

MARTIN 600 SERIES 5-20 HORSEPOWER BRASS PUMP OWNER'S MANUAL



MARTIN *Pump*

MARTIN PUMP
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MARTIN 600 SERIES PUMP

Installation Instructions

*IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS*

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WARNING

Before installing this product, read and follow all warning notices and instructions accompanying this pump. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage.

IMPORTANT NOTICE:

Attention Installer,

This manual contains important information about the installation, operation, and safe use of this product. This information should be given to the owner/operator of this equipment.



WARNING

RISK OF ELECTRICAL SHOCK OR ELECTROCUTION



This pool pump must be installed by a licensed or certified electrician or a qualified pool serviceman in accordance with the National Electrical Code and all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death or serious injury to pool users, installers, or others due to electrical shock, and may also cause damage to property.

Always disconnect power to the pool pump at the circuit breaker before servicing the pump. Failure to do so could result in death or serious injury to serviceman, pool users, or others due to electrical shock.

CAUTION

To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

CAUTION

DO NOT OPERATE THIS UNIT DRY. Operating this unit dry will damage the shaft seal which will cause the pump to leak.

CAUTION

Motor must be wired as indicated on motor diagram. See box cover and nameplate.
Refer to “Motor Rotation Check” for correct pump rotation. Incorrect rotation can damage the pump.
Three Phase Motors are NOT thermally protected. MUST be installed in conjunction with a Magnetic Starter equipped with Therman Overload Protection.

SECTION I - MOTOR REMOVAL

1. Support motor on both sides. Remove four hex cap screws (22) that hold motor to volute (7).
2. Carefully and slowly pull motor (23) until seal flange (17) and impeller (15) are completely out of the volute (7). Avoid resting entire unit on seal flange or impeller.
3. Remove Allen head cap screw (12) and washer (13) from center of impeller (15). Pull impeller from shaft. Do not lose square key (21).
4. Remove seal spring member (16) from shaft. Avoid cutting rubber parts or scratching carbon face.
5. Remove two hex head cap screws (19) from seal flange (17). Hold seal flange so that it does not drop on motor shaft while removing screws. Remove seal flange.
6. Remove ceramic seal face member (16) from center of seal flange (17) and o-ring (18) from groove. Check for nicks and cuts. Replace as necessary.
7. Finally, remove water slinger (20) if replacing with new one or servicing motor.

SECTION II - MOTOR INSTALLATION PROCEDURES

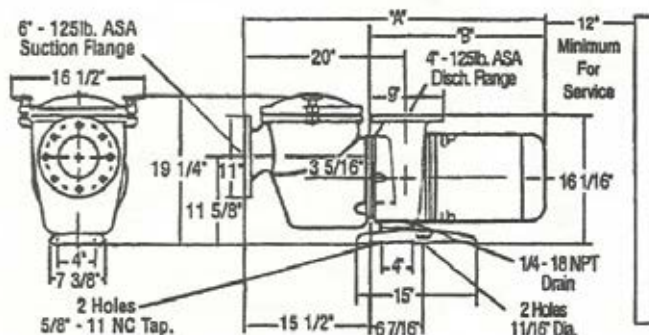
1. Slip water slinger on motor shaft past shoulder.
2. Press ceramic seal face member (16) into center cavity of seal flange (17) with the smooth ceramic facing out. Clean and grease o-ring (18) and place seal flange groove.

NOTE:

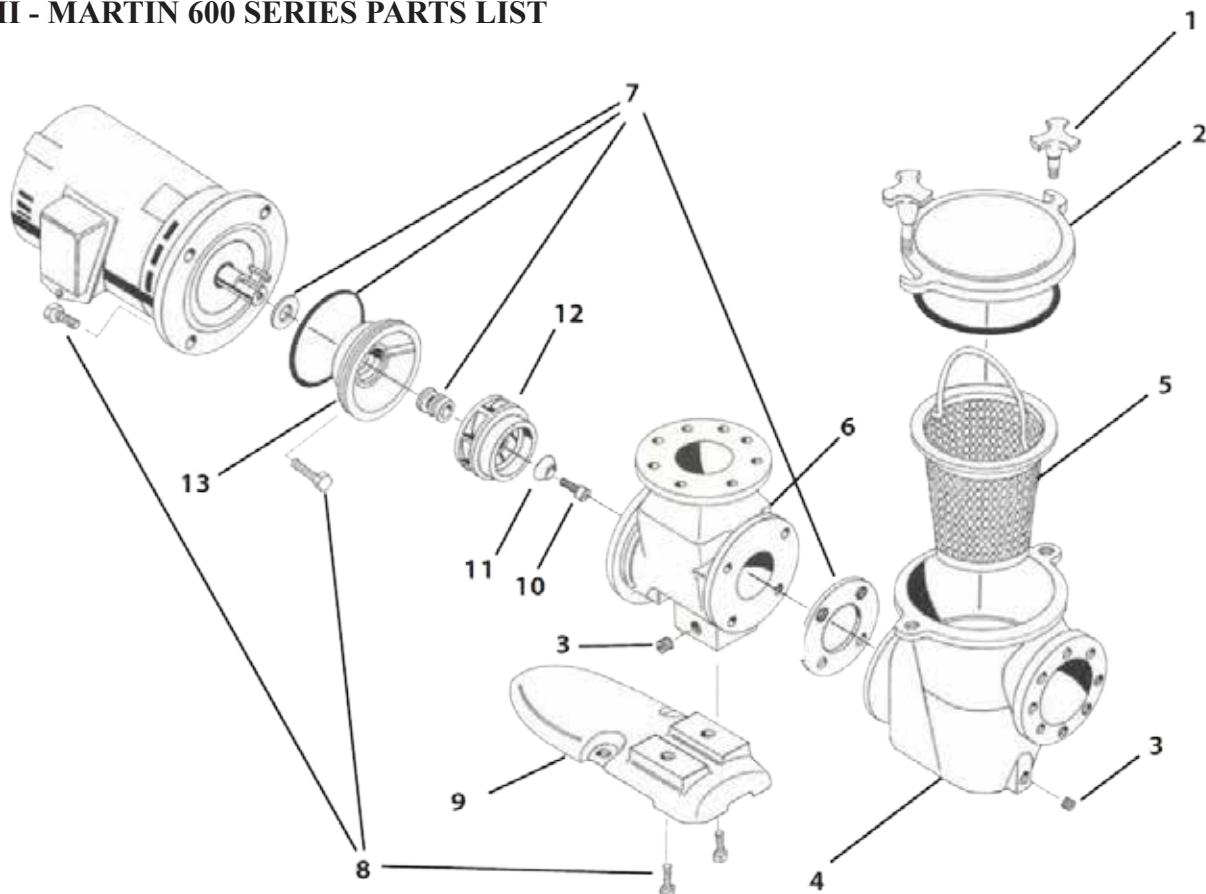
MAKE SURE THAT CERAMIC FACE IS FREE FROM OIL OR GREASE

3. Install seal flange on motor register and secure in place with two cap screws (19).
4. Press seal spring member (16) on motor shaft with carbon face toward ceramic seal member. Avoid cutting rubber parts on the shaft.
5. Line up keyways and push impeller (15) on motor shaft up to shoulder. Insert square key (21) in place.
6. Secure impeller with washer (13) and Allen head cap screw (12).
7. Position and carefully install assembled motor until to the volute (7) and secure motor using cap screws (22).
8. Remove motor shaft and cap. Momentarily, start and stop motor. While impeller is still turning, check end shaft rotation. Rotation must be in direction indicated by the arrow on the outside of the volute (7). Fill strainer pot with water, install basket, and secure cover. Pump is ready for operation. Press in motor shaft end cap.

MARTIN 600 PUMP DIMENSIONS



SECTION III - MARTIN 600 SERIES PARTS LIST



MOTOR SUB ASSEMBLIES

Item No.	Val-Pak No.	Description
1	V20-287	Hand nut assy - brass, 2 req
2	V20-292	Cover, C-16- brass
3	92290000	Plug pipe 1/4", brass, 2 req
4	V20-291	Pot mach, strain brass C-22
5	V20-312	Basket, C-29, S.S. 11"
6	V20-290	Volute C-2 Brass
7	V20-275	Seal Kit (O-Rings, Seal, Gasket, Water Slinger)
8	V20-314	Bolt Kit
9	V20-293	Foot C-4 cast iron-coated
10	V20-313	Imp. C-35 lock screw
11	V20-311	Imp. washer C-71
12	V20-300	Imp CH50/CHK50/CHKL50, 5hp, single, 3ph, HH
12	V20-302	Imp CM50/CMK50/CMKL50, 5hp, single, 3ph, MH
12	V20-301	Imp CHK75/CHK75/CHKL75, 7.5hp, single, 3ph, HH
12	V20-303	Imp CM75/CMK75/CMKL75, 7.5hp, single, 3ph, MH
12	V20-304	Imp CHK100/CHKL100, 10hp, 3ph, HH
12	V20-305	Imp CMK100/CMKL100, 10hp, 3ph, MH
12	V20-306	Imp CHK150/CHKL150, 15hp, 3ph, HH
12	V20-307	Imp CMK150/CMKL150, 15hp, 3ph, MH
12	V20-520	Imp CHK200/CHKL200, 20hp, 3ph, HH
13	V20-286	Flange mach-C52 brass

Val-Pak No.	Description
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Motor Sub Assemblies include items #12-#23

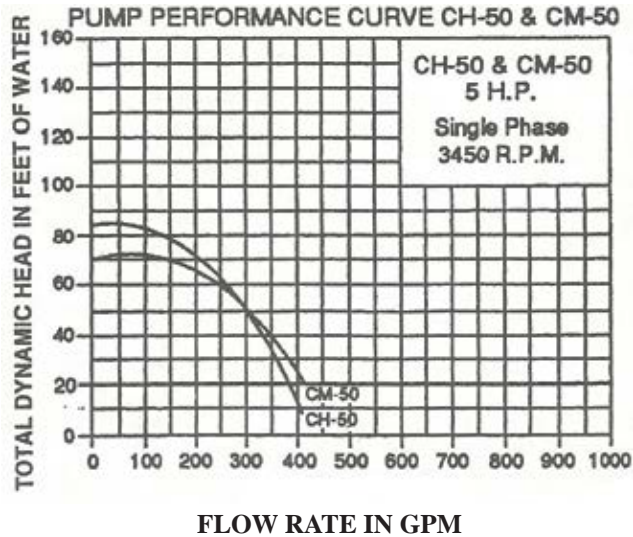
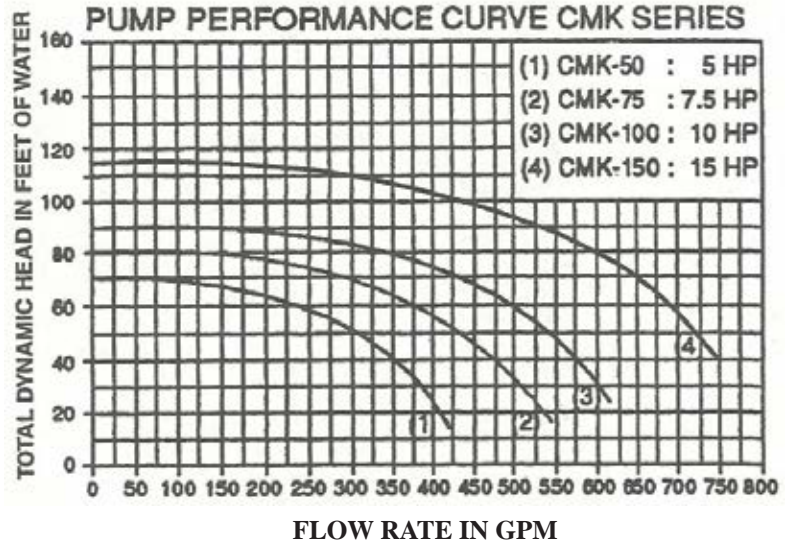
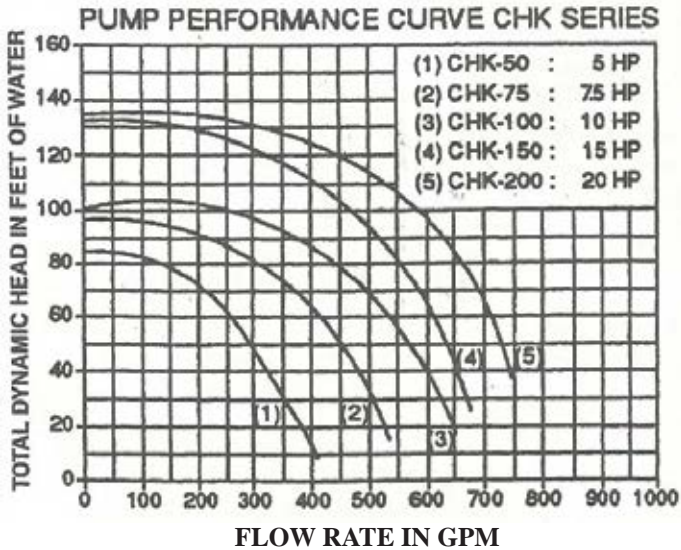
All Sub Assemblies 50/60Hz, 208-220/440V

V20-500	CM-50 1 PH
V20-501	CH-50 1 PH
V20-502	CMK-50 3 PH
V20-503	CHK-50 3 PH
V20-504	CMK-75 3 PH
V20-505	CHK-75 3 PH
V20-506	CMK-100 3 PH
V20-507	CHK-100 3 PH
V20-508	CMK-150 3 PH
V20-509	CHK-150 3 PH
V20-510	CHK-200 3 PH

50/60 HERTZ MOTORS

V20-280	Motor 5hp, 1ph, 230v
V20-281	Motor 5hp, 3ph, 208-220/440V
V20-282	Motor 7.5hp, 3ph, 208-220/440V
V20-283	Motor 10hp, 3ph, 208-220/440V
V20-284	Motor 15hp, 3ph, 208-220/440V
V20-285	Motor 20hp, 3ph, 208-220/440V

SECTION IV - MARTIN 600 PUMP PERFORMANCE CURVES



WARNING

DO NOT open the strainer pot if pump fails to prime or if pump has been operating without water in the strainer pot. Pumps operated in these circumstances may experience a build-up of vapor pressure and may contain scalding hot water. Opening the strainer pot may cause serious personal injury. In order to avoid personal injury, make sure the strainer pot temperature has cooled to room temperature. Carefully remove the drain plug on the strainer pot and allow the pressure to equalize before removing the locking ring.



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