

**Assembly Procedure**  
**of**  
**The IWAKI Magnetic Drive Pump MX and SMX series.**  
**(Insertion of the Drive magnet to the Motor shaft)**

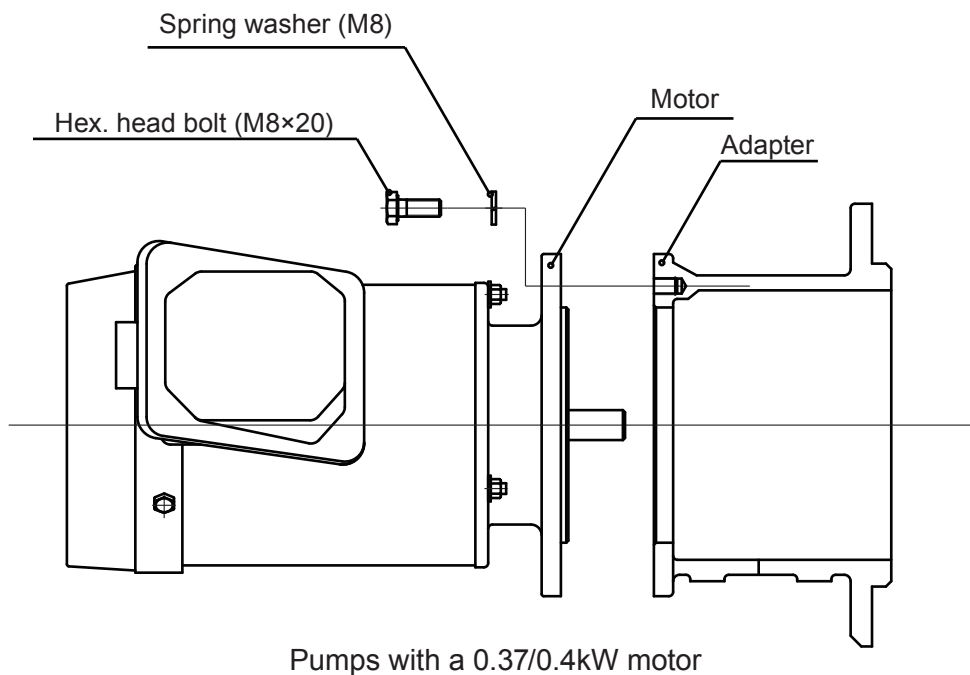
*This instruction manual shows how to assemble the Drive magnet and the Motor shaft. Read through the instructions on this sheet as well as the instruction manual of each pump before assembly.*

Pay attention to Magnet force field

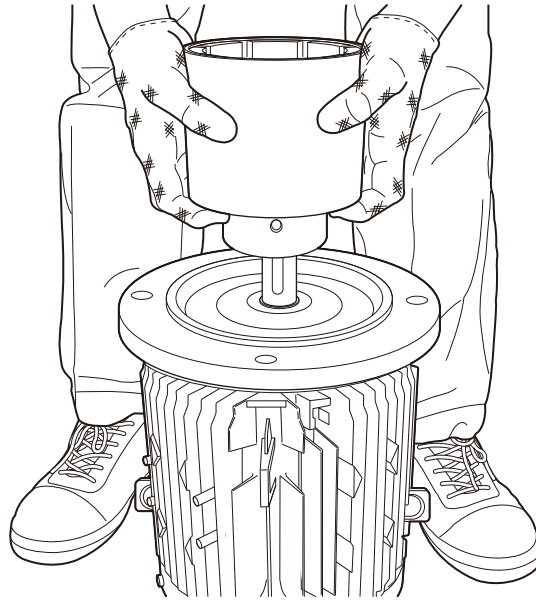
The magnetic drive pump contains very strong magnets. The strong magnet field could adversely affect persons who are assisted by electronic devices such as pacemakers.



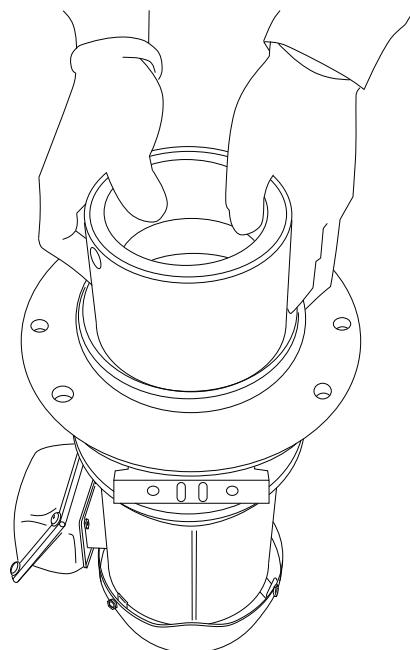
1. Make sure the pump is disconnected before assembly. If the motor rotates in assembly work, a serious accident may result.
2. Clean the mating surface of the Motor shaft and the mounting hole of the Drive magnet. Sand them to remove burrs as necessary. Be careful not to hit the Drive magnet, or it may crack.
3. For the pumps with a 0.37 or 0.4kW motor (MX-250/-400 or SMX-220), fit the motor to the adapter with four M8×20 hexagon bolts and M8 washers. The pumps with a 0.75, 1.5, 2.2, 3.7 or 4.0kW motor are equipped with the adapter after the Drive magnet is mounted.



4. Check that the hexagon socket set screws do not interfere with the Motor shaft at insertion.
5. Set the Key to the Motor shaft in place.
6. Mount the Drive magnet to the Motor shaft. Slide the Drive magnet down to the end of the Motor shaft. If the Drive magnet is not inserted smoothly, remove the Drive magnet once and check there is no burr and the Key is properly placed.
7. Check the dimension "H". See page 3. If it is different from the actual dimension, adjust the Drive magnet to proper position.

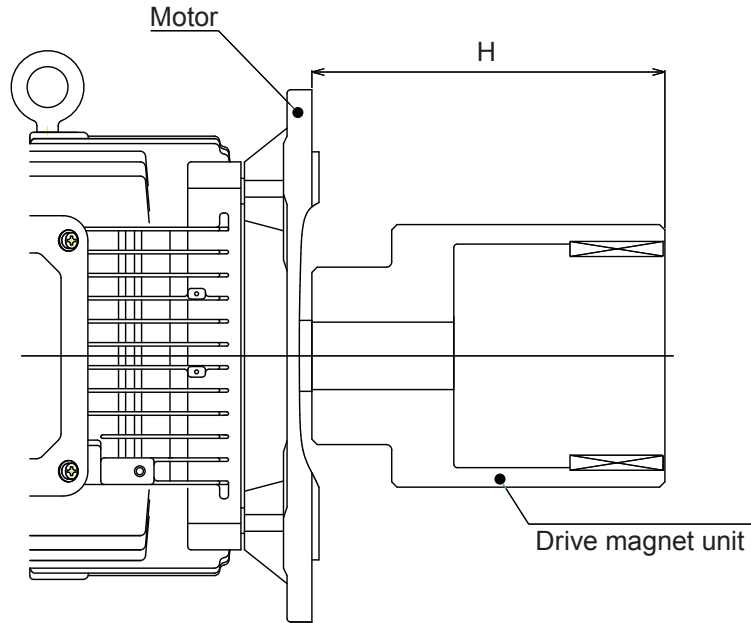


Pumps with 0.75, 1.5, 2.2, 3.7 or 4.0kW motor



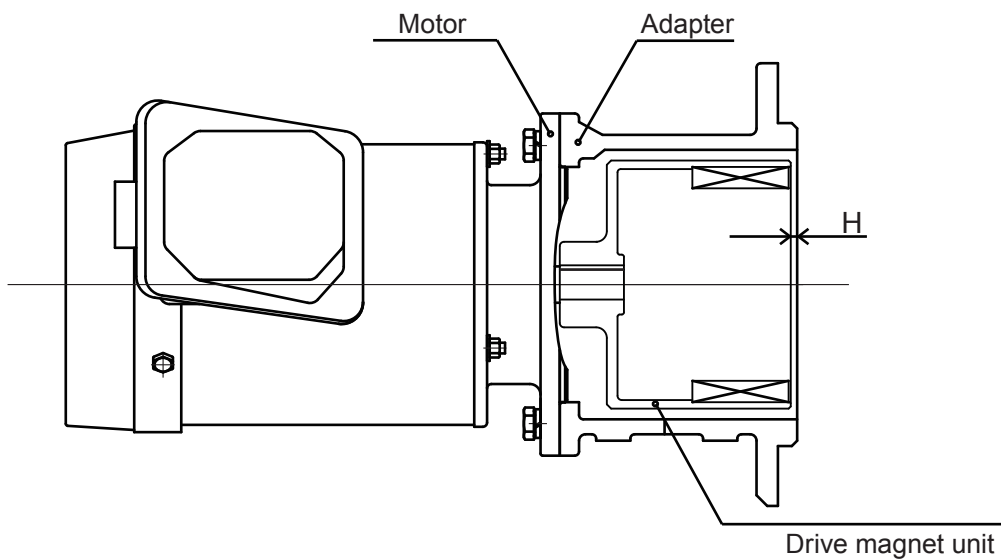
Pumps with 0.37 or 0.4kW motor

Pumps with 0.75, 1.5, 2.2, 3.7 or 4.0kW motor



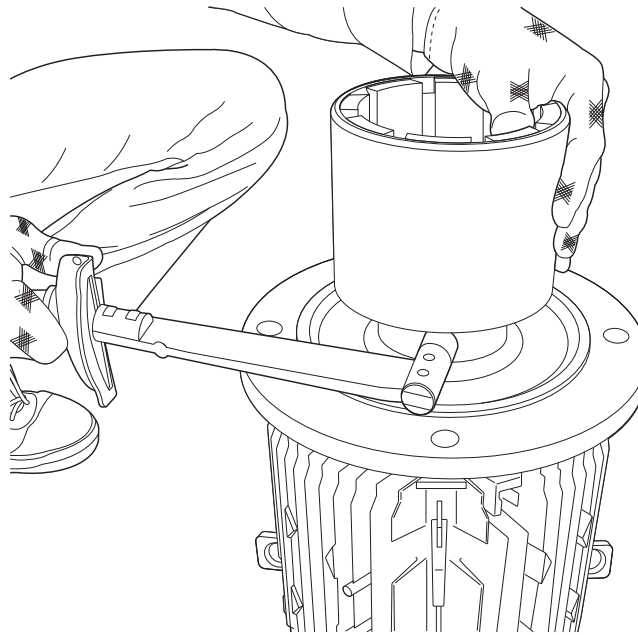
Model	Motor output [kW]	Poles	H [mm]
MX	251	2	119
	401		119
	402		123
	403		123
SMX	221		119
	222		123
	441		119
	442		123
	443		123
	542		123
	543		123
	545	3.7/4.0	143

Pumps with 0.37 or 0.4kW motor

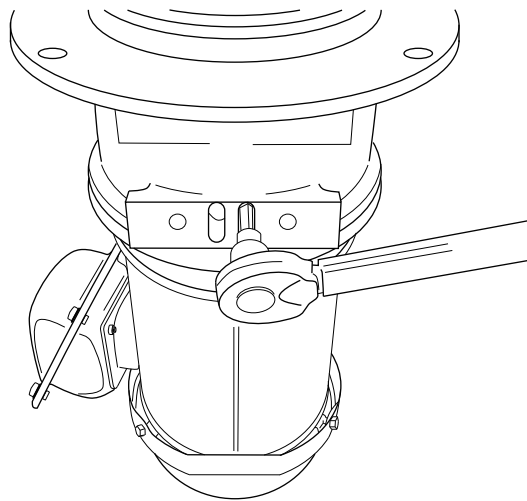


Model	Motor output [kW]	Poles	H [mm]
MX	250	2	3
	400		5
SMX	220		0

8. Tighten the hex. socket set screws to fix the Drive magnet to the Motor shaft. See the table below for the tightening torque. For the pumps with a 0.37 or 0.4kW motor (MX-250/-400 or SMX-220), the set screws are accessible with a torque wrench through the bottom bracket hole as shown below.



Pumps with 0.75, 1.5, 2.2, 3.7 or 4.0kW motor



Pumps with 0.37 or 0.4kW motor

Model name	Motor output	Tightening torque
MX	All	12N•m
SMX	All	12N•m

9. Check there is no possibility of disconnection.

10. Fix the motor with the bracket.