GINA	5805.1334	24-100141

## ESA - 580

Product	OEM Reference	Part #
Piston Assembly - Sapphire	70-1166	24-100150
Piston Seal - Black	70-3602	24-100151
Inlet Check Valve Assembly - Cartridge Type	70-0734	24-100152
Outlet Check Valve Assembly - Cartridge Type	70-0735	24-100153
Inlet / Outlet Check Valve Cartridge	N / A	24-100154

## ESA - 582

Product	OEM Reference	Part #
Piston Assembly - Zirconia	70-4086	24-100160
Piston Seal - Black	70-3602	24-100151
Inlet Check Valve Assembly - Cartridge Type	70-4056	24-100161
Outlet Check Valve Assembly - Cartridge Type	70-4057	24-100153
Inlet / Outlet Check Valve Cartridge	N / A	24-100154

## FLUX - Rheos 2000 & 4000

Product	OEM Reference	Part #
Piston Assembly - Zirconia	10004	24-100170
Piston Seal - Black	90001	24-100171
Piston Seal - Clear	N / A	24-100172
Secondary Seal - Clear	90002	24-100173
Check Valve Cartridge	N / A	24-100174

## GBC - LC 1110

Product	OEM Reference	Part #
Piston Assembly - Sapphire	251-0010	24-100180
Piston Seal - Black	100-3101	24-100181
Piston Seal - Yellow	N / A	24-100182
Check Valve Cartridge	N / A	24-100183

## GBC - LC 1120

Product	OEM Reference	Part #
Piston Assembly - Sapphire	951.00-15	24-100190
Piston Seal - Black c/w Back Up	200-0006	24-100191
Piston Seal - Yellow c/w Back Up	N / A	24-100192
Check Valve Cartridge	N / A	24-100193



**GBC - LC 1150**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	951.00-15	24-100190
Piston Seal - Black c/w Back Up	200-0006	24-100191
Piston Seal - Yellow c/w Back Up	N / A	24-100192
Check Valve Cartridge	200-0007	24-100203

**GE - AKTA Explorer, Avant, Prime, Pilot, Frac, P960 etc.**

Product	OEM Reference	Part #
Piston Assembly - 10	N / A	24-100210
Piston Kit - 10	18-1120-75	24-100211
Piston Assembly - 100	N / A	24-100212
Piston Kit - 100	18-1112-13	24-100213
Piston Seal - 10 & 25 - Black	N / A	24-100214
Piston Seal - 100 & 150 - Black	N / A	24-100215
Piston Seal Kit - 10 (2+2+2)	18-1120-77	24-100216
Piston Seal Kit - 10 (4+4+4)	N / A	24-100217
Piston Seal Kit - 25 (2+2+2+2) No Housing	28-9526-42	24-100218
Piston Seal Kit - 100 (2+2)	18-1112-04	24-100219
Piston Seal Kit - 100 (4+4)	18-1113-12	24-100220
Piston Seal Kit - 150 (2+2+2+2) No Housing	28-9793-73	24-100221
Purge Valve O Ring Kit (pk/10)	19-0036-01	24-100222
P 960 O Ring Kit - Old	28-9398-62	24-100223
P 960 O Ring Kit - New	28-9394-97	24-100224
Seal Kit - PILOT 400	18-1169-91	24-100225
Piston Seal - Prime Plus - Old	N / A	24-100226
Piston Seal - Prime Plus - New	N / A	24-100227
Piston Seal - FRAC 950	N / A	24-100228
Sealing Kit - 20 FPLC	18-1032-16	24-100229
Check Valve Cartridge Kit	N / A	24-100230

### GILSON - 30X SC & WSC 5ml Head

Product	OEM Reference	Part #
SC Piston Assembly - Sapphire	E 50008 / 3650008	24-100240
Piston Seal - Black	400112 / 5463088063	24-100241
Piston Seal - Yellow	400120 / 5463088863	24-100242
Backing Ring for Seals	E 50014	24-100243
Inlet Check Valve Body	E 50131	24-100244
Inlet Check Valve Cartridge	E 50082	24-100245
Outlet Check Valve Body	E 50121	24-100246
Outlet Check Valve Cartridge	E 50085	24-100247
Outlet Check Valve Washer Blank	E 45329	24-100248
Outlet Check Valve Filter	E 45333	24-100249
Inlet Check Valve Cartridge	3650170	24-100250
Outlet Check Valve Cartridge	3650180	24-100251

### GILSON - 30X SC & WSC 10ml Head

Product	OEM Reference	Part #
SC Piston Assembly - Sapphire	E 50009 / 3650009	24-100260
WSC Piston Assembly - Sapphire	E 50010 / 3650010	24-100261
Piston Seal - Black	400111 / 5463125095	24-100262
Piston Seal - Yellow	400121 / 5463125895	24-100263
Piston Seal - Yellow (WTI only)	400125 / 5463125896	24-100264
Backing Ring for Seals	E 50015	24-100265
Inlet Check Valve Body	E 50131	24-100244
Inlet Check Valve Cartridge	E 50082	24-100245
Outlet Check Valve Body	E 50121	24-100246
Outlet Check Valve Cartridge	E 50085	24-100247
Outlet Check Valve Washer Blank	E 45329	24-100248
Outlet Check Valve Filter	E 45333	24-100249
Inlet Check Valve Cartridge	3650170	24-100250
Outlet Check Valve Cartridge	3650180	24-100251

**GILSON - 30X SC & WSC 25ml Head**

Product	OEM Reference	Part #
SC Piston Assembly - Sapphire	E 50011 / 3650011	24-100280
Piston Seal - Black	400117 / 5463050025	24-100281
Piston Seal - Yellow	400122 / 5463050825	24-100282
Backing Ring for Seals	E 50016	24-100283
Inlet Check Valve Body	E 50131	24-100244
Inlet Check Valve Cartridge	E 50082	24-100245
Outlet Check Valve Body	E 50121	24-100246
Outlet Check Valve Cartridge	E 50085	24-100247
Outlet Check Valve Washer Blank	E 45329	24-100248
Outlet Check Valve Filter	E 45333	24-100249
Inlet Check Valve Cartridge	3650170	24-100250
Outlet Check Valve Cartridge	3650180	24-100251

**GILSON - 30X SC & WSC 50ml Head**

Product	OEM Reference	Part #
Piston Seal - Black	400116 / 5463070020	24-100300
Piston Seal - Yellow	400123 / 5463070820	24-100301

**GILSON - 30X SC & WSC 100ml Head**

Product	OEM Reference	Part #
Piston Seal - Black	400103 / 5463394062	24-100310
Piston Seal - Yellow	400124 / 5463394862	24-100311

**GILSON - 32X H1 & H2**

Product	OEM Reference	Part #
H1 Piston Seal - Black	38013222	24-100320
H1 Piston Seal - Yellow	38013220	24-100321
H2 Piston Seal - Black	38013224	24-100322
H2 Piston Seal - Yellow	38013223	24-100323
H1 Inlet Check Valve Cartridge	3650170	24-100250
H1 & H2 Outlet Check Valve Cartridge	3650180	24-100251

**GILSON - 33X H3**

Product	OEM Reference	Part #
Piston Seal - Yellow	38013261	24-100330

**GILSON - 33X H3**

Product	OEM Reference	Part #
Titanium Mixer Kit	N / A	24-100340

## JASCO - PU-880, PU-980, PU-1580, BIP 1

Product	OEM Reference	Part #
Piston Assembly - Sapphire	107 JA	24-100350
Piston Seal - Yellow	150 JA	24-100351
Piston Seal - Black	148 JA	24-100352
Inlet Check Valve Assembly (Isocratic)	404 JA	24-100353
Inlet Check Valve Assembly (Gradient)	406 JA	24-100354
Outlet Check Valve Assembly	405 JA	24-100355
Check Valve Cartridge	N / A	24-100356

## JASCO - PU-1580 Semi-Microflow

Product	OEM Reference	Part #
Piston Assembly - Zirconia	2305-0013A	24-100360
Piston Seal - Grey	6778-H126A	24-100361
Piston Seal - Yellow	N / A	24-100362
Inlet Check Valve Assembly - Cartridge Type	6778-H123A	24-100363
Outlet Check Valve Assembly - Cartridge Type	6778-H124A	24-100364
Inlet / Outlet Check Valve Cartridge	N / A	24-100365

## JASCO - PU-2088 Prep.

Product	OEM Reference	Part #
Inlet Check Valve Cartridge	N / A	24-100370
Outlet Check Valve Cartridge	N / A	24-100371

## JASCO - X-LC PU-3080

Product	OEM Reference	Part #
Piston Seal - Yellow	6390-U010A	24-100380

## KNAUER - 64 Analytical

Product	OEM Reference	Part #
Point End Piston - Sapphire	N / A	24-100390
Point End Piston Assembly - Sapphire	6207530040	24-100391
Round End Piston - Sapphire	N / A	24-100392
Round End Piston Assembly - Sapphire	N / A	24-100393
Piston Seal - Black	N / A	24-100394
Seal Kit - Black	6207520540	24-100395
Piston Seal - Clear	N / A	24-100396
Seal Kit - Clear	N / A	24-100397
Sapphire Backing Ring	3205341010	24-100398
Check Valve Cartridge	6306415000	24-100399

**KNAUER - 64 Microflow**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	N / A	24-100400
Piston Seal - Grey	N / A	24-100401
Seal Kit	6207520580	24-100402
Sapphire Backing Ring	N / A	24-100083
Check Valve Cartridge	6306415000	24-100399

**KNAUER - 64 Preparative**

Product	OEM Reference	Part #
Piston Assembly Point End - Alumina	N / A	24-100410
Piston Assembly Round End - Alumina	N / A	24-100411
Piston Seal - Grey	N / A	24-100412
Seal Kit	N / A	24-100413
Ceramic Backing Ring	N / A	24-100414
Check Valve Cartridge	6306415000	24-100399

**KNAUER - MicroStar, MiniStar, Maxi Star, K120, K500, K501, K1000, K1001**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	A1410-1	24-100420
Piston Assembly - Zirconia	A1410	24-100421
Piston Seal - Black	N / A	24-100394
Piston Seal - Clear	N / A	24-100396
Secondary Seal - Black	N / A	24-100424
Secondary Seal - Clear	N / A	24-100425
Piston Seal Kit - Black (w/o Sec. Seals)	A1414	24-100426
Piston Seal Kit - Black (c/w Sec. Seals)	A1514	24-100427
Piston Seal Kit - Clear (c/w Sec. Seals)	A1515	24-100428
Check Valve Gasket Set	A0683	24-100429
Check Valve Cartridge	A0684 (SS) / A0631 (Ti)	24-100430

### KNAUER - Smartline, Platin, Blue Shadow, Azura

Product	OEM Reference	Part #
Piston Assembly - Zirconia	P2711-1V1	24-100440
Piston Assembly - Sapphire	A54150	24-100441
Piston Seal - Black	N / A	24-100394
Piston Seal - Clear	N / A	24-100396
Secondary Seal - Black	N / A	24-100424
Secondary Seal - Clear	N / A	24-100425
Piston Seal Kit - Black (w/o Sec. Seals)	A1414	24-100426
Piston Seal Kit - Black (c/w Sec. Seals)	A1514	24-100427
Piston Seal Kit - Clear (c/w Sec. Seals)	A1515	24-100428
Check Valve Gasket Set	A0683	24-100429
Check Valve Cartridge	A0684 (SS) / A0631 (Ti)	24-100430

### KNAUER - Smartline + (50ml head)

Product	OEM Reference	Part #
Piston Seal - Black	M1300	24-100460
Secondary Seal - Black	M1299	24-100461
Seal Kit (2 x P seals + 2 O-Rings)	A0768	24-100462
Seal Kit (4 x P seals + 2 O-Rings)	A0763	24-100463
Seal Kit (2 x P seals + 2 x S seals + 2 O-Rings)	A0981	24-100464

### KONTRON - 320 M, 325 M

Product	OEM Reference	Part #
Piston Assembly - Sapphire	96-90015	24-100470
Piston Seal - Black (Standard)	35-99005	24-100471
Piston Seal - Black (Improved)	35-99010	24-100472
Piston Seal - Yellow	35-99017	24-100473
Piston Seal - Clear	35-99011	24-100474
Inlet Check Valve Assembly (Isocratic)	92-90007	24-100475
Inlet Check Valve Assembly (Gradient)	92-90016	24-100476
Outlet Check Valve Assembly	92-0008	24-100477
Check Valve Cartridge	N / A	24-100478

### KONTRON - 410, 414

Product	OEM Reference	Part #
Piston Assembly - Sapphire	N / A	24-100480
Piston Seal - Black	35-30011	24-100481
Inlet Check Valve Assembly	92-00626	24-100482
Outlet Check Valve Assembly	87-00462	24-100483

**KONTRON - 420 L**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	92-00834	24-100490
Primary Piston Seal - Black	35-99004	24-100491
Secondary Piston Seal - Clear	35-30018	24-100492
PTFE Gasket	87-00699	24-100493
Inlet Check Valve Assembly	92-90003	24-100494
Outlet Check Valve Assembly	92-90005	24-100495

**KONTRON - 420 MDA**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	92-90084	24-100500
Piston Seal - Black (Standard)	35-99005	24-100471
Piston Seal - Black (Improved)	35-99010	24-100472
Piston Seal - Yellow	35-99017	24-100473
Piston Seal - Clear	35-99011	24-100474
Inlet Check Valve Assembly (Isocratic)	92-90007	24-100475
Inlet Check Valve Assembly (Gradient)	92-90016	24-100476
Outlet Check Valve Assembly	92-90008	24-100477
Check Valve Cartridge	N / A	24-100478

**KONTRON - 420 M**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	92-00833	24-100510
Primary Piston Seal - Black	35-99002	24-100511
Primary Piston Seal - Clear	35-30024	24-100512
Primary Piston Seal - Red	35-99014	24-100513
Secondary Piston Seal - Clear	35-30016	24-100514
PTFE Gasket	87-00692	24-100515
Inlet Check Valve Assembly (Isocratic)	92-90007	24-100475
Inlet Check Valve Assembly (Gradient)	92-90016	24-100476
Outlet Check Valve Assembly	92-90008	24-100477
Dummy Check Valve Assembly	N / A	24-100519
Check Valve Cartridge	N / A	24-100478

## KONTRON - 420 S

Product	OEM Reference	Part #
Piston Assembly - Sapphire	92-00832	24-100530
Primary Piston Seal - Black	35-99003	24-100531
Secondary Piston Seal - Clear	35-30020	24-100532
PTFE Gasket	87-00692	24-100515
Inlet Check Valve Assembly (Isocratic)	92-90007	24-100475
Inlet Check Valve Assembly (Gradient)	92-90016	24-100476
Outlet Check Valve Assembly	92-90008	24-100477
Dummy Check Valve Assembly	N / A	24-100519
Check Valve Cartridge	N / A	24-100478

## KONTRON - 420 SDA

Product	OEM Reference	Part #
Piston Assembly - Sapphire	92-90083	24-100540
Primary Piston Seal - Black	35-99008	24-100541
Primary Piston seal - Yellow	35-99027	24-100542
PTFE Gasket	87-00692	24-100515
Inlet Check Valve Assembly (Isocratic)	92-90007	24-100475
Inlet Check Valve Assembly (Gradient)	92-90016	24-100476
Outlet Check Valve Assembly	92-90008	24-100477
Dummy Check Valve Assembly	N / A	24-100519
Check Valve Cartridge	N / A	24-100478

## KONTRON - 500, 522, 525

Product	OEM Reference	Part #
Piston Assembly - Zirconia	67-90030	24-100550
Piston Seal - Yellow	35-99025	24-100551
Piston Seal - Black	35-99025C	24-100552
Inlet Check Valve Assembly	92-90277	24-100553
Outlet Check Valve Assembly	92-90278	24-100477
Check Valve Cartridge	N / A	24-100478



**KRATOS - SF 400 Analytical**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	1400-1970	24-100100
Piston Seal - Black	7200-0088	24-100101
Piston Seal - Yellow	N / A	24-100102
Seal Backing Ring	N / A	24-100104
Piston Seal Kit	N / A	24-100105
Wash Seal	N / A	24-100111
Inlet Check Valve Assembly - Cartridge Type	7200-0060	24-100113
Outlet Check Valve Assembly - Cartridge Type	7200-0062	24-100114
Inlet / Outlet Check Valve Cartridge	N / A	24-100115

**KRATOS - SF 480 Preparative**

Product	OEM Reference	Part #
Piston Assembly - Zirconia	N / A	24-100120
Piston Seal - Black	N / A	24-100121
Inlet Check Valve Assembly	7200-0060	24-100122
Outlet Check Valve Assembly	7200-0062	24-100123
Inlet / Outlet Check Valve Repair Kit	N / A	24-100124

**LKB PHARMACIA - 2150, 2248, 2249, 2250 Analytical**

Product	OEM Reference	Part #
Piston Assembly - Sapphire (2150 only)	80-1035-52	24-100580
Piston Assembly - Sapphire (2248, 2249, 2250)	80-1045-57	24-100581
Piston Seal - Black	80-1037-39	24-100582
Seal Backing Ring	80-1035-46	24-100583
Inlet Check Valve Assembly - Cartridge Type	80-1035-19	24-100584
Outlet Check Valve Assembly - Cartridge Type	80-1035-20	24-100585
Inlet / Outlet Check Valve Cartridge	N / A	24-100586

**MSI - CONCEPT SERIES I to IV 10ml/min**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	121486	24-100590
Piston Seal - Yellow	N / A	24-100591
Piston Seal - Black	N / A	24-100592
Wash Seal - Yellow	N / A	24-100593
Inlet / Outlet Check Valve Cartridge	N / A	24-100594

**MERCK HITACHI - 655, L6000, L6200**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	635-1021	24-100600
Piston Assembly - Ceramic	810-1033	24-100601
Piston Seal - Black	655-1080	24-100602
Piston Seal - Clear	N / A	24-100603
Piston Seal (micro only)	N / A	24-100604
Wash Seal (micro only)	N / A	24-100605
Inlet Check Valve Assembly - Cartridge Type	885-1330	24-100606
Outlet Check Valve Assembly - Cartridge Type	885-1331	24-100607
Inlet / Outlet Check Valve Cartridge	N / A	24-100586

**MERCK HITACHI - L2100, L2130, L7100, L7110**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	635-1021	24-100600
Piston Assembly - Ceramic	810-1033	24-100601
Piston Seal - Black	655-1080	24-100602
Piston Seal - Clear	N / A	24-100603
Piston Seal (micro only)	N / A	24-100604
Wash Seal (micro only)	N / A	24-100605
Inlet Check Valve Assembly - Cartridge Type	810-1004	24-100616
Outlet Check Valve Assembly - Cartridge Type	810-1005	24-100617
Inlet / Outlet Check Valve Cartridge	N / A	24-100618

**METROHM - 800 I.C.**

Product	OEM Reference	Part #
Piston Seal - Yellow	6.2741.020	24-100620

**PERKIN ELMER - SERIES 1, 2, 3, 4, 10**

Product	OEM Reference	Part #
Piston Seal - Black, High Pressure	0990-7328	24-100630
Piston Seal - Yellow, High Pressure	0990-7324	24-100631
Seal Backing Ring, High Pressure	0254-2076	24-100632
Piston Seal - Black, Low Pressure	0990-7330	24-100633
Piston Seal - Yellow, Low Pressure	0990-7339	24-100634

**PERKIN ELMER - SERIES 200, 400, 410, 620, Model 250, Integral 4000**

Product	OEM Reference	Part #
Piston Assembly - Sapphire, High Pressure	N2600124	24-100640
Piston Assembly - Sapphire, Low Pressure	N2600104	24-100641
Piston Seal - Black, High Pressure	9907328	24-100630
Piston Seal - Yellow, High Pressure	9907324	24-100631
Seal Backing Ring, High Pressure	2542076	24-100632
PTFE O-Ring	9902128	24-100645
Piston Seal - Black, Low Pressure	9907330	24-100633
Piston Seal - Yellow, Low Pressure	9907339	24-100634
Seal Guide Bush, Low Pressure	2542313	24-100648
Inlet / Intermediate Check Valve Assembly	2540177	24-100649
Outlet Check Valve Assembly	2540197	24-100650
Inlet / Intermediate / Outlet Check Valve Washer	2542150	24-100651
Inlet / Intermediate / Outlet Check Valve Cartridge	N / A	24-100652

**PERKIN ELMER - SERIES 200 Micro**

Product	OEM Reference	Part #
Piston Assembly - Sapphire, High Pressure	N2910511	24-100660
Piston Assembly - Sapphire, Low Pressure	N2910512	24-100661
Piston Seal - Yellow c/w Back Up, High Pressure	9923367	24-100662
PTFE O-Ring	9902128	24-100645
Piston Seal - Black, Low Pressure	9923366	24-100664
Piston Seal - Yellow, Low Pressure	N / A	24-100665
Seal Guide Bush, Low Pressure	N2915006	24-100666
Inlet / Intermediate Check Valve Assembly	2540177	24-100649
Outlet Check Valve Assembly	2540197	24-100650
Inlet / Intermediate / Outlet Check Valve Washer	2452150	24-100651
Inlet / Intermediate / Outlet Check Valve Cartridge	N / A	24-100652

**SHIMADZU - LC-3, LC-4, LC-5**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	228-08355-91	24-100680
Piston Seal - Black (was Grey)	228-35145 (228-11999)	24-100681
Piston Seal - Yellow	228-21975	24-100682
Inlet Check Valve Assembly	228-12353-91	24-100683
Outlet Check Valve Assembly	228-09054-93	24-100684
Inlet / Outlet Check Valve Rebuild Kit	228-11200-91	24-100685
Inlet / Outlet Check Valve Cartridge	N / A	24-100203

**SHIMADZU - LC-6, LC-6A**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	228-12904-93	24-100690
Piston Seal - Black (was Grey)	228-35145 (228-11999)	24-100681
Piston Seal - Yellow	228-21975	24-100682
Inlet Check Valve Assembly	228-12353-91	24-100683
Outlet Check Valve Assembly	228-09054-93	24-100684
Inlet / Outlet Check Valve Rebuild Kit	228-11200-91	24-100685
Inlet / Outlet Check Valve Cartridge	N / A	24-100203
Bearing Assembly	228-14167-11	24-100697

**SHIMADZU - LC-8**

Product	OEM Reference	Part #
Piston Seal - Grey	228-18092	24-100700
Secondary Seal - Black	228-18306	24-100701
Outlet Check Valve Assembly	228-09054-93	24-100684
Outlet Check Valve Rebuild Kit	228-11200-91	24-100685
Outlet Check Valve Cartridge	N / A	24-100203

**SHIMADZU - LC-9, LC-10AD, LC-600**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	228-18523-91	24-100150
Piston Seal - Black (was Grey)	228-35146 (228-18745)	24-100151
Piston Seal - Yellow	228-32628-91	24-100710
Inlet Check Valve Assembly - Cartridge Type	228-18522-91	24-100152
Outlet Check Valve Assembly - Cartridge Type	228-18522-92	24-100153
Inlet / Outlet Check Valve Cartridge	N / A	24-100154

**SHIMADZU - LC-10 ADVP, LCMS 2010A, Prominence LC-20AD/B**

Product	OEM Reference	Part #
Piston Assembly - Zirconia	228-35601-91	24-100160
Piston Seal - Black	228-35146	24-100151
Piston Seal - Yellow	228-32628-91	24-100710
Inlet Check Valve Assembly - Cartridge Type	228-39093-92	24-100161
Outlet Check Valve Assembly - Cartridge Type	228-34976-91	24-100153
Inlet / Outlet Check Valve Cartridge	N / A	24-100154

**SHIMADZU - LC-10 AS**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	228-17019-00	24-100730
Piston Seal - Black	228-35145-00	24-100681
Piston Seal - Yellow	228-21975	24-100682
Wash Seal - White	228-28499	24-100733
Inlet Check Valve Assembly	228-12353-91	24-100683
Outlet Check Valve Assembly	228-09054-93	24-100684
Inlet / Outlet Check Valve Rebuild Kit	228-11200-91	24-100685
Inlet / Outlet Check Valve Cartridge	N / A	24-100203

**SHIMADZU - LC-10 AT**

Product	OEM Reference	Part #
Piston Seal - Black	228-35145-00	24-100681
Piston Seal - Yellow	228-21975-00	24-100682
Wash Seal - White	228-28499-00	24-100733
Inlet Check Valve Assembly - Cartridge Type	288-32166-91	24-100743
Inlet Check Valve Cartridge	N / A	24-100203
Outlet Check Valve Assembly - Cartridge Type	288-32531-92	24-100153
Outlet Check Valve Cartridge	N / A	24-100154

**SHIMADZU - LC-10 ATVP, Prominence LC-20AT**

Product	OEM Reference	Part #
Piston Assembly - Zirconia	228-35009-92	24-100750
Piston Assembly - Sapphire	228-35009-91	24-100751
Piston Seal - Black	228-35145-00	24-100681
Piston Seal - Yellow	228-21975-00	24-100682
Wash Seal - White	228-28499-00	24-100733
Inlet Check Valve Assembly - Cartridge Type	228-32166-91	24-100743
Inlet Check Valve Cartridge	N / A	24-100203
Outlet Check Valve Assembly - Cartridge Type	228-34976-91	24-100153
Outlet Check Valve Cartridge	N / A	24-100154

**SHIMADZU - SIL-10ADV**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	228-35010-91	24-100760
Piston Seal - Black	228-35145	24-100681

**THERMO-SEPARATIONS - 8100, 8700**

<b>Product</b>	<b>OEM Reference</b>	<b>Part #</b>
Piston Assembly - Sapphire	A 1593-010	24-100770
Piston Seal - Yellow	N / A	24-100771
Piston Seal - Black	N / A	24-100772
Inlet Check Valve Assembly	A 3485-010	24-100773
Outlet Check Valve Assembly	A 3480-010	24-100774

**THERMO SEPARATIONS - 8800, 8810, ISOCHROM, P-SERIES**

<b>Product</b>	<b>OEM Reference</b>	<b>Part #</b>
Piston Assembly - Sapphire	A 3102-010	24-100780
Piston Guide Bush	A 5018-010	24-100781
Piston Return Spring	A 4448-010	24-100782
Piston Seal - Yellow	A 2962-010	24-100783
Piston Seal - Black	A 2962-020	24-100784
Piston Seal - Clear (New)	A 2962-050	24-100785
Piston Seal - Clear (Old)	N / A	24-100786
Seal Assembly Tool	A 3216-010	24-100787
Piston Wash Seal - White	A 2963-010	24-100788
Seal Housing Washer - (Old)	A 2973-010	24-100789
Seal Housing Washer - (New)	A 4848-010	24-100790
Inlet Check Valve Assembly	A 3495-010	24-100791
Outlet Check Valve Assembly	A 3490-010	24-100792
Transducer Check Valve Assembly	A 3990-010	24-100793
Inlet / Outlet / Transducer Check Valve Rebuild Kit	A 3995-010	24-100794
Inlet / Outlet Check Valve Cartridge	N / A	24-100795
Inlet Reservoir Filter Assembly	A 4929-010	24-100796
Back Flush Kit	A 4114-010	24-100797
Purge Valve Stem	A 4412-010	24-100798

**THERMO SEPARATIONS - CONSTAMETRIC I, II, III, 3000, 4000**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	A 3102-010	24-100780
Piston Guide Bush	A 5018-010	24-100781
Piston Seal - Black	N / A	24-100802
Piston Seal - Yellow	A 3207-010	24-100803
Piston Seal - Clear (New)	N / A	24-100804
Seal Assembly Tool	A 3216-010	24-100787
Piston Wash Seal - White	A 2963-010	24-100788
Seal Housing Washer - Old	A 2973-010	24-100789
Seal Housing Washer - New	A 4848-010	24-100790
Inlet Check Valve Assembly	A 3893-010	24-100809
Transducer Check Valve Assembly	A 3894-010	24-100810
Purge Valve Stem	A 4412-010	24-100798
Back Flush Kit	A 4114-010	24-100797
Inlet Reservoir Filter Assembly	A 4258-010	24-100813
Piston Return Spring	A 4448-010	24-100782

**THERMO SEPARATIONS - CONSTAMETRIC I, II, III, 3000, 4000**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	8013060000	24-100820
Piston Seal - Black	2061290010	24-100821
Piston Seal - Yellow	2062340000	24-100822
Standard Seal Kit - Black	8015980000	24-100823
Standard Seal Kit - Yellow	8018920010	24-100824
Improved Seal Kit - Black	N / A	24-100825
Improved Seal Kit - Yellow	N / A	24-100826
Crosshead Spring	9160282000	24-100827
Inlet Check Valve Assembly Cartridge Type	9009470010	24-100828
Outlet Check Valve Assembly Cartridge Type	9009470020	24-100829
Inlet / Outlet Check Valve Cartridge	9009470000	24-100830
Inlet Nut and Ferrule	1960066976	24-100831
Outlet Nut and Ferrule	1960066975	24-100832
Inlet / Outlet Check Valve Cartridge 4100 Only	9009460000	24-100833

**THERMO SEPARATIONS - Surveyor LC**

Product	OEM Reference	Part #
Piston Assembly - Zirconia	00950-30020Z	24-100750
Piston Assembly - Sapphire	00950-30020S	24-100751
Piston Seal - Black	00950-30004B	24-100681
Piston Seal - Yellow	00950-30004Y	24-100682
Wash Seal White	00950-30025	24-100733
Inlet Check Valve Assembly - Cartridge Type	00950-30026	24-100743
Inlet Check Valve Cartridge	N / A	24-100203
Outlet Check Valve Assembly - Cartridge Type	00950-30021	24-100153
Outlet Check Valve Cartridge	N / A	24-100154

**THERMO SEPARATIONS - Surveyor MS**

Product	OEM Reference	Part #
Piston Assembly - Zirconia	00201-11324	24-100170
Piston Seal - Black	00107-18110	24-100171
Piston Seal - Clear	00107-18111	24-100172
Wash Seal - Clear	00107-18114	24-100173
Inlet / Outlet Check Valve Cartridge	00110-05110	24-100174

**UNICAM - Crystal 200**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	4013-229-56381	24-100852
Primary Piston Seal - Black	4013-229-64181	24-100853
Secondary Piston Seal - White	4013-229-56401	24-100854
PTFE Film Sealing Washer	4013-229-57221	24-100855
Inlet Check Valve Cartridge	4013-229-56411	24-100856
Outlet Check Valve Cartridge	4013-229-56411	24-100857
Ball Check Valve	4013-229-56421	24-100858
Ceramic Ball Guide	4013-229-56451	24-100859
Polymer Flange Ring	4013-229-56431	24-100860
Polymer Retaining Ring	4013-229-56461	24-100861
Sapphire Pump Head Liner	4013-229-56471	24-100862
Backing Ring	4013-229-55691	24-100863
Ceramic Bush - Wash Assembly	4013-229-56472	24-100864

**UNICAM - 4010, 4012, 4015**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	4013-172-01041	24-100870
Piston Seal - Black	2613-080-90803	24-100871



**UNICAM - 4100**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	4013-172-49661	24-100880
Piston Seal - Black	4013-228-36541	24-100881
Piston Seal - Clear	4013-228-36661	24-100882
Inlet / Outlet Check Valve Cartridge	4013-227-9999	24-100883
Check Valve Washer	4013-229-81891	24-100884

**VARIAN - 2010, 2210, 2510**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	00-997261-08	24-100350
Piston Seal - Yellow	00-997261-37	24-100891
Piston Seal - Black	N / A	24-100352
Inlet Check Valve Assembly	00-997261-09	24-100893
Outlet Check Valve Assembly	00-997261-10	24-100355
Inlet / Outlet Check Valve Cartridge	N / A	24-100356

**VARIAN - 5000, 5500, 5600**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	03-905337-00	24-100900
Piston Seal - Black	27-459632-00	24-100901
Inlet Valve O-Ring	27-402107-00	24-100902
Dynamic Seal - Black	03-905065-00	24-100903

**VARIAN - 9000, 9010, 9012, 230, Star**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	03-919102-90	24-100910
Piston Seal - Yellow	03-919101-00	24-100911
Piston Seal - Black	N / A	24-100552
Active Inlet Check Valve Assembly	03-919089-00	24-100913
Outlet Check Valve Assembly	03-919465-00	24-100914

**VARIAN - Prostar (5ml head)**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	R007101657	24-100240
Piston Seal - Black	R007101633	24-100241
Piston Seal - Yellow	R007101634	24-100242

### VARIAN - Prostar (10ml head )

Product	OEM Reference	Part #
Piston Assembly - Sapphire	R007101658	24-100260
Piston Seal - Black	R007101636	24-100262
Piston Seal - Yellow	R007101637	24-100263

### VARIAN - Prostar (50ml head )

Product	OEM Reference	Part #
Piston Seal - Yellow	R007101650	24-100940

### VARIAN - SD-1

Product	OEM Reference	Part #
Check Valve Cartridge	N / A	24-100950

### WATERS - M45, M501 (100µl head)

Product	OEM Reference	Part #
Piston Assembly - Sapphire	WAT026524	24-100960
Piston Seal - Black	WAT026613	24-100961
Piston Seal - Clear	WAT022934	24-100962
Inlet Check Valve Assembly	WAT025214	24-100963
Inlet Check Valve Repair Kit	WAT060495	24-100964
Outlet Check Valve Assembly Ball & Seat Type	WAT025216	24-100965
Outlet Check Valve Repair Kit	WAT026014	24-100966
Outlet Check Valve Assembly Actuator Type	WAT025028	24-100967
Outlet Check Valve Repair Kit for 25028	WAT026016	24-100968
Performance Plus Sapphire Check Valve Cartridge	289000144 700000254 (pk/2)	24-100969
Performance Plus Ceramic Check Valve Cartridge	700002399 (pk/2)	24-100970

### Q-Range™ Alternate Check Valves

Inlet / Outlet Check Valve Body	N / A	24-100980
Inlet / Outlet Check Valve Cartridge	N / A	24-100399
Inlet Check Valve Adapter	N / A	24-100982
Outlet Check Valve Adapter	N / A	24-100983

**WATERS - M510, M590, M600, M610, M6000 (100µl head)**

Product	OEM Reference	Part #
Performance Maintenance Kit for 600 Pump	WAT052675	24-101000
Piston Assembly - Sapphire	WAT025656	24-101001
Piston Seal - Black	WAT026613	24-100961
Piston Seal - Clear	WAT022934	24-100962
Inlet Check Valve Assembly	WAT025214	24-100963
Inlet Check Valve Repair Kit	WAT060495	24-100964
Outlet Check Valve Assembly Actuator Type	WAT025028	24-100967
Outlet Check Valve Repair Kit	WAT026016	24-100968
Outlet Check Valve Assembly Ball & Seat Type	WAT025216	24-100965
Outlet Check Valve Repair Kit	WAT026014	24-100966
Performance Plus Sapphire Check Valve Cartridge	289000144 700000254 (pk/2)	24-100969
Performance Plus Ceramic Check Valve Cartridge	700002399 (pk/2)	24-100970

**Q-Range™ Alternative Check Valves**

Inlet / Outlet Check Valve Body	N / A	24-100980
Inlet / Outlet Check Valve Cartridge	N / A	24-100399
Inlet Check Valve Adapter	N / A	24-100982
Outlet Check Valve Adapter	N / A	24-100983

**WATERS - M510EF, M590EF, M600EF, M610EF, M6000EF (225µl head)**

Product	OEM Reference	Part #
Performance Maintenance Kit for 515 Pump	WAT052587	24-101040
Piston Assembly - Sapphire	WAT207069	24-101041
Piston Seal - Black	WAT026613	24-100961
Piston Seal - Clear	WAT022934	24-100962
Inlet Check Valve Assembly	WAT025214	24-100963
Inlet Check Valve Repair Kit	WAT060495	24-100964
Outlet Check Valve Assembly	WAT025216	24-100965
Outlet Check Valve Repair Kit	WAT026014	24-100966
Performance Plus Sapphire C/V Cartridge	289000144 700000254 (pk/2)	24-100969
Performance Plus Ceramic C/V Cartridge	700002399 (pk/2)	24-100970

**Q-Range™ Alternate Check Valves**

Inlet / Outlet Check Valve Body	N / A	24-100980
Inlet / Outlet Check Valve Cartridge	N / A	24-100399
Inlet Check Valve Adapter	N / A	24-100982
Outlet Check Valve Adapter	N / A	24-100983

## WATERS - M515 (100µl head)

Product	OEM Reference	Part #
Performance Maintenance Kit for 515 Pump	WAT052587	24-101040
Piston Assembly - Sapphire	WAT207069	24-101041
Piston Seal - Black	WAT026613	24-100961
Piston Seal - Clear	WAT022934	24-100962
Inlet Check Valve Assembly	WAT025214	24-100963
Inlet Check Valve Repair Kit	WAT060495	24-100964
Outlet Check Valve Assembly	WAT025216	24-100965
Outlet Check Valve Repair Kit	WAT026014	24-100966
Performance Plus Sapphire C/V Cartridge	289000144 700000254 (pk/2)	24-100969
Performance Plus Ceramic C/V Cartridge	700002399 (pk/2)	24-100970

### Q-Range™ Alternate Check Valves

Inlet / Outlet Check Valve Body	N / A	24-100980
Inlet / Outlet Check Valve Cartridge	N / A	24-100399
Inlet Check Valve Adapter	N / A	24-100982
Outlet Check Valve Adapter	N / A	24-100983

## WATERS - 616, 625, 626 (50µl head)

Product	OEM Reference	Part #
Performance Maintenance Kit for 616 Pump	WAT052672	24-101060
Plunger Kit and Rod	WAT031788	24-101061
Seal Kit	WAT031790	24-101062
Inlet / Outlet Check Valve Cartridge - 616	WAT024960	24-101063
Inlet / Outlet Check Valve Cartridge - 625 & 626	WAT024120	24-101064

## WATERS - 1525 Micro (50µl head)

Product	OEM Reference	Part #
Piston Assembly - Sapphire	WAT030547	24-101070
Seal Kit	WAT034515	24-101071
Performance Plus Check Valve Cartridge	700002275	24-101072

## WATERS - 1525 Analytical (100µl head)

Product	OEM Reference	Part #
Piston Assembly - Sapphire	WAS207069	24-101041
Piston Seal - Clear	WAT022934	24-100962
Piston Seal - Black	WAT026613	24-100961
Performance Plus Sapphire Check Valve Cartridge	289000144 700000254 (pk/2)	24-100969
Performance Plus Ceramic Check Valve Cartridge	700002399 (pk/2)	24-100970

**WATERS - 1525 EF (225µl head)**

Product	OEM Reference	Part #
Piston Assembly - Sapphire	WAT060304	24-101030
Piston Seal - Grey	WAT026644	24-101031
Piston Seal - Yellow	700002282	24-101032
Inlet Check Valve Assembly	WAT060307	24-101033
Outlet Check Valve Assembly	WAT025216	24-100965

**WATERS - Acquity**

Product	OEM Reference	Part #
Head Plunger Seal	700002599 (pk/2)	24-101100
Wash Housing Seal	700002598 (pk/2)	24-101101

**WATERS - Alliance 2690, 2695, 2790, 2795**

Product	OEM Reference	Part #
Performance Maintenance Kit for Alliance 2690 +	WAT270944	24-101110
Piston Assembly - Sapphire	WAT270959 WAT270488 (pk/2)	24-101111
Piston Seal - Yellow	WAT270789 WAT270938 (pk/2)	24-101112
Piston Seal - Black	WAT270790 WAT271066 (pk/2)	24-101113
Piston Seal - Clear	700001326 (pk/2)	24-101114
Seal Wash - Plunger Seal - Yellow	WAT270160 WAT271018 (pk/2)	24-101115
Seal Wash - Face Seal - White	WAT271051 WAT271017 (pk/2)	24-101116
Face Seal - Spring loaded - Yellow	WAT270163 WAT270939 (pk/4)	24-101117
Face Seal - Spring less - Beige	WAT270163 WAT270939 (pk/4)	24-101118
Wash Tube Kit Seal - Clear	WAT270668 WAT270940 (pk/4)	24-101119
Check Valve Cartridge	WAT270669 WAT270941 (pk/2)	24-101120
Performance Plus Sapphire Check Valve Cartridge	289000144 700000254 (pk/2)	24-100969
Performance Plus Ceramic Check Valve Cartridge	700002399 (pk/2)	24-100970

**WATERS - Miscellaneous**

Product	OEM Reference	Part #
Solvent Reservoir Filter 10um	WAT025531	24-101130
HPMV V1 + V2 Needle Seal - Yellow	WAT045454 (pk/2)	24-101131

## NOTES

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## Q-Range HPLC Pump Spares

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