

## PARTS MANUAL

# Hydra-Cell<sup>®</sup>

## INDUSTRIAL PUMPS

### IMPORTANT

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

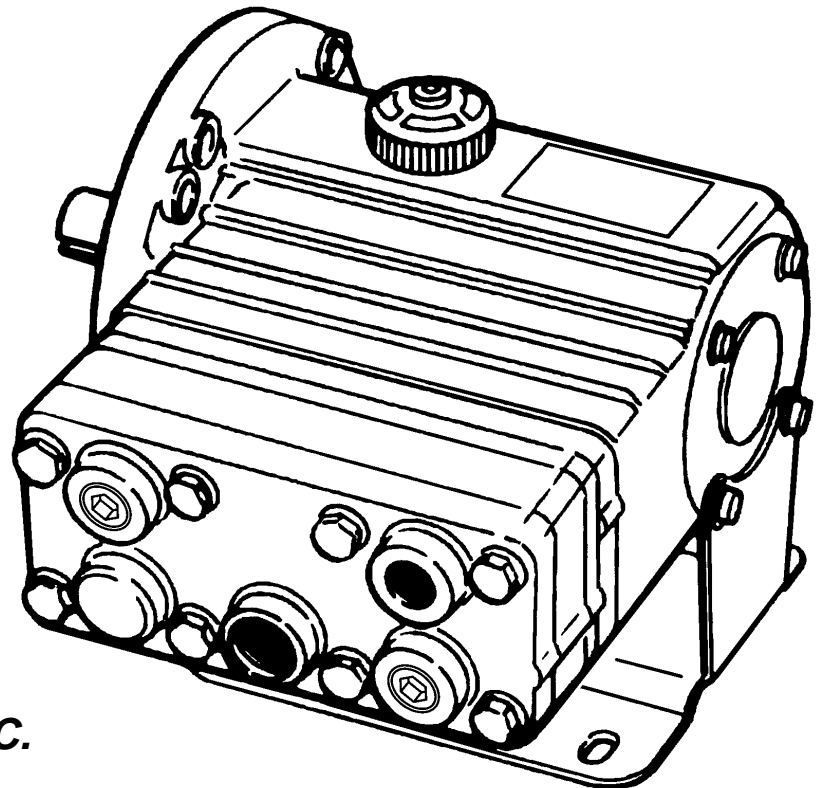
Model No. \_\_\_\_\_

Serial No. \_\_\_\_\_

Date of Purchase \_\_\_\_\_

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

**MODELS:**  
**M-03, D-03, M-23**



**WANNER ENGINEERING, INC.**

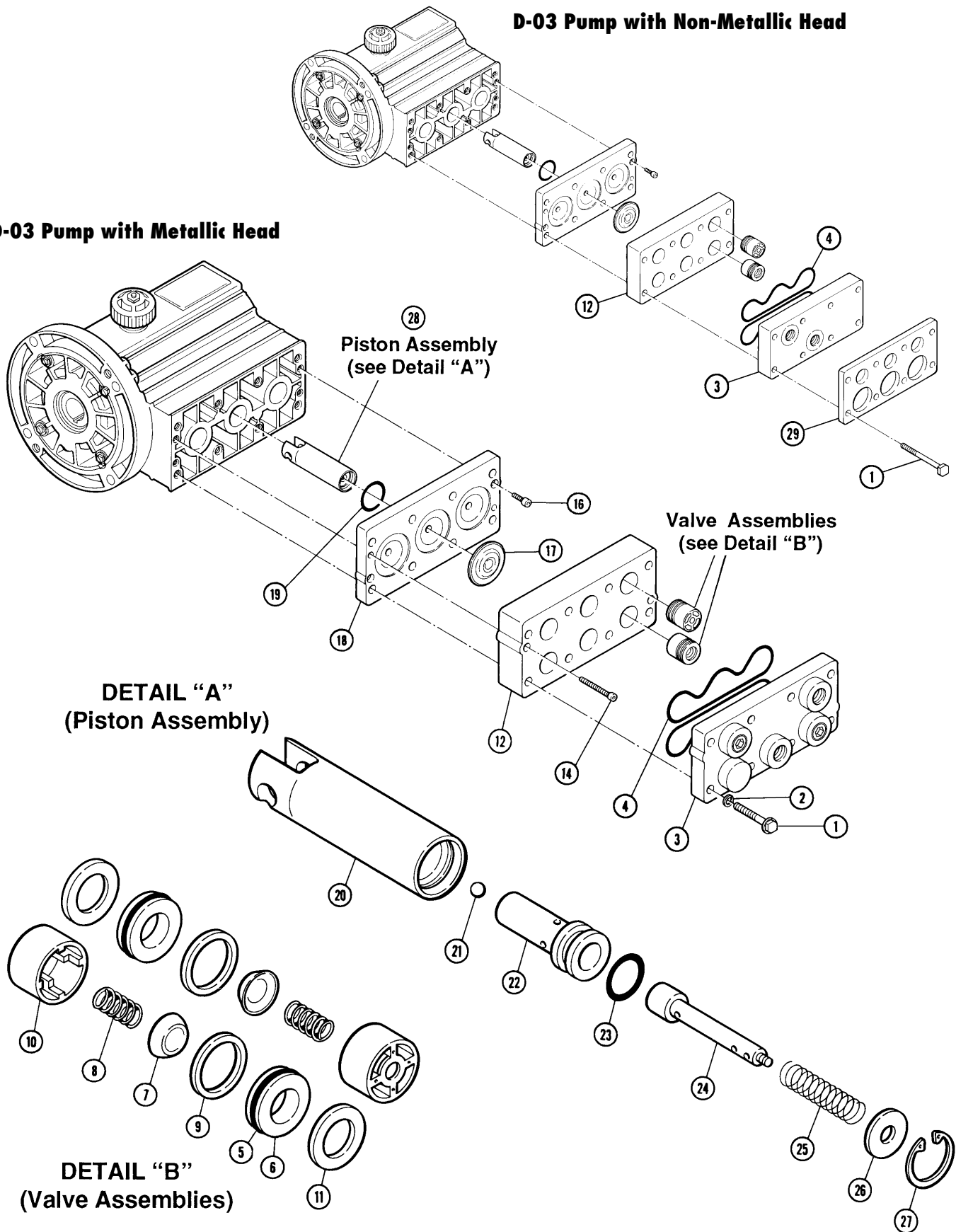
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# M-03/D-03 Fluid End

## D-03 Pump with Non-Metallic Head

## D-03 Pump with Metallic Head



# M-03/D-03 Fluid End

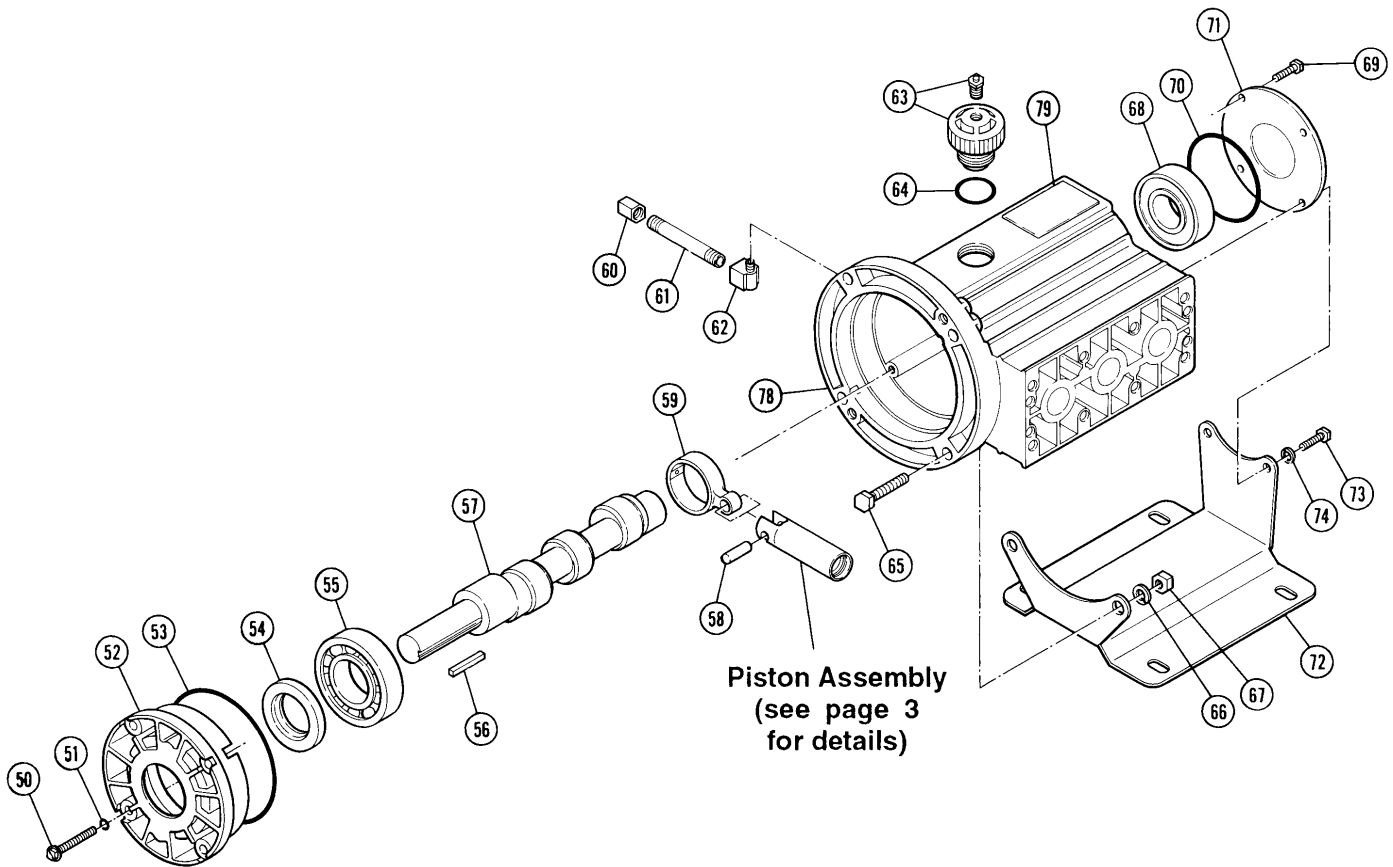
Ref #	Part Number	Description	Quantity/ Pump
1	D03-024-2010	Bolt, hex-head, 3" (for use with metallic head models) .....	8
	D03-024-2017	Bolt, hex-head, 4" (for use with non-metallic head models) .....	8
2	C22-014-2000	Washer, 5/16" (metallic head only) ....	8
3	D03-004-1010	Manifold, brass .....	1
	D03-004-1012	Manifold, 316 SST .....	1
	D03-004-1017	Manifold, nickel alloy, C series .....	1
	D03-004-1050	Manifold, polypropylene .....	1
	D03-004-1053	Manifold, Kynar .....	1
4	D25-073-2110	O-ring, manifold, Buna .....	2
	D25-073-2111	O-ring, manifold, Viton .....	2
	D25-073-2112	O-ring, manifold, Neoprene .....	2
	D25-073-2113	O-ring, manifold, EPDM .....	2
	D25-073-2118	O-ring, manifold, Teflon .....	2
5	D25-046-2110	O-ring, valve seat, Buna .....	6
	D25-046-2111	O-ring, valve seat, Viton .....	6
	D03-035-2112	O-ring, valve seat Neoprene .....	6
	D03-035-2113	O-ring, valve seat, EPDM .....	6
	D03-035-2118	O-ring, valve seat, Teflon .....	6
6	D03-020-1001	Valve Seat, 316 SST .....	6
	D03-020-1002	Valve Seat, 17-4 SST .....	6
	D03-020-1017	Valve Seat, Hastelloy C .....	6
	D03-020-3300	Valve Seat, ceramic .....	6
	D15-020-2016	Valve Seat, tungsten carbide[*] .....	6
7	D03-021-1001	Valve, 316 SST, stamped .....	6
	D03-021-1002	Valve, 17-7 SST, stamped .....	6
	D03-021-1011	Valve, Nitronic 50 .....	6
	D03-021-1015	Valve, 17-4 SST, machined .....	6
	D03-021-1016	Valve, tungsten carbide .....	6
	D03-021-1017	Valve, Hastelloy C .....	6
	D03-021-3300	Valve, ceramic .....	6
8	D03-022-3113	Valve Spring, Hastelloy C .....	6
	D03-022-3114	Valve Spring, Elgiloy .....	6
	D03-022-3118	Valve Spring, 17-7 SST .....	6
9	D03-092-2110	Tetra Seal, Buna .....	6
	D03-092-2111	Tetra Seal, Viton .....	6
	D03-092-2112	Tetra Seal, Neoprene .....	6
	D03-092-2113	Tetra Seal, EPDM .....	6
	D03-035-2118	O-ring, Teflon .....	6
10	D03-023-1010	Retainer, valve spring, 17-7 SST .....	6
	D03-023-2310	Retainer, valve spring, Celcon .....	6
	D03-023-2316	Retainer, valve spring, Nylon .....	6
	D03-023-2317	Retainer, valve spring, polypropylene .....	6
	D03-023-2318	Retainer, valve spring, Kynar .....	6

[\*] Does not require dampening washers.

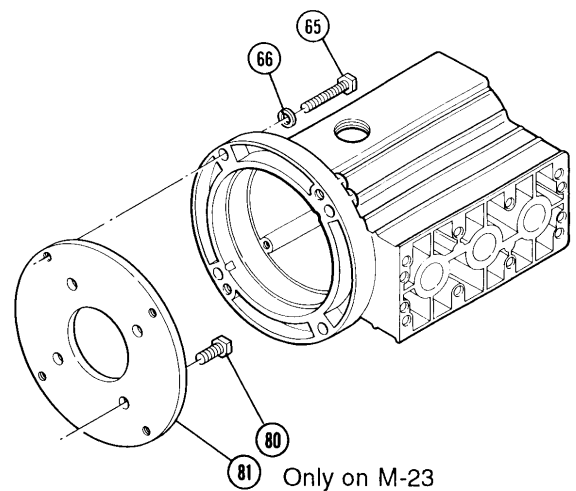
Ref #	Part Number	Description	Quantity/ Pump
11	D03-125-1011	Washer, dampening, 316 SST .....	6
	D03-125-2310	Washer, dampening, Celcon .....	6
	D03-125-2316	Washer, dampening, Nylon .....	6
	D03-125-2317	Washer, dampening, polypropylene ..	6
	D03-125-2318	Washer, dampening, Kynar .....	6
12	D03-003-1010	Valve Plate, brass .....	1
	D03-003-1012	Valve Plate, 316 SST .....	1
	D03-003-1017	Valve Plate, nickel alloy, C series .....	1
	D03-003-1050	Valve Plate, polypropylene .....	1
	D03-003-1053	Valve Plate, Kynar .....	1
14	D03-029-2010	Cap Screw, socket-head, 1" .....	2
16	D03-088-2010	Cap Screw, socket-head, 3/4" .....	2
17	D03-018-1212	Diaphragm, Neoprene .....	3
	D03-018-1213	Diaphragm, EPDM .....	3
	D03-018-1215	Diaphragm, Viton-XT .....	3
	D03-018-1220	Diaphragm, Buna-N-XS .....	3
	D03-018-1218	Diaphragm, Teflon .....	3
18	D03-002-1000	Diaphragm Plate .....	1
19	D03-075-2110	O-ring, diaphragm plate, Buna .....	3
20	D03-014-1004	Piston .....	3
21	D10-015-3010	Ball .....	3
22	D03-043-1000	Valve Cylinder .....	3
23	D03-034-2110	O-ring, valve cylinder, Buna .....	3
24	D03-044-1000	Valve Plunger .....	3
25	D03-045-3110	Spring, sleeve valve .....	3
	D03-045-3111	Spring, sleeve valve for Teflon diaphragms .....	3
26	D03-049-1000	Washer .....	3
27	D03-048-2210	Snap Ring .....	3
28	D03-014-1210	Piston Assembly .....	3
29	D03-100-1010	Manifold Support Plate .....	1
	D03-100-1011	Manifold Support Plate, painted .....	1

# M-03/D-03 Hydraulic End

**MODEL D-03 PUMP HOUSING SHOWN**  
(refer to illustration below for other model)



**PUMP HOUSING,**  
**MODELS M-03, M-23**



# M-03/D-03 Hydraulic End

Ref #	Part Number	Description	Quantity/ Pump
50	D03-086-2010	Cap Screw, hex-head, with washer ...	4
51	D25-047-2110	O-ring, back cover screws, Buna .....	4
52	D03-131-1000	Back Cover .....	1
53	D03-037-2110	O-ring, back cover, Buna .....	1
54	D03-031-2110	Seal, Buna .....	1
55	D03-011-2910	Back Bearing .....	1
56	D10-085-2210	Key, shaft .....	1
57	D03-009-1002	Crank Shaft, shaft-driven, 7/8" O.D., ... 2.2 GPM @ 1750 RPM .....	1
	D03-009-1003	Crank Shaft, shaft-driven, 7/8" O.D., 3.0 GPM @ 1750 RPM .....	1
	D03-009-1011	Crank Shaft, shaft-driven, 7/8" O.D., 1.1 GPM @ 1750 RPM .....	1
	D03-009-1018	Crank Shaft, shaft-driven, 7/8" O.D., 1.8 GPM @ 1750 RPM .....	1
	D03-009-1067	Crank Shaft, shaft-driven, 7/8" O.D., 0.5 GPM @ 1750 RPM .....	1
	M03-009-1002	Hollow Shaft, 56C direct drive, 5/8" I.D. (closed-coupled), 2.2 GPM @1725 RPM .....	1
	M03-009-1003	Hollow Shaft, 56C direct drive, 5/8" I.D. (closed-coupled), 3.0 GPM @1725 RPM .....	1
	M03-009-1011	Hollow Shaft, 56C direct drive, 5/8" I.D. (closed-coupled), 1.1 GPM @1725 RPM .....	1
	M03-009-1018	Hollow Shaft, 56C direct drive, 5/8" I.D. (closed-coupled), 1.8 GPM @1725 RPM .....	1
	M03-009-1067	Hollow Shaft, 56C direct drive, 5/8" I.D. (closed-coupled), 0.5 GPM @1725 RPM .....	1
	M03-009-1004	Hollow Shaft, 20mm I.D. (closed-coupled), 3.0 GPM @ 1800 RPM .....	1
	M03-008-1003	Hollow Shaft, 20mm I.D. (closed-coupled), 3.0 GPM @ 1800 RPM .....	1

Ref #	Part Number	Description	Quantity/ Pump
58	D03-133-1000	Pin .....	3
59	D03-132-1000	Connecting Rod .....	3
60	D10-078-2210	Cap, brass, 1/8" .....	1
61	D10-077-2210	Pipe, brass, 1/8" .....	1
62	D10-076-2210	Elbow, brass, 1/8" .....	1
63	D03-039-1210	Cap, oil fill (includes breather) .....	1
64	D10-080-2111	O-ring, oil fill, Buna .....	1
65	D03-068-2010	Cap Screw, socket-head, 1-1/2" [*] ...	4
66	D10-048-2010	Washer, 3/8" [*] .....	4
67	D10-028-2010	Nut, hex, 3/8" (for D-03 models only) ...	2
68	D03-010-2910	Front Bearing .....	1
69	D03-087-2010	Cap Screw, hex-head, 1/2" [*] .....	4
70	D40-074-2110	O-ring, front cover, Buna .....	1
71	D03-130-1000	Front Cover .....	1
72	D03-025-1010	Base Plate (for D-03 models only) ....	1
73	D03-089-2010	Cap Screw, hex-head, 3/4" (for D-03 models only) .....	2
74	D03-050-2010	Washer, lock (for D-03 models only) .....	2
78	D03-001-1001	Pump Housing .....	1
79	D10-040-2410	Name Plate .....	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.

# M-03 Series 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
<b>1-3</b>		<b>Pump Configuration</b>
	<b>D03</b>	For all M-03, D-03 and M-23 Pumps
<b>4</b>		<b>Kit Designator</b>
	<b>K</b>	Complete Fluid End Kit
	<b>D</b>	Diaphragm Kit
	<b>V</b>	Valve Kit (diaphragm not included)
<b>5-6</b>		<b>Pump Head Version</b>
	<b>51</b>	Pump Head Version
<b>7</b>		<b>Diaphragm &amp; O-ring Material</b>
	<b>E</b>	EPDM
	<b>G</b>	Viton®-XT
	<b>J</b>	Teflon®
	<b>P</b>	Neoprene
	<b>T</b>	Buna-N-XS
<b>8</b>		<b>Valve Seat Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>H</b>	17-4 PH Stainless Steel
	<b>S</b>	316 Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
<b>9</b>		<b>Valve Material</b>
	<b>C</b>	Ceramic
	<b>D</b>	Tungsten Carbide
	<b>F</b>	17-4 PH Stainless Steel – Machined
	<b>H</b>	17-7 PH Stainless Steel
	<b>N</b>	Nitronic 50
	<b>S</b>	316 Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
<b>10</b>		<b>Valve Springs</b>
	<b>E</b>	Elgiloy®
	<b>S</b>	316 Stainless Steel
	<b>T</b>	Hastelloy® C
	<b>X</b>	Not included in Diaphragm Kit
<b>11</b>		<b>Valve Spring Retainers</b>
	<b>C</b>	Celcon
	<b>H</b>	17-7 PH Stainless Steel
	<b>M</b>	Kynar®
	<b>P</b>	Polypropylene
	<b>Y</b>	Nylon
	<b>X</b>	Not included in Diaphragm Kit

## Kit Contents

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

\* Last four digits of part numbers with \_\_ refer to specific material of construction.

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



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