

Instruction Booklet for GETEC Hydra-Max Hydraulic Generators

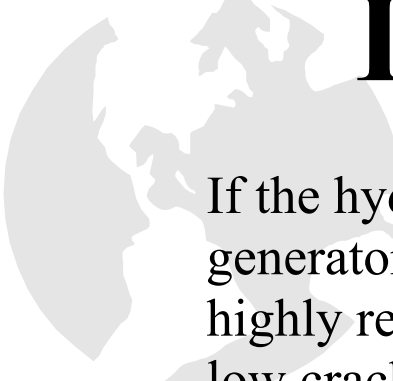
Model 401 _____ GPM 7.5 _____
PSI 2000 _____

Hydro-Max Theory and Operation

The Hydro-Max hydraulic generator is a hydraulically-powered alternating current (AC) generator. With the minimum recommended flow passing through the motor, the generator is spinning at 3720 and produces 110 Volt AC at 62 Hz. As the load is supplied to the generator, the voltage will increase to 120 Volt and the frequency will stabilize at 60 Hz (3600 RPM). The voltage is maintained via a capacitor (voltage regulator). The precise mF the capacitor is matched at the time of manufacture of the generator. Should the generator drop below 3000 RPM, the voltage will also drop at a very steep curve. Changing the mF of the capacitor will also vary the voltage.

The built-in flow control on the motor will maintain the generator's speed as long as the flow does not drop below the recommended minimum or exceed the maximum allowed flow. If the temperature of the hydraulic oil exceeds 160 F, some slippage will occur and the generator will not be able to maintain its proper speed. The standard voltage is set up for 120 volts but can very easily be changed by the customer as needed.

Important Hydraulic Circuit Installation Information



If the hydraulically-driven welder/generator or generator is mounted below the system tank, it is highly recommended that a check valve with a very low cracking pressure is installed in the case drain line (free flow motor to tank, blocking tank to motor). This will eliminate seal leakage during non-use time. It is also recommended that the case drain be connected directly to the top of the tank and not through a cooler or filter.

Hydro-Max™

General Installation

The Hydro-Max™ is a hydraulically-driven AC generator that will deliver its rated output power when the proper flow at 2000 PSI is connected to its hydraulic drive. Oil temperature should be between 100-140° F. A 10 micron filter is also recommended to maintain the drive at its maximum performance. Depending on the size of the reservoir, an oil cooler must be used; the smaller the reservoir, the larger the cooler.

The tank should **NEVER** be smaller than 2 times the required GPM.

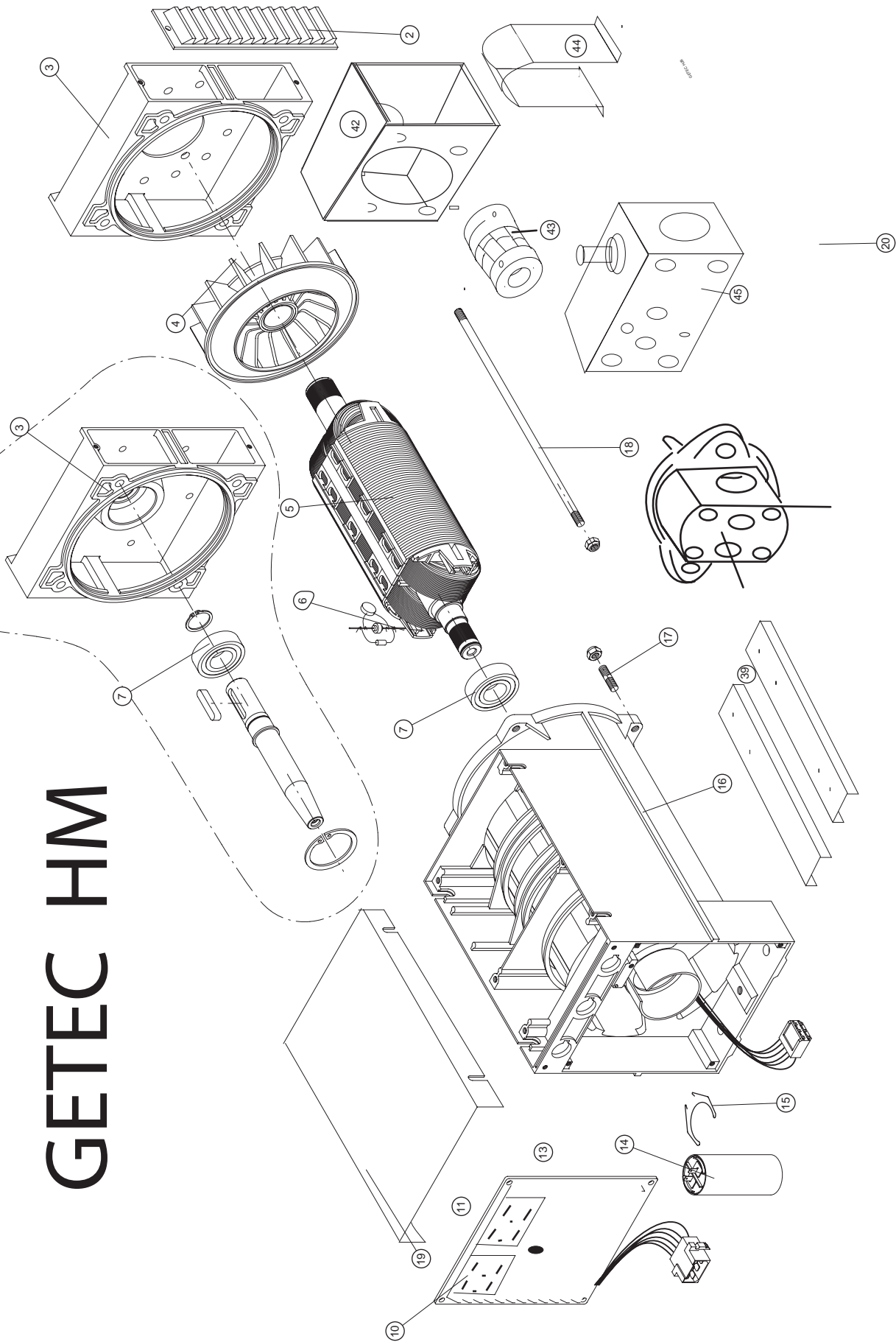
When starting a new hydraulic system, we strongly recommend that you connect the pressure line to the return line, bypassing the hydraulic generator drive. Operate the system for 10 minutes that way. This will clean the system; otherwise all kinds of problems will occur. After connecting the pressure and return line to the generator's hydraulic drive, start your system at a low speed, slowly increasing the speed until you reached the proper operating speed. While setting up a hydraulically-driven generator, it is necessary to check the speed setting of the hydraulic drive, since most systems will vary in many ways (temperature - flow - viscosity/type of oil - etc.) from our test set up.

NEVER allow the generator to exceed 3900 RPM.

The return line pressure, under no circumstances, should reach 100 PSI or seal-failure will occur.

The case drain must be connected directly to the tank (do **NOT** connect to return line). Return line must be 3/4 or larger.

GETEC HM



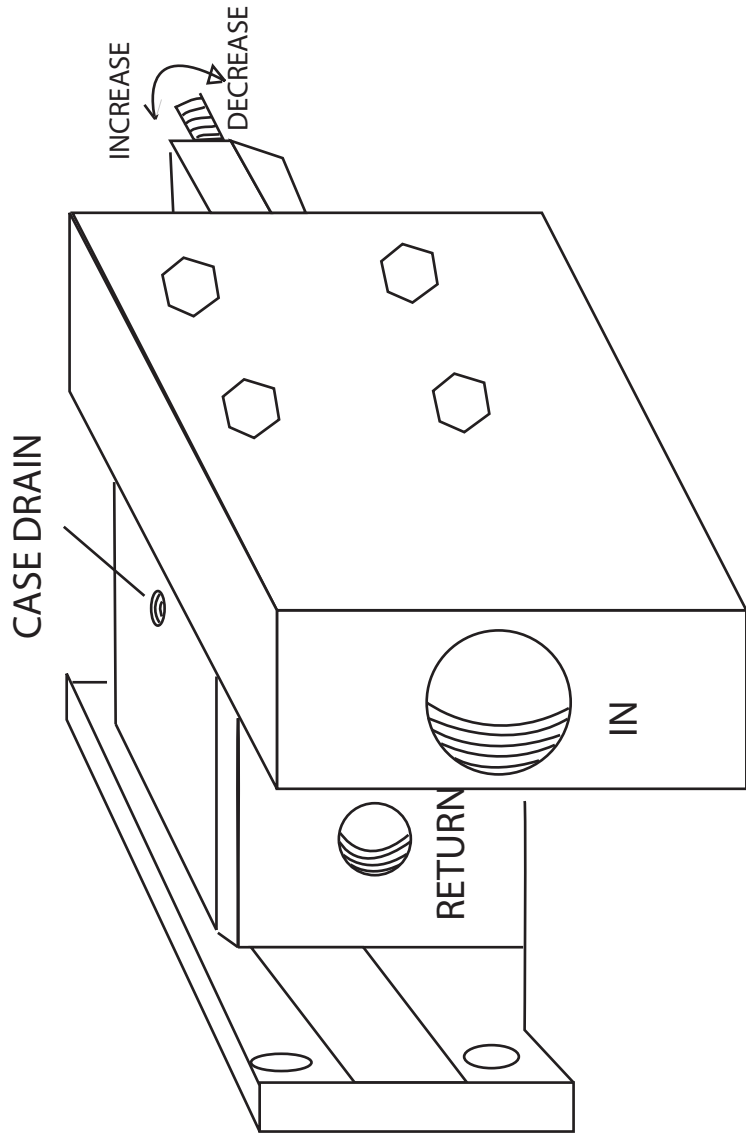
GETEC Series 100 Parts List

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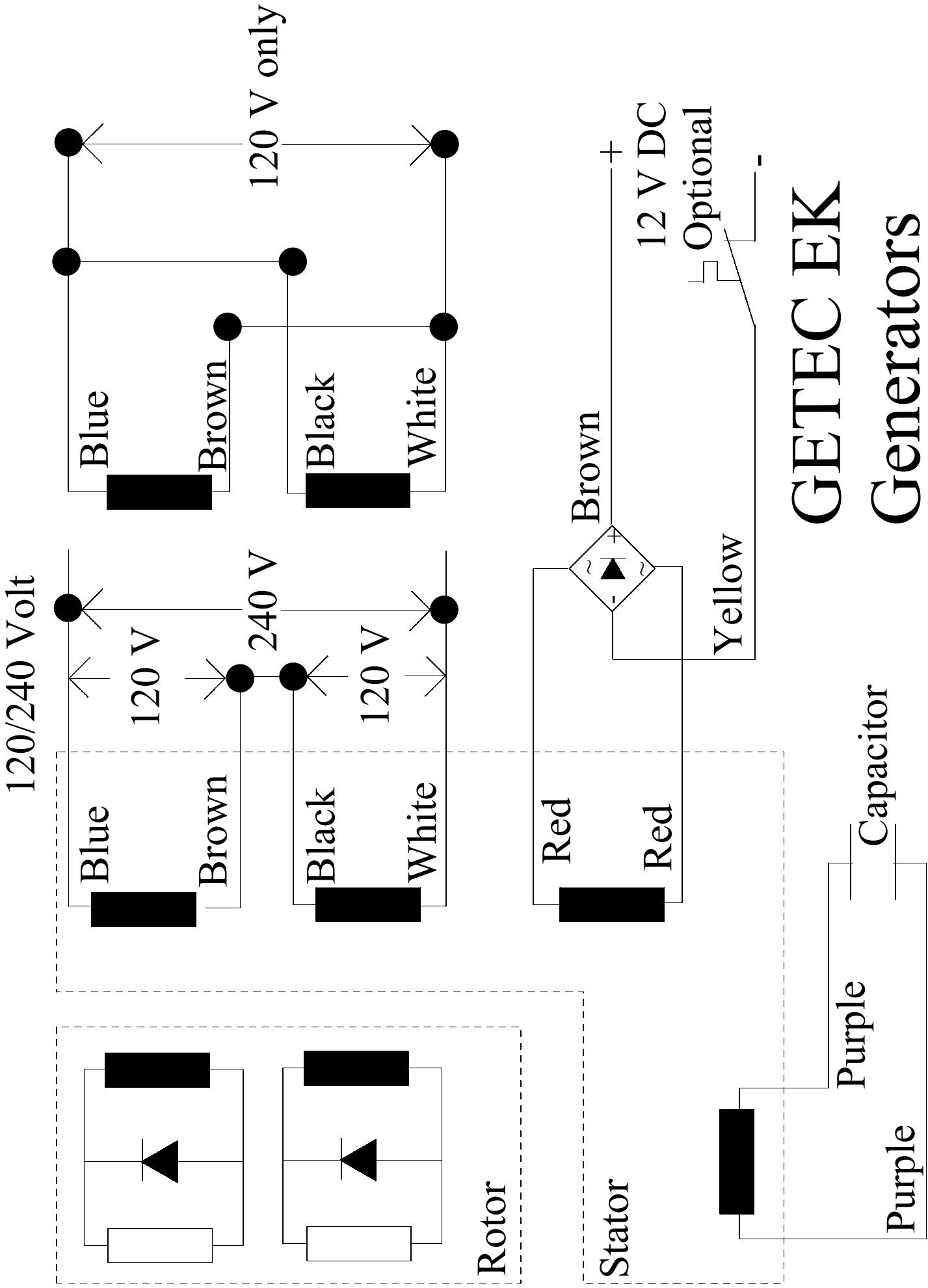
Item #	GETEC #	Description	Price
2	600869	Front Grid	
3	600872	Front Shield B3-B14	
4a	600873	Fan	
4b	600874		
5a	600875		
5b	600876	Rotor E100 5.2	
5c	600877		
5d	600878		
5e	600879		
5f	600880		
6	600881	Diode & Varistor & EMC Capacitor	
7	600882	Bearing	
10	600887	Recepticle Panel 2 GF	
14a	600892		
14b	600893		
14c	600894		
14d	600895	Capacitor 40uF 450	
15	600896	Capacitor block spring	
16a	600897		
16b	600898	Housing M & Stat. E100 5.2 120/240 V	
16c	600899		
16d	600900		
16e	600901		

GETEC Series 100 Parts List HYDROMAX Page 2 of 2

Item #	GETEC #	Description	Price
16f	600902		
17	600903	Bolt – M8 * 30	
18	600904	Shaft bolt 52	
19a	600905	Black top cover Flat	
20	600868	KIT: from J609B to B3/B14	
39	600674	Rails Set	
42	601111	Motor Mount AA-4	
42a	600970		
43	600971		
43a	601109	Coupling Set 95	
44	600114	Coupling Cover	
45	601112	Flow Control Assembly Sun	
45a	600922		
46	601115		
46a	601115		
46b	601116	Hydraulic Motor (4) -99	
46c	601114		
46d	600975		
46e	600996		
46f	601113		
46g	600972		



Model 300-360 and 400 HYDR.DRIVE



GETEC EK Generators

Flow Control Adjustment

In some cases, the viscosity of the hydraulic fluid used by the customer is different from the fluid we use in our test stand (ATF). A readjustment of the flow control may be necessary. A frequency meter or tachometer is needed to check the proper RPM.

No load speed should be 3720 RPM or 62 Hertz. Full load speed should be 3600 RPM or 60 Hertz.

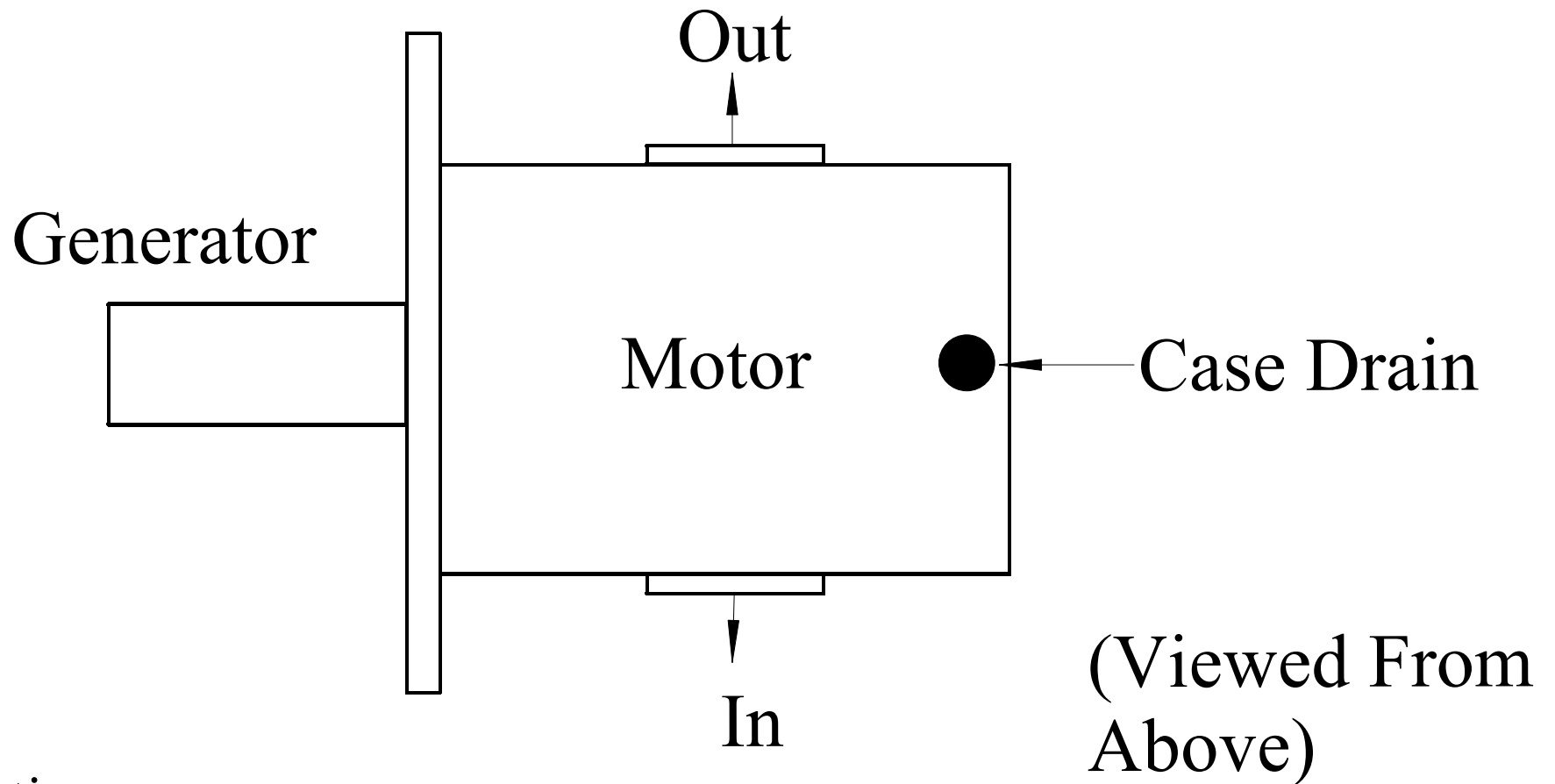
The flow control will not compensate for low flow of hydraulic fluid.

Connect a frequency meter or tachometer to the generator.

Start your hydraulic system at a slow speed, engage generator slowly, and increase the flow to the generator while monitoring the speed. After you reached the proper flow, the generator should be turning at a speed of 3720 RPM. Slowly keep increasing the flow, the generator should stay at 3720 RPM. If the speed of the generator increases, adjust the speed setting on the end of the flow regulator counter clockwise, setting the maximum speed at 3750 RPM. If you cannot adjust the speed, re-check your pressure and return line connection. Reverse hookup will disconnect flow regulation and will cause extreme damage to generator.

Do **NOT** make any flow control adjustments while you have a load connected to the generator.

HM 401 HM 621 Hydraulic Drive

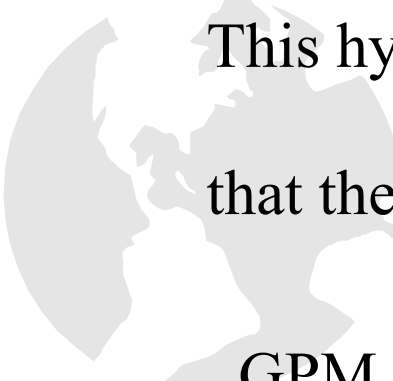


Caution

Do not allow generator to exceed 3800 RPM

Model _____

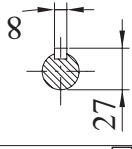
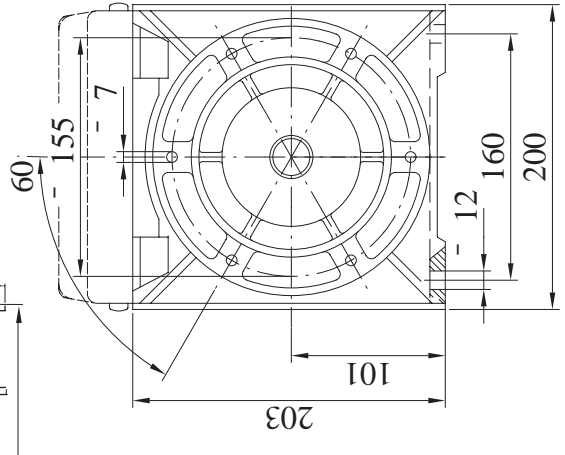
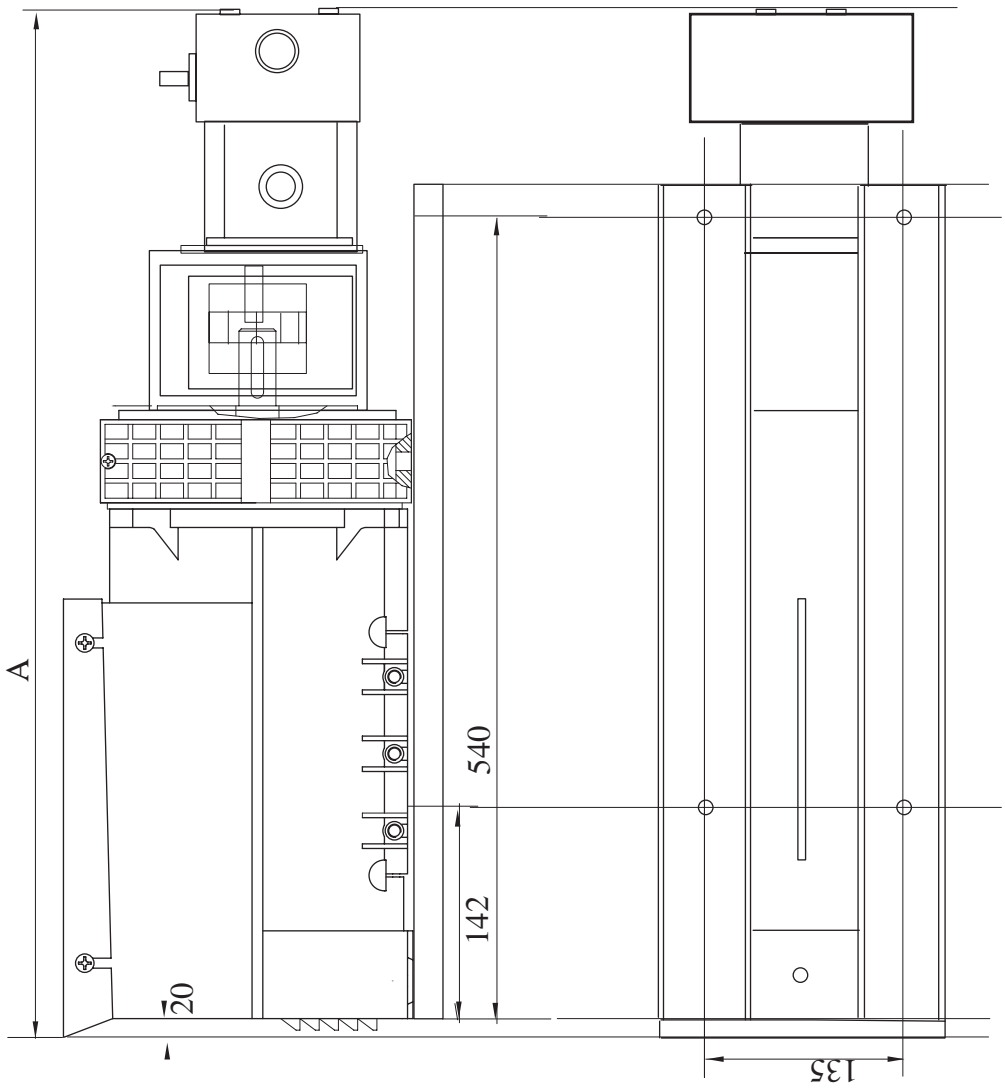
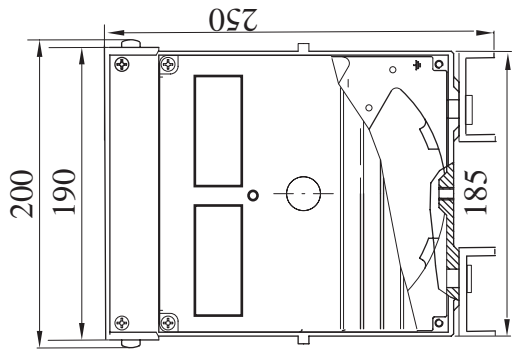
IMPORTANT



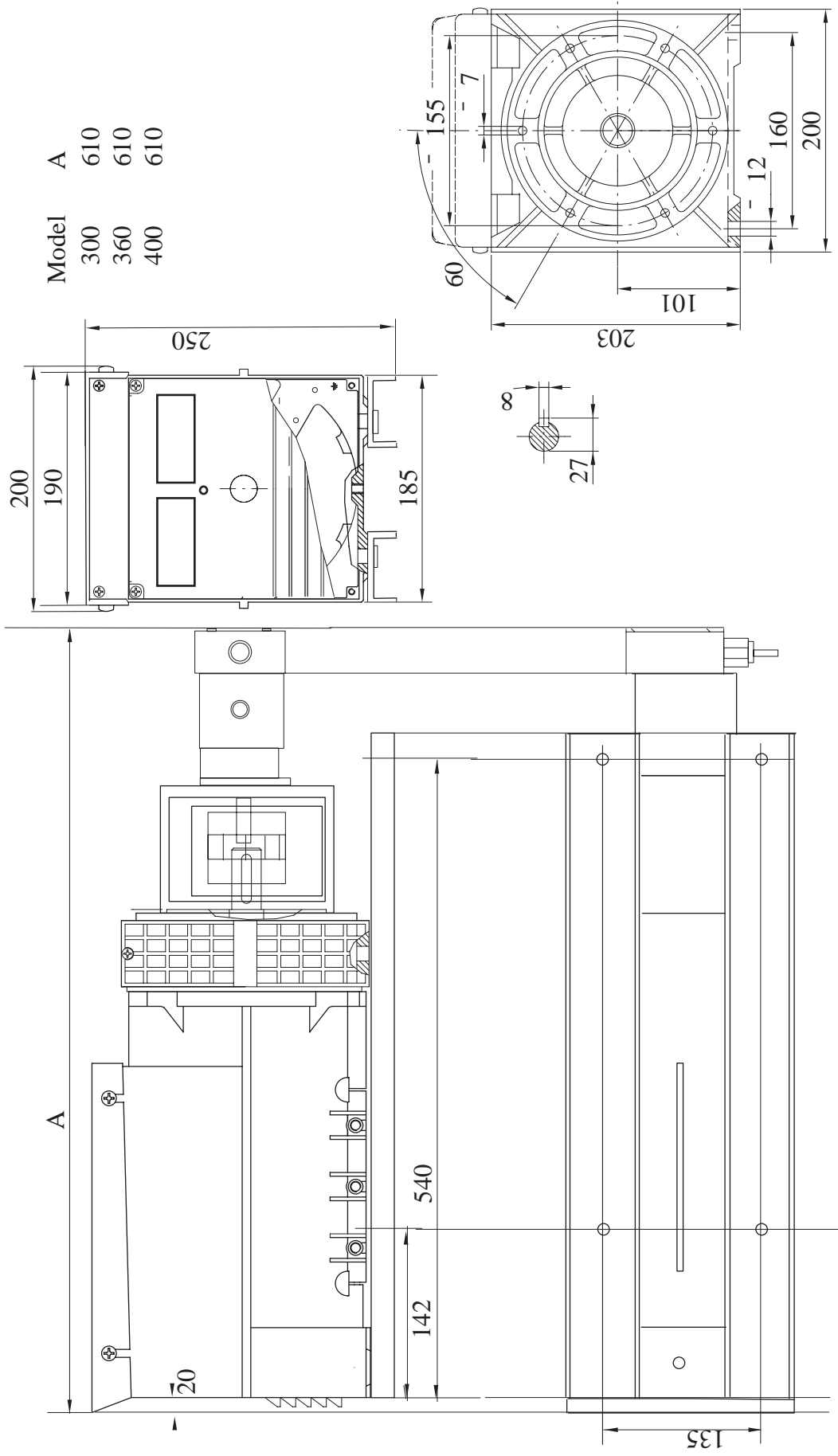
This hydraulically-driven generator requires
that the hydraulic system is able to deliver
_GPM up to _PSI to the generator drive.

Otherwise the generator cannot produce its
rated output.

Model	A
480	625
620	625
750	680
850	680
1000	680



HYDROMAX DIMENSIONS O Nodels



HYDROMAX DIMENSIONS 0 Models



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GETEC Product Line

**Hydraulically Driven AC Generators
3000 Watt to 34000 Watt**

**Hydraulically Driven Welder-Generators
200 Amp to 400 Amp**



**Vehicle Jump Starters
Hydraulically Driven
650 Amp and 1000 Amp**

**Magnet Generators w. Controllers
6 KW to 34 KVA**

*Manufacturer of high quality hydraulic generators and
welders*

*Getec's Web Page
<http://www.getecinc.com>*