




# Instruction Booklet for GETEC Hydra-Max Hydraulic Generators

Model	GPM	PSI
HM 1400	18	2000

# Caution



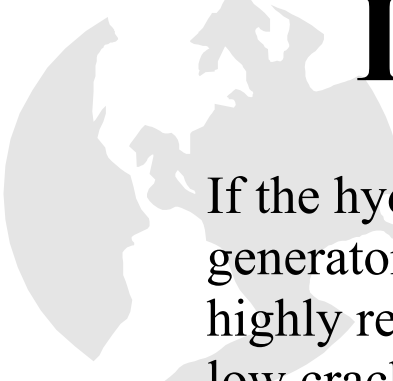
When used with customer  
supplied flow regulator, use  
extreme caution on initial setup.  
Overspeed will cause physical  
damage and is **not covered** under  
manufacturer's warranty.

# 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.

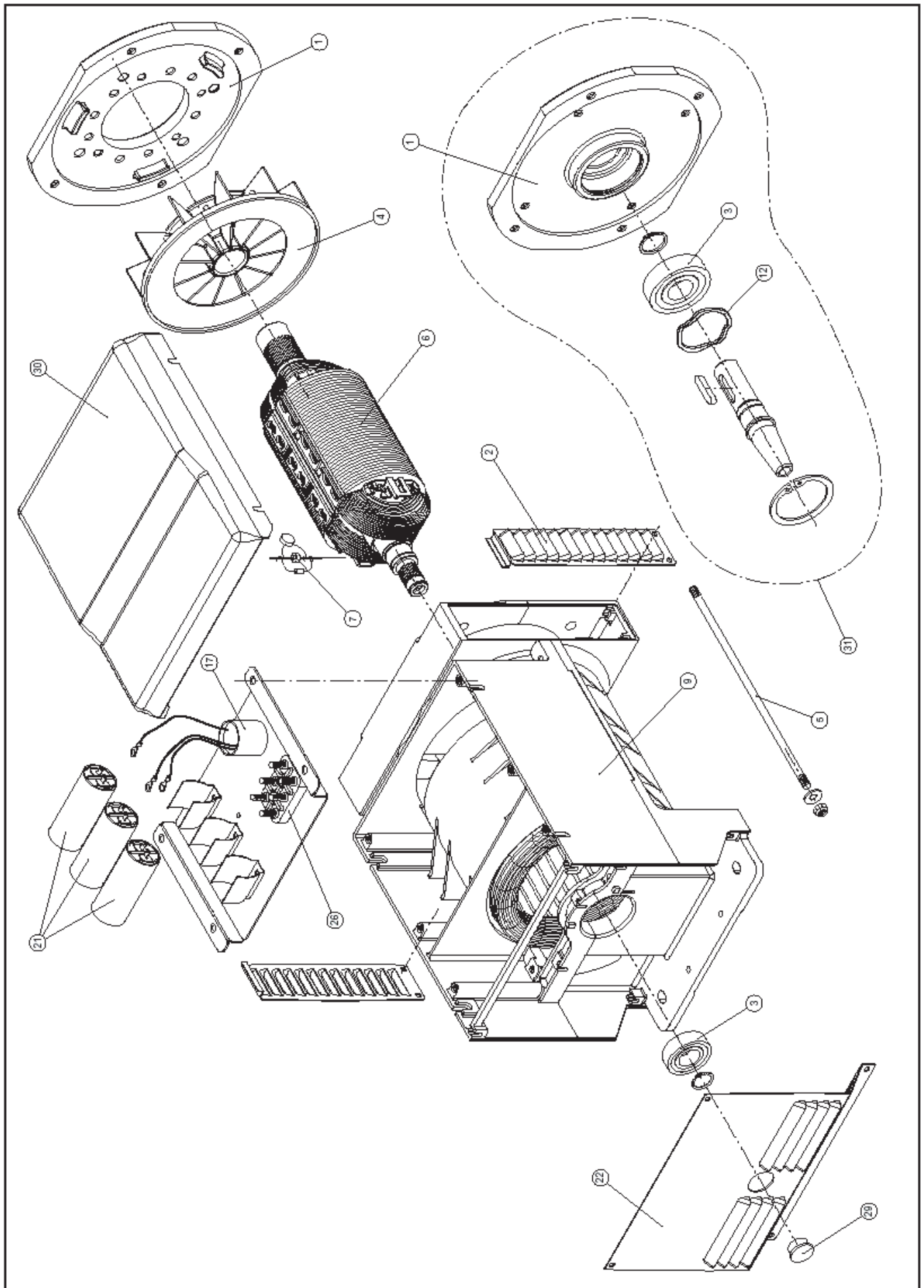
The tank should **NEVER** be smaller than 2 times the required GPM.

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.



## FK Parts List

Page 1

Item #	GETEC #	Description	Price
1	601086	Front Flange	
2	601087	Front Guard IP23	
2a	601088	Front Guard IP21	
3	601089	Bearing Type 6306 2RS1 C3	
3a	601090	Bearing Type 6206 2RS1 C3	
4	601091	Fan for 37 diam. Hole	
4a	601092	Fan for 42 diam. Hole	
5	601093	Stay Rod	
6	601094	Rotor	
7	601095	Diode&Varistor&Capacitor	
9	601096	Stator	
12	601097	Spring Washer Ø 72	
17	601098	EMC Filter	
21	601099	Capacitor 450V	
22	601100	Rear Guard IP23 FK	
22a	601101	FK Panel	
26	601102	Base 6 M6 Pins	
29	601103	Tap for Rear Guard	
30	601104	FK Top Cover	
31	601105	Kit for J609B c.35 to B34	

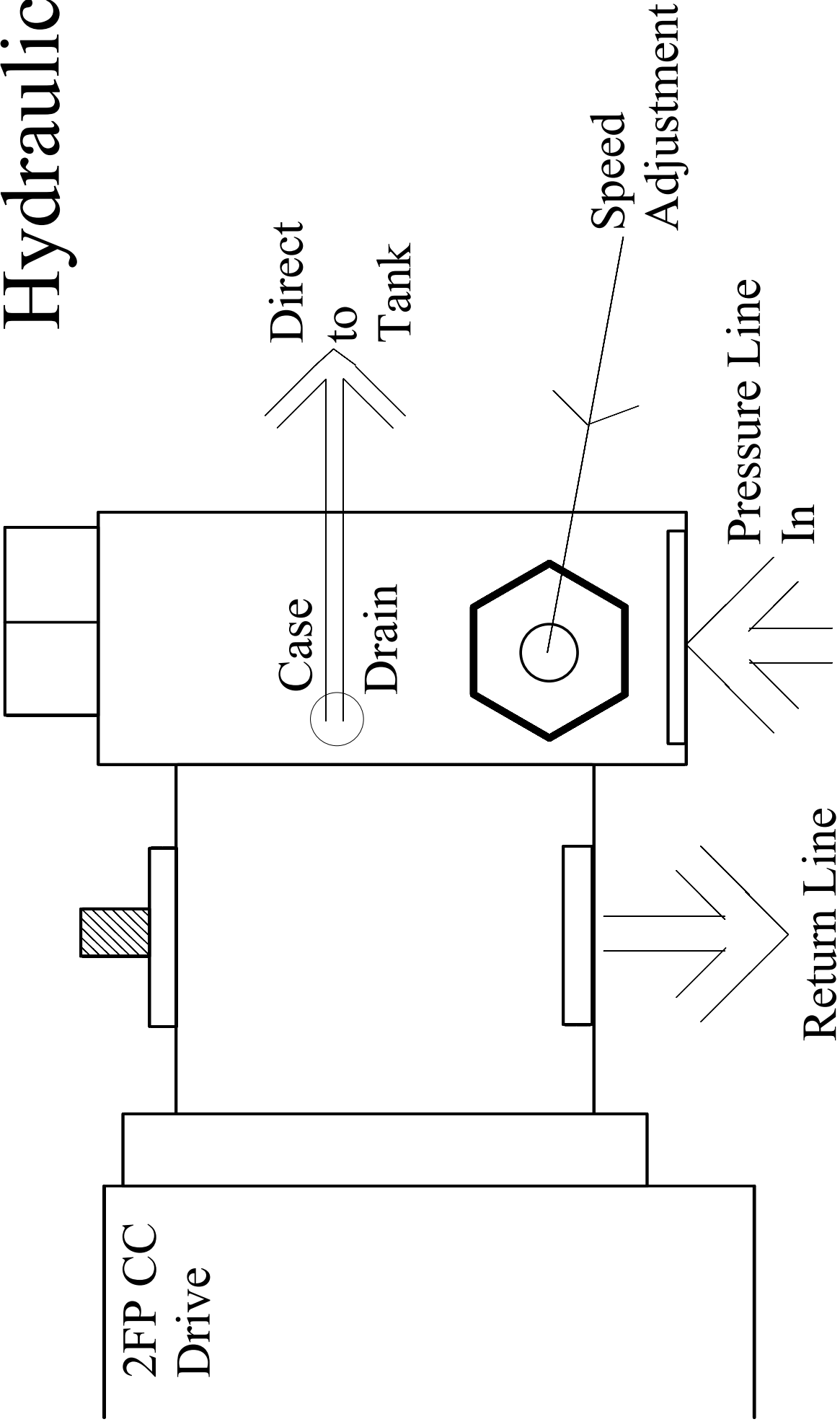
## GETEC Series 100 Parts List

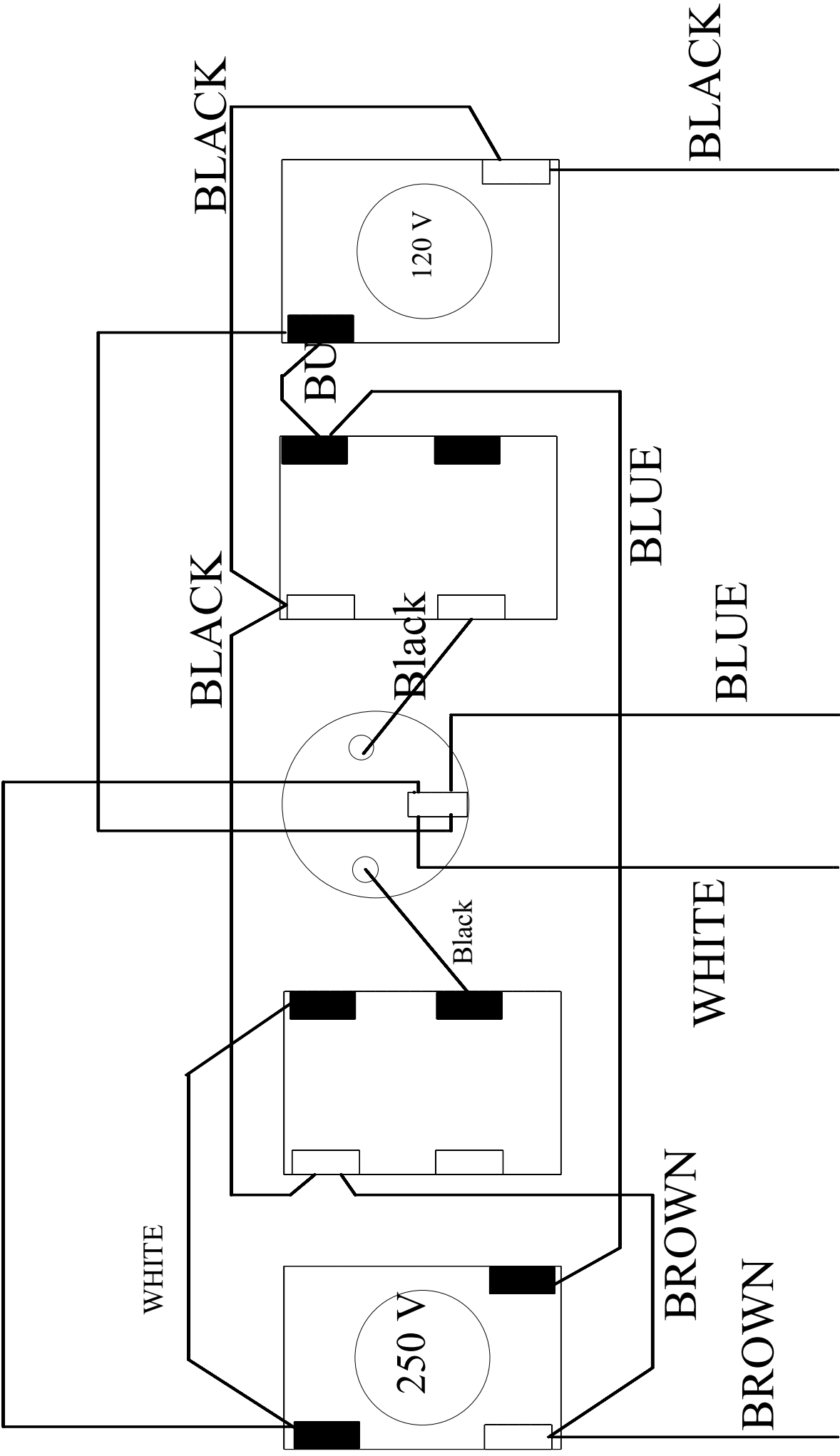
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Item #	GETEC #	Description	Price
16f	600902	Housing L & Stat. E100 10.0 120/240 V	
17	600903	Bolt – M8 * 30	
18	600904	Shaft bolt	
19a	600905	Black top cover	
20	600868	KIT: from J609B to B3/B14	
39	600674	Rails Set	
42	601111	Motor Mount AA-4	
42a	600970	Motor Mount A-2	
43	600971	Coupling Set 99	
43a	601109	Coupling Set 95	
44	600114	Coupling Cover	
45	601112	Flow Control Assembly Sun	
45a	600922	Flow Control Assembly Int.	
46	601115	Hydraulic Motor (3)	
46a	601115	Hydraulic Motor (3.6) -98	
46b	601116	Hydraulic Motor (4) -99	
46c	601114	Hydraulic Motor (4.8) 09	
46d	600975	Hydraulic Motor (6.2) 12	
46e	600996	Hydraulic Motor (7.5) 15	
46f	601113	Hydraulic Motor (8.5) 17	
46g	600972	Hydraulic Motor (10) 19	



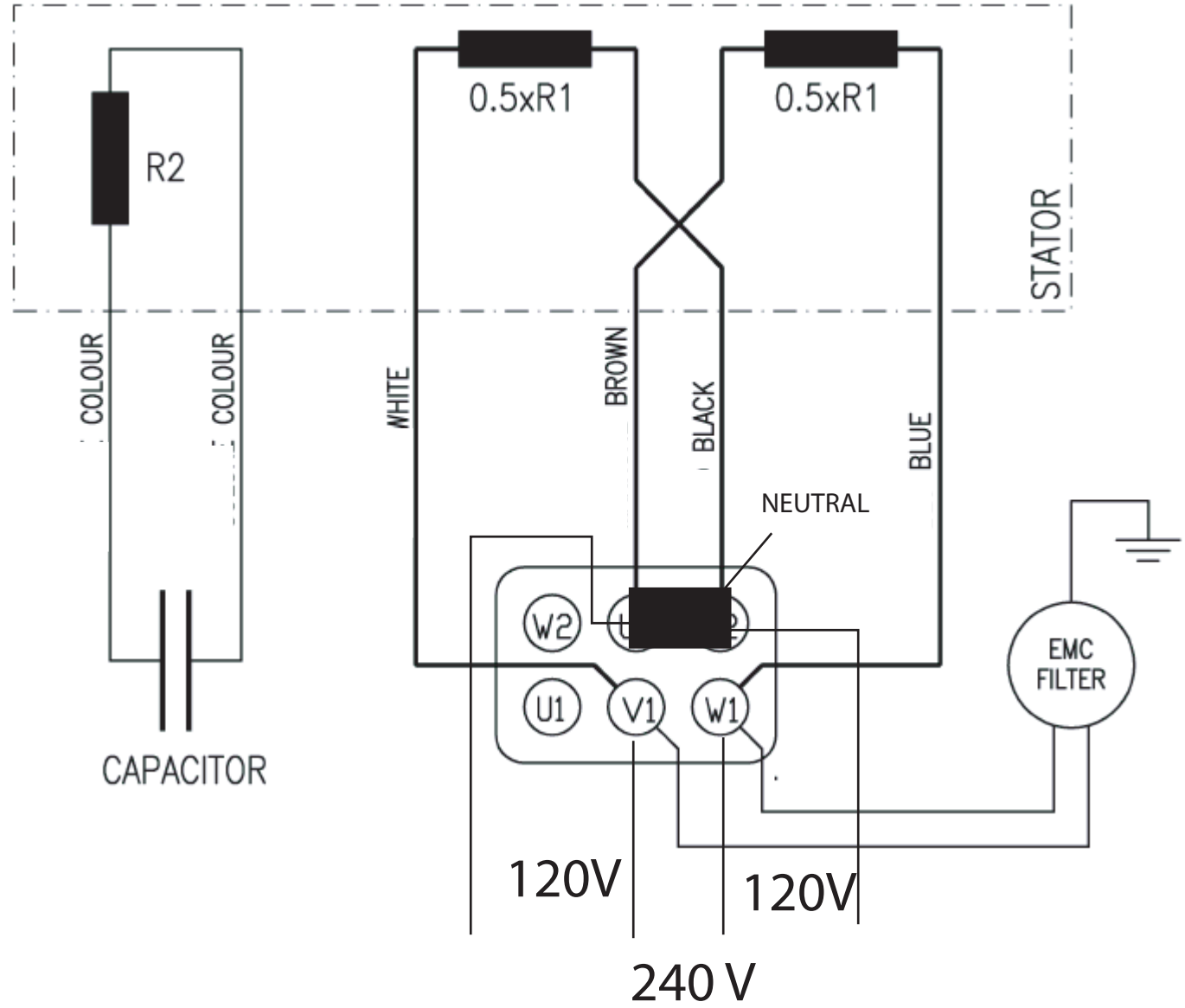
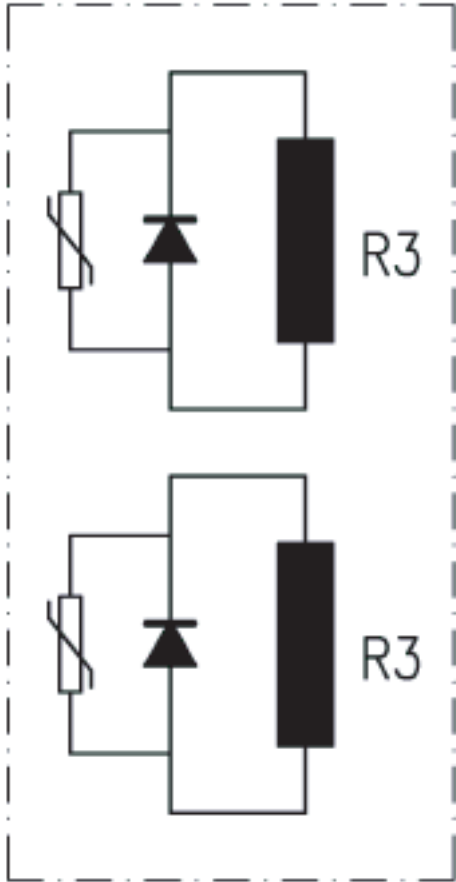
# GETEC Hydraulic



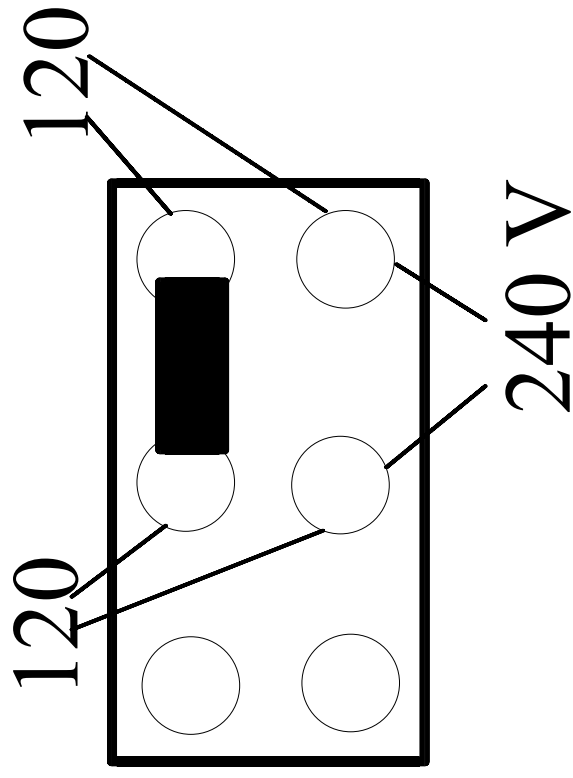


12 and 15 KW Panel Wiring

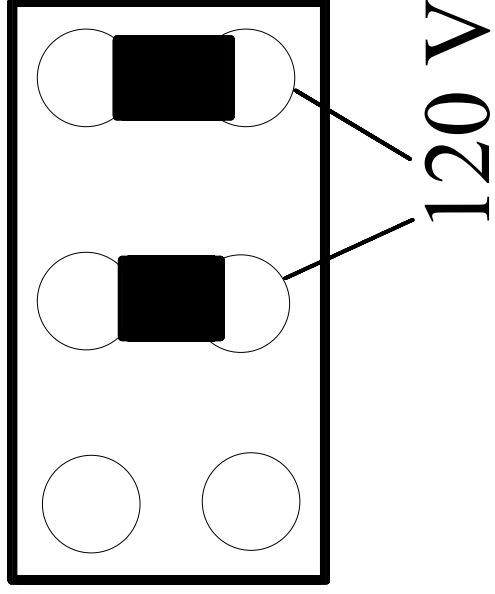
# ROTOR



# Electrical for 12 KW and 15 KW



120/240 Volt



120 Volt only

120 Volt Full Power

## 2FP95 Hi-Flow Flow Regulator

The 2FP95 hi-flow regulator has been factory set to maintain the generator's speed at its proper limits. The regulator may need very slight adjustments after connecting to its new system. Type of oil, temperatures, minimum and maximum flow may affect this regulator in a different way than our test setup. The regulator will not be out of adjustment more than **1/8 of a turn**.

Clockwise will slow the generator down (reduce flow).

CounterClockwise will speed up the generator (increase flow, if present).

Caution : Overadjustment will cause damage to generator and void warranty.



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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>*