



High Performance Gas Engine Driven Centrifugal Pump



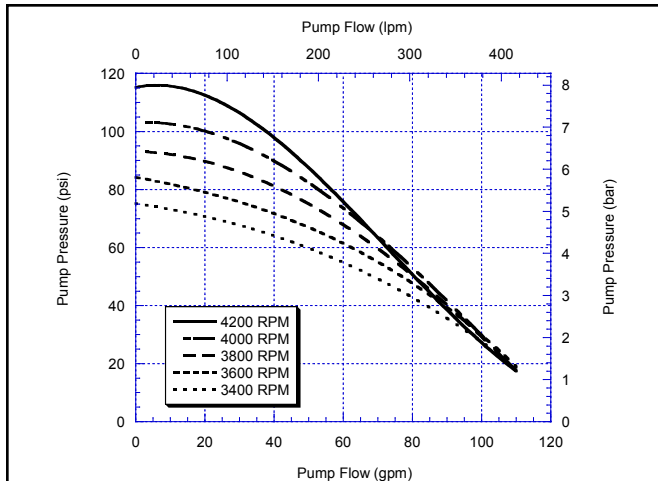
Do not use with flammable liquids.

GE-660

- Suction 1-1/2" NPT x Discharge 1-1/4" NPT
- Maximum Pressure 115 PSI (7.9 BAR) and Maximum Flow 110 GPM (416 LPM)
- Thermoplastic Impeller or optional Cast Iron Impeller attaches directly to 3/4" keyed shaft
- Large vent area between pump and engine
- Standard Viton® Carbon/Ceramic seal or Optional Severe Duty Silicon Carbide Mechanical Seal
- Optional E-coat provides excellent corrosion prevention with chlorides
- Optional electric start engine
- Available models:

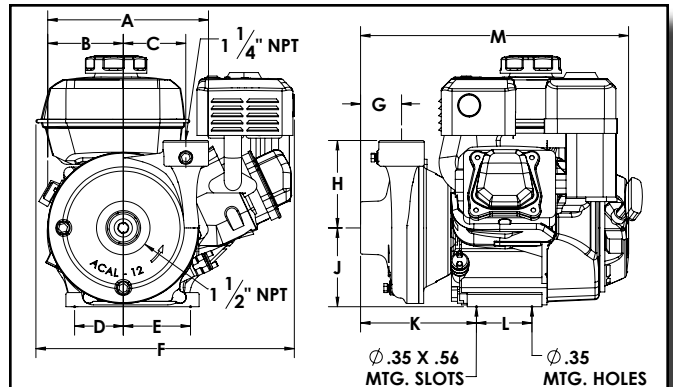
GE-660-LE	Less Engine
GE-660-LE-EC	Less Engine E-coated
GE-660-HONDA	Pull Start
GE-660-HONDA-ES	Electric Start

PERFORMANCE CHART



* Engine shaft speed at shut-off.
Performance data of pump mounted on Honda® GX-160.

DIMENSIONS

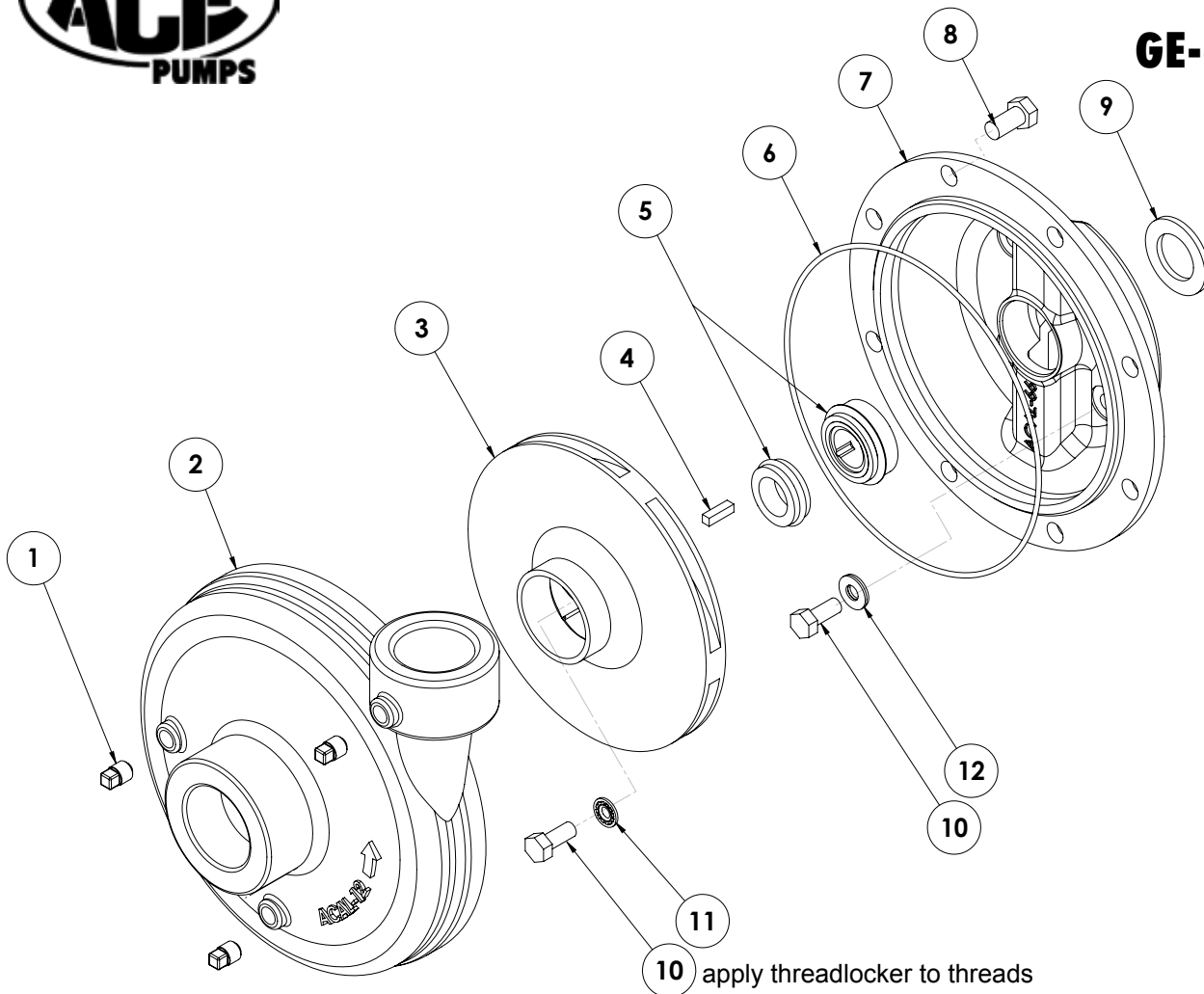


	A	B	C	D	E	F	G	H	J	K	L	M
INCHES	8.85	4.16	3.44	2.68	3.70	14.21	2.26	4.81	4.33	6.38	3.05	14.75
MM	224.8	105.7	87.4	68.1	94.0	360.9	57.4	122.2	110.0	162.1	77.5	374.7

Note: GE-660-HONDA-ES pictured. Dimensions may vary depending on make and size of engine. Use only for reference.



GE-660



REF. #	PART NUMBER	EDP #	DESCRIPTION	REQ.
1	BAC-53	41110	Pipe plug, 1/8" NPT	3
1	41120	41120	Pipe plug, 1/8" NPT, stainless steel (optional)	3
2	ACAL-12	30161	Volute, 1 1/2" x 1 1/4", clockwise rotation	1
2	ACAL-12-EC	30196	Volute, 1 1/2" x 1 1/4", clockwise rotation, e-coated (optional)	1
3	ACAL-28-660-P	30556	Impeller, thermoplastic, 3/4" keyed shaft	1
3	ACAL-28-660	30171	Impeller, cast iron, 3/4" keyed shaft (optional)	1
3	ACAL-28-660-EC	30195	Impeller, cast iron, 3/4" keyed shaft, e-coated (optional)	1
4	41081	41081	Key, impeller, 3/16" x 3/16" x 3/4",	1
5 ^①	BAC-7-660V	30225	Seal, Type 6A-3/4, carbon/ceramic/Viton	1
5 ^②	BAC-7SC-660V	30226	Seal, Type 6A-3/4, silicon carbide/Viton	1
6 ^{①②}	BAC-4-150	40015	O-ring, volute seal	1
7	ACAL-66	30186	Bracket, GE-660 keyed shaft	1
7	ACAL-66-EC	30197	Bracket, GE-660 keyed shaft, e-coated (optional)	1
8	40950	40950	Cap screw, 3/8" NC x 3/4" hex head	8
8	40930	40930	Cap screw, 3/8"NC x 3/4", stainless steel (optional)	8
9	GE-54-660	42222	Slinger	1
10	GE-60-SS	42235	Cap screw, 5/16" NF x 3/4", stainless steel	5
10	42236	42236	Cap screw, 5/16" NF x 1", stainless steel (Subaru engines)	1
11 ^{①②}	30031	30031	Washer, Stat-O-Seal®, 5/16" ID, impeller attachment	1
12 ^{①②}	30028	30028	Washer, sealing, 5/16" ID, bracket attachment	4
#	42062	42062	Engine, 5.5 HP Honda, pull start, (GX160UT1QX2)	1
#	42064	42064	Engine, 5.5 HP Honda, electric start, (GX160K1QXE2)	1
# ^{①②}	30035	30035	Threadlocker, removable	1
# ^{①②}	30039	30039	Sealant, 3.3 gram foil pack	--
①	RK-GE-660	61162	Repair kit	--
②	RK-GESC-660	61167	Repair kit with silicon carbide shaft seal	--

Viton® is a registered trademark of DuPont Performance Elastomers.

Stat-O-Seal® is a registered trademark of Parker Hannifin Corp.

Honda® is a registered trademark of American Honda Motor Company.



GE-660-LE ASSEMBLY INSTRUCTIONS

WARNINGS:

Do Not Run Dry - Seal damage or failure will result from running dry.

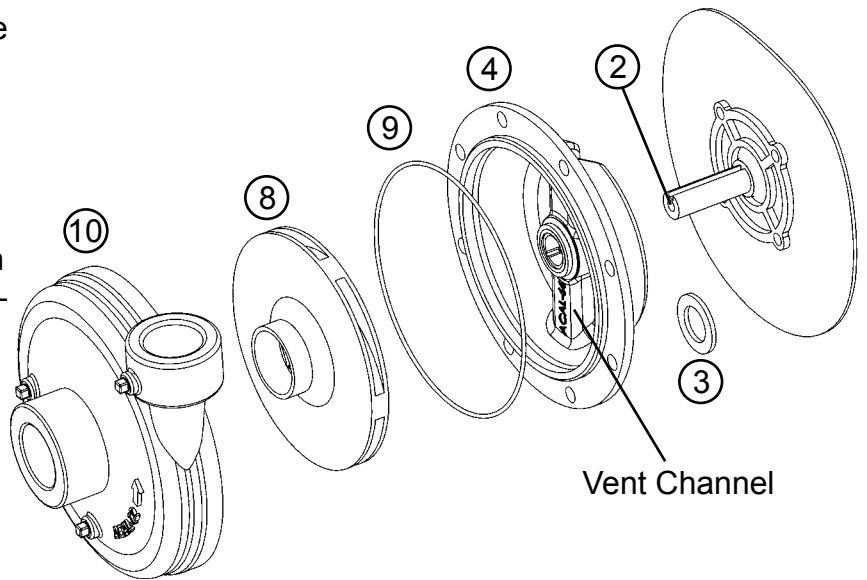
NOTE: Refer to the engine Owner's Manual for proper operation and safety precautions.

The -LE pump kit includes all parts necessary to assemble the pump on a gas engine with 3/4" keyed shaft.

Assembly:

- 1) Remove box contents and verify parts all parts were received. The rotating seal face and key are factory installed in the impeller hub. The stationary seal face is factory installed in the bracket.
- 2) Clean engine shaft internal threads with brake cleaner or similar degreasing material and dry.
- 3) Insert the GE-54-660 slinger into the ACAL-66 bracket cavity behind the seal.

- 4) Place the ACAL-66 pump bracket carefully over the engine shaft. Verify the slinger is on the shaft with clearance in front and back for proper function. Vent channel should be mounted vertically (up and down) for proper drainage.



- 5) Attach the ACAL-66 bracket to engine with (4) GE-60-SS 5/16" cap screws and (4) 30028 5/16" sealing washers. The rubber side of the washer goes against the ACAL-66 bracket. Torque bolts to 12 ft-lb (16 N-m).
Caution: Aluminum engine housing threads may strip if over tightened.

- 6) It is recommended to apply antiseize compound (not included) on the engine shaft and keyway. This will facilitate impeller removal for future service.

- 7) Install the ACAL-28-660 impeller over the engine shaft aligning the impeller key with the shaft keyway.

Caution: Be careful not to touch or contaminate the seal face.

- 8) Attach impeller with (1) GE-60-SS 5/16" cap screw and (1) 30031 5/16" Stat-o-Seal washer.
Important: Apply included removable threadlocker (Nut Lock) to screw threads.
Note: Torque to 12 ft-lb (16 N-m). Use towel or gloved hand to hold stationary.

ASSEMBLY INSTRUCTIONS CONTINUE ON FOLLOWING PAGE



SEAL REPLACEMENT INSTRUCTIONS

- 9) Place the BAC-4-150 housing seal O-ring onto the ACAL-66 pump bracket around the pilot.
- 10) Install ACAL-12 volute to ACAL-66 bracket with (8) 40950 3/8" cap screws.
Note: Apply included removable threadlocker (Nut Lock) to the bolt threads at the discharge throat to prevent leakage. Tighten bolts to 20 ft-lb (27 N-m) of torque.
- 11) Pump assembly complete. Allow proper cure time for removable threadlocker to cure (minimum of 10 minutes).
- 12) Follow engine manufacturers instructions for engine startup procedures.

Disassembly:

- 1) Remove (8) 40950 3/8" cap screws.
- 2) Remove ACAL-12 volute.
- 3) Remove the GE-60-SS 5/16" cap screw and 30031 Stat-O-Seal® washer from inside the impeller suction port. A screwdriver or file may be placed in an impeller vane to prevent rotation during removal. Discard the used Stat-O-Seal® washer.
- 4) Remove the impeller from the shaft by prying on opposite sides between the bracket and impeller. If the impeller is difficult to remove:
 - a. Spray joint between impeller and shaft with penetrating oil.
 - b. Install a 5/16"-24 x 2" cap screw into the engine shaft.
 - c. Remove the impeller using a 3 jaw puller(7" spread, 3-1/4" reach).
 - d. Remove the 2" cap screw.
- 5) Remove the rotating seal face from the impeller hub by prying with a screwdriver inside the seal ID. Verify that the key is in place in the impeller keyway.
Note: If the key is loose apply silicone and reinstall in the keyway.
- 6) Clean the impeller bore and install the new seal face with the smooth, polished side facing out.
Caution: Be careful not to touch or contaminate the seal face.
- 7) Remove the ACAL-66 bracket from the engine by removing (4) GE-60-SS 5/16" cap screws and (4) 30028 sealing washers. Discard the used sealing washers.
- 8) Turn the bracket over and press or tap out the stationary seal.
- 9) Clean the seal bore. Apply included sealant to the OD of the seal cup. Press or tap the seal cup evenly into the seal bore with a 1-1/2" pipe nipple.
Caution: Be careful not to touch or contaminate the seal face.
- 10) Refer to the pump assembly instructions on the prior page for re-assembly.