

Parts Manual
D03-991-2402A1

Hydra-Cell[®]

INDUSTRIAL PUMPS

Models: D-03, G-03, G-13, M-03 and M-23
Kel-Cell and Standard Versions

IMPORTANT

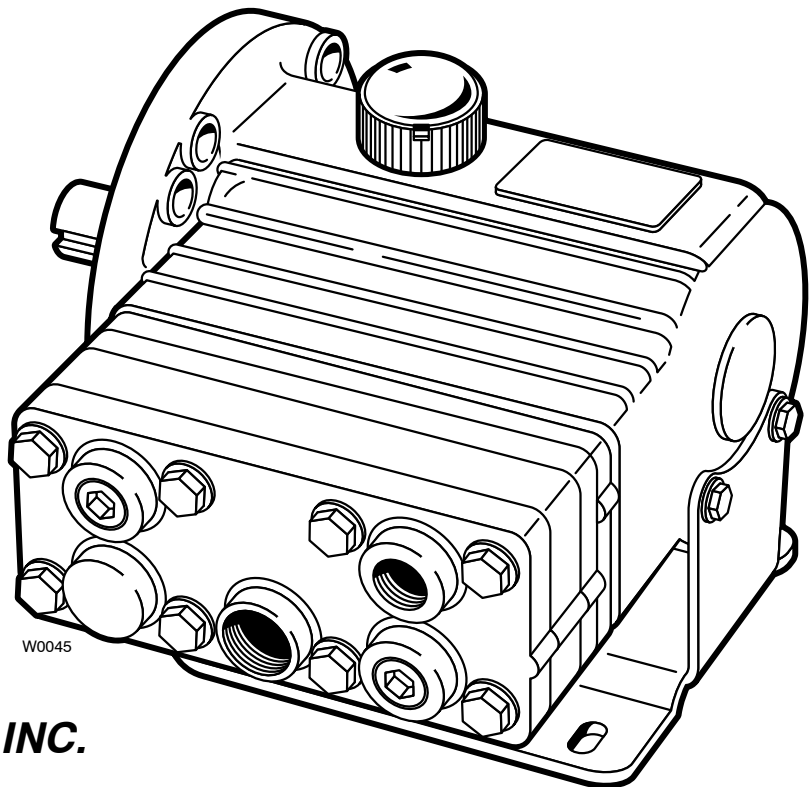
Record your pump model number and serial number here for easy reference:

Model No. _____

Serial No. _____

Date of Purchase _____

When ordering parts or making inquiries about this pump, please mention the model and serial numbers.



WANNER ENGINEERING, INC.

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D/G-03 Fluid End Parts

Pump with Non-Metallic Head
(Kel-Cell version shown)

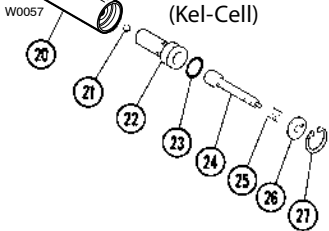
Pump with Metallic Head
(Kel-Cell version shown)

See Hydraulic End for
pump housings

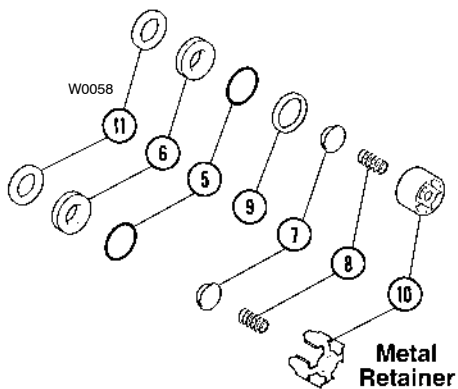
Piston Assembly
(see Detail "A")

Valve Assemblies
(see Detail "B")

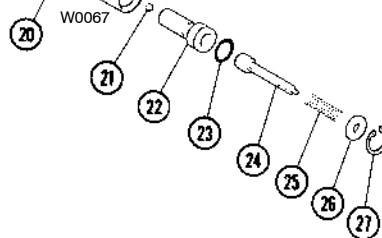
DETAIL "A"
(Piston Assembly)
(Kel-Cell)



DETAIL "B"
(Valve Assemblies)



DETAIL "A"
(Piston Assembly)
(non Kel-Cell)



Plastic Retainer

Metal Retainer

Bolt Torque Specifications

Ref. No.	Assembly Torque
1	15 ft-lbs/20 Nm
14	Hand tight

D/G-03 Fluid End Parts

Ref. No.	Part Number	Description	Quantity/ Pump	Ref. No.	Part Number	Description	Quantity/ Pump
1	D03-024-2010	Bolt, hex-head, 3" (for use with metallic head models)	8	10	D03-023-1010	Retainer, valve spring, 17-7 SST.....	6
	D03-024-2017	Bolt, hex-head, 4" (for use with non-metallic head models).....	8		D03-023-1017	Retainer, valve spring, Hastelloy C.....	6
	G03-024-2010	Cap Screw, socket head, M8 x 1.25 x 80 mm (for metallic head models)	8		D03-023-2310	Retainer, valve spring, Celcon.....	6
	G03-024-2011	Cap Screw, socket head, M8 x 1.25 x 90 mm (for non-metallic head models).....	8		D03-023-2316	Retainer, valve spring, Nylon.....	6
					D03-023-2317	Retainer, valve spring, polypropylene	6
					D03-023-2318	Retainer, valve spring, Kynar.....	6
2	C22-014-2000	Washer, 5/16" (metallic head only)	8	11	D03-125-1011	Washer, dampening, 316 SST	6
3	D03-004-1010	Manifold, brass.....	1		D03-125-2310	Washer, dampening, Celcon.....	6
	D03-004-1012	Manifold, 316 SST.....	1		D03-125-2316	Washer, dampening, Nylon.....	6
	D03-004-1017	Manifold, nickel alloy (Hastelloy CW12MW).....	1		D03-125-2317	Washer, dampening, polypropylene	6
	D03-004-1050	Manifold, polypropylene.....	1		D03-125-2318	Washer, dampening, Kynar.....	6
	D03-004-1053	Manifold, Kynar	1	12	D03-003-1010	Valve Plate, brass	1
	G13-004-1010	Manifold, brass.....	1		D03-003-1012	Valve Plate, 316 SST	1
	G13-004-1012	Manifold, 316 SST.....	1		D03-003-1017	Valve Plate, nickel alloy (Hastelloy CW12MW).....	1
	G13-004-1017	Manifold, nickel alloy (Hastelloy CW12MW).....	1		D03-003-1050	Valve Plate, polypropylene	1
	G13-004-1050	Manifold, polypropylene.....	1		D03-003-1053	Valve Plate, Kynar	1
	G13-004-1053	Manifold, Kynar	1		K03-003-1022	Valve Plate, brass, Kel-Cell	1
4	D25-073-2110	O-ring, manifold, Buna.....	2		K03-003-1021	Valve Plate, 316 SST, Kel-Cell.....	1
	D25-073-2111	O-ring, manifold, Viton	2		K03-003-1023	Valve Plate, Hastelloy C, Kel-Cell.....	1
	D25-073-2112	O-ring, manifold, Neoprene	2		K03-003-1050	Valve Plate, polypropylene, Kel-Cell	1
	D25-073-2113	O-ring, manifold, EPDM.....	2		K03-003-1053	Valve Plate, Kynar PVDF, Kel-Cell	1
	D25-073-2118	O-ring, manifold, PTFE.....	2	14	D03-029-2010	Cap Screw, socket-head, 1".....	2
5	D25-046-2110	O-ring, valve seat, Buna	6		G03-029-2010	Cap Screw, socket-head, M6 x 1 x 25 mm	2
	D25-046-2111	O-ring, valve seat, Viton	6	16	D03-088-2010	Cap Screw, socket-head, 3/4".....	2
	D03-035-2112	O-ring, valve seat Neoprene.....	6		G03-088-2010	Cap Screw, socket-head, M6 x 1 x 20 mm.....	2
	D03-035-2113	O-ring, valve seat, EPDM	6	17	D03-018-1212	Diaphragm, Neoprene.....	3
	D03-035-2118	O-ring, valve seat, PTFE	6		D03-018-1213	Diaphragm, EPDM	3
6*	D03-020-1001	Valve Seat, 316 SST	6		D03-018-1215	Diaphragm, Viton-XT	3
	D03-020-1002	Valve Seat, 17-4 SST	6		D03-018-1220	Diaphragm, Buna-N-XS	3
	D03-020-1017	Valve Seat, Hastelloy C	6		D03-018-1218	Diaphragm, PTFE	3
	D03-020-3300	Valve Seat, ceramic	6		K03-018-1240	Diaphragm, Buna-N-XS, Kel-Cell	3
	D15-020-2016	Valve Seat, tungsten carbide*	6		K03-018-1242	Diaphragm, Neoprene, Kel-Cell.....	3
7	D03-021-1001	Valve, 316 SST, stamped.....	6		K03-018-1243	Diaphragm, EPDM, Kel-Cell	3
	D03-021-1002	Valve, 17-7 SST, stamped.....	6		K03-018-1245	Diaphragm, Viton-XT, Kel-Cell.....	3
	D03-021-1011	Valve, Nitronic 50.....	6	18	D03-002-1000	Diaphragm Plate	1
	D03-021-1015	Valve, 17-4 SST, machined.....	6		K03-002-1022	Diaphragm Plate, Kel-Cell	1
	D03-021-1016	Valve, tungsten carbide	6	19	D03-075-2110	O-ring, diaphragm plate, Buna.....	3
	D03-021-1017	Valve, Hastelloy C.....	6	20	D03-014-1004	Piston	3
	D03-021-3300	Valve, ceramic.....	6		K03-014-1004	Piston, Kel-Cell	3
8	D03-022-3113	Valve Spring, Hastelloy C	6	21	D10-015-3010	Ball	3
	D03-022-3114	Valve Spring, Elgiloy	6	22	D03-043-1000	Valve Cylinder	3
	D03-022-3118	Valve Spring, 17-7 SST	6		K03-043-1010	Valve Cylinder, Kel-Cell	3
9	D03-092-2110	Tetra Seal, Buna	6	23	D03-034-2110	O-ring, valve cylinder, Buna.....	3
	D03-092-2111	Tetra Seal, Viton.....	6		C23-009-2110	O-ring, valve cylinder, Buna, Kel-Cell.....	3
	D03-092-2112	Tetra Seal, Neoprene.....	6	24	D03-044-1000	Valve Plunger	3
	D03-092-2113	Tetra Seal, EPDM	6		K03-044-1010	Valve Plunger, Kel-Cell	3
	D03-035-2118	O-ring, PTFE.....	6				

* Tungsten carbide seat valve (6) does not require dampening washers.

D/G-03 Fluid End Parts

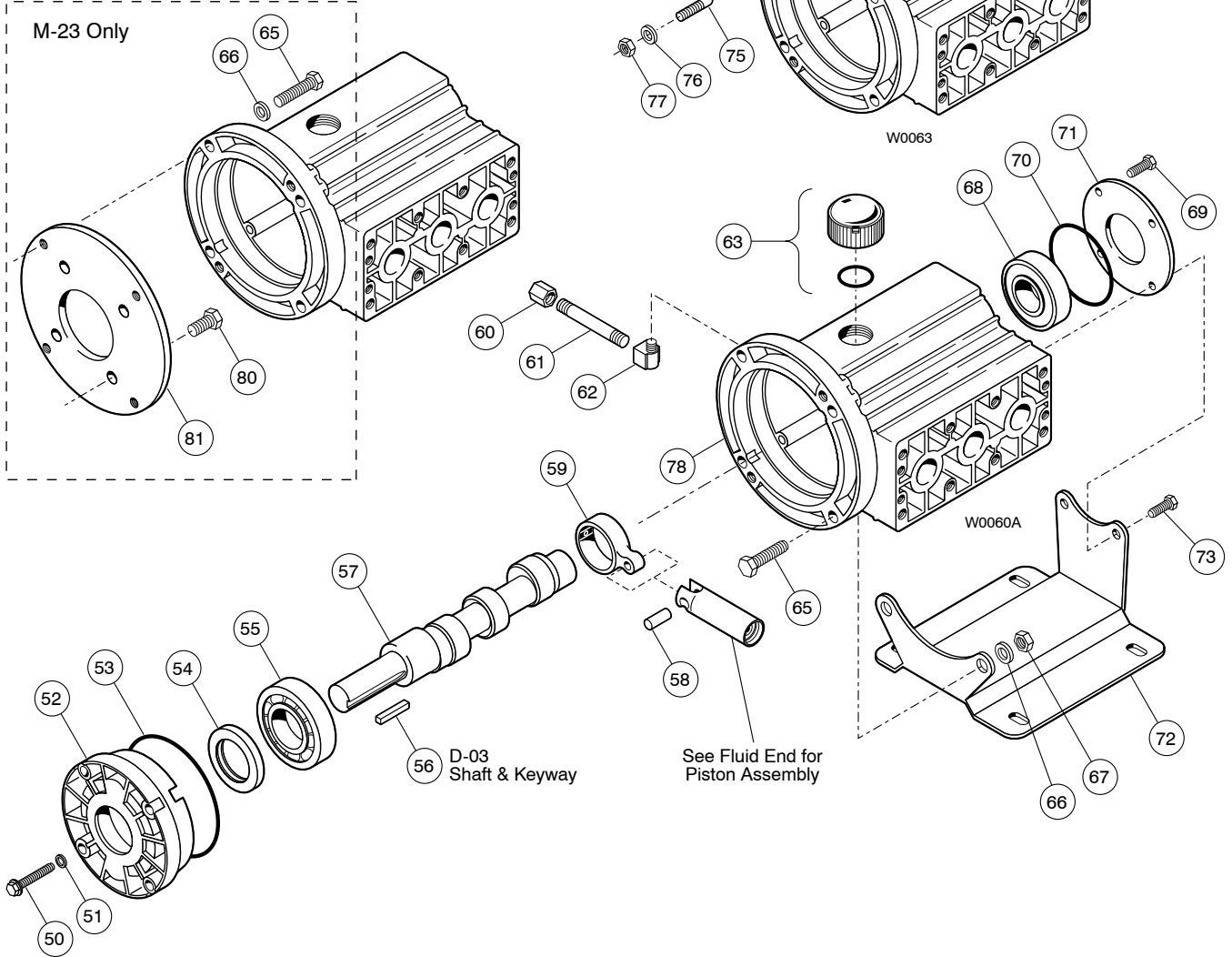
Ref. No.	Part Number	Description	Quantity/ Pump
25	D03-045-3110	Spring, sleeve valve	3
	D03-045-3111	Spring, sleeve valve for PTFE diaphragms	3
	K03-045-3110	Spring, sleeve valve, Kel-Cell	3
26	D03-049-1000	Washer	3
	K03-049-1000	Washer, Kel-Cell	3
27	D03-048-2210	Snap Ring.....	3
28	D03-014-1210	Piston Assembly	3
	K03-014-1210	Piston Assembly, Kel-Cell.....	3
29	D03-100-1010	Manifold Support Plate	1
	D03-100-1011	Manifold Support Plate, painted	1
30	102-210	O-ring, Viton.....	3
	D10-047-2110	O-ring, Buna N	3
31	D10-030-2010	Screw, Flat-head, SST	3
73*	D03-087-2011	Screw, Mach, HH slf tp (D-03 only)	2
79	D10-040-2400	Nameplate.....	1
82	D10-112-2200	Rivet	4

* As of April 2005 (Serial No. 177400 and up), pump housing (78) no longer uses front cover assembly parts (69,70,71, and 74). Subsequent housings use self tapping screw (73).

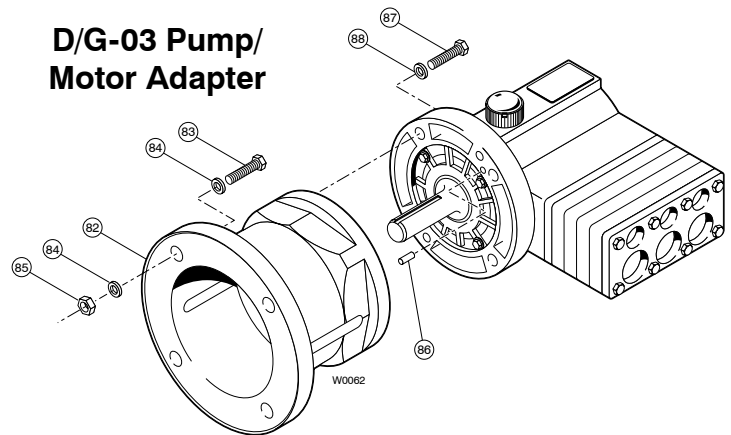
D/G-03 Hydraulic End Parts

G-13 Pump Housing

M-23 Pump Housing



D/G-03 Pump/Motor Adapter



D/G-03 Hydraulic End Parts

Ref. No.	Part Number	Description	Quantity/ Pump	Ref. No.	Part Number	Description	Quantity/ Pump
50	D03-086-2010	Cap Screw, hex-head, with washer	4	58	D03-133-1000	Pin	3
	G03-086-2010	Cap Screw, hex-head, with washer	4	59	D03-132-1000	Connecting Rod	3
51	D25-047-2110	O-ring, back cover screws, Buna	4	60	D10-078-2210	Cap, brass, 1/8"	1
52	D03-131-1000	Back Cover	1	61	D10-077-2210	Pipe, brass, 1/8"	1
53	D03-037-2110	O-ring, back cover, Buna	1	62	D10-076-2210	Elbow, brass, 1/8"	1
54	D03-031-2110	Seal, Buna	1	63	D03-039-1030	Cap with O-ring, oil fill	1
55	D03-011-2910	Back Bearing	1	64	D10-080-2111	O-ring, oil fill, Buna	1
56	D10-085-2210	Key, shaft	1	65	*D03-068-2010	Cap Screw, socket-head, 1-1/2"	4
57	D03-009-1002	(E) Crank Shaft, shaft-driven, 7/8" O.D., 2.2 GPM @ 1750 RPM	1		G03-068-2010	Cap Screw, socket-head, M10 x 1.5 x .. 40 mm (G-03 only)	2
	D03-009-1003	(X) Crank Shaft, shaft-driven, 7/8" O.D., 3.0 GPM @ 1750 RPM	1	66*	D10-048-2010	Washer, 38"	4
	D03-009-1011	(B) Crank Shaft, shaft-driven, 7/8" O.D., 1.1 GPM @ 1750 RPM	1		G25-048-2010	Washer, M10 (G-03 only)	2
	D03-009-1018	(S) Crank Shaft, shaft-driven, 7/8" O.D., 1.8 GPM @ 1750 RPM	1	67	D10-028-2010	Nut, hex, 3/8" (for D-03 models only)	2
	D03-009-1067	(G) Crank Shaft, shaft-driven, 7/8" O.D., 0.5 GPM @ 1750 RPM	1		G10-028-2010	Nut, hex, M10 (G-03 only)	2
	M03-009-1002	(E) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 2.2 GPM @1750 RPM	1	68	D03-010-2910	Front Bearing	1
	M03-009-1003	(X) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 3.0 GPM @1750 RPM	1	69*	D03-087-2010	Cap Screw, hex-head, 1/2"	4
	M03-009-1011	(B) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 1.1 GPM @1750 RPM	1	70	D40-074-2110	O-ring, front cover, Buna	1
	M03-009-1018	(S) Hollow Shaft, 56C direct drive, 5/8" I.D. (close-coupled), 1.8 GPM @1750 RPM	1	71	D03-130-1000	Front Cover	1
	M13-009-1002	(E) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 7.1 l/min @1450 RPM	1	72	D03-025-1010	Base Plate (D-03/G-03/K-03 only)	1
	M13-009-1003	(X) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 9.9 l/min @1450 RPM	1	73	D03-089-2010	Cap Screw, hex-head, 3/4" (D-03/K-03 models only)	2
	M13-009-1011	(B) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 3.5 l/min @1450 RPM	1	75	M13-151-1000	Offset Bolt (G-13 only)	4
	M13-009-1018	(S) Hollow Shaft, IEC 90 direct drive, 24 mm I.D. (closed-coupled), 5.6 l/min @1450 RPM	1	76	G25-048-2010	Washer, lock, 10 mm (G-13 only)	8
	M13-009-1067	(G) Hollow Shaft, IEC 90 direct drive, .. 24 mm I.D. (closed-coupled), 1.6 l/min @1450 RPM	1	77	G10-028-2010	Nut, hex, 10 mm (G-13 only)	8
	M23-009-1004	(X) Hollow Shaft, 20 mm I.D. (for Honda Engine), 3.0 GPM @ 1750 RPM	1	78	D03-001-1001	Pump Housing	1
					G13-001-1001	Pump Housing	1
				80	M23-085-2010	Cap Screw, hex-head, M8 x 16 mm	4
				81	M23-025-1010	Plate, adapter	1

* Quantity 2 on Model D-03.

D/G-03 Pump/Motor Adapter Kits

D-03 Pump/Motor Adapter Kits

56C-145TC NEMA C-Face Motors (Kit No. A04-001-1202)

182-215TC NEMA C-Face Motors (Kit No. A04-002-1202)

G-03 Pump/Motor Adapter Kits

IEC 80-90 B5 Flange Motors (Part No. A04-003-1202)

IEC 100-112 B5 Flange Motors (Part No. A04-004-1202)

Ref No.	Description	For D-03 A04-001-1202 Part Number	For D-03 A04-002-1202 Part Number	For G-03 A04-003-1202 Part Number	For G-03 A04-004-1202 Part Number	Qty/ Kit
82	Pump/Motor Adapter	A04-032-1000	A04-033-1002	A04-032-1001	A04-033-1003	1
83	Cap Screw, socket-head	D10-087-2010	M10-110-2000	G03-068-2010	A04-043-2010	4
84	Lockwasher	D10-048-2010	M10-111-2000	A04-044-2010	M10-111-2000	8
85	Nut	N/A	N/A	A04-047-2010	A04-045-2010	4
86	Pin	D03-026-2211	D03-026-2211	D03-026-2211	D03-026-2211	2
87	Cap Screw, socket-head	G03-068-2010	G03-068-2010	G03-068-2010	G03-068-2010	4
88	Lockwasher	G25-048-2010	G25-048-2010	G25-048-2010	G25-048-2010	4

D/G-03 Replacement Parts Kits

TO ORDER REPLACEMENT PARTS KIT: A Replacement Parts Kit contains 11 digits corresponding to customer-specified design options.

1	2	3	4	5	6	7	8	9	10	11
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Digit	Order Code	Description
1-3		Pump Configuration
	D03	For all D-03, M-03 and M-23 pumps (5th digit "A")
	G03	For all G-03 and G13 pumps (5th digit "D")
	K03	For all D-03, G-03, M-03, G13, and M-23 pumps with 5th digit "K" in pump model number
4		Kit Designator
	K	Complete Fluid End Kit
	D	Diaphragm Kit
	V	Valve Kit (diaphragm not included)
5-6		Pump Head Version
	51	All Versions
7		Diaphragm & O-ring Material
	E	EPDM
	G	Viton®-XT
	J	PTFE®
	P	Neoprene
	T	Buna-N-XS
8		Valve Seat Material
	C	Ceramic
	D	Tungsten Carbide
	H	17-4 PH Stainless Steel
	S	316 Stainless Steel
	T	Hastelloy® C
	X	Not included in Diaphragm Kit
9		Valve Material
	C	Ceramic
	D	Tungsten Carbide
	F	17-4 PH Stainless Steel – Machined
	H	17-7 PH Stainless Steel
	N	Nitronic 50
	S	316 Stainless Steel
	T	Hastelloy® C
	X	Not included in Diaphragm Kit
10		Valve Springs
	E	Elgiloy®
	S	316 Stainless Steel
	T	Hastelloy® C
	X	Not included in Diaphragm Kit

Digit	Order Code	Description
11		Valve Spring Retainers
	C	Celcon
	H	17-7 PH Stainless Steel
	M	Kynar®
	P	Polypropylene
	T	Hastelloy C
	Y	Nylon
	X	Not included in Diaphragm Kit

Kit Contents		Kit Designator			
Part Number*	Description	Qty	K	D	V
D03-018- ___	Diaphragm	3	•	•	
K03-018- ___	Diaphragm	3	•	•	
D25-073- ___	O-ring, manifold	2	•	•	•
D03-035- ___	or				
D25-046- ___	O-ring, valve seat**	6	•		•
D03-020- ___	Valve seat	6	•		•
D03-021- ___	Valve	6	•		•
D03-022- ___	Valve spring	6	•		•
D03-092- ___	Tetra seal***	6	•		•
D03-023- ___	Retainer, valve spring	6	•		•
D03-125- ___	Washer, dampening	6	•		•
A01-113-3400	Threadlocker	1	•		•

* Last four digits of part numbers with – ___ refer to specific material of construction.

** D03-035 is provided for EPDM, PTFE or Neoprene Diaphragm and O-rings; D25--046 is provided for Viton-XT or Buna-N-XS Diaphragm and O-rings.

***Not included with metal spring retainers.