

# GENERAL PUMP & EQUIPMENT CO., INC.

MANUFACTURING QUALITY HYDROSTATIC TESTING EQUIPMENT FOR CONTRACTORS AND INDUSTRY SINCE 1969  
3276 BRUENING AVENUE SW  
CANTON OHIO 44706  
PHONE 330-455-2100  
TOLL FREE 800-594-5178  
EMAIL [gentest@bright.net](mailto:gentest@bright.net)

## OPERATING INSTRUCTIONS FOR DRAFTING HYDRO-TEST MODELS DR6334 ~ DR6334-350 ~ DR6334-550 ~ DR6334-550-1 ~ DR6334-1000

### UNIT SPECIFICATIONS:

MODEL DR6334	3 GPM	250 PSI MAX	½ HP	10 AMPS @ 110 V
MODEL DR6334-350	3 GPM	350 PSI MAX	¾ HP	11 AMPS @ 110 V
MODEL DR6334-550	2 GPM	500 PSI MAX	¾ HP	11 AMPS @ 110 V
MODEL DR6334-550-1	3 GPM	500 PSI MAX	1 HP	13 AMPS @ 110 V
MODEL DR6334-750	2 GPM	750 PSI MAX	1 HP	13 AMPS @ 110 V
MODEL DR6334-1000	2 GPM	1000 PSI MAX	1 HP	13 AMPS @ 110 V

### STATEMENT OF QUALITY:

EACH HYDRO-TEST UNIT IS CHECKED FOR DEFECTS ON WORKMANSHIP OR PARTS AT LEAST SEVEN TIMES PRIOR TO SHIPMENT. A FINAL TESTING AND SETTING INSURES THAT YOUR HYDRO-TEST UNIT IS READY TO OPERATE WHEN RECEIVED BY YOU. ALL HYDRO-TEST UNITS ARE MADE FROM 90-100% AMERICAN MADE PARTS. ALL UNITS ARE PRE-SET AT THE SPECIFICATIONS SET FORTH IN THESE INSTRUCTIONS BEFORE BEING SHIPPED.

### YOUR HYDRO-TEST UNIT, AS SHIPPED TO YOU, IS READY TO OPERATE WHEN CONNECTED AS FOLLOWS:

1. CONNECT ½" SIPHON HOSE TO THE ½" Y-STRAINER ON THE INLET SIDE OF THE UNIT. DR6334 SERIES UNITS ARE DESIGNED TO SIPHON OR USE WITH STANDARD WATER PRESSURE FEED.
2. CONNECT THE OUTLET HOSE TO THE SAE MALE FITTING, LOCATED ON THE END OF THE OUTLET NEXT TO THE GAGE.
3. PLUG IN THE CORD TO A STANDARD 110 VOLT RECEPTACLE WITH SUFFICIENT POWER SUPPLY. POWER REQUIREMENTS ARE SHOWN IN THE UNIT SPECIFICATIONS ABOVE.

### CAUTION...CAUTION...CAUTION WHEN USING A PORTABLE GENERATOR

TO START THE HYDRO-TEST UNIT WITH NO DAMAGE TO THE MOTOR, YOU MUST HAVE A MINIMUM OF 3 TIMES THE LISTED AMPERAGE STATED ABOVE FOR YOUR UNIT. IT IS RECOMMENDED A PORTABLE AC GENERATOR OF 5000 WATTS OR LARGER BE USED. FOR DR6334-1000 AC GENERATOR SHOULD BE 7000 WATTS OR LARGER. BE SURE THE GENERATOR IS PUTTING OUT FULL POWER BEFORE ATTEMPTING TO START YOUR UNIT.

**EXTENSION CORDS:** WHEN USING ANY EXTENSION CORD BE SURE TO USE A CORD WITH SUFFICIENT CAPACITY FOR THE AMPERAGE NEEDED FOR THE TEST UNIT BEING USED. IT IS HIGHLY RECOMMENDED THAT A 12 GA OR LARGER WIRE BE USED.

**CAUTION:** BEFORE TESTING CHECK MAXIMUM SET PRESSURE. ON ALL NEW UNITS, MAXIMUM TEST PRESSURE HAS BEEN PRE-SET AS FOLLOWS:

MODEL DR6334	250 PSI
MODEL DR6334-350	300 PSI
MODEL DR6334-550	400 PSI
MODEL DR6334-550-1	400 PSI
MODEL DR6334-750	600 PSI
MODEL DR6334-1000	800 PSI

**SAFETY PRECAUTION:** BEFORE USING YOUR HYDRO-TEST UNIT BE SURE YOU KNOW WHAT THE MAXIMUM SET TEST PRESSURE IS. IF YOU DON'T KNOW THE MAXIMUM SET TEST PRESSURE, FOLLOW THE INSTRUCTIONS OUTLINED IN TO SET MAXIMUM PRESSURE.

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## **TO SET OR CHECK MAXIMUM PRESSURE:**

- A. WITH ALL HOSES CONNECTED TO THE UNIT, ATTACH A VALVE TO THE OUTLET END OF THE OUTLET HOSE.
- B. TURN WATER SUPPLY TO THE PUMP ON.
- C. WITH WATER ON AND OUTLET HOSE OPEN TURN THE UNIT ON.

WITH THE UNIT RUNNING, SLOWLY TURN THE VALVE ON THE OUTLET HOSE OFF. CAUTION: WHEN TURNING THIS VALVE OFF ALWAYS WATCH THE PRESSURE SHOWN ON THE GAGE. IF THE PRESSURE SHOWN IS GREATER THAT THE MAXIMUM PRESSURE FOR YOUR UNIT, OPEN THE VALVE AND REDUCE THE PRESSURE SETTING OF THE RELIEF VALVE. WHEN THE VALVE IS TOLTALLY OFF, THE PRESSURE SHOWN ON THE GAGE IS THE MAXIMUM PSI YOUR TEST UNIT WILL PRODUCE.

## **TO CHANGE PRESSURE SETTING (250 TO 500 PSI MODELS):**

- A. LOOSEN THE LOCKNUT ON THE RELIEF VALVE (LARGE BRONZE VALVE WITH T-HANDLE ON TOP). THIS NUT IS LOCATED JUST BELOW THE T-HANDLE ON TOP OF THE VALVE.
- B. TO **REDUCE** PRESSURE TURN THE T-HANDLE TO THE LEFT (COUNTERCLOCKWISE). NOTE: YOU MAY HAVE TO OPEN AND CLOSE THE OUTLET VALVE TO SHOW THE NEW MAXIMUM PRESSURE. TO **INCREASE** PRESSURE TURN THE T-HANDLE TO THE RIGHT (CLOCKWISE).
- C. WHEN YOU REACH THE DESIRED MAXIMUM TEST PRESSURE, TIGHTEN THE LOCKNUT ON THE RELIEF VALVE.

## **TO CHANGE PRESSURE SETTING(DR6334-1000):**

- A. LOOSEN THE LOCKNUT ON THE TOP OF THE BLACK ADJUSTING KNOB ON THE RELIEF VALVE.
- B. TO REDUCE THE MAXIMUM PRESSURE TURN THE ADJUSTING KNOB TO THE LEFT (COUNTERCLOCKWISE). NOTE: YOU MAY HAVE TO OPEN THEN CLOSE THE OUTLET VALVE TO SHOWN THE NEW MAXIMUM PRESSURE. TO INCREASE PRESSURE TURN ADJSUTING KNOB TO THE RIGHT (CLOCKWISE).
- C. WHEN YOU REACH THE DESIRED MAXIMUM TEST PRESSURE TIGHTEN THE LOCKNUT ON THE RELIEF VALVE..

## **PUMP LUBRICATION:**

ONLY ONE ITEM REQUIRES REGULAR LUBRICATION. YOU WILL SEE A GREASE FITTING LOCATED INSIDE THE HOLE ON THE END OF THE COVER. EVERY 100 WORKING HOURS LUBRICATE WITH A LITHIUM BASED GREASE. IF UNIT HAS NIT BEEN USED FOR A MONTH OR MORE IT IS RECOMMENDED THAT THE BEARING BE GREASED PRIOR TO USE.

**FOR SPECIFIC INSTRUCTIONS REFER TO THE OPERATING AND SAFETY INSTRUCTIONS**

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## **WHEN DRAFTING FROM A BARREL TANK, PLEASE NOTE THE FOLLOWING INSTRUCTIONS:**

1. THE INLET HOSE SUPPLIED WITH YOUR HYDRO-TEST UNIT SHOULD BE USED AS A SIPHON HOSE WHEN DRAFTING.
2. WHEN DRAFTING, THE DR6334 SERIES HYDRO-TEST UNIT SHOULD BE LEVEL WITH OR ABOVE (BUT NOT MORE THAN FIVE (5) FEET) THE HEIGHT OF THE WATER SUPPLY BEING USED.
3. DO NOT USE A HOSE SMALLER THAN ½" I.D. OR LONGER THAN THE HOSE SUPPLIED WITH THE DR6334 SERIES UNIT.
4. WHEN FIRST PRIMING THE PUMP, TURN THE OUTLET BALL VALVE ON AND OFF A FEW TIMES UNTIL A STEADY STREAM OF WATER FLOWS FROM THE OUTLET HOSE.

## **IF YOU FIND IT DIFFICULT TO PRIME THE PUMP, CHECK THE FOLLOWING:**

- A. THE STRAINER MUST BE CLEAN.
- B. MAKE SURE THAT THERE ARE NO KINKS IN THE SIPHON HOSE.
- C. CHECK THE OUTLET VALVE AND THE BELT MUST BE TIGHT.

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## **DR6334 SERIES OPERATING AND SAFETY INSTRUCTIONS:**

WHEN REPAIRING OR REPLACING ANY FACTORY COMPONENTS ON YOUR TEST UNIT, BE SURE TO USE GENERAL PUMP FACTORY PARTS OR REPLACEMENT PARTS WITH A PRESSURE RATING EQUAL TO OR IN EXCESS OF THE ORIGINAL PART USED. FAILURE TO DO THIS MAY PLACE THE OPERATOR OF THE TEST UNIT IN AN UNSAFE SITUATION AND COULD RESULT IN SERIOUS INJURY.

ALWAYS USE CLEAN COLD WATER.

UNITS WILL PUMP OTHER MATERIALS THAT ARE COMPATIBLE WITH THE PUMP. THE DR6334 SERIES CAN BE USED WITH GLYCOLS, GLYCERIN AND WATER.

IT IS RECOMMENDED THAT THE HYDRO-TEST UNITS BE USED WITH STANDARD WATER PRESSURE FEED. INLET WATER PRESSURE DOES NOT MATTER (CAN BE FROM 5 TO 105 PSI). DR6334 SERIES UNITS ARE RECOMMENDED WHEN IT IS NECESSARY TO USE DRAFTING OR GRAVITY FEED.

BE SURE WATER FLOW IS ON BEFORE TURNING THE TESTER ON. **NEVER RUN TEST PUMP WITHOUT WATER FOR MORE THAN 30-45 SECONDS...SERIOUS DAMAGE WILL OCCUR.**

IT IS RECOMMENDED THAT A TEE AND VALVE, ON THE RUNNING SIDE OF THE TEE, BE INSTALLED AT THE SYSTEM BEING TESTED AND USED AS A BLEED DOWN VALVE. A GAGE MAY ALSO BE INSTALLED AT THE SYSTEM.

BEFORE TESTING ANYTHING BE SURE YOU KNOW WHAT PRESSURE THE RELIEF VALVE IS SET FOR. THE SETTING ON THE RELIEF VALVE DETERMINES THAT MAXIMUM PRESSURE THAT THE TEST PUMP CAN DEVELOP FOR A TEST.

WHEN USING ELECTRIC TEST UNITS BE CERTAIN THAT YOU USE A GOOD **GROUND**ED POWER SOURCE WITH SUFFICIENT POWER TO RUN THE TESTER.

WHEN USING ELECTRIC POWERED TEST UNITS, **NEVER SIT OR IMMERSE THE UNIT IN WATER. SEVERE ELECTRICAL SHOCK CAN OCCUR AND ELECTROCUTION OF THE OPERATOR IS POSSIBLE!!!**

DR6334 SERIES HYDRO-TEST HYDROSTATIC TEST UNITS ARE DESIGNED FOR USE WITH GLYCOLS, GLYCERIN AND WATER USE ONLY. TESTING WITH ANY OTHER FLUIDS, ESPECIALLY FLAMMABLE ONES, IS STRONGLY DISCOURAGED AND IS DONE AT THE RISK OF THE OPERATOR. **TESTING WITH FLAMMABLE FLUIDS IS VERY HAZARDOUS AND NOT RECOMMENDED.**

WHEN TESTING A SYSTEM, THE TIME IT TAKES TO ACHIEVE A TEST IS DEPENDENT ON THE AMOUNT OF MAKE UP WATER NEEDED TO PRESSURIZE THE SYSTEM. AIR THAT IS TRAPPED IN THE SYSTEM MUST BE DISPLACED BY THE INCOMING WATER TO CREATE PRESSURE. THE MORE AIR THAT IS TRAPPED IN THE SYSTEM BEFORE TESTING, THE LONGER IT WILL TAKE TO PRESSURIZE THE SYSTEM AND DO THE TEST.

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IF IT SEEMS THAT IS TAKING AN EXTREMELY LONG PERIOD OF TIME TO TEST A SYSTEM, LOOK FOR A LEAK. IF THE TESTER IS OPERATING PROPERLY THE WATER BEING PUMPED IS GOING SOMEWHERE. IF IT IS NOT CREATING PRESSURE ON THE SYSTEM CHECK THE FOLLOWING:

- A. THE TEST PUMP.
- B. ANY VALVES CONNECTING THE SYSTEM BEING TESTED TO A SYSTEM NOT BEING TESTED (WATER MAY BE LEAKING THROUGH).
- C. LEAKS THAT MAY BE GOING SOMEWHERE NOT VISIBLE.
- D. ANY PIPE OR TANK THAT MAY HAVE A LARGE AMOUNT OF AIR TRAPPED.

THE SIZE OF THE SYSTEM BEING TESTED DOES NOT DETERMINE HOW LONG IT WILL TAKE TO MAKE A TEST. THE AMOUNT OF MAKEUP WATER NEEDED TO DISPLACE THE AIR TRAPPED IN THE SYSTEM WILL DETERMINE THE TIME NEEDED TO DO THE TEST.

## **LEAKBACK CHECK:**

IF YOU PUMP A SYSTEM TO TEST PRESSURE AND CANNOT GET PRESSURE TO HOLD, IT MAY BE NECESSARY TO DO A LEAKBACK CHECK AS FOLLOWS. BEFORE DOING THIS TEST YOU MUST HAVE A GAGE, BLEED DOWN VALVE AND SHUT OFF VALVE INSTALLED WHERE THE OUTLET HOSE FROM THE TESTER IS CONNECTED TO THE SYSTEM BEING TESTED.

1. CLOSE SHUTOFF VALVE WHERE THE OUTLET HOSE FROM THE TESTER CONNECTS TO THE SYSTEM BEING TESTED.
2. SHUT OFF BALL VALVE ON THE TESTER.
3. BLEED DOWN ALL PRESSURE BETWEEN SYSTEM AND TEST PUMP.
4. DISCONNECT HOSE FROM SYSTEM.

IF NO WATER IS LEAKING FROM THE SYSTEM AND PRESSURE STILL DROPS, THERE IS A LEAK IN THE SYSTEM. IF PRESSURE HOLDS, WATER WAS LEAKING BACK THROUGH THE MACHINE.

## **SAFETY INSTRUCTIONS**

IT IS HIGHLY RECOMMENDED THAT ANYONE OPERATING THE TEST UNIT BE WEARING SAFETY GLASSES AND ANY OTHER APPROPRIATE SAFETY EQUIPMENT.

THE TEST UNIT MUST ALWAYS BE CONNECTED TO A GOOD GROUNDED POWER SOURCE THAT PASSES ALL APPROPRIATE CODES AND REGULATIONS.

**NEVER SIT OR IMMERSE THE DR6334 SERIES UNIT IN WATER!!!!**

ALWAYS KNOW THE MAXIMUM SET PRESSURE OF THE UNIT BEFORE ATTEMPTING A TEST. IF MAXIMUM SET PRESSURE IS TOO FAR ABOVE THE NEEDED TEST PRESSURE, DAMAGE TO THE SYSTEM BEING TESTED MAY OCCUR.

BEFORE OPERATING, BE CERTAIN THAT YOUR HYDRO-TEST UNIT IS IN GOOD OPERATING CONDITION AND HAS ALL NECESSARY VALVES, SWITCHES AND SAFETY EQUIPMENT NEEDED FOR SAFE OPERATION.

DO NOT OVERLOAD THE TEST PUMP DURING OPERATION. OVERLOADING WILL CAUSE THE MOTOR TO OVERHEAT AND CAN BE A FIRE HAZZARD.