

PARTS LIST / PX30X-X-X-C FLUID SECTION

★ 637303-XX FLUID SECTION SERVICE KITS INCLUDE: BALLS (see Ball Option, refer to -XX in chart below), DIAPHRAGMS (see Diaphragm Option, refer to -XX in chart below), and items; 3, 19, 70, 144, 175, 196, (listed below) plus (174) and 94276 Lubriplate FML-2 grease (page 6).

SEAT OPTIONS PX30X-XXX-XXX-C								BALL OPTIONS PX30X-XXX-XXX-C							
"21"								★ "22" (3-1/4" dia.)				★ "19" (3/16" x 5" o.d.)			
-XXX	Seat	Qty	[Mtl]	-XXX	Seat	Qty	[Mtl]	-XXX	Ball	Qty	[Mtl]	Gasket	Qty	[Mtl]	
-AXX	94104-A	(4)	[Sp]	-HXX	94114	(4)	[SH]	-XAX	94103-A	(4)	[Sp]	94115	(4)	[E]	
-CXX	94104-C	(4)	[H]	-KXX	94621-K	(4)	[K]	-XCX	94103-C	(4)	[H]	Y327-350	(4)	[V]	
-EXX	95678	(4)	[C]	-LXX	94939	(4)	[Ha]	-XGX	94103-G	(4)	[B]	Y325-350	(4)	[B]	
-FXX	95674	(4)	[A]	-SXX	94113	(4)	[SS]	-XTX	94103-T	(4)	[T]	Y328-350	(4)	[T]	
-GXX	94104-G	(4)	[B]					-VXX	94103-V	(4)	[V]	Y327-350	(4)	[V]	

DIAPHRAGM OPTIONS PX30X-XXX-XXX-C										
-XXX	★ SERVICE KIT -XX = (Ball) -XX = (Diaphragm)	★ "7"			★ "8"			★ "3" (1/8" x 1" o.d.)		
		Diaphragm	Qty	[Mtl]	Diaphragm	Qty	[Mtl]	"O" Ring	Qty	[Mtl]
-XXA	637303-XA	94091-A	(2)	[Sp]	-----	---	---	Y328-210	(2)	[T]
-XXB	637303-XB	94110-A	(2)	[Sp]	-----	---	---	Y328-210	(2)	[T]
-XXC	637303-XC	94091-C	(2)	[H]	-----	---	---	Y327-210	(2)	[V]
-XXG	637303-XG	94091-G	(2)	[B]	-----	---	---	Y328-210	(2)	[T]
-XXT	637303-XT	94090-T	(2)	[T]	94110-A	(2)	[Sp]	Y328-210	(2)	[T]
-XXV	637303-XV	95345	(2)	[V]	-----	---	---	Y327-210	(2)	[V]

MATERIAL CODE	
[A]	Aluminum
[B]	Nitrile
[C]	Carbon Steel
[Co]	Copper
[Cl]	Cast Iron
[E]	E.P.R.
[H]	Hytre
[Ha]	Hastelloy - C
[K]	Kynar PVDF
[SH]	Hard Stainless Steel
[Sp]	Santoprene
[SS]	Stainless Steel
[T]	Teflon P.T.F.E.
[V]	Viton

CENTER SECTION PART OPTIONS PX30X-XXX-XXX-C										
Item	Description (size)	Qty	PD30A-XXX-XXX-C		PE30A-XXX-XXX-C		PD30S-XXX-XXX-C		PE30S-XXX-XXX-C	
			Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]
5	Backup Washer	(2)	94831-1	[C]	94831-1	[C]	94831-2	[SS]	94831-2	[SS]
68	Air Cap	(1)	94030-1	[A]	94721-1	[A]	94031-1	[SS]	94031-1	[SS]
69	Air Cap	(1)	94030-2	[A]	94721-2	[A]	94031-2	[SS]	94031-2	[SS]
76	Pipe Plug (1/8 - 27 N.P.T. x 0.27")	(1)	-----	---	Y17-50-S	[SS]	-----	---	Y17-50-S	[SS]
126	Pipe Plug (1/4 - 18 N.P.T. x 7/16")	(2)	-----	---	Y17-51-S	[SS]	Y17-51-S	[SS]	Y17-51-S	[SS]
131	Screw (M10 x 1.5 - 6g x 120 mm)	(4)	94531	[C]	94531	[C]	96656	[SS]	96656	[SS]
★ 175	"O" Ring (3/32" x 1" o.d.)	(2)	Y325-117	[B]	Y325-117	[B]	-----	---	-----	---
★ 175	(3/32" x 1-1/16" o.d.)	(2)	-----	---	-----	---	Y325-118	[B]	Y325-118	[B]
181	Roll Pin (5/32" o.d. x 3/4 long")	(4)	-----	---	-----	---	Y178-56-S	[SS]	Y178-56-S	[SS]

MANIFOLD THREAD / FLUID CAP MATERIAL OPTIONS PX30X-XXX-XXX-C										
Item	Description (size)	Qty	PX30X-XAX-XXX-C		PX30X-XCX-XXX-C		PX30X-XHX-XXX-C		PX30X-XSX-XXX-C	
			Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]	Part No.	[Mtl]
6	Fluid Side Washer	(2)	94802	[A]	94803	[SS]	94947	[Ha]	94803	[SS]
9	Washer (3/16" i.d. x 2" o.d. x 5/32")	(2)	Y13-12-T	[SS]	Y13-12-T	[SS]	94949	[Ha]	Y13-12-T	[SS]
14	Cap Screw (3/4" - 16 x 3-1/4")	(2)	Y5-134-T	[SS]	Y5-134-T	[SS]	94948	[Ha]	Y5-134-T	[SS]
15	Fluid Cap	(2)	94024	[A]	94106	[Cl]	94693	[Ha]	94107	[SS]
32	Leg (PX30A-XXX-XXX-C)	(2)	-----	---	94701-1	[C]	N / A	N / A	94703-1	[C]
	(PX30S-XXX-XXX-C)	(2)	-----	---	94701-2	[SS]	94703-2	[SS]	94703-2	[SS]
60	Inlet Manifold (N.P.T.F.)	(1)	94699-1	[A]	94305-1	[Cl]	94691-1	[Ha]	94216-1	[SS]
	(BSP)	(1)	94699-2	[A]	94305-2	[Cl]	94691-2	[Ha]	94216-2	[SS]
61	Outlet Manifold (N.P.T.F.)	(1)	94700-1	[A]	94702-1	[Cl]	94809-1	[Ha]	94704-1	[SS]
	(BSP)	(1)	94700-2	[A]	94702-2	[Cl]	94809-2	[Ha]	94704-2	[SS]

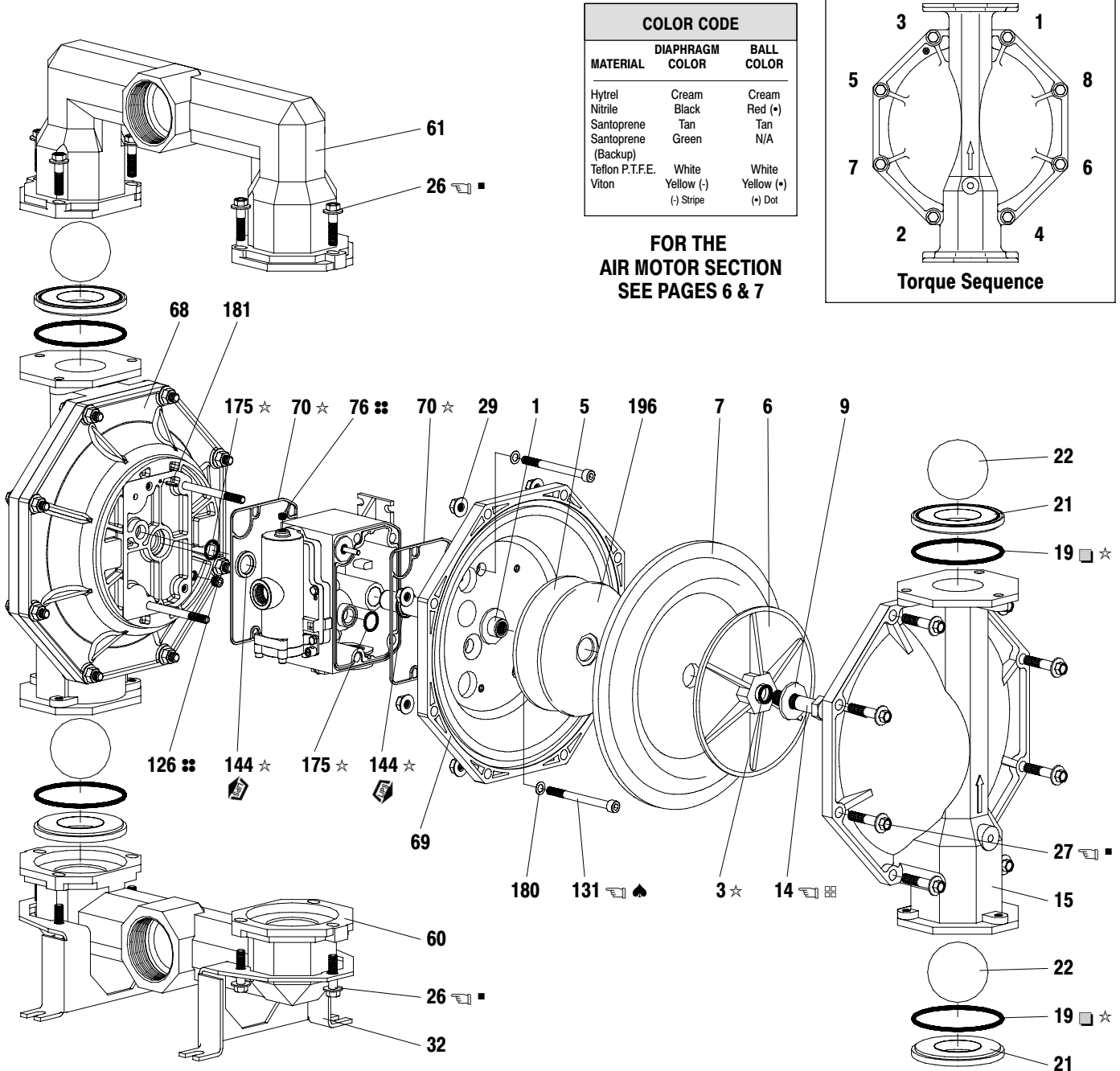
EXTERNAL HARDWARE OPTION PX30X-XXX-XXX-C						
Item	Description (size)	Qty	PX30X-XXP-XXX-C		PX30X-XXS-XXX-C	
			Part No.	[Mtl]	Part No.	[Mtl]
26	Screw (M12 x 1.75 - 6g x 45 mm)	(12)	94412-1	[C]	94412-2	[SS]
27	Screw (M12 x 1.75 - 6g x 60 mm)	(16)	94991-1	[C]	94991	[SS]
29	Nut (M12 x 1.75 - 6g)	(16)	95053-1	[C]	95053	[SS]

NOTE: Seat options -AXX, -CXX and -GXX do not require item 19 "O" ring.

★ Air Motor Kit parts, see page 6.

COMMON PARTS										
Item	Description (size)	Qty	Part No.	[Mtl]	Item	Description (size)	Qty	Part No.	[Mtl]	
1	Rod	(1)	94984	[C]	★ 144	"U" Cup (3/16" x 1-3/8" o.d.)	(2)	Y186-51	[B]	
43	Ground Lug (see page 7)	(1)	93004	[Co]	★ 180	Gasket (0.406" i.d. x 0.031" thick)	(4)	94098	[Co]	
★ 70	Gasket	(2)	94100	[B]	★ 196	Cushion	(2)	94631	[Sp]	

PARTS LIST / PX30X-X-X-C FLUID SECTION



COLOR CODE		
MATERIAL	DIAPHRAGM COLOR	BALL COLOR
Hytrel	Cream	Cream
Nitrile	Black	Red (•)
Santoprene	Tan	Tan
Santoprene (Backup)	Green	N/A
Teflon P.T.F.E.	White	White
Viton	Yellow (-)	Yellow (•)
	(-) Stripe	(•) Dot

**FOR THE AIR MOTOR SECTION
 SEE PAGES 6 & 7**

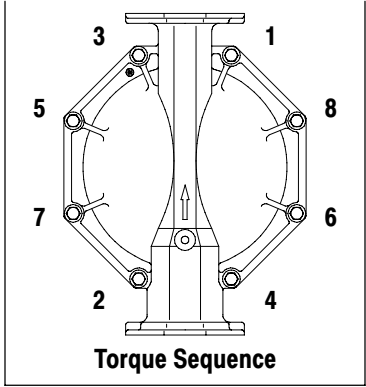


Figure 2

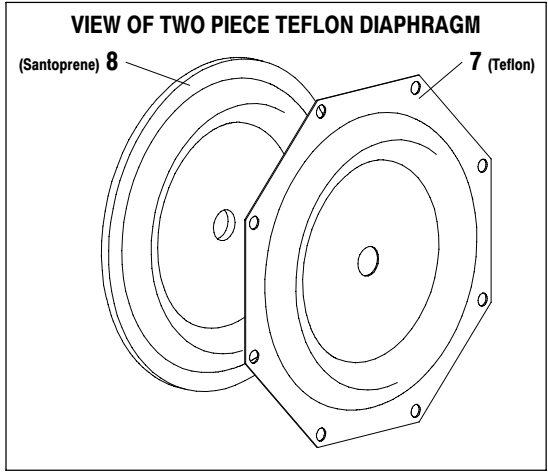
TORQUE REQUIREMENTS
 NOTE: DO NOT OVERTIGHTEN FASTENERS.
 ALL FASTENERS ARE METRIC.

(14) Cap screw, 65 - 70 ft lbs (88.1 - 94.9 Nm).
 (26 and 27) Fluid caps / manifold screw, 60 - 70 ft lbs (81.4 - 94.9 Nm).
 (131) Screw, 35 - 40 ft lbs (47.5 - 54.2 Nm).

LUBRICATION / SEALANTS

- ☆ Apply Lubriplate FML-2 grease to all "O" rings, "U" Cups & mating parts.
- ♣ Apply Loctite® 242 to threads at assembly.
- ⊘ Apply Teflon tape to threads at assembly.
- ⊞ Apply Loctite 271 to threads.
- Apply anti-seize compound to threads and bolt and nut flange heads which contact pump case when using Stainless steel fasteners.

■ NOT USED WITH PX30X-XXX-AXX-C, -CXX-C, & -GXX-C.
 ◇ Lubriplate FML-2 is a white food grade petroleum grease. MSDS available upon request.



PARTS LIST / PX30X-X-X-C AIR SECTION

✓ Indicates parts included in 637421 Air Section Service Kit shown below and items (70), (144), (175), (180) shown on page 4.

AIR MOTOR PARTS

Item	Description (size)	Qty	Part No.	[Mtl]
101	Center Body (PX30A-XXX-XXX-C)	(1)	94028	[A]
	(PX30S-XXX-XXX-C)	(1)	94109	[SS]
103	Bushing	(1)	94092	[D]
105	Screw (M6 x 1 - 6g x 20 mm)	(4)	95887	[SS]
111	Spool	(1)	95651	[D]
118	Actuator Pin (0.250" x 2.276" long)	(2)	94083	[SS]
121	Sleeve	(2)	94084	[D]
127	90 St. Elbow (1-1/2 - 11-1/2 N.P.T.)	(1)	94860	[C / I]
128	Set Screw (1/4" - 20 x 1/4")	(2)	Y29-42-S	[SS]
✓ 132	Gasket	(1)	94099	[B]
133	Lockwasher (1/4") (PX30A-X-X-C)	(3)	Y117-416-C	[C]
	(PX30S-X-X-C)	(3)	Y14-416-T	[SS]
134	Screw (M6 x 1 - 6g x 30 mm)	(4)	96358	[SS]
135	Valve Housing (PD30A-XXX-XXX-C)	(1)	96334-1	[A]
	(PE30A-XXX-XXX-C)	(1)	96334-2	[A]
	(PD30S-XXX-XXX-C)	(1)	96337-1	[SS]
	(PE30S-XXX-XXX-C)	(1)	96337-2	[SS]
136	Plug (PX30A-XXX-XXX-C)	(1)	96335	[A]
	(PX30S-XXX-XXX-C)	(1)	96339	[SS]
✓ 137	"O" Ring (1/16" x 2" o.d.)	(1)	Y325-32	[B]
✓ 138	"U" Cup (3/16" x 1.792" o.d.)	(1)	95966	[B]
✓ 139	"U" Cup (3/16" x 1-1/4" o.d.)	(1)	Y186-50	[B]
140	Valve Insert	(1)	95650	[Ck]
141	Valve Plate	(1)	95659	[Ck]
✓ 146	"O" Ring ◆ (3/32" x 1-1/16" o.d.)	(1)	Y325-118	[B]
✓ 147	"O" Ring ◆ (1/8" x 1/2" o.d.)	(2)	Y325-202	[B]

★ Fluid Section Kit parts, see page 4.

AIR MOTOR SECTION SERVICE

Service is divided into two parts - 1. Pilot Valve, 2. Major Valve.

GENERAL REASSEMBLY NOTES:

- Air Motor Section Service is continued from Fluid Section repair.
- Inspect and replace old parts with new parts as necessary. Look for deep scratches on metallic surfaces, and nicks or cuts in "O" rings.
- Take precautions to prevent cutting "O" rings upon installation.
- Lubricate "O" rings with Lubriplate FML-2 grease.
- Do not over-tighten fasteners, refer to torque specification block on view.
- Re-torque fasteners following restart.
- SERVICE TOOLS - To aid in the installation of (168) "O" rings onto the (167) pilot piston, use tool # 204130-T, available from ARO.

PILOT VALVE DISASSEMBLY

1. A light tap on (118) should expose the opposite (121) sleeve, (167) pilot piston and other parts.
2. Remove (170) sleeve, inspect inner bore of sleeve for damage.

PILOT VALVE REASSEMBLY

1. Clean and lubricate parts not being replaced from service kit.
2. Install new (171 and 172) "O" rings, replace (170) sleeve.
3. Install new (168) "O" rings and (169) seal - Note the lip direction. Lubricate and replace (167).

Item	Description (size)	Qty	Part No.	[Mtl]
✓ 166	Track Gasket ●	(1)	94026	[B]
✓ 167	Pilot Piston (includes 168 and 169)	(1)	67164	[D]
168	"O" Ring (3/32" x 5/8" o.d.)	(2)	94433	[U]
169	"U" Cup (1/8" x 7/8" o.d.)	(1)	Y240-9	[B]
170	Piston Sleeve	(1)	94081	[Br]
✓ 171	"O" Ring (3/32" x 1-1/8" o.d.)	(1)	Y325-119	[B]
✓ 172	"O" Ring (1/16" x 1-1/8" o.d.)	(1)	Y325-22	[B]
✓ 173	"O" Ring (1/16" x 1-3/8" o.d.)	(2)	Y325-26	[B]
★ ✓ 174	"O" Ring (1/8" x 1/2" o.d.)	(2)	Y325-202	[B]
✓ 176	Diaphragm (check valve)	(2)	94102	[Sp]
✓ 199	Track Gasket	(1)	95666	[B]
✓ 200	Gasket	(1)	95665	[B]
201	Muffler	(1)	94810	
233	Adapter Plate (PX30A-XXX-XXX-C)	(1)	96336	[A]
	(PX30S-XXX-XXX-C)	(1)	96338	[SS]
240	Screw (M6 x 1 - 6g x 16 mm)	(2)	95991	[SS]
✓ 241	Track Gasket	(1)	96344	[B]
✓ 242	"O" Ring (1/16" x 7/32" o.d.)	(1)	Y325-5	[B]
✓ 243	"O" Ring (1/8" x 5/8" o.d.)	(1)	Y325-204	[B]
✓ 244	"O" Ring (1/8" x 7/8" o.d.)	(1)	Y325-208	[B]
★ ✓	Lubriplate FML-2 Grease	(1)	94276	
	Lubriplate Grease Packets (10)		637308	
◆ Used on models PX30S-XXX-XXX-C only.				
● Used on models PX30A-XXX-XXX-C only.				
○ Items not shown				

4. Reassemble remaining parts, replace (173 and 174) "O" rings.

MAJOR VALVE DISASSEMBLY

1. Remove (135) valve block and (233) adapter plate, exposing (166 and 132) gaskets and (176) checks.
2. Remove (233) adapter plate, releasing (140) valve insert, (141) valve plate, (199, 200 and 241) gaskets and (243 and 244) "O" rings.
3. Remove (136) plug and (137) "O" ring, releasing (111) spool.

MAJOR VALVE REASSEMBLY

1. Install new (138 and 139) "U" cups on (111) spool - **LIPS MUST FACE EACH OTHER.**
2. Insert (111) spool into (135) valve housing.
3. Install (137 and 242) "O" rings on (136) plug and assemble plug to (135) valve housing, securing with (105) screws.
4. Install (140) valve insert, (141) valve plate, (199) gasket and (243 and 244) "O" rings into (135) valve housing. NOTE: Assemble (140) valve insert with "dished" side toward (141) valve plate. Assemble (141) valve plate with part number identification toward (140) valve insert.
5. Assemble (200 and 241) gaskets and (233) adapter plate to (135) valve housing, securing with (240) screws.
6. Assemble (132 and 166) gaskets and (176) checks to (101) center body.
7. Assemble (135) valve housing and components to (101) center body, securing with (134) screws.

PARTS LIST / PX30X-X-X-C AIR SECTION

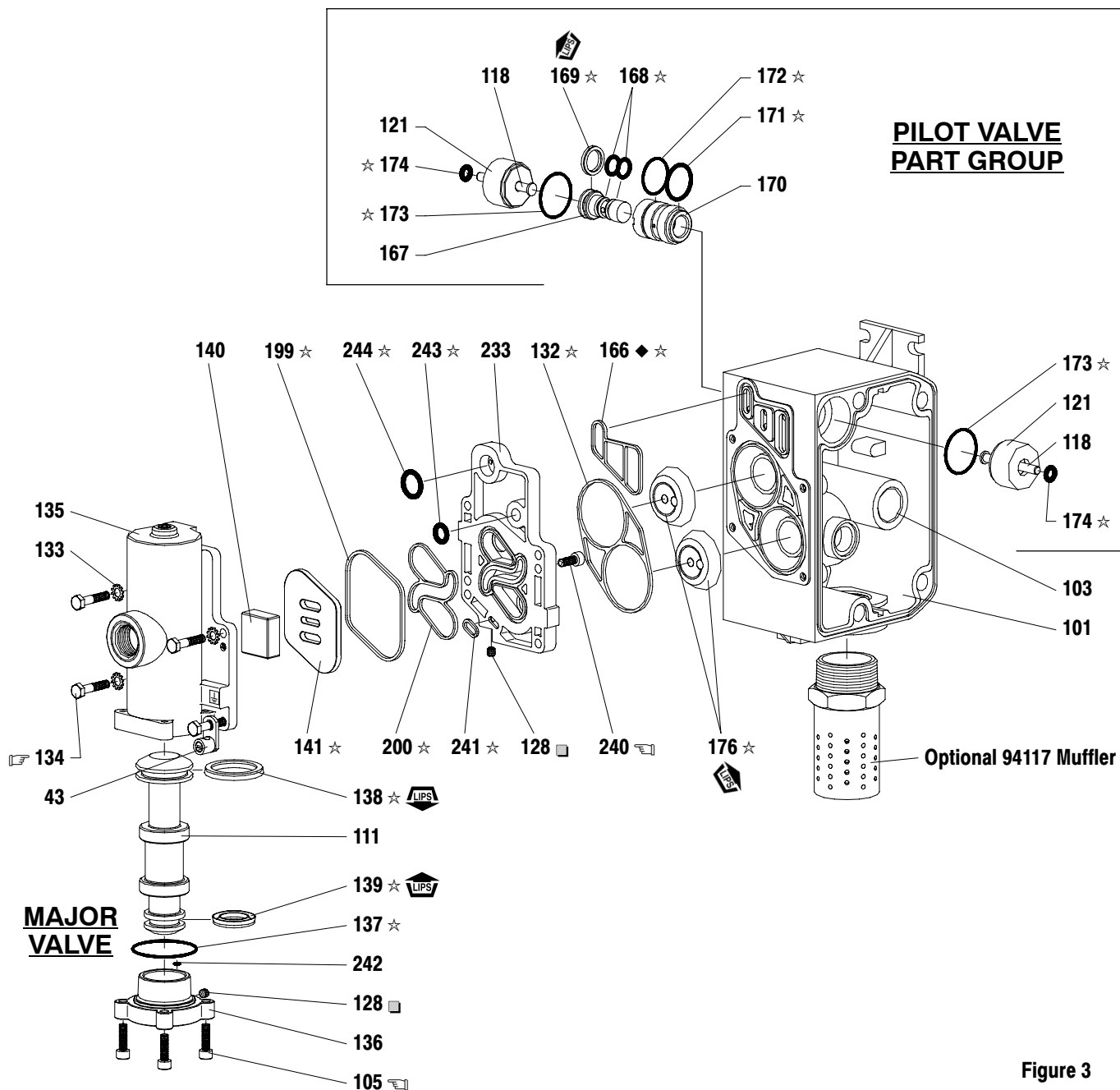


Figure 3

TORQUE REQUIREMENTS
 NOTE: DO NOT OVERTIGHTEN FASTENERS.
 ALL FASTENERS ARE METRIC.
 Torque (105) screw to 40 - 50 in. lbs (4.5 - 5.6 Nm).
 Torque (134) screw to 40 - 50 in. lbs (4.5 - 5.6 Nm).
 Torque (240) screw to 40 - 50 in. lbs (4.5 - 5.6 Nm).

LUBRICATION / SEALANTS
 ☆ Apply Lubriplate FML-2 grease to "O" rings, "U" Cups & mating parts.
 ■ Apply Loctite 271 to threads at assembly.

MATERIAL CODE

[A] = Aluminum
 [B] = Nitrile
 [Br] = Brass
 [C] = Carbon Steel
 [Ck] = Ceramic
 [D] = Acetal
 [I] = Iron
 [Sp] = Santoprene
 [SS] = Stainless Steel
 [U] = Polyurethane

◆ Substitute these "O" rings for "166" gasket on models PX30S-XXX-XXX-C.

147 ☆
 146 ☆

A replacement Major Valve Service Assembly is available separately, which includes the following:
 637374-2 for models PD30A-X-X-C: 105 (4), 111, 128 (2), 132, 133 (3), 134, 135, 136, 137, 138, 139, 140, 141, 166, 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.
 637374-4 for models PD30S-X-X-C: 105 (4), 111, 128 (2), 132, 133 (3), 134, 135, 136, 137, 138, 139, 140, 141, 146, 147 (2), 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.
 637374-3 for models PE30A-X-X-C: 76, 105 (4), 111, 128 (2), 132, 133 (3), 134, 135, 136, 137, 138, 139, 140, 141, 166, 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.
 637374-5 for models PE30S-X-X-C: 76, 105 (4), 111, 128 (2), 132, 133 (3), 134, 135, 136, 137, 138, 139, 140, 141, 146, 147 (2), 176 (2), 199, 200, 233, 240 (2), 241, 242, 243 and 244.