



A.Y. McDonald Mfg. Co. Stainless Steel Submersible Pump Assembly Guide

Assembly Guide for 1100 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		JIG810EX10MOTF	JIG FOR ASSEM
		LHEXALLEN6PEX6MOT	6" HEXAGONAL ALLEN TOOL
ASSEMBLY KIT		LHEXALLENCOUP	HEAXAGONAL ALLEN TOOL COUP
		WRN10PE1100	WRENCH FOR IMPELLER NUT
		TRQSTNUT1100	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  <i>TOP VIEW</i>
		TOP STAGE DIFFUSER  <i>TOP VIEW</i>  <i>BOTTOM VIEW</i>
		TOP STAGE IMPELLER  <i>TOP VIEW</i>
		INTERCONNECTOR
MIDDLE STAGE ASSEMBLY KIT		MIDDLE STAGE DIFFUSER  <i>TOP VIEW</i>  <i>BOTTOM VIEW</i>
		MIDDLE STAGE IMPELLER  <i>TOP VIEW</i>

KIT	PICTURE	DESCRIPTION
SPECIFIC COMPONENTS (MOD)		STRAPS
		CABLE GUARDS
		SHAFT
		NUTS
	PLATES KIT	
BOLTS AND NUTS KIT		BOLTS FOR 8" MOTORS

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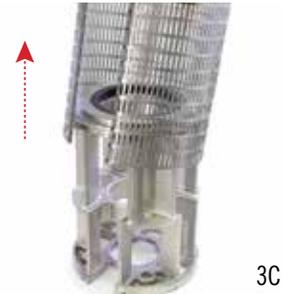
1 Fit KEY on SHAFT



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



3 Remove metallic filter grid from INTERCONNECTOR



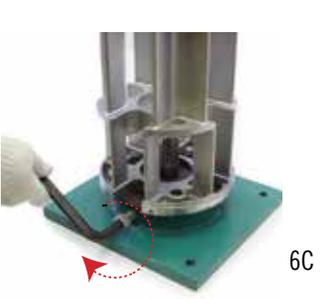
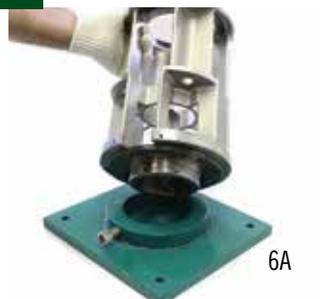
4 Place INTERCONNECTOR on JIG; place screws and tighten securely



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



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





7 Place MIDDLE STAGE IMPELLER



8 Use WRENCH FOR IMPELLER NUT to tighten (clockwise)



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



10 Place MIDDLE STAGE DIFFUSER



11 Place MIDDLE STAGE IMPELLER



12 Place MIDDLE STAGES DIFFUSER



13 Add as many MIDDLE STAGES as required



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



Use WRENCH FOR IMPELLER NUT TOOL to tighten (clockwise)



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



15 Add TOP STAGE DIFFUSER



16 Place DISCHARGE



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



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



19 Place NUTS on STRAPS



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



REFER TO STRAP TORQUE (CHART 2 - PAGE 7)



21 Remove **SCREWS** to loosen **JIG**



22 Remove **JIG** using **HEXAGONAL ALLEN TOOL**



23 Push in **SHAFT** using **DEPTH TOOL**



24 Use **Depth Caliper** to check shaft clearance



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

24A



24B

25 Pull out **SHAFT** using **DEPTH TOOL**



25A

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



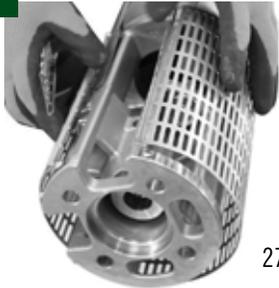
26A

26 Use **Depth Caliper** to check shaft clearance

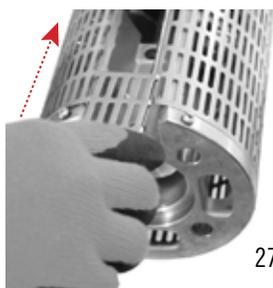


26C

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	MEASUREMENT REFERENCE	AXIAL CLEARANCE - H(MM)	
		DOWN	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)

TORQUE				
MODEL		STRAP (N.M)	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

