The Most Trusted name in Pumps & Meters FILL-RITE.

# Model 305 AST Remote Dispenser

Model 305ARU
FILL-RITE

## Description of Included Models

| Model Number | Description | Shipping Weight |
|---|---|---|
| **305R** | Single product remote dispenser for installation with Series 700B & 300 pumps on above ground storage tanks. Unit furnished with 900 Series meter, manual nozzle, standard nozzle boot, 3/4" X 12' static wire hose, 1" opening, rear discharge. **NON-U/L LISTED.** | **36 LBS. 16.3 KGS.** |
| **FR305R** | Single product remote dispenser for installation with Series 700B & 300 pumps on above ground storage tanks. Unit furnished with 900 Series meter, manual nozzle, standard nozzle boot, 3/4" X 12' static wire hose, 1" opening, rear discharge. Includes internal solenoid. **U/L LISTED U.S. and Canada.** | **36 LBS. 16.3 KGS.** |

## Safety Listings

| Approval Mark | Organization Description | File Number | Guide Number |
|---|---|---|---|
| c UL us | Underwriters Laboratories Inc., a nationally recognized independent organization for testing of products to ensure public safety. Recognized and accepted in USA,Canada and other countries | **MH5329** | **EWTV** |

## Available Options

| Option | Description | Change in Shipping Weight (lbs.) | Change in Shipping Weight (kgs.) |
|---|---|---|---|
| **A** | Automatic nozzle upgrade from the standard manual nozzle. | 4.0 | 1.8 |
| **B** | Upgrade to high flow automatic nozzle from the standard manual nozzle. | 4.0 | 1.8 |
| **F** | Front discharge. | **-** | **-** |
| **L** | Unit supplied with meter calibrated in liters. | **-** | **-** |

| | | | |
|---|---|---|---|
| **U** | Universal nozzle boot & nozzle retainer for automatic nozzle or vapor recovery nozzle (nozzle not included). | 4.0 | 1.8 |
| **-X001** | Unit supplied less hose | (4.0) | (1.8) |
| **-X003** | Unit supplied less nozzle | (2.0) | (0.9) |
| **-X005** | Unit supplied less hose and nozzle | (6.0) | (2.7) |

## Accessories

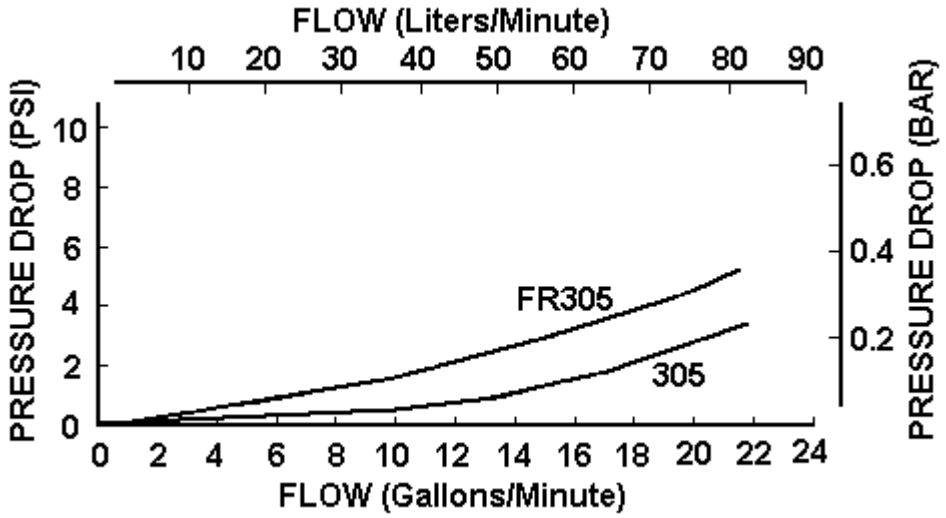
| Part Number | Description |
|---|---|
| **F3144** | Automatic nozzle (unleaded) 3/4" NPT threaded inlet. |
| **F1069** | Side mount bracket - red. (Listed Dispenser) |
| **F1071** | Side mount bracket - ivory. ( Listed Dispenser) |
| **F1096** | Side mount bracket - red. (NON Listed Dispenser) |
| **F1109** | Side mount bracket - ivory. (NON Listed Dispenser) |
| **F7767** | Manual nozzle (unleaded) 1" |
| **F7801** | Automatic nozzle (Hi-Flow) 1" |
| **F7773** | Hose 1" X 12' with ferrules and static wire |
| **1515** | Pulser 10:1 - 115 VAC/60 Hz. |
| **1515-220** | Pulser 10:1 - 220 VAC/60 Hz. |

## Performance

| | |
|---|---|
| **Maximum allowed system pressure** | 50 PSI(3.45 BAR) |
| **Maximum flow rate (1)** | 40 GPM (151.6 LPM) |
| **Maximum viscosity of fluid recommended** | Diesel Fuel |
| **Maximum ambient operating temperature** | 150 °F (66 °C)* |
| **Minimum ambient operating temperature** | -15 °F (-26 °C)* |
| **Register indication** | 3 unit wheels with 11/16" figures and tenth wheel. Indicates to 999.9 |
| **Totalizer indication** | Totalizer reads to 999,999.9 |

1 Nominal flow rate at nominal voltage using a standard hose and manual nozzle with low viscosity fluid.
* Consult factory for extreme temperature applications outside this range.

## Flow Curve



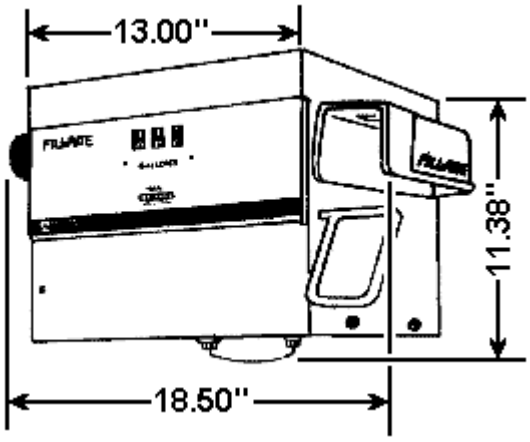

Nominal flow curve for reference only. Based on 3 feet suction lift.
Actual flow rates obtained may vary.

## Fluid Compatibility

If in doubt about the compatibility of a specific fluid, contact the supplier of the fluid to check for any adverse reactions to the following wetted materials.

| | | |
|---|---|---|
| **Steel** | **Polyester** | **Aluminum** |
| **Fluorocarbon** | **Buna N** | **300S Stainless Steel** |

## Dimensions



## Repair

To insure the ultimate performance, pumps must be set up according to the "INSTALLATION" section of the Owner's Manual packed with the pump and available below in the **Reference Literature** section.

To maintain UL Listing of the unit, installation wiring must be done by a licensed electrician in accordance with NFPA 70. The pump and dispenser must be properly grounded and rigid conduit must be used when installing electrical wiring. Refer to installation and wiring diagrams in the Owner's Operation and Safety Manual for the pump and dispenser conduit connection locations and wiring methods. Copies of the manuals have been packed with the units and are available in the Reference Literature section of this web page.

## Maintenance

To keep the pump running at its best, periodically perform the following procedures:

1. Check strainer for dirt accumulation. To clean strainer, remove pump strainer cover and pull out screen.
2. Remove rotor cover and inspect motor vanes. Vanes should be replaced after extensive wear to prevent damage to pump. If more than 1/2 the total blade length extend out of the rotor slot at the extreme of travel, the wear is excessive.

Check hose and nozzle for wear or damage. Bad hoses or nozzles are potential safety hazards.

For detailed meter and cabinet assembly servicing see the **Owner's Operation and Safety Manua**l.

## Frequently Asked Questions

### 1. My pump only pumps for a few minutes and then stops. What is happening?

Generally "short cycling" indicates the motor is drawing too much current from the power source for some reason, and the thermal relay is opening to protect the insulation from the resulting heat build up. If this is what is happening the thermal relay will reset after 10 to 20 minutes and the motor will again operate. The causes of too high a current are many. The pump is designed for low viscosity fluid, like diesel or gasoline, and will overheat if used to pump oil or other higher viscosity fluids. The inlet filter screen could be clogged. Motor bearings could be defective resulting in a drag on the motor shaft rotation.

See the Troubleshooting Guide in your Owner's Manual packed with your unit or the copy available "on-line" in the eLibrary section.

### 2. There is fluid leaking out of athe small hole in the bottom of the pump body. How do I stop it?

This small hole is described as the "weep hole" and is positioned to drain fluid that has leaked passed the dynamic seal between the pump and the motor. It is important that the leak be corrected as soon as possible to avoid damage to the front motor bearing. The problem could be as simple as foreign materials preventing the ceramic and carbon seal components from being in intimate contact, to as complex as a defective casting.

See the Troubleshooting Guide in your Owner's Manual packed with your unit or the copy available "on-line" in the eLibrary section.

### 3. What can I do to avoid my pump losing prime when it sets for a time?

Maintaining "prime" or keeping fluid in the inlet piping of your pumping system requires that no air leak into that piping. You can depend on there being a check valve in your pump preventing air from entering your system through the nozzle, should it be opened while the pump is off. If your pump is consistently losing prime, remove and inspect the check valve to insure it is sealing properly. Also check all inlet piping joints and fittings and the various covers and plugs in the pump itself. Teflon® type sealing tape or a sealing compound noted as resistant to fuels is recommended at all threaded piping connections.

### 4. When it gets hot outside my pump will not pump gasoline but my diesel pump works great, what is going on?

A suction pump works by developing a vacuum above the fluid being pumped and depends on atmospheric pressure to force that fluid into that vacuum. The higher the fluid is being raised, the more vacuum is required. If the fluid turns to a gas at a lower vacuum than that required to raise the fluid out of the container, the system is said to be vapor locked. In other words, rather than enough vacuum being developed by the pump to raise the fluid, the pump is instead vaporizing the gasoline and only gas vapor is being pumped. Diesel has a very low vapor pressure at even relatively high temperatures so there is no danger of vapor locking at practical temperatures. Gasoline is blended to have different vapor pressures to aid winter starting (high vapor pressure) or avoid vapor locking in the summer (lower vapor pressure). The unit of measure used in the industry for this characteristic is Reid's Vapor Pressure. Having winter gas (high Reid's Vapor Pressure), still available in your tank in a hot spring, is a common cause of vapor locking pumps.

Once the situation exists, there are a limited number of options. Decrease the "lift" needed to raise the gasoline by filling the tank to the top is the easiest and quickest. This has the added benefit of mixing in a hopefully new blend of gasoline with a lower vapor pressure which will average the blended Reid's Vapor Pressure down. Another option is to decrease the temperature by shading and/or cooling the piping and pump in some fashion.

In new systems make sure the suction pump is installed at the lowest position possible, as that decreases the lift, and always install the pump and piping out of the hot sun if at all possible. Know what the Reid's Vapor pressure is of the gasoline you buy. Your supplier has, or can get, that characteristic of the gasoline for you. The Reid's vapor pressure should be 9 to 8, or lower, in the summer and 11 to 12 in the winter.