



# PUMPS FOR AVIATION REFUELING

*Self-Priming and Standard Centrifugal Pumps  
for Aircraft Fueling and Defueling*



*The Pump People®*

# THE RIGHT PUMPS FOR AVIATION REFUELING

Gorman-Rupp has met the challenge of accelerated aircraft fueling and defueling requirements for over 50 years. In this ever-changing world of faster and more agile aircraft, Gorman-Rupp has kept pace with technology with new designs in both pumps and valves.

*Gorman-Rupp engineers are continually working with engineers and designers from oil companies, tank fabricators, chassis builders and aircraft manufacturers, to stay ahead of the changes and demands within the industry.*

- **High Capacity Pumps Utilizing Two-Step Gearbox**

Utilization of a two-step gearbox with hydraulic drive eliminates long suction lines and the liquid fifth wheel on tractor-trailer units. For this application, Gorman-Rupp offers both self-priming and standard centrifugal pumps.

The two-step gearbox may also be used with a jointed shaft and side-mount PTO – available in left- and right-hand rotation.



- **Self-Priming Centrifugal Pumps for Split-Shaft Gear Box**

Split-shaft gearbox design permits the transmission of engine horsepower directly to the pump. This arrangement provides positive engagement – either move the vehicle or drive the pump.

Combining this with midship mounting permits installation between chassis frame members, replacing part of the drive shaft between the transmission and differential.

A heavy-duty gearbox with a continuous rating of 6500 ft.-lbs. of torque comes standard with 1800-Series Dana flanges, mounting cross member and air shifter for smooth engaging and disengaging pump from the vehicle cab.



- **Self-Priming Centrifugal Power Take-Off Pumps**

Designed to handle the rates of fuel required by local service carriers and suppliers, these models are ideal for handling aircraft fuel, fuel oil or gasoline. Efficient, compact and economical to permit multiple pump installations when needed, these units are also ideally applied in fire trucks and water wagons.



Power Take-Off pumps are designed for single saddle mounting with offset drive shafts that may be mounted in one of four positions to assist in alignment. These models are supplied with helical quiet-running gears, built for long life and available in right- or left-hand rotation.

- **Self-Priming Centrifugal Pump with Hydraulic Motor**

Capable of handling the same rates of fuel as the 03H Power Take-Off model, the 03H1-HYD provides an alternative to PTO power requirements. Close coupled to a hydraulic motor, this pump provides an efficient compact unit ideal for handling aircraft fuels, fuel oil or gasoline.



Gorman-Rupp's solution to the high horsepower requirements needed to move the volumes of fuel consumed by today's aircraft is the split-shaft, in-line, midship mount design of our O Series® pumps. Mounted out of the way in the unused space between the cross member of the chassis frame, these workhorses of the fueling vehicle receive engine power directly through a split-shaft gearbox, integral to the pumping unit. The units can also be easily aft-mounted for rear engine type chassis designs.

# THE RIGHT PUMP FOR THE JOB

*Our complete line of ground service pumps and related equipment consists of self-priming and standard centrifugal pumps, directional valves, educators and a variety of other piping accessories.*

## Self-Priming Centrifugal Pumps

### 0 Series®

Size: 2" (50 mm), 3" (75 mm), 4" (100 mm),  
6" (150 mm), 8" (200 mm)

Max Capacity: 1800 GPM (113.6 lps)

Max Pressure: 170 PSI (11.7 bar)

Seal Type: Self-lubricated Mechanical

Material of Construction: Aluminum, Ductile Iron

## Standard Centrifugal Pumps

### 60 Series

Size: 6" (150 mm)

Max Capacity: 1090 GPM (68.8 lps)

Max Pressure: 208 PSI (14.3 bar)

Seal Type: Self-lubricated Mechanical

Material of Construction: Ductile Iron

## Optional Accessories



### Fueling/Defueling (FDF) Valves

Gorman-Rupp manufactures several different FDF valves for tank filling and emptying. These valves make it easy to switch from fuel to defuel with a simple one-eighth turn of the valve's handle.

The lightweight, compact design of the valves cut initial costs by reducing component and piping requirements, providing a more simple arrangement and allow for quicker and easier installation.

### Eductors

Gorman-Rupp eductors increase defueling rates and efficiency. They are small, lightweight and specifically designed for handling aircraft fuel.

Two sizes available, depending on your defueling rate requirements. Used in conjunction with an FDF valve, eductors effectively defuel aircraft and collapse the service hose when required.



- **Model 50 Eductor**

Max Capacity: 67 GPM (4.2 lps)

- **Model 160 Eductor**

Max Capacity: 227 GPM (14.3 lps)

**Our original compact pump designs feature light, but rugged component construction. With thousands of units in operation throughout the world, these highly efficient pumps are utilized by virtually all major airlines and fuel suppliers.**

# SUPPORTED AND SERVICED THROUGHOUT THE WORLD.



★ **Manufacturing Facilities**  
● **Distribution Centers**

Gorman-Rupp USA  
Mansfield, Ohio, USA

Gorman-Rupp Canada  
St. Thomas, Ontario, Canada

Gorman-Rupp Europe  
Culemborg, Netherlands  
Namur, Belgium

Gorman-Rupp Africa  
Cape Town, South Africa  
Durban, South Africa  
Johannesburg, South Africa (Headquarters)

**Distribution Centers**  
Dubai, United Arab Emirates  
Grand Prairie, Texas, USA  
Culemborg, Netherlands

Gorman-Rupp has an experienced staff of engineers dedicated to the design and construction of the most serviceable pumps in the industry. Our representatives are trained to help you select the proper pumps and related equipment for your specific application. Contact the experts at Gorman-Rupp for suggestions on maintaining your equipment for maximum performance.



## GORMAN-RUPP PUMPS

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