Assembly Guide for 650/800 GPM Pumps w/8” Motor

PUMP ASSEMBLY TOOLS

KIT	PICTURE	ITEM #	DESCRIPTION
TORQUE WRENCH KIT		TRQWRN60-300NM	TORQUE WRENCH
		INSTTRQWRNCH	INSERT FOR TORQUE WRENCH
CLEARANCE KIT		FXSSTRAP8-10PE	FIXTURE FOR STRAP
		STRPSCT8-10PE	SOCKET FOR STRAP
		SHFTDPTCAL8-10PE	DEPTH CALIPER
		SHFTOPTHTOOL8-10PE	DEPTH TOOL
FIXTURE SEAT KIT		FXS46810PE	FIXTURE SEAT
		LHEXALLENFIXST	HEXAGONAL ALLEN TOOL FIXST

KIT	PICTURE	ITEM #	DESCRIPTION
JIG SET KIT		JIG8PEX8MOT	JIG 8” MOTOR
		LHEXALLEN6PEX6MOT	6” HEXAGONAL ALLEN TOOL
ASSEMBLY KIT		LHEXALLENCOUP	HEAXAGONAL ALLEN TOOL COUP
		WRN10PE650-800	WRENCH FOR IMPELLER NUT
		TRQTSTNUT650-800	TORQUE TESTING NUT

WARNING: It is unlawful in **CALIFORNIA & VERMONT (effective 1/1/2010); MARYLAND (effective 1/1/2012); LOUISIANA (effective 1/1/2013) and the UNITED STATES OF AMERICA (effective 1/4/2014)** to use any product in the installation or repair of any public water system or any plumbing in a facility or system that provides water for human consumption if the wetted surface area of the product has a weighted average lead content greater than 0.25%. This prohibition does not extend to service saddles used in California, Louisiana or under USA Public Law 111-380. **WARNING:** This product can expose you to chemicals including lead, which is known to the State of **CALIFORNIA** to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.

PUMP COMPONENTS

KIT	PICTURE	DESCRIPTION
STANDARD ASSEMBLY KIT		COUPLING WITH KEY
		DISCHARGE *TOP VIEW*
		TOP STAGE DIFFUSER *TOP VIEW* *BOTTOM VIEW*
		TOP STAGE IMPELLER *TOP VIEW*
		INTERCONNECTOR
MIDDLE STAGE ASSEMBLY KIT		MIDDLE STAGE DIFFUSER *TOP VIEW* *BOTTOM VIEW*
		MIDDLE STAGE IMPELLER *TOP VIEW*

KIT	PICTURE	DESCRIPTION
SPECIFIC COMPONENTS (MOD)		STRAPS
		CABLE GUARDS
		SHAFT
		NUTS
PLATES KIT		PLATE FOR MODEL INFORMATION
BOLTS AND NUTS KIT		BOLTS FOR 8” MOTORS

1 Fit KEY on SHAFT

1A

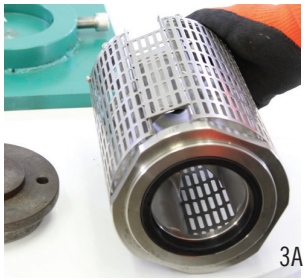
1B

2 Fit COUPLING on SHAFT and tighten using HEXAGONAL ALLEN TOOL COUP (clockwise)

2A

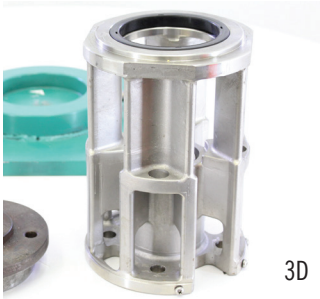
2B

3 Remove metallic filter grid from INTERCONNECTOR


3A

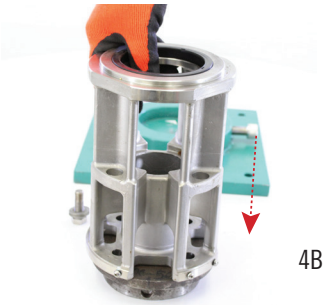
3B

3C

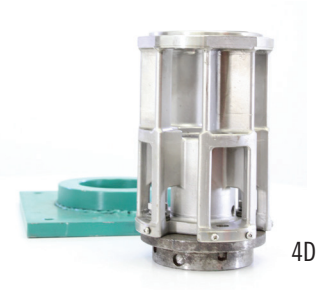

3D

4 Place INTERCONNECTOR on JIG; place screws and tighten securely

4A

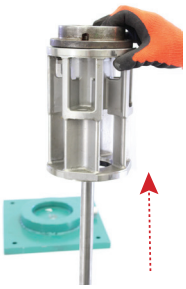

4B

4C


4D

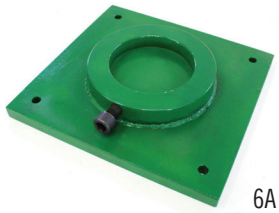
5 Fit SHAFT on INTERCONNECTOR and tighten using HEXAGONAL ALLEN TOOL (clockwise)

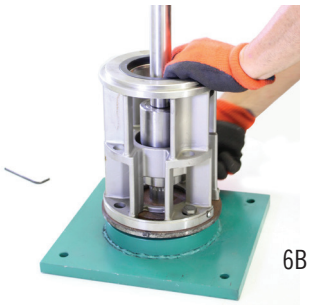
5A


5B

5C

6 Set down FIXTURE SEAT and tighten using HEXAGONAL ALLEN TOOL FIXST (clockwise)


6A

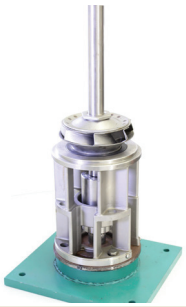

6B

6C

7 Place MIDDLE STAGE IMPELLER

7A

7B


7C

8 Use WRENCH FOR IMPELLER NUT to tighten (clockwise)

8A

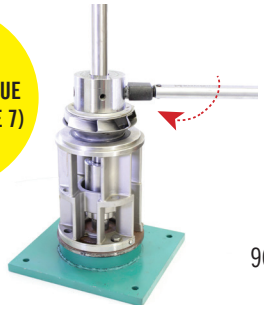
8B

9 Use TORQUE WRENCH WITH INSERT to tight at correct torque (clockwise)

9A

9B

REFER TO IMPELLER TORQUE (CHART 2 - PAGE 7)


9C

10 Place MIDDLE STAGE DIFFUSER

10A

10B

11 Place MIDDLE STAGE IMPELLER

11A

Use WRENCH FOR IMPELLER NUT TOOL to tighten (clockwise)

11B

Use TORQUE TESTING NUT and WRENCH to tight at correct torque (clockwise) (Step 9)

11C

12 Place MIDDLE STAGES DIFFUSER

12A

13 Add as many MIDDLE STAGES as required

13A

13B

Repeat steps 11 and 12 for every MIDDLE STAGE that you need to add to the wet end of the pump

Stages below a torqued IMPELLER should not rotate.

14 Place TOP STAGE IMPELLER

14A

Use WRENCH FOR IMPELLER NUT TOOL to tighten (clockwise)

14B

Use TORQUE TESTING NUT and WRENCH to tight at correct torque (clockwise) (Step 9)

14C

15 Add TOP STAGE DIFFUSER

15A

16 Place DISCHARGE

16A

16B

17 Make sure bolts on discharge are aligned with bolts in INTERCONNECTOR

17A

18 Attach STRAPS to pump and fit at the bottom and at the top

18A

18B

18C

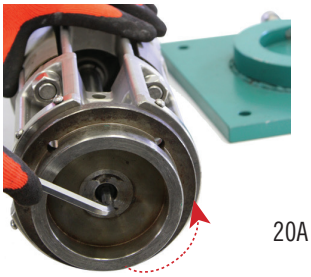
18D

19 Place NUTS on STRAPS and remove screws to loosen JIG

19A

19B

20 Remove JIG using HEXAGONAL ALLEN TOOL


20A

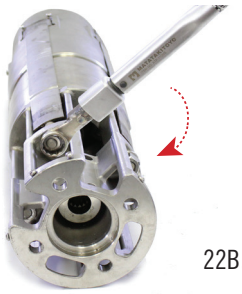
21 Tighten STRAPS using SOCKET FOR STRAP

21A

22 Use TORQUE WRENCH and FIXTURE FOR STRAP to tight at correct torque (clockwise)

22A

REFER TO STRAP TORQUE (CHART 2 - PAGE 7)



22B

23 Push in SHAFT using DEPTH TOOL

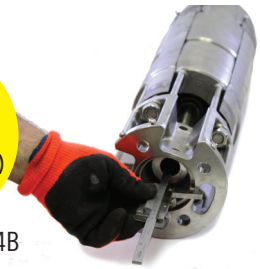
23A

23B

24 Use Depth Caliper to check shaft clearance

24A

REFER TO AXIAL CLEARANCE UP (CHART 1 - PAGE 7)



24B

25 Pull out SHAFT using DEPTH TOOL

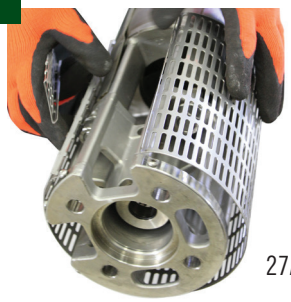
25A

26 Use Depth Caliper to check shaft clearance

26A

REFER TO AXIAL CLEARANCE UP (CHART 1 - PAGE 7)

27 Place back the metallic filter grid on INTERCONNECTOR



27A

27B

28 Add PLATE FOR MODEL INFORMATION

28A

28B

SHAFT TOLERANCES (CHART 1)

MOTOR DIAMETER	MEASURAMENT REFERENCE	AXIAL CLEARENCE - H(MM) DOWN	AXIAL CLEARENCE - H(MM) UP
4”	SHAFT/COUPLING	36.5	39.5-40
6”		71-71.5	75-77
8”		100	MIN 103
10” FRANKLIN		100	MIN 103
10” HITACHI		125.5	MIN 129

TORQUE FOR IMPELLER ASSEMBLY (CHART 2)

MODEL		TORQUE STRAP (N.M)	TORQUE IMPELLER (N.M)	
90 GPM SERIES	6”	45	45	
90 GPM SERIES	6” x 4”	35		
150 GPM SERIES	6”	45	80	
150 GPM SERIES	6” x 4”	35		
230 GPM SERIES	6”	45	80	
230 GPM SERIES	6” x 4”	35		
300 GPM SERIES	6”	45	80	
300 GPM SERIES	6” x 4”	35		
400 GPM SERIES		100	100	100
500 GPM SERIES		100	100	100
650 GPM SERIES		100	160	160
800 GPM SERIES		100	160	160
1100 GPM SERIES		100	250	250