

SERVICE & OPERATING MANUAL
AIR OPERATED DOUBLE DIAPHRAGM PUMP

B50 & X50

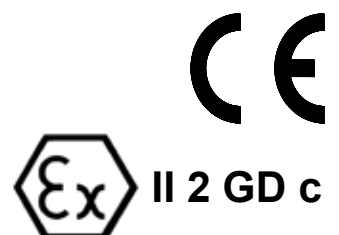
Moulded Non-Metallic Series

**This pump is Atex approved for use
in potentially explosive atmospheres
Group II category 2**



P.H.A. sas

14 Z.A. LES PIBOULES
84300 LES TAILLADES
FRANCE
TEL. 04.90.78.19.99
FAX 04.90.78.09.00
E-Mail : contact@pha.fr



PARTS LIST

REF No.	PART NUMBER	DESCRIPTION		QTY
1	D486	SOCKET CAP SCREW	M10 x 140	8
2	C146	WASHER	M10	40
3	SEE TABLE	DISCHARGE MANIFOLD		1
4	SEE TABLE	VALVE BALL	◆	4
5	SEE TABLE	VALVE SEAT (SEE NOTE)	◆	4
6	SEE TABLE	O-RING (SEE NOTE)	◆	4
7	1B114	SILENCER		1
8	50-257	VALVE CHEST (PAINTED BLACK)	50-284 %	1
9	50-315	DIAPHRAGM SHAFT BUSH		2
10	50-207	LIP SEAL (NOTE! FOR LUBE FREE OPTION USE 1B020 & 50-227)	□	6
11	G091	O-RING	□	4
12	G112	O-RING	□	2
13	SEE TABLE	INNER COVER (PAINTED BLACK)	1B205 % 1B218 †	2
14	D028	SOCKET CAP SCREW	M8 x 25	12
15	SEE TABLE	OUTER COVER		2
16	SEE TABLE	FRONTPLATE		2
17	1B039	DIAPHRAGM PTFE (SEE ALSO WETTED COMPONENTS FOR COND. POLY OPTION)		2
18	1B054	DIAPHRAGM SUPPORT		2
19	1B021	BACKPLATE		2
20	1B015	BUMP STOP		2
21	SA10041	DIAPHRAGM SHAFT		1
22	D310	SOCKET CAP SCREW	M8 x 25	4
23	C173	WASHER	M8	4
24		SOCKET CAP SCREW (NOT SHOWN)	M5 x 14	2
25	50-341	VALVE BLOCK PLUG		2
26	G130	O-RING	□	2
27	1B124	VALVE CARRIER		1
28	50-342	VALVE BLOCK—BSP		1
29	50-261	VALVE PLATE SEAL	□	1
30	50-251	SLIDE VALVE		1
31	50-248	SLIDE VALVE PLATE		1
32	1B123	PORT SEAL	□	1
33	B508	NUT - SERRATED	M10	16
34	A148	BOLT	M10 x 30	8
35	D487	SOCKET CAP SCREW	M10 x 90	8
36	SEE TABLE	SUCTION MANIFOLD		1
37	A488	BOLT	M10 x 70	16
38	SEE TABLE	DIAPHRAGM	◆	2
39	SEE TABLE	O-RING	◆	4
40	SEE TABLE	O-RING	◆	4

ELASTOMERS							
REF No.	DESCRIPTION	BUNA-N	NEOPRENE	EPDM	VITON	PTFE	QTY
4	VALVE BALL	1B010	1B056	1B052	1B055	1B053	4
4	VALVE BALL (WTD)	1B079	1B027	1B080	1B088	-	4
5	VALVE SEAT	50-044	50-045	50-046	50-047	50-158	4
6	O-RING	G481	G482	G483	G484	G485	4
38	DIAPHRAGM	1B004	1B001	1B002	1B003	SEE TABLE	2
39	O-RING	-	-	-	-	G505	4
40	O-RING	-	-	-	-	G417	4

ELASTOMERS - Cont						
REF No.	DESCRIPTION	POLYESTER	POLYURE-THANE	SANTOPRENE	PTFE ONE-PIECE	QTY
4	VALVE BALL	-	-	-	-	4
5	VALVE SEAT	-	-	-	-	4
6	O-RING	-	-	G483	SEE PTFE	4
38	DIAPHRAGM	1B029	1B048	50-233	50-221	2

WETTED COMPONENTS								
REF No.	DESCRIPTION	POLYPROPYLENE		CONDUCTIVE POLYPROPYLENE		PVDF		QTY
3	DISCHARGE MANIFOLD	50-106	(50-136)	50-309	50-317	50-110	(50-137)	1
5	VALVE SEAT	50-131		-		-		4
13	INNER COVER	1B204		50-311		1B218		2
15	OUTER COVER	50-104		50-310		50-108		2
16	FRONTPLATE	50-107		-		50-111		2
17	DIAPHRAGM (PTFE)	SEE MAIN TABLE		50-312		SEE MAIN TABLE		2
36	SUCTION MANIFOLD	50-105	(50-133)	50-308	50-316	50-109	(50-134)	1
(2" BSP THREADED OPTIONS)								

◆ - These items are available in a recommended spares kit. Please refer to your local stockist / distributor for details.
Note! Wet Side Kits only include valve seats if the original parts were rubber - i.e. Buna-N, Neoprene etc.

□ - These items are available in a recommended spares kit - ASK5005 Air side Kit.
% - These items and quantities to be used with PW & KW models.
† - These items should be used when using pumps with code - B50 05 KT

NOTE - When using rubber valve seats (5), item (6) o-ring is not required. When ordering wet-side kits, seats are only supplied in rubber options i.e. SA5005NNR. All other materials must be ordered separately.

NOTE 2 - For Lube Free option reference item 10 for Seal Part No. 50-227

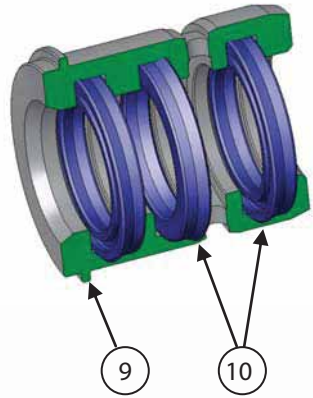
NOTE 3 - When ordering Inner Covers & Valve Chest as spares the painted colour must be specified.

NOTE 4 - For additional Atex parts see page 7



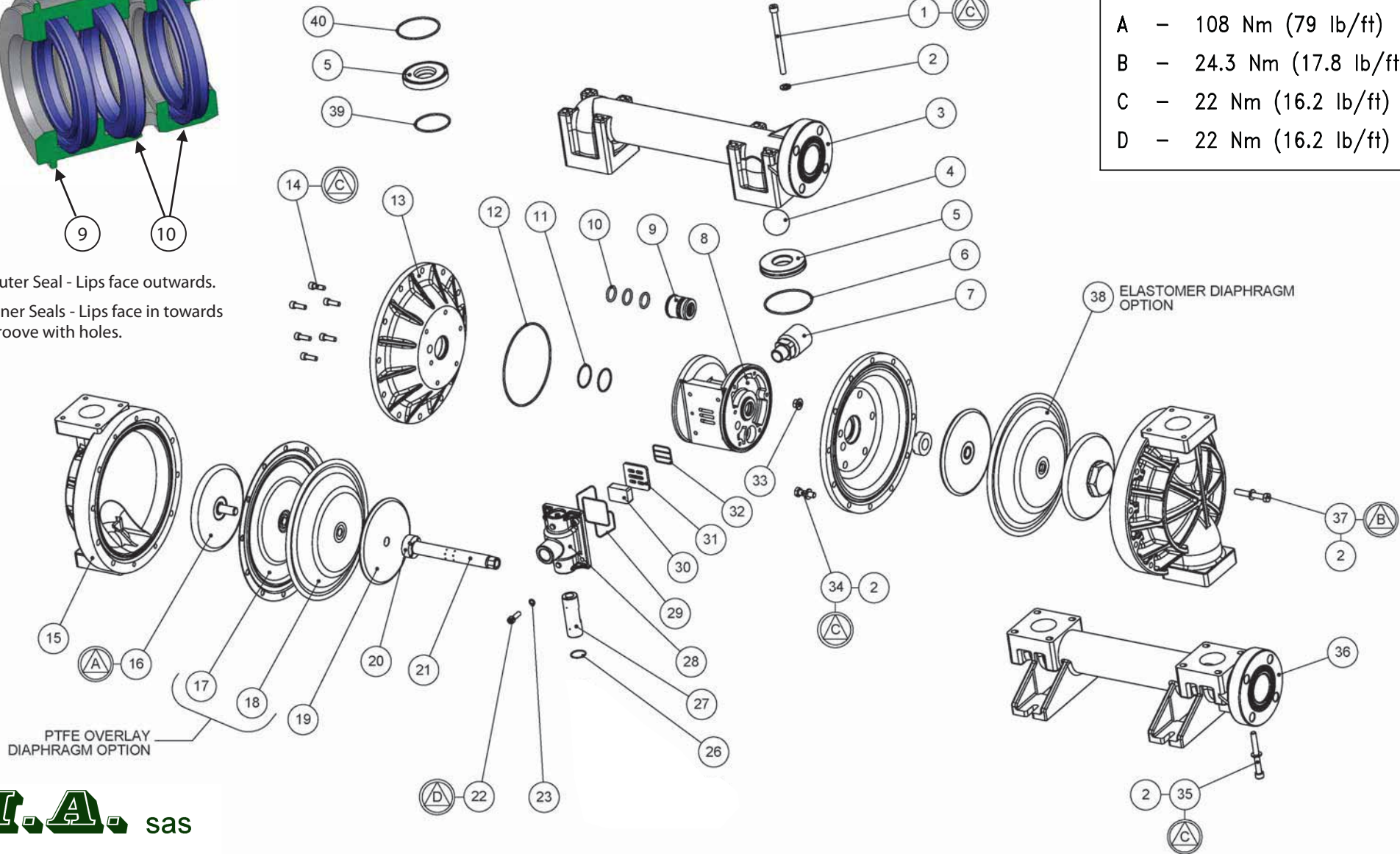
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Orientation of Lip Seals in Bushes.



Outer Seal - Lips face outwards.
 Inner Seals - Lips face in towards groove with holes.

TORQUE SETTINGS	
A	- 108 Nm (79 lb/ft)
B	- 24.3 Nm (17.8 lb/ft)
C	- 22 Nm (16.2 lb/ft)
D	- 22 Nm (16.2 lb/ft)



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Exploded View Assembly :- B50 Non-Metallic Pump, refer to Parts List table for item Ref. Nos.