



# SALES & ENGINEERING DATA

## 1" METALLIC DIAPHRAGM PUMP (DP31)

### SPECIFICATIONS:

**Air Inlet(female):** 1/4"BSPT(1/4"NPT Available On Request)

**Fluid Outlet:** Rp 1 (1-11 BSP,parallel)  
1-11 1/2 NPT

**Fluid Inlet:** Rp 1 (1-11 BSP,parallel)  
1-11 1/2 NPT

**Maximum Flow Rate:** 35 GPM(133 LPM)

**Max. Operating Pressure:** 120psi(8.3 bar)

**Suspended Solids Max. Dia.:** 1/8"(3.2mm)

**Maximum Dry Suction Lift:** 20feet(6.1m)

**Weight:** aluminum-19 lbs(8.6kg);  
stainless steel-36 lbs(16.3kg);  
cast iron-31 lbs(14.1kg);

**Sound Level:**70psi 60 cycles/min. 64.5db(A)



### MODEL DESCRIPTION & ORDERING:

DP31	-	25	X	X	X	X	X	X	X
		Pump Size	Center Body Mat.	Fluid Caps Manifold Mat.	Seat Material	Ball Check Material	Diaphragm Material	Fluid Connections	Hardware

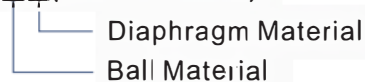
Pump Size	25-1"								
Center Body Mat.	A-Aluminum				C-Cast Iron				
Fluid Caps Manifold Mat.	A - Aluminum				S -Stainless Steel		C-Cast Iron		
Seat Material	1 - Aluminum		2 - 316 Stainless Steel		3-Polypropylene		4-PVDF(Kynar)		
	5-Carbon Steel		8-Hard 400 Stainless Steel						
Ball Check Material	1-Neoprene		2-Nitrile		3-Viton		4-PTFE		
	5-E.P.R		6-Acetal		8-Polyurethane		A-Stainless Steel		
	C-Hytrel				E-Santoprene				
Diaphragm Material	1-Neoprene		2-Nitrile		3-Viton		4-PTFE/Santoprene		
	5-E.P.R		6-Acetal		9-Hytrel		B-Santoprene		
	G-Nitrile								
Fluid Connections	N-NPT Threads				B-BSP Threads				
Hardware	S-Stainless Steel				C-Carbon Steel				

### ACCESSORIES:

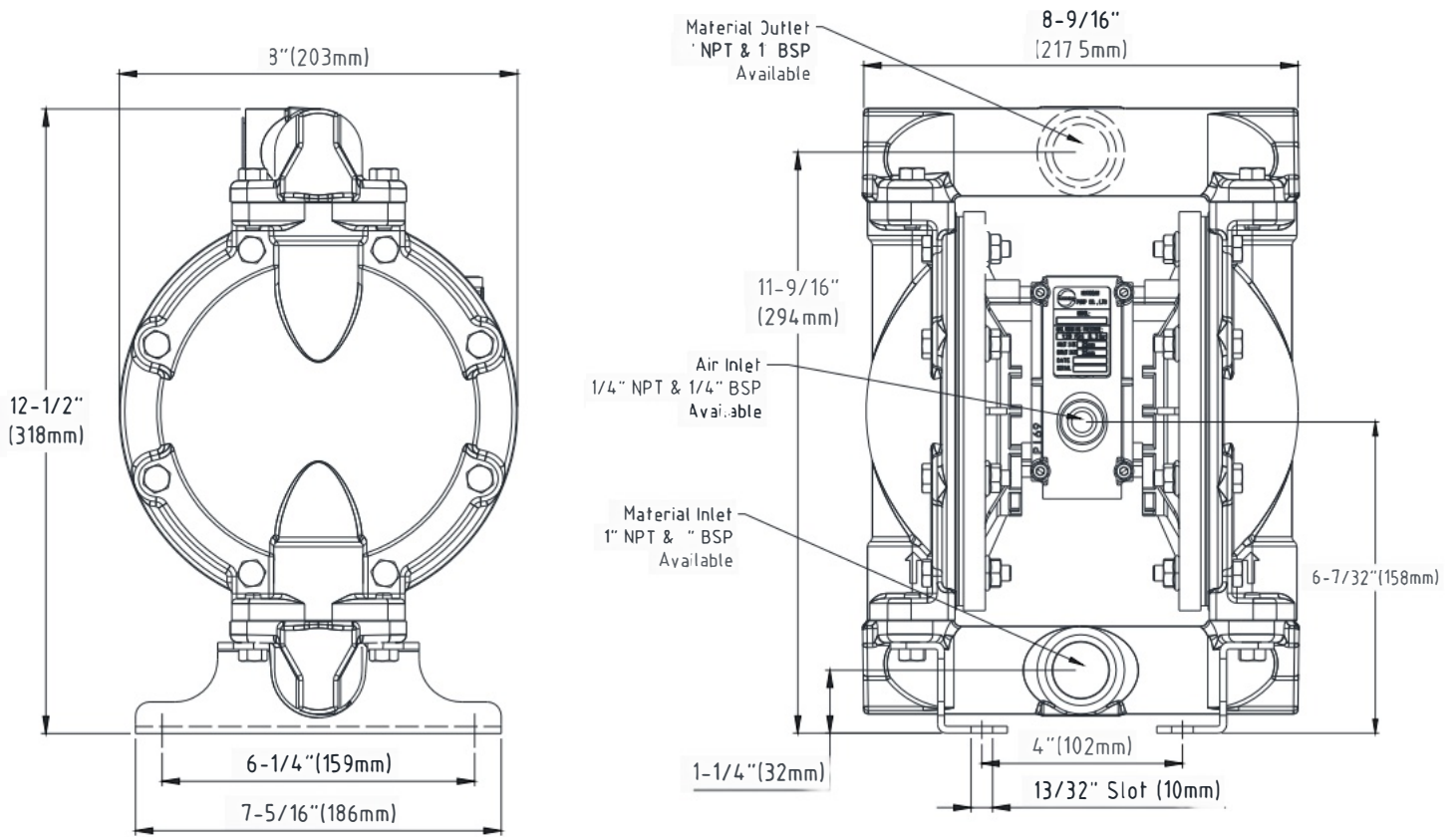
#### Service Repair Kits:

DP31-Air25(air section)

DP31-Flu25 - XX(fluid section)

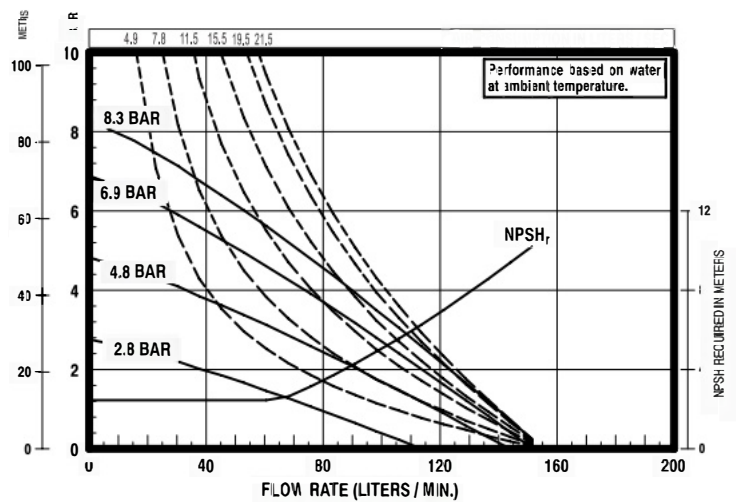
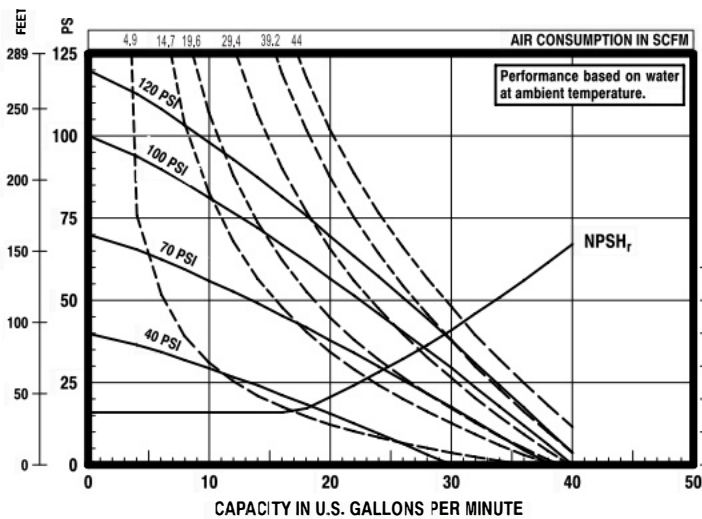


## DIMENSIONS:



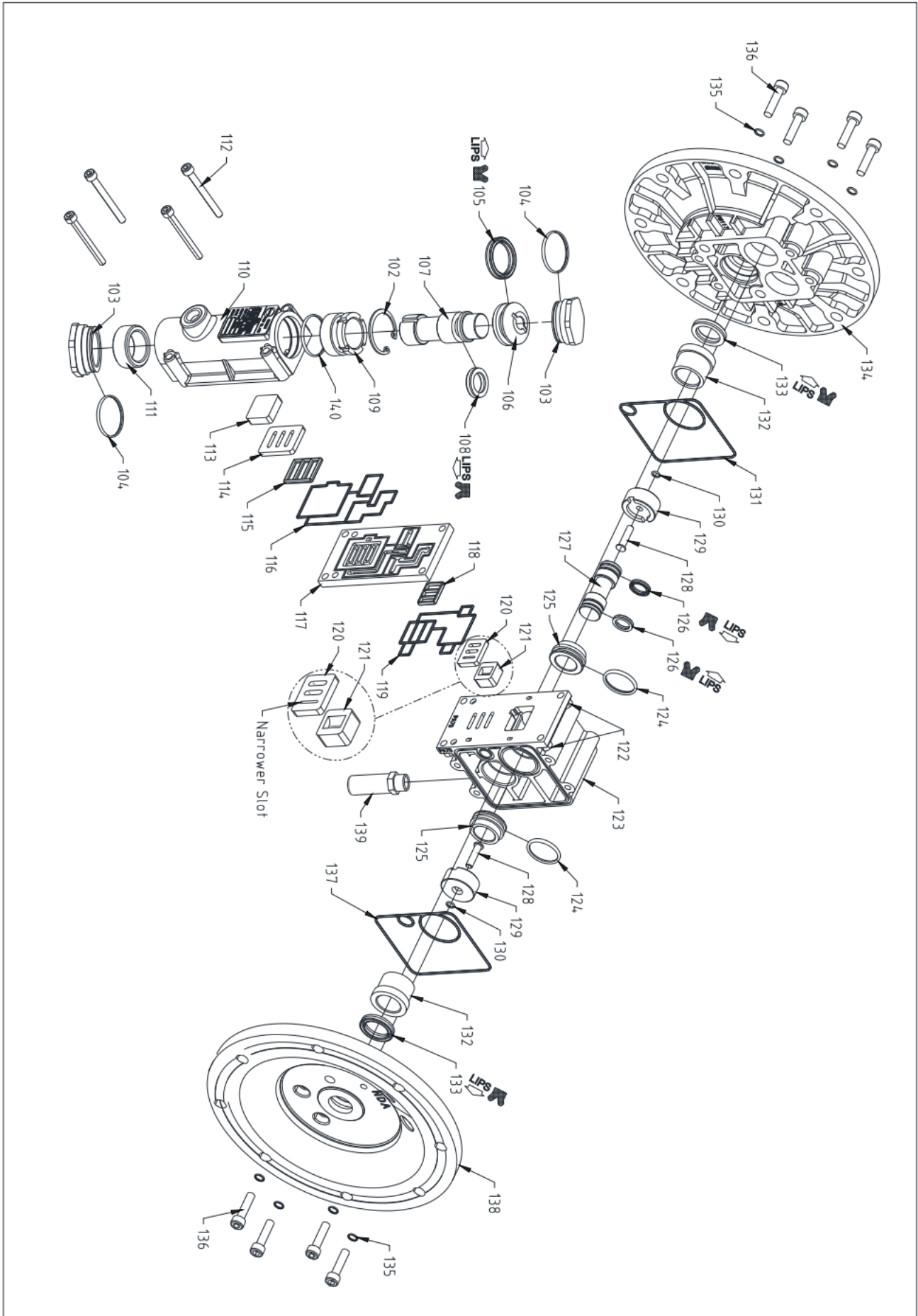
Dimensions shown are for reference only. They are displayed in inches and millimeters (mm).

## PERFORMANCE CURVE:



### 1" METALLIC DIAPHRAGM PUMP (DP31)

## Exploded View Of Air Motor Section

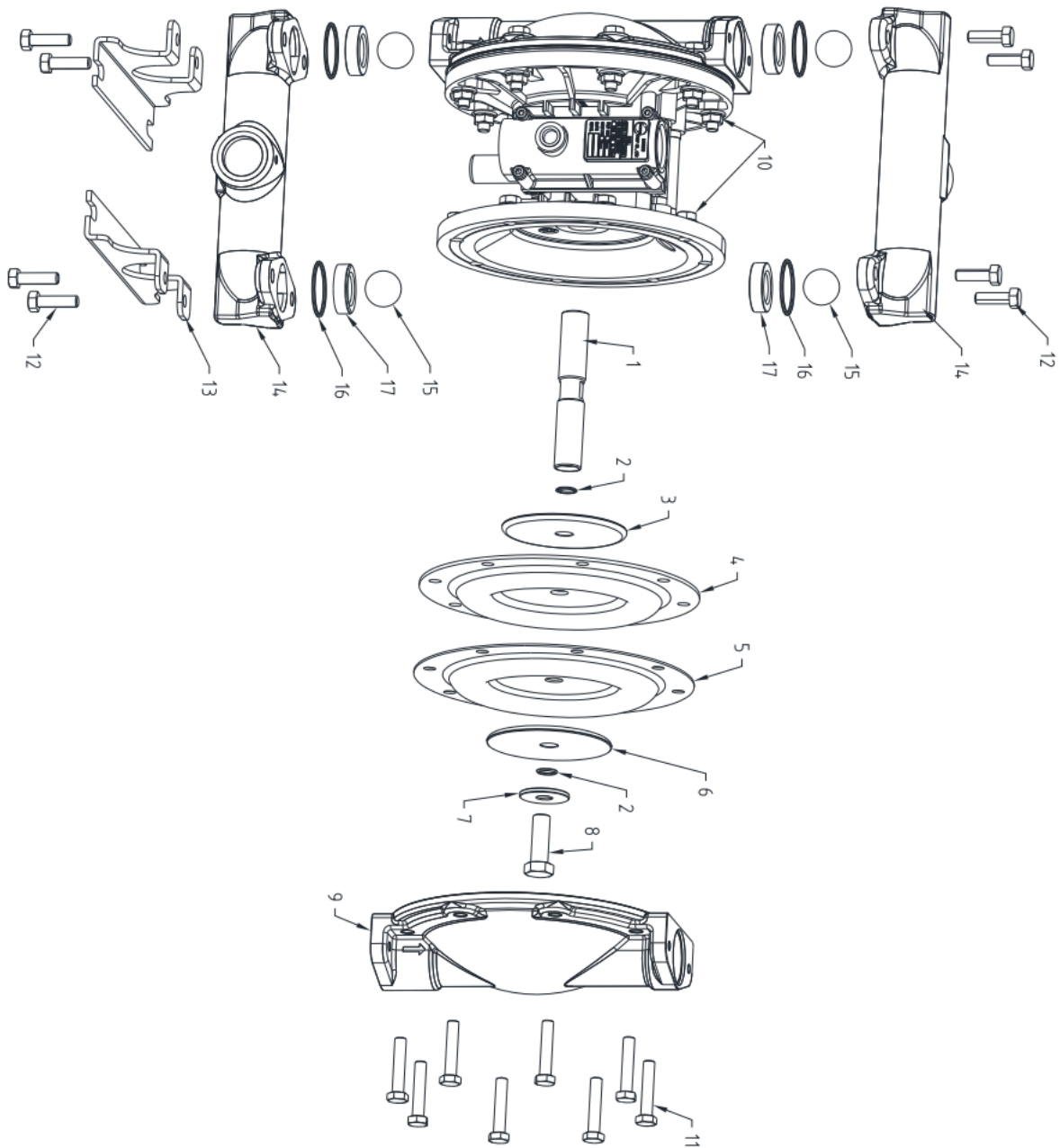


## Parts List Of Air Motor Section

Position number	Description	Part number	Material	Quantity
102	Retaining Ring 32	NDA-PN120	Stainless Steel	1
103	Valve Cap	NDA-PJ69	Aluminum	2
104	O-Ring 28*1.8 (ID*Sec)	NDA-PY27	Nitrile	2
105	Y Type Seal 32*24*4.5	NDA-PW22	Nitrile	1
106	Piston	NDA-PK141	POM	1
107	Spool	NDA-PK142	POM	1
108	Y Type Seal 23*15*4.5	NDA-PW29	Nitrile	1
109	Guide Bush	NDA-PK143	POM	1
110	Valve Body	NDA-PI69	Aluminum	1
111	Guide Bush	NDA-PK144	POM	1
112	Screw M5*50	NDA-PX72	Steel	4
		NDA-PX73	Stainless Steel	4
113	Bigger Valve Insert	NDA-PK168	Ceramic	1
114	Bigger Valve Plate	NDA-PK169	Ceramic	1
115	Gasket	NDA-PK170	Nitrile	1
116	Gasket	NDA-PK171	Nitrile	1
117	Adapter Plate	NDA-PK172	Aluminum	1
118	Gasket	NDA-PK173	Nitrile	1
119	Gasket	NDA-PK174	Nitrile	1
120	Valve Plate	NDA-PK175	Ceramic	1
121	Valve Insert	NDA-PK176	Ceramic	1
122	Nut M5	NDA-PX74	Steel	4
		NDA-PX75	Stainless Steel	4
123	Pump Body	NDA-PA70	Aluminum	1
124	O-Ring 22*2.5 (ID*Sec)	NDA-PY28	Nitrile	2
125	Guide Bush	NDA-PK177	POM	2
126	Y Type Seal 17*10*4	NDA-PW30	Nitrile	2
127	Spool	NDA-PK178	POM	1
128	Plot Pin	NDA-PK179	Stainless Steel	2
129	Retainer Ring	NDA-PK180	POM	2
130	O-Ring 5*1.5 (ID*Sec)	NDA-PY16	Nitrile	2
131	Gasket	NDA-PF88	Nitrile	1
132	Bush	NDA-PG71	POM	2
133	Y Type Seal 27*19*4.5	NDA-PW31	Nitrile	2
134	Left Air Cap	NDA-PB117	Aluminum	1
135	O-Ring 6*1.2 (ID*Sec)	NDA-PY29	Nitrile	8
136	Screw M6*25	NDA-PX76	Steel	8
		NDA-PX77	Stainless Steel	8
137	Gasket	NDA-PF89	Nitrile	1
138	Right Air Cap	NDA-PB118	Aluminum	1
139	Muffler	93110	Assembly	1
140	O-Ring 32*2 (ID*Sec)	NDA-PY30	Nitrile	1

### 1" METALLIC DIAPHRAGM PUMP (DP31)

## Exploded View Of Fluid Section





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## Parts List Of Fluid Section

Part List   Fluid Section   1" DP31 Metallic Diaphragm Pump				
Position number	Description	Part number	Material	Quantity
1	Rod	NDA-PD77	SS304	1
2	O-Ring	Y328-14	PTFE	4
3	Washer-Air Side	93441-2	Electrophoretic Steel	2
4	Backer Diaphragm	92973-B	Santoprene(Green)	2
5	Diaphragm	90533-1	Neoprene	2
		90533-2	Nitrile	2
		90533-3	Viton	2
		93459-4	PTFE	2
		90533-9	Hytre	2
		90533-B	Santoprene(Yellow)	2
6	Washer-Fluid Side	93441-1	Stainless Steel	2
7	Washer	NDA-PN70	Stainless Steel	2
8	Bolt M12x1.25x35	NDA-PX20	Stainless Steel	2
9	Fluid Cap	94945	Aluminum	2
		97615	Stainless Steel ANSI 316	2
		94277	Cast Iron	2
10	Nut M8	NDA-PX11	Steel	16
		NDA-PX12	Stainless Steel	16
11	Bolt M8x40	NDA-PX23	Steel	16
		NDA-PX24	Stainless Steel	16
12	Bolt M8x25	NDA-PX25	Steel	8
		NDA-PX26	Stainless Steel	8
	Bolt (5/16" -18 x1")	Y6-55-T	Stainless Steel	8
13	Leg	NDA-PN119	Steel	2
		NDA-PN118	Stainless Steel	2
14	Manifold	92001 (NPTF)	Aluminum	2
		92001-1(BSP)	Aluminum	2
		91C44 (NPTF)	Stainless Steel ANSI 316	2
		91044-1(BSP)	Stainless Steel ANSI 316	2
		94278 (NPTF)	Cast Iron	2
		94278-1(BSP)	Cast Iron	2
15	Ball (25.4mm dia.)	90532-1	Neoprene	4
		90532-2	Nitrile	4
		90532-3	Viton	4
		90532-4	PTFE	4
		90532-8	Polyurethane	4
		90532-C	Hytre	4
		90948	Stainless Steel ANSI 316	4
		90532-A	Santoprene(Yellow)	4
16	O-Ring 34.6*2.7 (ID*Sec)	Y325-126	Nitrile	4
		Y327-126	Viton	4
		Y328-126	PTFE	4
		90534	E.P.R.	4
17	Seat	92008-1	Aluminum	4
		9C428-1	Stainless Steel ANSI 316	4
		92926	Polyurethane	4
		95675-1	Carbon Steel	4
18	1" Plastic Plug	NDA-PU01	Plastic	2
19	1/4" Plastic Plug	NDA-PU11	Plastic	1

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