



Replacement Parts Manual

Series 0

MP	1
SP/FT/DP	2

Series 1

AF	3
AN	4
MI	5
MP	6
SP/FT/DP	7

Series 4

CS	8
MI	9
MP	10
SI	11

Series 5

CS/SJ/FC/FJ/DC	12
SD/SK/FD/FK/DD	13
SE/SL/FE/FL/DE	14
SI/SA/FI/FA/DI	15
SP/SG/FT/DP	16
SS/SH/FS/FH/DS	17

Substituting Materials in Repair Kits	18
--	----

Series 8 & 9

SI//FI/DI	19
CS/FC/DC	20

This document developed and published by PBM, Inc. Copyright © 2000 PBM, Inc. All Rights Reserved.

To request additional copies, please contact:

PBM, Inc.

Inside Sales & Marketing Department
1070 Sandy Hill Road
Irwin, PA 15642

Phone: 800.967.4PBM or 724.863.0550

Fax: 724.864.9255

Series

0

MP

Valve Size	Repair Kit*	Replacement Parts				
		Stem	Seat	Packing	End Gasket	Side Gasket
½"	MPRTC0--1	SPHLE005	SPRTC008	SPRTE009	SPRTE013	SPRTD013
¾"	MPRTD0--1	SPHLE005	SPRTC008	SPRTE009	SPRTE013	SPRTD013
1"	MPRTE0--1	MPHLE005	MPRTE008	SPRTH009	MPRTE013	MPRTE014
1¼"	MPRTE0--1	MPHLE005	MPRTE008	SPRTH009	MPRTE013	MPRTE014
1½"	MPRTG0--1	MPHLG005	MPRTG008	MPRTG009	MPRTG013	MPRTG014
2"	MPRTH0--1	MPHLG005	MPRTH008	MPRTG009	MPRTH013	MPRTH014
3"	MPRTK0--1	SPHLK005	MPRTK008	SPRTK009A-	MPRTK013	MPRTK014
4"	MPRTL0--1	MPHLL005	MPRTL008	MPRTL009	MPRTL013	MPRTL014

Valve Size	Angle Port Ball	Bottom Entry Angle Port Ball	Bottom Entry Double Angle Port Ball	Double Angle Port Ball	T-Port	Bottom Entry T-Port Ball	Bottom Entry Double T-Port Ball
½"	MPH-D002A-	NA	NA	MPH-D002D-	MPHLD002T-	NA	NA
¾"	MPH-D002A-	NA	NA	MPH-D002D-	MPHLD002T-	NA	NA
1"	MPHLE002A-	MPHLE002AB	MPHLE002DB	MPH-E002D-	MPHLE002T-	MPHLE002TB	MPHLE002DT
1¼"	MPHLE002A-	MPHLE002AB	MPHLE002DB	MPH-E002D-	MPHLE002T-	MPHLE002TB	MPHLE002DT
1½"	MPHLG002A-	MPHLG002AB	MPHLG002DB	MPH-G002D-	MPHLG002T-	MPHLG002TB	MPHLG002DT
2"	MPHLH002A-	MPHLH002AB	MPHLH002DB	MPH-H002D-	MPHLH002T-	MPHLH002TB	MPHLH002DT
3"	MPHLK002A-	MPHLK002AB	MPHLK002DB	MPH-K002D-	MPHLK002T-	MPHLK002TB	MPHLK002DT
4"	MPHLL002A-	MPHLL002AB	MPHLL002DB	MPH-L002D-	MPHLL002T-	MPHLL002TB	MPHLL002DT

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

Series

0

SP/FT/DP

Valve Size	Repair Kit*	Replacement Parts								
		Ball	DP Angle Ball**	Stem	Seat	Packing	Stem SupPort	Gasket	Body O-Ring	Cavity Filler Kit***
½"	SPRTC0--1	SPHLC002	DPH-D002A-	SPHLC005	SPRTC008	SPRTC009	NA	SPRTC013	NA	SPRTC1--B--3
¾"	SPRTD0--1	SPHLD002	DPH-D002A-	SPHLC005	SPRTD008	SPRTC009	NA	SPRTD013	NA	SPRTD1--B--3
1"	SPRTE0--1	SPHLE002	DPHLE002A-	SPHLE005	SPRTE008	SPRTE009	NA	SPRTE013	NA	SPRTE1--B--3
1¼"	SPRTF0--1	SPHLF002	DPHLF002A-	SPHLF005	SPRTF008	SPRTF009	NA	SPRTF013	NA	SPRRT1--B--3
1½"	SPRTG0--1	SPHLG002	DPHLG002A-	SPHLH005	SPRTG008	SPRTH009	NA	SPRTG013	NA	SPRTG1--B--3
2"	SPRTH0--1	SPHLH002	DPHLH002A-	SPHLH005	SPRTH008	SPRTH009	NA	SPRTH013	NA	SPRTH1--B--3
2½"	SPRTJ0--1	SPHLJ002	NA	SPHLJ005	SPRTJ008	SPRTJ009	NA	SPRTJ013	NA	SPRTJ1--B--3
3"	SPRTK0--1	SPHLK002	DPHLK002A-	SPHLK005	SPRTK008	SPRTK009A-	NA	SPRTK013	NA	SPRTK1--B--3
4"	SPRTL0--1	SPHLL002	DPHLL002A-	SPHLK005	SPRTL008	SPRTK009A-	NA	SPRTL013	NA	SPRTL1--B--3
6"	SPRTM0--1	SPHLM002	DPHLM002A-	SPHLM005	SPRTM008	SPRTM009	SPRTM018	SPRTM013	ORVI--12---2372	SPRTM1--B--3
8"	SPRTN0--1	SPHLN002	NA	SPHLM005	SPRTN008	SPRTM009	SPRTM018	SPRTN013	ORVI--12---2378	SPRTN1--B--3

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

** For a T-Port DP Series ball, replace A- with T-. For bottom entry angle Port, replace A- with AB. For bottom entry double angle Port, replace A- with DB.

*** For DP series cavity fillers, change SP to DP and fill in flow pattern using the second set of dashes (for example: DPRTC1--B103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Series

1

AF

Valve Size	Repair Kit*	Replacement Parts						
		Ball	Stem	Seat	Packing	Gasket	Body O-Ring	Cavity Filler Kit**
1"	AFRTE1--A--1	ASHLE102	ASHLE105	SPRTE008	SPRTE109	SPRTE013	NA	AFRTE1--B--3
1½"	AFRTG1--A--1	ASH-G102	ASHLH105	SPRTG008	SPRTH109	SPRTG013	NA	AFRTG1--B--3
2"	AFRTH1--A--1	ASH-H102	ASHLH105	SPRTH008	SPRTH109	SPRTH013	NA	AFRTH1--B--3
3"	AFRTK1--A--1	ASH-K102	ASHLK105	SPRTH008	SPRTH109	SPRTH013	NA	AFRTH1--B--3
4"	AFRTL1--A--1	ASH-L102	ASHLK105	SPRTL008	SPRTH109	SPRTL013	NA	AFRTL1--B--3
6"	AFRTM1--A--1	ASHLM102	ASHLM105	SPRTM008	SPRTM109	SPRTM013	ORVI--12---2372	AFRTM1--B--3

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

** Cavity filler kits include two cavity fillers and one gasket.

Series

1

AN

Valve Size	Repair Kit*	Replacement Parts						
		Ball	Stem	Seat	Packing	Gasket	Body Seal O-Ring	Cavity Filler Kit**
½"	ANRTC1--A--1	SPH-C102	SPHLC105	ANRTC008	SPRTC109	ANRTC013	ORVI--12--2026	ANRTC1--B--3
¾"	ANRTD1--A--1	SPH-D102	SPHLC105	ANRTD008	SPRTC109	ANRTD013	ORVI--12--2029	ANRTD1--B--3
1"	ANRTE1--A--1	SPH-E102	ANHLE105	ANRTE008	ANRTE109	ANRTE013	ORVI--12--2031	ANRTE1--B--3
1½"	ANRTG1--A--1	SPH-G102	SPHLH105	ANRTG008	SPRTH109	ANRTG013	ORVI--12--2145	ANRTG1--B--3
2"	ANRTH1--A--1	SPH-H102	SPHLH105	ANRTH008	SPRTH109	ANRTH013	ORVI--12--2152	ANRTH1--B--3
3"	ANRTK1--A--1	SPH-K402	SPHLK105	ANRTK008	SPRTK109	ANRTK013	ORVI--12--2246	ANRTK1--B--3
4"	ANRTL1--A--1	ANHLL102	ANHLL105	ANRTL008	ANRTL109	ANRTL013	ORVI--12--2262	ANRTL1--B--3
6"	ANRTM1--A--1	ANHLM102	SPHLM105	SPRTN008	SPRTM109	SPRTN013	ORVI--12--2377	ANRTM1--B--3

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

** Cavity filler kits include two cavity fillers, one gasket, and one O-ring.

Series

1

MI

Valve Size	Repair Kit*	Replacement Parts						
		Stem	Seat	Packing	End Gasket	Side Gasket	Large O-Ring	Small O-Ring
½"	MPVTC1--C??1	MPHLC105	MPVTC108	ANVTE109	MPVTC113	MPVTC114	ORVI--12---2131	ORVI--12---2125
¾"	MPVTD1--C??1	MPHLC105	MPVTD108	ANVTE109	MPVTC113	MPVTC114	ORVI--12---2131	ORVI--12---2125
1"	MPVTE1--C??1	MPHLE105	MPVTE008	SPVTH109	MPVTE013	MPVTE014	NA	NA
1½"	MPVTG1--C??1	MPHLG105	MPVTG008	SPVTK109	MPVTG013	MPVTG014	NA	NA
2"	MPVTH1--C??1	MPHLG105	MPVTH008	SPVTK109	MPVTH013	MPVTH014	NA	NA
3"	MPVTK1--C??1	MPHLK105	MPVTK008	SPVTK109	MPVTK013	MPVTK014	NA	NA
4"	MPVTL1--C??1	MPHLL105	MPVTL008	MPVTL109	MPVTL013	MPVTL014	NA	NA

Valve Size	Angle Port Ball	Bottom Entry Angle Port Ball	Bottom Entry Double Angle Port Ball	Double Angle Port Ball	T-Port	Bottom Entry T-Port Ball	Bottom Entry Double T-Port Ball
½"	MPH-C102A-	MPH-C102AB	MPHLC102DB	MPHLC102D-	MPH-C102T-	MPH-C102TB	MPH-C102DT
¾"	MPH-D102A-	MPH-D102AB	MPH-D102DB	MPH-D102D-	MPH-D102T-	MPH-D102TB	MPH-D102DT
1"	MPH-E102A-	MPHLE102AB	MPH-E102DB	MPHLE102D-	MPHLE102T-	MPHLE102TB	MPHLE102DT
1¼"	MPH-E102A-	MPHLE102AB	MPH-E102DB	MPHLE102D-	MPHLE102T-	MPHLE102TB	MPHLE102DT
1½"	MPH-G102A-	MPHLG102AB	MPH-G102DB	MIHLG102D-	MPH-G102T-	MPHLG102TB	MPH-G102DT
2"	MPH-H102A-	MPHLH102AB	MPHLH102DB	MPHLH102D-	MPHLH102T-	MPHLH102TB	MPH-H102DT
3"	MPHLK102A-	MPHLK102AB	MPHLK102DB	MPH-K102D-	MPHLK102T-	MPHLK102TB	MPHLK102DT
4"	MPH-L102A-	MPHLL102AB	MPHLL102DB	MPH-L102D-	MPHLL102T-	MPHLL102TB	MPHLL102DT

* Standard repair kits and replacement Parts are VTFE. To order a repair kit with other material options, please turn to page 18.

?? Replace with the appropriate flow pattern.

Series

1

MP

Valve Size	Repair Kit*	Replacement Parts						
		Stem	Seat	Packing	End Gasket	Side Gasket	Large O-Ring	Small O-Ring
½"	MPRTC1--A??1	MPHLC105	MPRTC108	ANRTE109	MPRTC113	MPRTC114	ORVI--12---2131	ORVI--12---2125
¾"	MPRTD1--A??1	MPHLC105	MPRTD108	ANRTE109	MPRTC113	MPRTC114	ORVI--12---2131	ORVI--12---2125
1"	MPRTE1--A??1	MPHLE105	MPRTE008	SPRTH109	MPRTE013	MPRTE014	NA	NA
1¼"	MPRTE1--A??1	MPHLE105	MPRTE008	SPRTH109	MPRTE013	MPRTE014	NA	NA
1½"	MPRTG1--A??1	MPHLG105	MPRTG008	SPRTK109	MPRTG013	MPRTG014	NA	NA
2"	MPRTH1--A??1	MPHLG105	MPRTH008	SPRTK109	MPRTH013	MPRTH014	NA	NA
3"	MPRTK1--A??1	MPHLK105	MPRTK008	SPRTK109	MPRTK013	MPRTK014	NA	NA
4"	MPRTL1--A??1	MPHLL105	MPRTL008	MPRTL109	MPRTL013	MPRTL014	NA	NA

Valve Size	Angle Port Ball	Bottom Entry Angle Port Ball	Bottom Entry Double Angle Port Ball	Double Angle Port Ball	T-Port	Bottom Entry T-Port Ball	Bottom Entry Double T-Port Ball
½"	MPH-C102A-	MPH-C102AB	MPHLC102DB	MPHLC102D-	MPH-C102T-	MPH-C102TB	MPH-C102DT
¾"	MPH-D102A-	MPH-D102AB	MPH-D102DB	MPH-D102D-	MPH-D102T-	MPH-D102TB	MPH-D102DT
1"	MPH-E102A-	MPHLE102AB	MPH-E102DB	MPHLE102D-	MPHLE102T-	MPHLE102TB	MPHLE102DT
1¼"	MPH-E102A-	MPHLE102AB	MPH-E102DB	MPHLE102D-	MPHLE102T-	MPHLE102TB	MPHLE102DT
1½"	MPH-G102A-	MPHLG102AB	MPH-G102DB	MIHLG102D-	MPH-G102T-	MPHLG102TB	MPH-G102DT
2"	MPH-H102A-	MPHLH102AB	MPHLH102DB	MPHLH102D-	MPHLH102T-	MPHLH102TB	MPH-H102DT
3"	MPHLK102A-	MPHLK102AB	MPHLK102DB	MPH-K102D-	MPHLK102T-	MPHLK102TB	MPHLK102DT
4"	MPH-L102A-	MPHLL102AB	MPHLL102DB	MPH-L102D-	MPHLL102T-	MPHLL102TB	MPHLL102DT

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

?? Replace with the appropriate flow pattern.

Series

1

SP/FT/DP

Valve Size	Repair Kit*	Replacement Parts							
		Ball	DP Ball**	Stem	Seat	Packing	Gasket	Body O-Ring	Cavity Filler Kit***
½"	SPRTC1--A--1	SPH-C102	DPH-C102A-	SPHLC105	SPRTC008	SPRTC109	SPRTC013	NA	SPRTC1--B--3
¾"	SPRTD1--A--1	SPH-D102	DPH-D102A-	SPHLC105	SPRTD008	SPRTC109	SPRTD013	NA	SPRTD1--B--3
1"	SPRTE1--A--1	SPH-E102	DPH-E102A-	SPHLE105	SPRTE008	SPRTE109	SPRTE013	NA	SPRTE1--B--3
1¼"	SPRTF1--A--1	SPH-F102	DPH-F102A-	SPHLF105	SPRTF008	SPRTF109	SPRTF013	NA	SPRTF1--B--3
1½"	SPRTG1--A--1	SPH-G102	DPH LG102A-	SPHLH105	SPRTG008	SPRTH109	SPRTG013	NA	SPRTG1--B--3
2"	SPRTH1--A--1	SPH-H102	DPHLH102A-	SPHLH105	SPRTH008	SPRTH109	SPRTH013	NA	SPRTH1--B--3
2½"	SPRTJ1--A--1	SPH-J102	NA	SPHLJ105	SPRTJ008	SPRTJ109	SPRTJ013	NA	SPRTJ1--B--3
3"	SPRTK1--A--1	SPH-K102	DPH-K102A-	SPHLK105	SPRTK008	SPRTK109	SPRTK013	NA	SPRTK1--B--3
4"	SPRTL1--A--1	SPH-L102	DPH-L102A-	SPHLK105	SPRTL008	SPRTK109	SPRTL013	NA	SPRTL1--B--3
6"	SPRTM1--A--1	SPHLM102	DPHLM102A-	SPHLM105	SPRTM008	SPRTM109	SPRTM013	ORVI--12---2372	SPRTM1--B--3
8"	SPRTN1--A--1	SPHLN102	NA	SPHLM105	SPRTN008	SPRTM109	SPRTN013	ORVI--12---2378	SPRTN1--B--3

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

** For a T-Port DP Series ball, replace A- with T-. For bottom entry angle Port, replace A- with AB. For bottom entry double angle Port, replace A- with DB.

*** For DP series cavity fillers, change SP to DP and fill in flow pattern using the second set of dashes (for example: DPRTC1--B103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

CS

Valve Size	Repair Kit*	Replacement Parts						
		Ball	Stem	Seat	Packing	Gasket	Body Seal O-Ring	Cavity Filler Kit**
½"	CSRTC4--V--1	SIHLC402	SPHLC105	CSRTC008	SPRTC109	ANRTC013	OREP--12--2026	CSRTC4--W--3
¾"	CSRTD4--V--1	SIHLD402	SPHLC105	CSRTD008	SPRTC109	ANRTD013	OREP--12--2029	CSRTD4--W--3
1"	CSRTE4--V--1	SIHLE402	SPHLE105	CSRTE008	SPRTE109	ANRTE013	OREP--12--2031	CSRTE4--W--3
1½"	CSRTG4--V--1	SIHLG402	SPHLH105	ANRTG008	SPRTH109	ANRTG013	OREP--12--2145	CSRTG4--W--3
2"	CSRTH4--V--1	SIHLH402	SPHLH105	SPRTH008	SPRTH109	ANRTH013	OREP--12--2152	CSRTH4--W--3
2½"	CSRTJ4--V--1	SIHLJ402	SPHLJ105	SPRTJ008	SPRTJ109	CSRTJ013	OREP--12--2242	CSRTJ4--W--3
3"	CSRTK4--V--1	SIHLK402	SPHLK105	ANRTK008	SPRTK109	ANRTK013	OREP--12--2246	CSRTK4--W--3
4"	CSRTL4--V--1	CSHLL402	MPHLL105	CSRTL008	MPRTL109	SBRTL113	OREP--12--2365	CSRTL4--W--3

* Standard repair kits and replacement Parts are RTFE. To order a repair kit with other material options, please turn to page 18.

?? Replace with the appropriate flow pattern.

** Cavity filler kits include two cavity fillers, two gaskets, and two O-rings.

Series

4

MI

Valve Size	Repair Kit*	Replacement Parts							
		Stem	Seat	Blank Seat	Packing	Side Gasket	Bonnet O-Ring	Body O-Ring	Cavity Filler Kit**
½"	MITFC4--C??1	MPHLC405	MITFC408	MPTFC408Y-	ANTFE109	MPTFC114	ORVI--12---2137	ORVI--12---2125	MPVTC4--D??3
¾"	MITFD4--C??1	MPHLC405	MITFD408	MPTFC408Y-	ANTFE109	MPTFC114	ORVI--12---2137	ORVI--12---2125	MPVTC4--D??3
1"	MITFE4--C??1	MPHLE405	MITFE408	MPTFE408Y-	SPTFH109	MPTFE014	ORVI--12---2140	ORVI--12---2129	MPVTE4--D??3
1½"	MITFG4--C??1	MPHLG405	MITFG408	MPTFG408Y-	SPTFK109	MPTFG014	ORVI--12---2229	ORVI--12---2152	MPVTG4--D??3
2"	MITFH4--C??1	MPHLG405	MITFH408	MPTFH408Y-	SPTFK109	MPTFH014	ORVI--12---2242	ORVI--12---2234	MPVTH4--D??3
3"	MITFK4--C??1	MPHLK405	MITFK408	MPTFK408Y-	ANTFL109	MPTFK414	ORVI--12---2255	ORVI--12---2242	MPVTK4--D??3
4"	MITFL4--C??1	MPHLL405	MITFL408	MPTFL408Y-	SPTFM109	MPTFL414	ORVI--12---2366	ORVI--12---2251	MPVTL4--D??3

Valve Size	Angle Port Ball	Bottom Entry Angle Port Ball	Bottom Entry Double Angle Port Ball	Double Angle Port Ball	T-Port	Bottom Entry T-Port Ball	Bottom Entry Double T-Port Ball
½"	MIHLC402A-	MIHLC402AB	MIHLC402DB	MIHLC102D-	MIHLC402T-	MIHLC402TB	MIHLC402DT
¾"	MPHLC102A-	MPHLC102AB	MPHLC102DB	MPHLC102D-	MPHLC102T-	MPHLC102TB	MPHLC102DT
1"	MIHLE102A-	MIHLE102AB	MIHLE102DB	MPHLE102D-	MIHLE102T-	MIHLE102TB	MIHLE102DT
1½"	MIHLG102A-	MIHLG102AB	MIHLG102DB	MIHLG102D-	MIHLG102T-	MIHLG102TB	MIHLG102DT
2"	MIHLH102A-	MIHLH102AB	MIHLH102DB	MIHLH102D-	MIHLH102T-	MIHLH102TB	MIHLH102DT
3"	MIHLK402A-	MIHLK402AB	MIHLK402DB	MIHLK402D-	MIHLK402T-	MIHLK402TB	MIHLK402DT
4"	MIHLL402A-	MIHLL402AB	MIHLL402DB	MPHLL402D-	MIHLL402T-	MIHLL402TB	MIHLL402DT

* Standard repair kits and replacement Parts are TFM. To order a repair kit with other material options, please turn to page 18.

?? Replace with the appropriate flow pattern.

** Cavity filler kits include top and bottom cavity fillers.

Series

4

MP

Valve Size	Repair Kit*	Replacement Parts							
		Stem	Seat	Blank Seat	Packing	Side Gasket	Bonnet O-Ring	Body O-Ring	Cavity Filler Kit**
½"	MPTFC4--A??1	MPHLC405	MPTFC408	MPTFC408Y-	ANTFE109	MPTFC114	ORVI--12---2137	ORVI--12---2125	MPVTC4--B??3
¾"	MPTFD4--A??1	MPHLC405	MPTFC408	MPTFC408Y-	ANTFE109	MPTFC114	ORVI--12---2137	ORVI--12---2125	MPVTC4--B??3
1"	MPTFE4--A??1	MPHLE405	MPTFE408	MPTFE408Y-	SPTFH109	MPTFE014	ORVI--12---2140	ORVI--12---2129	MPVTE4--B??3
1¼"	MPTFE4--A??1	MPHLE405	MPTFE408	MPTFE408Y-	SPTFH109	MPTFE014	ORVI--12---2140	ORVI--12---2129	MPVTE4--B??3
1½"	MPTFG4--A??1	MPHLG405	MPTFG408	MPTFG408Y-	SPTFK109	MPTFG014	ORVI--12---2229	ORVI--12---2152	MPVTG4--B??3
2"	MPTFH4--A??1	MPHLG405	MPTFH408	MPTFH408Y-	SPTFK109	MPTFH014	ORVI--12---2242	ORVI--12---2234	MPVTH4--B??3
3"	MPTFK4--A??1	MPHLK405	MPTFK408	MPTFK408Y-	ANTFL109	MPTFK414	ORVI--12---2255	ORVI--12---2242	MPVTK4--B??3
4"	MPTFL4--A??1	MPHLL405	MPTFL408	MPTFL408Y-	SPTFM109	MPTFL414	ORVI--12---2366	ORVI--12---2251	MPVTL4--B??3

Valve Size	Angle Port Ball	Bottom Entry Angle Port Ball	Bottom Entry Double Angle Port Ball	Double Angle Port Ball	T-Port	Bottom Entry T-Port Ball	Bottom Entry Double T-Port Ball
½"	MPH-C402A-	MPHLC402AB	MPHLC402DB	MPHLC102D-	MPHLC402T-	MPHLC402TB	MPHLC402DT
¾"	MPH-D102A-	MPH-D102AB	MPH-D102DB	MPHLD102D-	MPH-D102T-	MPH-D102TB	MPH-D102DT
1"	MPH-E102A-	MPHLE102AB	MPHLE102DB	MPHLE102D-	MPHLE102T-	MPHLE102TB	MPHLE102DT
1¼"	MPH-E102A-	MPHLE102AB	MPHLE102DB	MPHLE102D-	MPHLE102T-	MPHLE102TB	MPHLE102DT
1½"	MPH-G102A-	MPHLG102AB	MPHLG102DB	MIHLG102D-	MPH-G102T-	MPHLG102TB	MPHLG102DT
2"	MPH-H102A-	MPHLH102AB	MPHLH102DB	MPHLH102D-	MPHLH102T-	MPHLH102TB	MPHLH102DT
3"	MPHLK402A-	MPHLK402AB	MPHLK402DB	MPHLK402D-	MPHLK402T-	MPHLK402TB	MPHLK402DT
4"	MPHLL402A-	MPHLL402AB	MPHLL402DB	MPHLL402D-	MPHLL402T-	MPHLL402TB	MPHLL402DT

* Standard repair kits and replacement Parts are TFM. To order a repair kit with other material options, please turn to page 18.

?? Replace with appropriate flow pattern.

** Cavity filler kits include top and bottom cavity fillers.

Series

4

SI

Valve Size	Repair Kit*	Replacement Parts					
		Ball	Stem	Seat	Packing	Gasket	Cavity Filler Kit**
½"	SIVTC4--C--1	SIHLC402	SPHLC105	SIVTC408	SPVTC109	SPVTC013	SPVTC1--D--3
¾"	SPVTC1--C--1	SPH-C102	SPHLC105	SPVTC008	SPVTC109	SPVTD013	SPVTD1--D--3
1"	SIVTE4--C--1	SIHLE402	SPHLE105	SIVTE408	SPVTE109	SPVTE013	SPVTE1--D--3
1½"	SIVTG4--C--1	SIHLG402	SPHLH105	SIVTG408	SPVTH109	SPVTG013	SPVTG1--D--3
2"	SIVTH4--C--1	SIHLH402	SPHLH105	SIVTH408	SPVTH109	SPVTH013	SPVTH1--D--3
2½"	SIVTJ4--C--1	SIHLJ402	SPHLJ105	SIVTJ408	SPVTJ109	SPVTJ013	SPVTJ1--D--3
3"	SIVTK4--C--1	SIHLK402	SPHLK105	SIVTK408	SPVTK109	SPVTK013	SPVTK1--D--3
4"	SIVTL4--1	SPHLL102---6180	SPHLK105	SPVTL008---Z255	SPVTK109	SPVTL013---Z255	SIVTL4--3

* Standard repair kits and replacement Parts are VTFE. To order a repair kit with other material options, please turn to page 18.

** Cavity filler kits include two gaskets and two cavity fillers.

Series

5

CS/SJ/FC/FJ/DC

Valve Size	Repair Kit*	Replacement Parts							
		Ball	Stem	Seat	Packing	Gasket	Large O-Ring	Small O-Ring	Cavity Filler Kit***
½"	CSTFC5--Z--1	SIHLC502	SPHLD505	CSTFC508	SPTFD509	CSTFC513	OREP--12--2021	OREP--12--2019	CSTFC5--2--3
¾"	CSTFD5--Z--1	SIHLD502	SPHLD505	CSTFD508	SPTFD509	CSTFD513	OREP--12--2026	OREP--12--2024	CSTFD5--2--3
1"	CSTFE5--Z--1	SIHLE402	SPHLE505	CSTFE508	SPTFE509	CSTFE513	OREP--12--2031	OREP--12--2030	CSTFE5--2--3
1½"	CSTFG5--Z--1	SIHLG402	SPHLH505	CSTFG508	SPTFH509	CSTFG513	OREP--12--2144	OREP--12--2138	CSTFG5--2--3
2"	CSTFH5--Z--1	SIHLH402	SPHLH505	CSTFH508	SPTFH509	CSTFH513	OREP--12--2235	OREP--12--2146	CSTFH5--2--3
2½"	CSTFJ5--Z--1	SIHLJ502	SPHLK505	CSTFJ508	SPTFK509	CSTFJ513	OREP--12--2243	OREP--12--2236	CSTFJ5--2--3
3"	CSTFK5--Z--1	SIHLK502	SPHLK505	CSTFK508	SPTFK509	CSTFK513	OREP--12--2247	OREP--12--2240	CSTFK5--2--3
4"	CSTFL5--Z--1	SIHLL502	SPHLL505	CSTFL508	SPTFL509	CSTFL513	OREP--12--2363	OREP--12--2352	CSTFL5--2--3
6"	CSTFM5--Z--1	SIHLM502	SPHLM505	CSTFM508	SPTFM509	CSTFM513	OREP--12--2377	OREP--12--2365	CSTFM5--2--3

DC Parts	DC Angle Ball**	DC Stem
½"	DIHLC502A-	DPHLD505
¾"	DIHLD502A-	DPHLD505
1"	DIHLE502A-	DPHLE505
1½"	DIHLG502A-	DPHLH505
2"	DIHLH502A-	DPHLH505
2½"	NA	NA
3"	DIHLK502A-	DPHLK505
4"	DIHLL502A-	DPHLL505

* Standard repair kits and replacement parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-port DC Series ball, replace A- with T-. For bottom entry angle port, replace A- with AB. For bottom entry double angle port, replace A- with DB.

*** For DC series cavity fillers, change CS to DC and fill in flow pattern using the second set of dashes (for example: **DCTFC5--2103**). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Series

5

SD/SK/FD/FK/DD

Valve Size	Repair Kit*	Replacement Parts							
		Ball	Stem	Seat	Packing	Gasket	Large O-Ring	Small O-Ring	Cavity Filler Kit***
½"	CSTFC5--Z--1	SPH-C502	SPHLD505	CSTFC508	SPTFD509	CSTFC513	OREP--12--2021	OREP--12--2019	CSTFC5--2--3
¾"	CSTFD5--Z--1	SPH-D502	SPHLD505	CSTFD508	SPTFD509	CSTFD513	OREP--12--2026	OREP--12--2024	CSTFD5--2--3
1"	CSTFE5--Z--1	SPH-E102	SPHLE505	CSTFE508	SPTFE509	CSTFE513	OREP--12--2031	OREP--12--2030	CSTFE5--2--3
1½"	CSTFG5--Z--1	SPH-G102	SPHLH505	CSTFG508	SPTFH509	CSTFG513	OREP--12--2144	OREP--12--2138	CSTFG5--2--3
2"	CSTFH5--Z--1	SPH-H102	SPHLH505	CSTFH508	SPTFH509	CSTFH513	OREP--12--2235	OREP--12--2146	CSTFH5--2--3
2½"	CSTFJ5--Z--1	SPH-J102	SPHLK505	CSTFJ508	SPTFK509	CSTFJ513	OREP--12--2243	OREP--12--2236	CSTFJ5--2--3
3"	CSTFK5--Z--1	SPH-K402	SPHLK505	CSTFK508	SPTFK509	CSTFK513	OREP--12--2247	OREP--12--2240	CSTFK5--2--3
4"	CSTFL5--Z--1	ANHLL102	SPHLL505	CSTFL508	SPTFL509	CSTFL513	OREP--12--2363	OREP--12--2352	CSTFL5--2--3
6"	CSTFM5--Z--1	SPHLM502	SPHLM505	CSTFM508	SPTFM509	CSTFM513	OREP--12--2377	OREP--12--2365	CSTFM5--2--3

DD Parts	DD Angle Ball**	DD Stem
½"	DPHLC502A-	DPHLD505
¾"	DPHLD502A-	DPHLD505
1"	DPHLE502A-	DPHLE505
1½"	DPHLG502A-	DPHLH505
2"	DPHLH502A-	DPHLH505
2½"	NA	NA
3"	DPHLK502A-	DPHLK505
4"	DPHLL502A-	DPHLL505

* Standard repair kits and replacement parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-port DD Series ball, replace A- with T-. For bottom entry angle port, replace A- with AB. For bottom entry double angle port, replace A- with DB.

*** For DD series cavity fillers change CS to DD and fill in flow pattern using the second set of dashes (for example: DDTFC5-2103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Series

5

SE/SL/FE/FL/DE

Valve Size	Repair Kit*	Replacement Parts							
		Ball	Stem	Seat	Packing	Gasket	Large O-Ring	Small O-Ring	Cavity Filler Kit***
1"	CSTFD5--Z--1	SPH-D502	SPHLD505	CSTFD508	SPTFD509	CSTFD513	OREP--12--2026	OREP--12--2024	CSTFD5--2--3
1½"	CSTFE5--Z--1	SPH-E102	SPHLE505	CSTFE508	SPTFE509	CSTFE513	OREP--12--2031	OREP--12--2030	CSTFE5--2--3
2"	CSTFG5--Z--1	SPH-G102	SPHLH505	CSTFG508	SPTFH509	CSTFG513	OREP--12--2144	OREP--12--2138	CSTFG5--2--3
2½"	CSTFH5--Z--1	SPH-H102	SPHLH505	CSTFH508	SPTFH509	CSTFH513	OREP--12--2235	OREP--12--2146	CSTFH5--2--3
3"	CSTFJ5--Z--1	SPH-J502	SPHLK505	CSTFJ508	SPTFK509	CSTFJ513	OREP--12--2243	OREP--12--2236	CSTFJ5--2--3
4"	CSTFK5--Z--1	SPH-K502	SPHLK505	CSTFK508	SPTFK509	CSTFK513	OREP--12--2247	OREP--12--2240	CSTFK5--2--3
6"	CSTFL5--Z--1	SPH-L502	SPHLL505	CSTFL508	SPTFL509	CSTFL513	OREP--12--2363	OREP--12--2352	CSTFL5--2--3

DE Parts	DE Angle Ball**	DE Stem
1"	DPHLD502A-	DPHLD505
1½"	DPHLE502A-	DPHLE505
2"	DPHLG502A-	DPHLH505
3"	DPHLJ502A-	DPHLK505
4"	DPHLK502A-	DPHLK505

* Standard repair kits and replacement parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-port DE Series ball, replace A- with T-. For bottom entry angle port, replace A- with AB. For bottom entry double angle port, replace A- with DB.

*** For DE series cavity fillers change CS to DE and fill in flow pattern using the second set of dashes (example= DETFC5--2103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

SI/SA/FA/FA/DI

Valve Size	Repair Kit*	Replacement Parts						
		Ball	DI Ball**	SP Stem	DI Stem	Seat	Packing	Cavity Filler Kit***
½"	SITFG5--G--1	SIHLC502	DIHLC502A-	SPHLD505	DPHLD505	SITFC508	SPTFD509	SPTFC5--J--3
¾"	SITFD5--G--1	SIHLD502	DIHLD502A-	SPHLD505	DPHLD505	SITFD508	SPTFD509	SPTFD5--J--3
1"	SITFE5--G--1	SIHLE402	DIHLE502A-	SPHLE505	DPHLE505	SITFE508	SPTFE509	SPTFE5--J--3
1½"	SITFG5--G--1	SIHLG402	DIHLG502A-	SPHLH505	DPHLH505	SITFG508	SPTFH509	SPTFG5--J--3
2"	SITFH5--G--1	SIHLH402	DIHLH502A-	SPHLH505	DPHLH505	SITFH508	SPTFH509	SPTFH5--J--3
2½"	SITFJ5--G--1	SIHLJ502	NA	SPHLK505	NA	SITFJ508	SPTFK509	SPTFJ5--J--3
3"	SITFK5--G--1	SIHLK502	DIHLK502A-	SPHLK505	DPHLK505	SITFK508	SPTFK509	SPTFK5--J--3
4"	SITFL5--G--1	SIHLL502	DIHLL502A-	SPHLL505	DPHLL505	SITFL508	SPTFL509	SPTFL5--J--3
6"	SITFM5--G--1	SIHLM502	NA	SPHLM505	NA	SITFM508	SPTFM509	SPTFM5--J--3

* Standard repair kits and replacement Parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-Port DI Series ball, replace A- with T-. For bottom entry angle Port, replace A- with AB. For bottom entry double angle Port, replace A- with DB.

*** For DI series cavity fillers, change SP to DP and fill in flow pattern using the second set of dashes (for example: DPTFC5--J103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Series

5

SP/SG/FT/FG/DP

Valve Size	Repair Kit*	Replacement Parts						
		Ball	DP Ball**	SP Stem	DP Stem	Seat	Packing	Cavity Filler Kit***
½"	SPTFC5--G--1	SPH-C502	DPHLC502A-	SPHLD505	DPHLD505	SPTFC508	SPTFD509	SPTFC5--J--3
¾"	SPTFD5--G--1	SPH-D502	DPHLD502A-	SPHLD505	DPHLD505	SPTFD508	SPTFD509	SPTFD5--J--3
1"	SPTFE5--G--1	SPH-E102	DPHLE502A-	SPHLE505	DPHLE505	SPTFE508	SPTFE509	SPTFE5--J--3
1½"	SPTFG5--G--1	SPH-G102	DPHLE502A-	SPHLH505	DPHLH505	SPTFG508	SPTFH509	SPTFJ5--J--3
2"	SPTFH5--G--1	SPH-H102	DPHLH502A-	SPHLH505	DPHLH505	SPTFH508	SPTFH509	SPTFH5--J--3
2½"	SPTFJ5--G--1	SPH-J102	NA	SPHLK505	NA	SPTFJ508	SPTFK509	SPTFJ5--J--3
3"	SPTFK5--G--1	SPH-K402	DPHLK502A-	SPHLK505	DPHLK505	SPTFK508	SPTFK509	SPTFK5--J--3
4"	SPTFL5--G--1	ANHLL102	DPHLL502A-	SPHLL505	DPHLL505	SPTFL508	SPTFL509	SPTFL5--J--3
6"	SPTFM5--G--1	SPHLM502	NA	SPHLM505	NA	SPTFM508	SPTFM509	SPTFM5--J--3

* Standard repair kits and replacement Parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-Port DP Series ball, replace A- with T-. For bottom entry angle Port, replace A- with AB. For bottom entry double angle Port, replace A- with DB.

*** For DP series cavity fillers, change SP to DP and fill in flow pattern using the second set of dashes (for example: DPTFC5--J103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Series

5

SS/SH/FS/FH/DS

Valve Size	Repair Kit*	Replacement Parts						
		Ball	DI Ball**	SP Stem	DI Stem	Seat	Packing	Cavity Filler Kit***
1"	SPTFD5--G--1	SPH-D502	DPHLD502A-	SPHLD505	DPHLD505	SPTFD508	SPTFD509	SPTFD5--J--3
1½"	SPTFE5--G--1	SPH-E102	DPHLE502A-	SPHLE505	DPHLE505	SPTFE508	SPTFE509	SPTFE5--J--3
2"	SPTFG5--G--1	SPH-G102	DPHLG502A-	SPHLH505	DPHLH505	SPTFG508	SPTFH509	SPTFG5--J--3
2½"	SPTFH5--G--1	SPH-H102	DPHLH502A-	SPHLH505	DPHLH505	SPTFH508	SPTFH509	SPTFH5--J--3
3"	SPTFJ5--G--1	SPH-J102	DPHLJ502A-	SPHLK505	DPHLK505	SPTFJ508	SPTFK509	SPTFJ5--J--3
4"	SPTFK5--G--1	SPH-K402	DPHLK502A-	SPHLK505	DPHLK505	SPTFK508	SPTFK509	SPTFK5--J--3
6"	SPTFL5--G--1	ANHLL102	DPHLL502A-	SPHLL505	DPHLL505	SPTFL508	SPTFK509	SPTFL5--J--3

* Standard repair kits and replacement parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-Port DS Series ball, replace A- with T-. For bottom entry angle port, replace A- with AB. For bottom entry double angle port, replace A- with DB.

*** For DS series cavity fillers change SP to DP and fill in flow pattern using the second set of dashes (for example: DPPFTD5--J103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Substituting Materials in Repair Kits

PBM repair kits include standard materials such as TFM or RTFE. To order a repair kit that contains seats and seals made of other materials, substitute the material code in the Part number with one of the following:

Order Code	Letter Code	Abbreviation	Material
TF	G	TFM™	Virgin TFM Polytetrafluoroethylene
HT	H	S-TEF™	Stainless Steel Reinforced Polytetrafluoroethylene
RT	A	RTFE	Glass Reinforced Polytetrafluoroethylene
VT	C	VTFE	Virgin Polytetrafluoroethylene
UT	K	UHMWPE	Ultra High Molecular Weight Polyethylene
PK	N	PEEK	Polyetheretherketone
KY	R	KYNAR	Polyvinylidene Fluoride

For example, the repair kit part number for a 1" Series 5 SP valve is **SPTFE5--G--1**. The "TF" in positions three and four of the part number indicates that this kit uses TFM seats and seals. Note that the "G" in position nine represents the appropriate single character designation (Letter code) from the Seat/Seal column of the PBM Ordering Information for Valves found in the current Price List or on PBM's web site at www.pbmvalve.com

To order this repair kit with S-Tef™ seats and seals, replace "TF" with "HT" and "G" with "H". The correct part number then becomes: **SPHTE5--H--1**.

Note: The seat & seal designator in position nine also applies to cavity fillers. Please refer to the PBM Part Number Manual for a complete listing of seat, seal, and cavity filler options.

Series

8 & 9**SI/FI/DI**

Valve Size	Repair Kit*	Replacement Parts						
		Ball	DI Ball**	Stem	DI Stem	Seat	Packing	Cavity Filler Kit***
½"	SITFC8--G--1	SIHFC802	DIHFC802A-	SPHLD805	DPHLD805	SITFD508	SPTFD809	SITFC8--J--3
¾"	SITFD8--G--1	SIHFD802	DIHFD802A-	SPHLD805	DPHLD805	SITFD508	SPTFD809	SITFD8--J--3
1"	SITFE8--G--1	SIHFE802	DIHFE802A-	SPHLE805	DPHLE805	SITFE508	SPTFD809	SITFE8--J--3
1½"	SITFG8--G--1	SIHFG802	DIHFG802A-	SPHLH505	DPHLH505	SITFG508	SPTFG809	SITFG8--J--3
2"	SITFH8--G--1	SIHFH802	DIHLH902A-	SPHLH505	DPHLH505	SITFH508	SPTFH509	SITFH8--J--3
2½"	SITFJ8--G--1	SIHLJ902	NA	SPHLK505	NA	SITFJ508	SPTFK509	SITFJ8--J--3
3"	SITFK8--G--1	SIHLK902	DIHLK902A-	SPHLK505	DPHLK505	SITFK508	SPTFK509	SITFK8--J--3
4"	SITFL8--G--1	SIHLL902	DIHLL902A-	SPHLL505	DPHLL505	SITFL508	SPTFK509	SITFL8--J--3
6"	SITFM9--G--1	SIHLM902	DIHLM902A-	SPHLM905	DPHLM905	SITFM508	SPTFM909	SITFM9--J--3

* Standard repair kits and replacement Parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-Port DI Series ball, replace A- with T-. For bottom entry angle Port, replace A- with AB. For bottom entry double angle Port, replace A- with DB.

*** For DI series cavity fillers, change SI to DI and fill in flow pattern using the second set of dashes (for example: DITFC8--J103). Filling in the flow pattern will accommodate bottom entry cavity fillers.

Series
8 & 9

CS/FC/DC

Valve Size	Repair Kit*	Replacement Parts							
		Ball	Stem	Seat	Packing	Gasket	Large O-Ring	Small O-Ring	Cavity Filler Kit***
½"	CSTFC8--Z--1	SIHFC802	SPHLD505	SITFC508	SPTFD809	CSTFC813	OREP--12--2018	OREP--12--2016	CSTFC8--J--3
¾"	CSTFD8--Z--1	SIHFD802	SPHLD505	SITFD508	SPTFD809	CSTFD813	OREP--12--2022	OREP--12--2020	CSTFD8--J--3
1"	CSTFE8--Z--1	SIHFE802	SPHLE505	SITFE508	SPTFD809	CSTFE813	OREP--12--2028	OREP--12--2026	CSTFE8--J--3
1½"	CSTFG8--Z--1	SIHFG802	SPHLH505	SITFG508	SPTFG809	CSTFG813	OREP--12--2142	OREP--12--2226	CSTFG8--J--3
2"	CSTFH8--Z--1	SIHFH802	SPHLH505	SITFH508	SPTFH509	CSTFH813	OREP--12--2235	OREP--12--2146	CSTFH8--J--3
2½"	CSTFJ8--Z--1	SIHLJ902	SPHLK505	SITFJ508	SPTFK509	CSTFJ913	OREP--12--2243	OREP--12--2236	CSTFJ8--J--3
3"	CSTFK8--Z--1	SIHLK902	SPHLK505	SITFK508	SPTFK509	CSTFK913	OREP--12--2245	OREP--12--2240	CSTFK8--J--3
4"	CSTFL8--Z--1	SIHLL902	SPHLL505	SITFL508	SPTFK509	CSTFL913	OREP--12--2360	OREP--12--2351	CSTFL8--J--3
6"	CSTFM9--Z--1	SIHLM902	SPHLM505	SITFM508	SPTFM909	CSTFM913	OREP--12--2377	OREP--12--2365	CSTFM9--J--3

DC Parts	DC Angle Ball**	DC Stem
½"	DIHFC802A-	DPHLD805
¾"	DIHFD802A-	DPHLD805
1"	DIHFE802A-	DPHLE805
1½"	DIHFG802A-	DPHLH505
2"	DIHLH902A-	DPHLH505
2½"	NA	NA
3"	DIHLK902A-	DPHLK505
4"	DIHLL902A-	DPHLL505

* Standard repair kits and replacement parts are TFM. To order a repair kit with other material options, please turn to page 18.

** For a T-port DC Series ball, replace A- with T-. For bottom entry angle port, replace A- with AB. For bottom entry double angle port, replace A- with DB.

*** For DC series cavity fillers, change CS to DC and fill in flow pattern using the second set of dashes (for example: **DCTFC8--J103**). Filling in the flow pattern will accommodate bottom entry cavity fillers.