

Models

21480 & 21480-E

Shut-Off Guns

21480 = Standard Gun

21480-E = Gun with Microswitch

Specifications

- Assembly on tubes equipped with 3/8" BSP couplings
- Entirely made of stainless steel
- Ergonomic construction
- The trigger opens up with minimum effort
- Microswitch version with REED bulb (21480-E Version)*
- Highly resistance reed switch
- Protection degree **IPX3**
- Protection class **III**
- Magnetically controlled by the movement of the trigger
- In compliance with **CE** norms



Operating Specifications:

| | U.S. | Metric |
|-----------------------------|----------------|------------|
| Rated Pressure: | 8700 PSI | (600 Bar) |
| Permissible Pressure: | 9570 PSI | (660 Bar) |
| Maximum Temperature: | 212 °F** | (100 °C)** |
| Maximum Flow: | 15.9 GPM..... | (60 l/min) |
| Inlet: | | 3/8" FBSP |
| Discharge: | | 3/8" FBSP |
| Weight (21480): | 2.21 lbs | 1005 g |
| Weight (21480-E): | 2.24 lbs | 1020 g |

TECHNICAL SPECIFICATIONS MAGNETIC MICROSWITCH WITH REED BULB

| | | | |
|-------------------|---------|-------------------------|--------------------------|
| Rated voltage: | 220 V | Commutable voltage max: | 10 VA |
| Cable Length: | 2000 mm | Wire: | 2 x 0,25 mm ² |
| Room Temperature: | 100 °C | Type of Action: | 1C |
| Current max: | 0.5A | | |

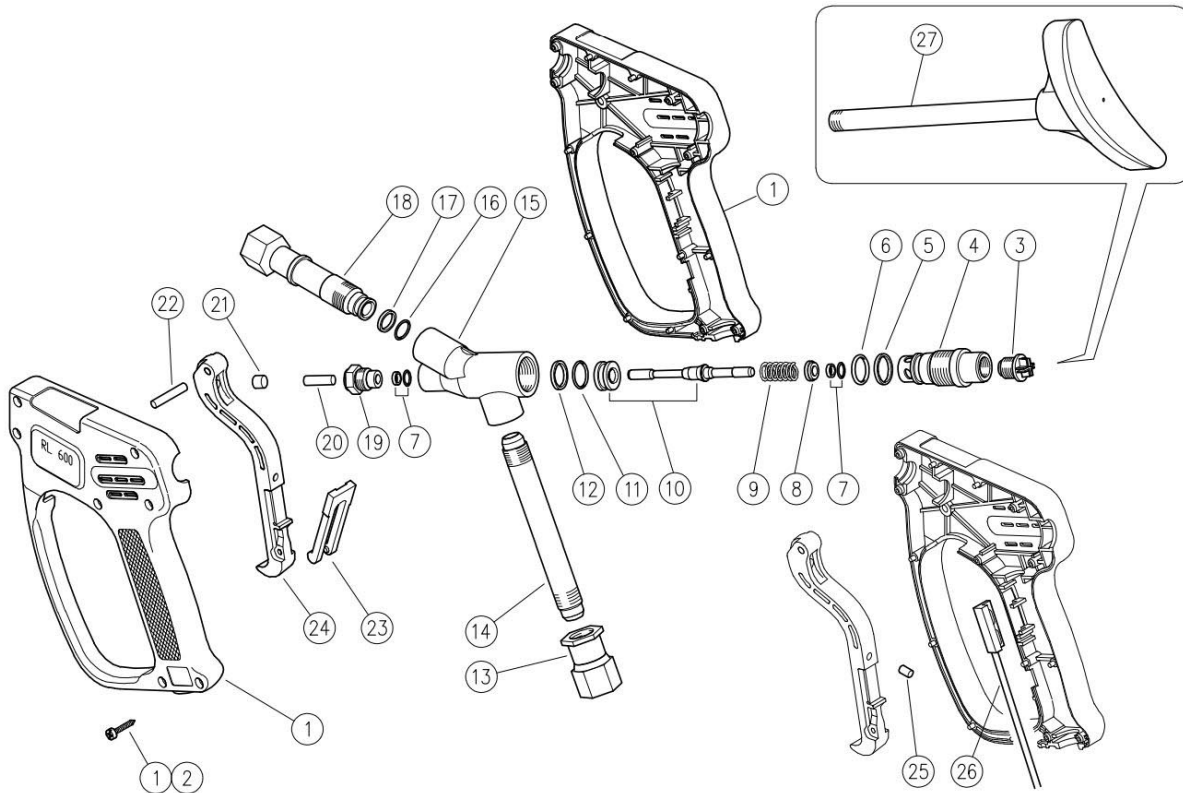
***Attention!!!**

The work limit of the magnetic microswitch with REED bulb attached to the gun must be maximum: 48 volt ac-cc

** The gun has been designed for continuous use, at a water temperature of 140 °F (60 °C). It can resist at the maximum temperature of 212 °F (100 °C) for short periods only, as when the gun shuts off, the heater continues to transmit the heat to the water, thus increasing both temperature and pressure up to high and dangerous levels. Using the gun at a water temperature higher than 140 °F (60 °C) requires that the operator use adequate safety devices such as gloves, etc.

Attention! In order to prevent any risk of **INSTABILITY** of the gun due to pressure spikes, **CHECK** the enclosed **CHART** (back page). the use of safety devices (Shoulder Rest) in function of the pressure/flow Rate parameters.

21480/21480-E Shut-Off Guns



| ITEM | PART | DESCRIPTION | QTY. | ITEM | PART | DESCRIPTION | QTY. |
|------|-------|---------------------|------|------|--------|--------------------------|------|
| 1 | 03120 | Housing | 1 | 15 | 03130 | Valve Body | 1 |
| 2 | 04052 | Self-Tapping Screws | 7 | 16* | 04709 | O-Ring | 1 |
| 3 | 04038 | Plug | 1 | 17* | 03131 | Backup Ring | 1 |
| 4 | 03121 | Spring Holder | 1 | 18 | 03132 | Discharge Fitting | 1 |
| 5* | 03122 | Backup Ring | 1 | 19 | 03133 | Guide Sleeve | 1 |
| 6* | 08573 | O-Ring | 1 | 20 | 03134 | Control Bolt | 1 |
| 7* | 03123 | Stem Seal | 2 | 21 | 03135 | Cam | 1 |
| 8* | 03124 | Spacer | 1 | 22 | 04050 | Parallel Pin | 1 |
| 9* | 03125 | Spring Holder | 1 | 23 | 04048 | Safety Latch | 1 |
| 10* | 03126 | Piston Seat | 1 | 24 | 03136 | Trigger | 1 |
| 11* | 04332 | O-Ring | 1 | 25 | 03137 | Magnet (21480-E Only) | 1 |
| 12* | 03127 | Backup Ring | 1 | 26 | 03138 | Probe (21480-E Only) | 1 |
| 13 | 03128 | Inlet Fitting | 1 | 27 | 04089 | Shoulder Rest (Optional) | 1 |
| 14 | 03129 | Inlet Tube | 1 | | *09830 | Repair Kit | |

Instructions

This product is to be utilized with clean fresh water, even slightly additivated with normal detergents. For use involving different or corrosive liquids, contact Giant Industries. Appropriate filtration should be installed when using unclean liquids. Choose the gun in line with the data of nominal running (system rated pressure, max flow and max temperature). In any case, the pressure of the machine should not exceed the permissible pressure rating imprinted on the gun.

Installation

This gun was designed to operate with **hot water** (in compliance with technical specifications). Make sure there is a safety device attached to prevent accidental increase in temperature. **Always fit a safety valve to protect the discharge plumbing when it is under pressure.** Choose a suitable nozzle and adjust the valve mounted in the front of the gun, in order to obtain a constant supply and avoid a pressure spike (when closing the system). If the nozzle wears out, the pressure falls. When you install a new nozzle, adjust the system back to the original pressure.

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Operation

The gun opens and closes a high pressure conduct by means of a piston action on a seat; the return is controlled by a spring which releases the trigger.

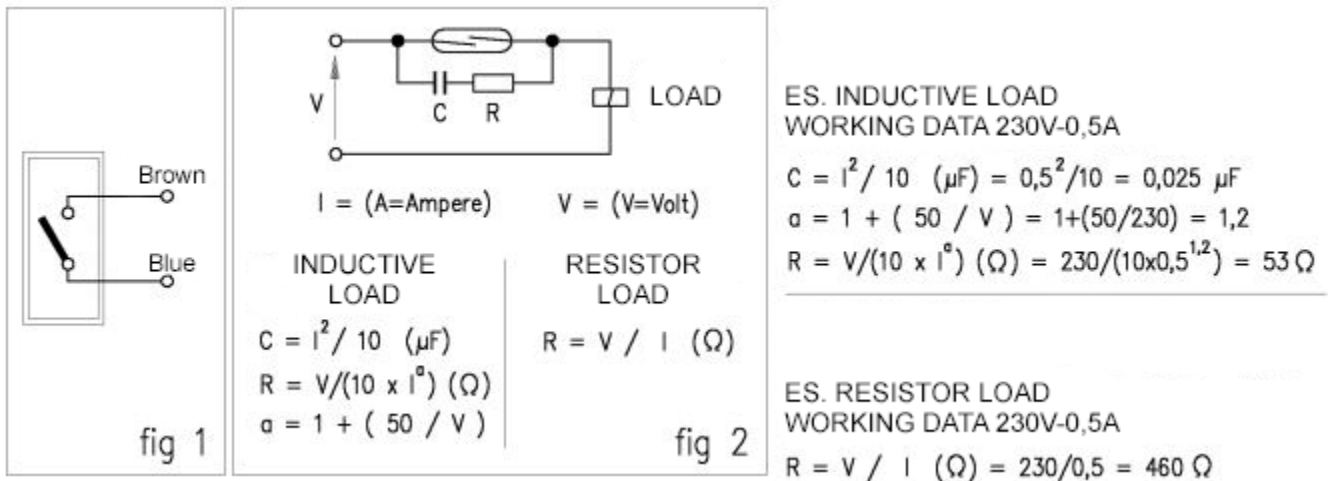
Water Hose Feed

If there is fluctuating and high inlet pressure to the pump, it might be necessary to install a pressure reducer, which would level the flow rate on delivery and to protect the system components.

| PROBLEMS | PROBABLE CAUSES | SOLUTIONS |
|---|---|---|
| Leakage from the nozzle side of the gun | Presence of impurities Gun seat worn out | Clean Replace the seat (see manual 10.9127.00) |
| Leakages from the seals | Seals worn out | Replace the seals (see manual 10.9127.00) |
| The trigger opens up with difficulty | The pressure inside the circuit is too high | Check the bypass valve and adjust it if necessary |
| No electric contact | Rupture or demagnetisation of the Reed switch | Replace the magnetic sensor (pos. 26) |

Wiring Connection

For the connection of the wiring, see the chart in **fig.1**



Electric Life of the Contact

The electric circuit inside the sensor consists of a reed switch, which can work at up to 1 million operations. Current and/or voltage values higher than the permitted limits damage the contacts remarkably thus reducing their electric life (gluing or "craters" on the moving plates). In order to prevent these phenomena, it is necessary to value, the transitory system, in which the starting current can be 10-12 times stronger than the standard current. The cut-off of inductive loads can take the circuit to potential difference values (ddp) of thousands Volts. Thus, pay attention to such situations of overload and over voltage, showing either at the start when the circuit closes up (starting currents) and at the stop when the circuit opens up (disconnecting voltage). In order to avoid these problems it is necessary to provide the system with adequate protections. There are various suitable circuits, one of the most common and effective is shown in **fig. 2**

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Maintenance

Maintenance has to be carried out by **Specialized Technicians**.

For a correct assembly, follow the instructions given in the User's Manual p/n: 10.9126.00 (see package).

STANDARD: every 400 working hours (circa 10,000 cycles), check and lubricate the seals with water resistant grease.

SPECIAL: every 800 working hours (circa 20,000 cycles), check the wear of the seals and internal parts and if necessary, replace with original Giant parts, taking care during installation to lubricate with water resistant grease.

CAUTION: re-assemble the gun restoring the original conditions.

The manufacturer is not to be considered responsible for damage as a result from incorrect fitting and maintenance.

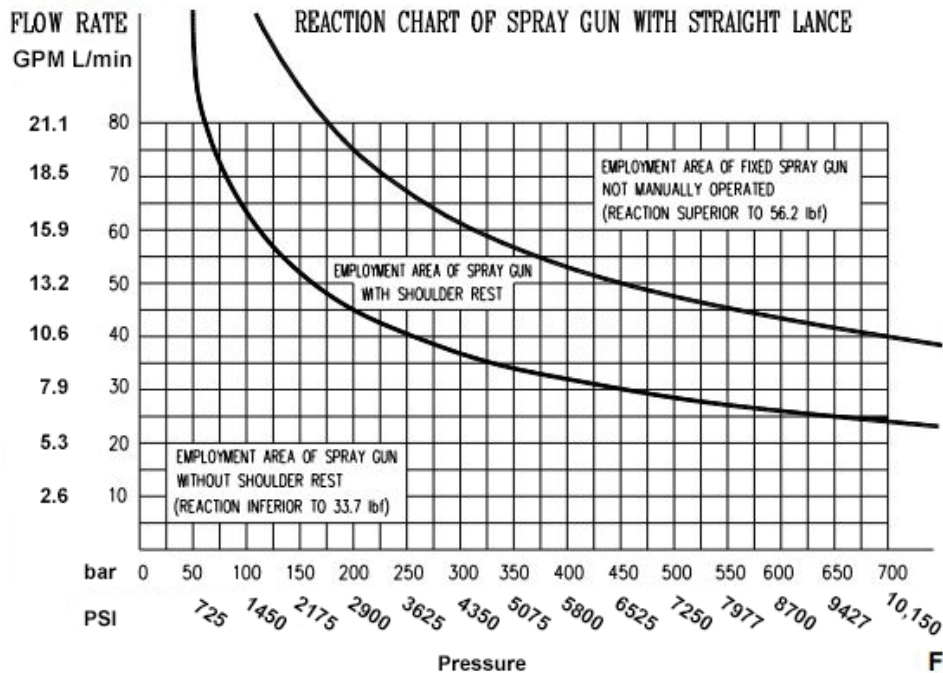
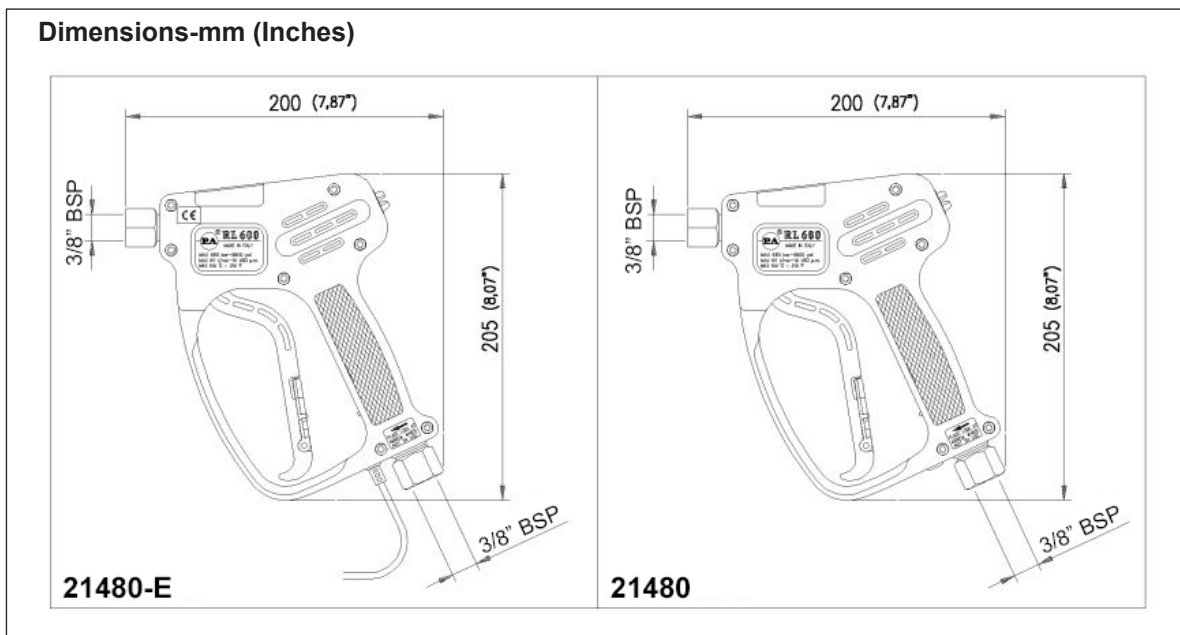


Fig. 3



GIANT
Performance Under Pressure

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