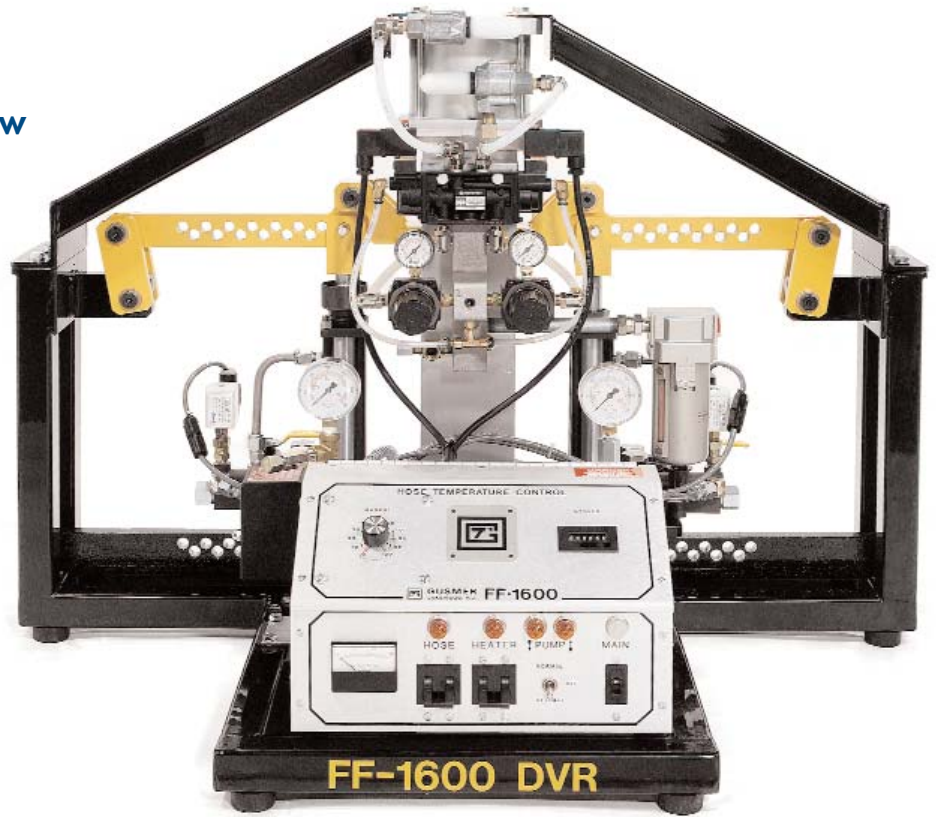


# FF-1600 DVR

DUAL VARIABLE RATIO AIR DRIVEN PROPORTIONING UNIT

- Variable Ratio range of 1:3 to 3:1 expandible to 1:18 to 18:1
- Designed for economical, low output spraying or pouring of plural component chemical systems
- Durable; ideal for use in roofing, construction, and other related field applications
- New mass style heater, eliminates the need for O-rings



*Cavity Fill/Insulation*



*Construction*



*In-Plant*



 **GUSMER**<sup>®</sup>  
CORPORATION

## Technical Data

	<u>U.S.</u>	<u>Metric</u>
Maximum Output:	16 lbs/min	7 kg/min
Maximum Rated Pressure:	1600 psi	108 bar
Viscosity:	250-1500 cps	250-1500 cps
Air Requirement:	26 SCFM @ 100 psi	12 liters/sec @ 7 bar
Electrical:	40 amps @ 1 x 220; 60 Hz	8.7 kw
Weight:	196 lbs	88.1 kg
Actual Dimensions:	H=27 in/ W=40 in/ D=21 in	H=68.5 cm/ W=101.6 cm/ D=53.3 cm

## Standard Features

**Variable Operation:** The Gusmer model FF-1600 DVR is a uniquely versatile, dual variable ratio metering unit. This air driven unit is designed to provide variable ratio proportioning for a wide range of polyurethane foams, elastomers and other plural component systems and applications. It incorporates the proven principals of previous Gusmer designs along with technical innovations that have been specifically developed to produce variable ratio mixing and atomizing, temperature control, reliability and ease of maintenance.

**Air Motor:** A 5" (13 cm) double acting cylinder, with self-actuating control, alternates the supply of air to each end of the cylinder to drive the metering pumps. A solenoid operated air valve operates in conjunction with quick exhaust valves to accelerate the reversing cycle. Rated operating pressure is variable from 50 to 100 psi (3.5-7 Bar). Air pressure to hydraulic pressure ratio is 16:1. An electric stroke counter enables operator to keep accurate records of materials used, and to compute chemical yield.

**Metering Pumps:** The FF-1600 DVR is equipped with fixed ratio, positive displacement, double acting piston pumps. Hard chrome plated piston rods and cylinder walls to provide the most reliable pumping system available. An internal piston packing set has a self-adjusting take-up. Over-pressure safety switches on each pump deactivate the air motor should safe pressure limits be exceeded.

**Cam Follower Guide Connecting Yoke:** Eliminates asymmetrical forces and increases pump packing life by assuring proper alignment and balance between air cylinder and pumps.

**Self Flushing Packing:** By providing a lubricating rinse, the shaft seal cavity is protected from hardened isocyanate on the pump shaft. This will significantly extend the life of the pump seal and reduce maintenance downtime.

**Pump Retract:** Automatically positions the pump shaft completely within the cylinder during shutdown to provide longer pump packing life.

**Externally Accessible Valve Balls:** Innovative pump design incorporates readily serviceable valve balls and removable ball seats without pump disassembly.

**Quick Exhaust Valves:** Specially designed exhaust valves accelerate the reversing cycle of the air cylinder to maximize pressure stability.

**Completely Mobile:** The lightweight, compact design of the FF-1600 allows for simple mobility around your plant and to the jobsite.

**In-Line Filter Screens:** Protects valve balls and gun components from fouling due to unwanted dirt and particles in the system.

**Dual Air Regulation:** Provides equal pressure on both the up and down stroke to help eliminate pattern fluctuations at the gun.

**Heated Hose:** Proven safe and reliable Gusmer Low Voltage Hose Heating System.

**Hose Power Pack:** Provides operating power to the hose heating system. Isolation design separates the low voltage system for operator protection.

**Primary Heater:** Controls material viscosities and process temperatures.

pressure fed using Gusmer 2:1 transfer pumps or pressurized supply tanks. Material should be protected from atmospheric moisture via Gusmer air dryer and regulator.

**Auxiliary Proportioning Pump:** Auxiliary pump assemblies are available and can be field retrofitted to meter one or two additional chemical components such as resin, blowing agent, catalysts, flame retardants and coloring.

**Mix Heads/Spray Guns:** A wide variety of standard and specialty application mixing heads are available for spray, pour, or injection to meet your production requirements.

**Gusmer TX-50 Processor:** Provides 100 separate programmable channels for automatic shot selection.

**Encoder:** Used with the Gusmer TX-50 Processor to automatically dispense a metered amount of material.

**Hoses:** Available in 50 foot (15.2 m) lengths up to 310 feet (94.5 m).  
3/8" x 50' (.95 cm x 15.2 m)  
1/4" x 10' (.64 cm x 3.1 m)

**Varied Ratio Operation:** The FF-1600 DVR will process a wide range of system ratios from 1:18 to 18:1. The fixed ratio adjustment is made by substituting smaller or larger metering pumps of various sizes in combination with the VR mechanical arm.

## Optional Features

**Automatic Hose Heat:** Provides completely automatic temperature control of the hose heater. The temperature is measured through a remote temperature sensing unit (TSU) strategically located inside the heated hose. Digital readout of the hose heat temperature provides the operator with a simplified, convenient method of viewing operating parameters on the jobsite.

**Material Supply:** To insure complete filling of Model FF-1600 metering pumps, both components should be



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WARNING: The equipment described herein must only be operated or serviced by properly trained individuals, thoroughly familiar with the operating instructions and limitations of the equipment.

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NOTE: All standard and service specifications identified on this GUSMER technical sales flyer are based on U.S. standards.