



FD100 Foot Dispenser Operating Manual

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OVERVIEW



Model FD100 Foot Dispenser

The FD100 foot pedal dispenser is an all-pneumatic fluid dispense system. The unit is easily actuated by pressing down the metal pedal allowing the user a simple yet effective method of dispensing fluid from a syringe or cartridge.

An internally actuated air valve, pressure regulator and gauge ensure consistent dispense results. The vacuum control valve can be used to prevent low viscosity fluids from dripping in-between dispense cycles. The FD100 is suitable for dispensing all types of fluids and helps achieve better control than standard manual dispensing processes.

One Operation Mode:

Manual Mode - The dispense operation is manually controlled by pressing the foot pedal

Economical and simple to use

Suitable for a wide range of applications

Adjustable vacuum suck-back control prevents low viscosity fluids dripping from the dispense tip

All pneumatic operation allows the machine to be used in locations without electrical supply

Industry standard 1/4" air-output connection









Designed for use in heavy industrial environments

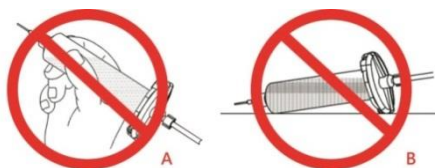
Supplementary brackets and stand included for improved convenience and productivity

Protective kick plate to prevent damage to internal pneumatic components




SAFETY

General Precautions

	<i>Do not operate the machine in excess of its maximum ratings / settings.</i>
	<i>Make sure that the input air supply is clean and dry. A 5-micron air filter/regulator (item number 560567) is recommended to ensure the input air supply is clean and dry.</i>
	<i>If corrosive or flammable fluids are being used when dispensing from a syringe barrel, an inline filter (item number 5606037) must be installed to help prevent the fluids from being sucked back into the machine.</i>
	<i>The fluid being dispensed may be toxic and / or hazardous. Refer to the Material Safety Data Sheet for proper handling and safety precautions.</i>
	<i>Do not smoke or use near an open flame when flammable materials are being dispensed.</i>
	<i>Do not expose the machine directly to sunlight.</i>
	<i>Avoid cleaning the machine with aggressive solvents – neutral detergents are preferred.</i>
	<i>Do not overfill the syringe barrel and/or lay the syringe barrel on its side. This will prevent fluids from flowing back into the machine – refer to figures A & B below.</i>







FD100 Malfunction

	<i>If the machine malfunctions, shut down the machine immediately. This can be done by removing the air-supply to the machine.</i>
	<i>Always use a piston with the syringe barrel to prevent fluids from flowing back into the machine</i>
	<i>When dispensing low viscosity fluids that require the vacuum, be aware not to increase to a point where fluids begin to run back into the air line potentially reaching inside the machine. The vacuum should not be set too high or it will cause material to creep backwards.</i>

SAFETY




Inappropriate Use

If the machine is used in a way other than described in this manual, it may cause damage to self or property.

- | | |
|---|--|
|  | <i>Do not use any components with the machine other than Fisnar authorized components.</i> |
|  | <i>Do not use incompatible materials.</i> |
|  | <i>Do not make any modifications to the machine.
All repairs are to be done using Fisnar specified spare parts.</i> |
|  | <i>Do not operate the machine in excess of its maximum ratings / settings.</i> |




Fire Prevention

Refer to the following instructions to avoid any fire or explosion.

- | | |
|---|--|
|  | <i>Assess your surroundings and the location of the nearest fire extinguisher and Emergency Exit.</i> |
|  | <i>Do not smoke or use near an open flame when flammable materials are being dispensed.</i> |
|  | <i>Do not expose the machine directly to sunlight.</i> |

Maintenance

The FD100 is generally a maintenance free machine. However, to ensure smooth operation please follow the below instructions.

- | | |
|---|---|
|  | <i>Only use non-woven cleaners on the machine.</i> |
|  | <i>Avoid cleaning the machine with aggressive solvents – neutral detergents are preferred.</i> |
|  | <i>Ensure that compressed air supply to the machine is clean and moisture free.</i> |

SPECIFICATIONS

Dimensions (W x D x H):	3.9" x 8.2" x 4.3" (100 x 208 x 110 mm)
Weight:	4.01 lbs (1.82 kg)
Air Input:	100 psi (7 bar) max
Air Output:	1 – 100 psi (0.07 – 7 bar)
Standards:	RoHS Compliant

ACCESSORIES

Item	Description	Quantity
5801060-10FT	1/4" O.D. x 0.160" I.D. Clear Polyurethane Tubing – 10FT	2
560746A	Straight 1/4" O.D. Push Connector x 1/4" NPT Male	1
5601980	Dispenser Cable & Tubing organizer	1
5601981	Retainer Holder (CR300, 5801383 & FCG300)	1
5601969	FSX Syringe Barrel Stand	1
5779K712	Push To Connect Tube Fitting 1/4" Stem OD X 5/32" Tube OD	1



Part # 5601980



Part # 5601981



Part # 5601969

Note: Consumable kit (part # QK-CSK) & needle sample kit (part # QK-NSK) available to purchase separately.



Part # QK-CSK



Part # QK-NSK

EXTERNAL CONTROLS



FIG. 1: External Controls - Overview

Item	Illustration	Item	Illustration	Item	Illustration
1	Air Pressure Regulator	3	Foot Pedal	5	Vacuum Control
2	Air Outlet Port	4	Air Inlet Port	6	Air Pressure Gauge

EXTERNAL CONTROLS

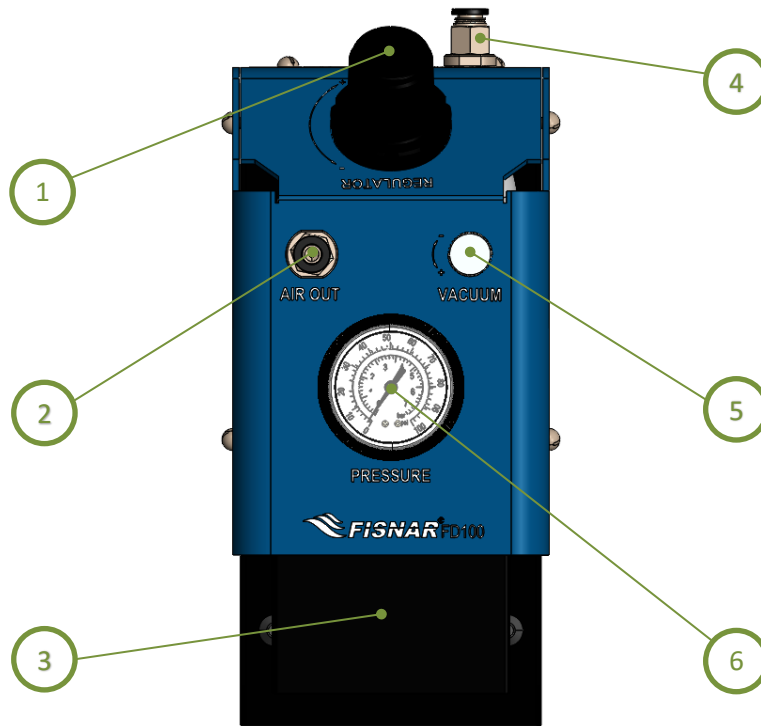


FIG. 2: External Controls – Description

1.	Pressure Regulator	Adjusts the amount of pressure being used to dispense fluid from the syringe barrel. In order to reach the desired pressure, pull the knob outwards to unlock it, so it will rotate freely. Turn the knob counterclockwise to a point below the required pressure and then turn the knob clockwise to reach the required pressure.
2.	Air Out Push Connector	Air outlet (push fitting) for a syringe barrel adapter assembly or other cartridge retainer for dispensing. Example shown in Fig. 3
3.	Foot Pedal	Actuates the machine when pressed down for fluid dispensing.
4.	Air In Push Connector	External Compressed air 70-100 psi (5-7 bar) is to be connected here, using the supplied ¼" OD air inlet hose.
5.	Suck Back Control	Keeps a negative air pressure in the syringe barrel or cartridge when not dispensing. Required to prevent low viscosity fluids dripping from the dispense tip in between dispense cycles.
6.	Pressure Gauge	Shows the amount of pressure being used to dispense fluid from the syringe barrel.

MACHINE SET UP

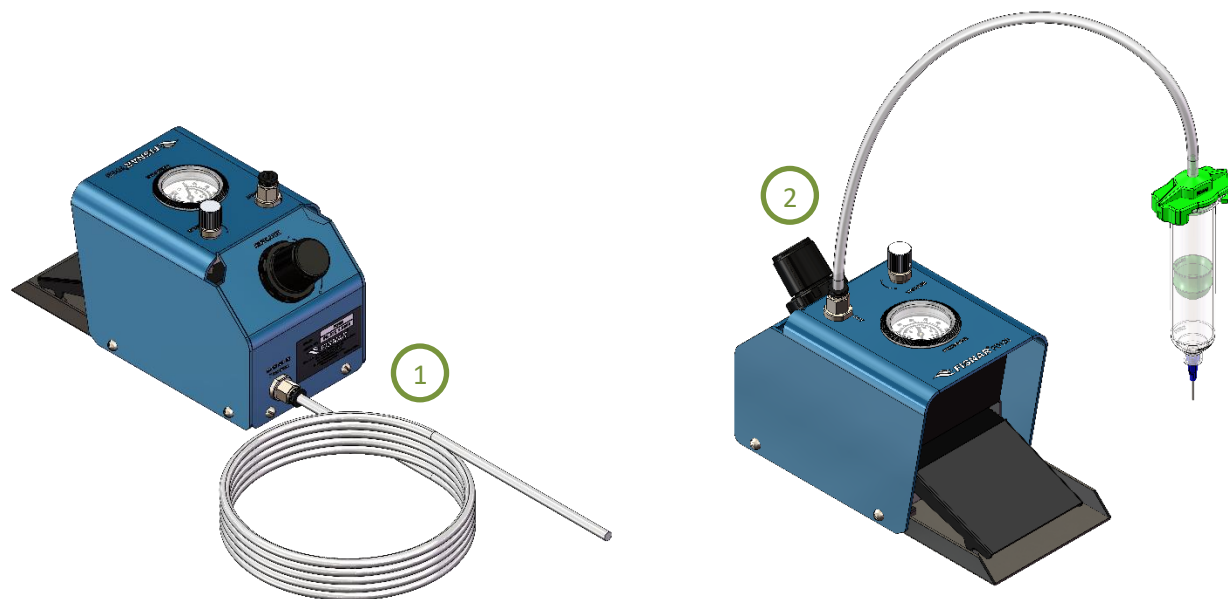


FIG. 3: Front and Back Views

1.

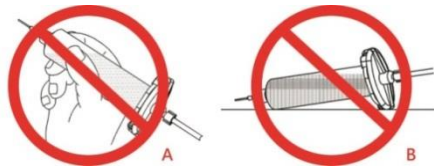
Connect air hose (1) from compressed air 70-100 psi (5-7 bar) to the air inlet port on the back of the machine. See FIG. 3 above.

DISPENSE SETUP- SYRINGE

Fill the syringe barrel (with syringe barrel tip cap fitted on the syringe barrel) with the fluid material to be dispensed. Once filled, correctly insert a piston into the syringe barrel. Attach the syringe barrel to a syringe barrel adapter head as shown below. See FIG. 4.



Do not overfill the syringe barrel and/or lay the syringe barrel on its side. This will prevent fluids from flowing back into the machine – refer to figures A & B below.



1.

Connect the syringe barrel adapter hose to the “Air Out” port (2) on the top of the machine. See FIG. 3. Standard for use with Fisnar adapter head assemblies supplied with green color push to connect stem fitting (5606038).

2.

If the syringe barrel adapter to be used with the machine has a bayonet fitting attached to the end of it, make sure to cut the bayonet fitting off from the hose. Use adapter 5779K712 push to connect air fitting (1/4” stem x 5/32” tube O.D.) with the air-line when installing the hose into the air out fitting on the top of the machine.

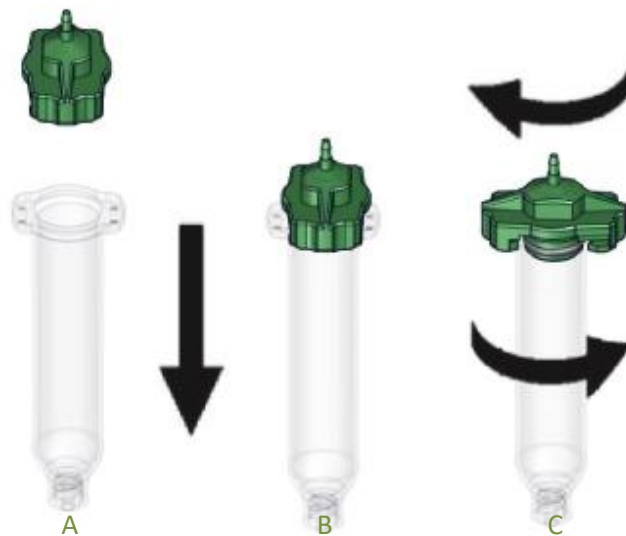


FIG. 4: Dispense Setup

MACHINE OPERATION

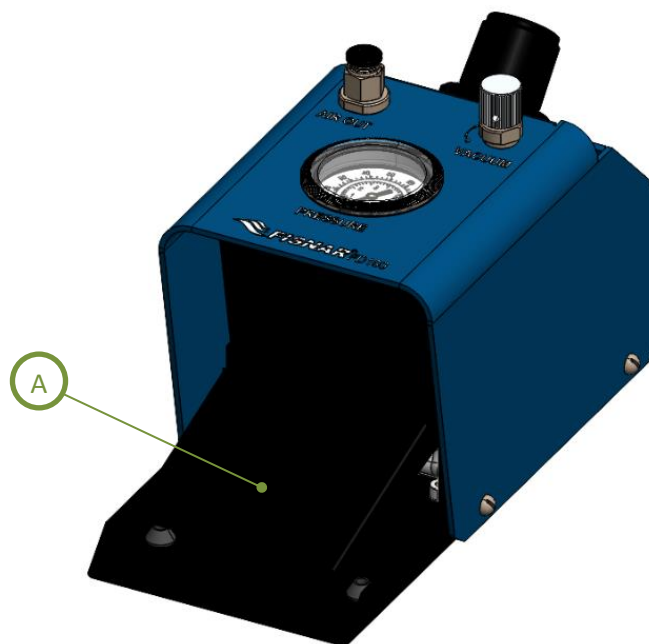
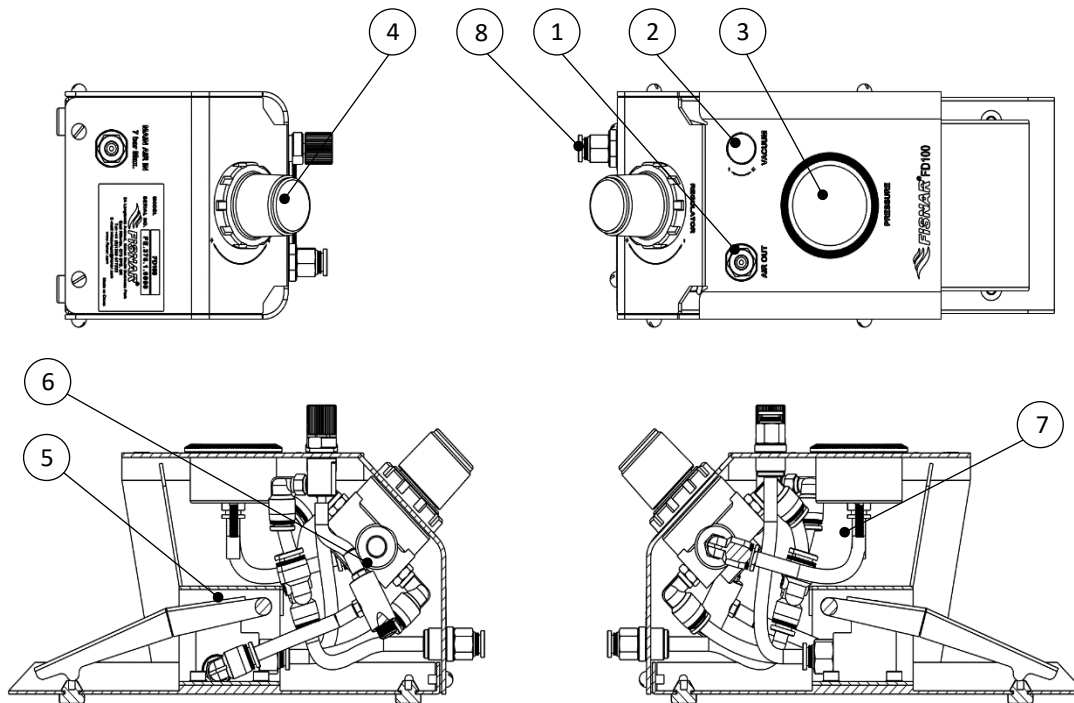


FIG. 5: Machine Operation

1.	Press the foot pedal (A) to start the machine and begin dispensing.
2.	Release the foot pedal (A) to stop the machine from dispensing.

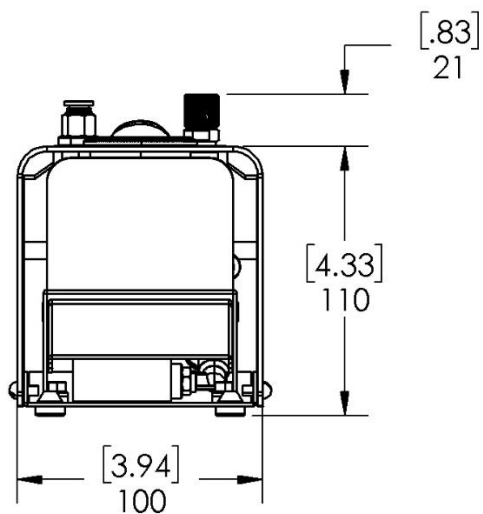
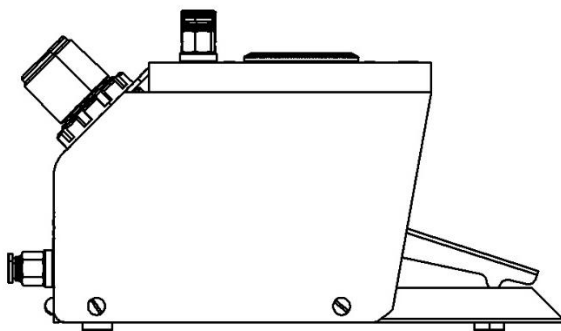
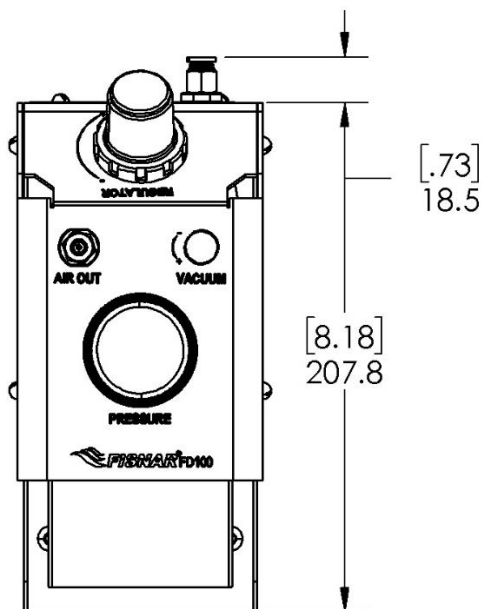
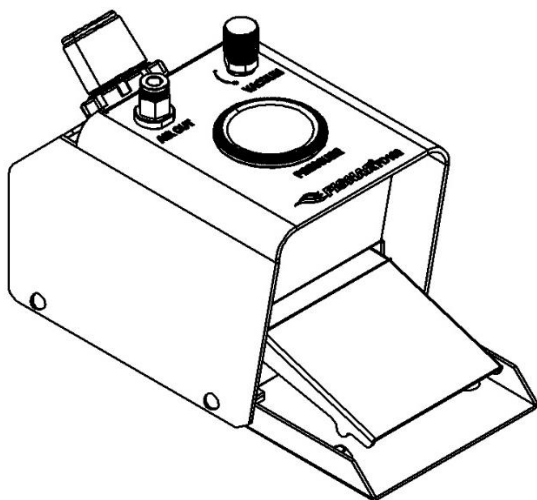
SPARE PARTS LIST



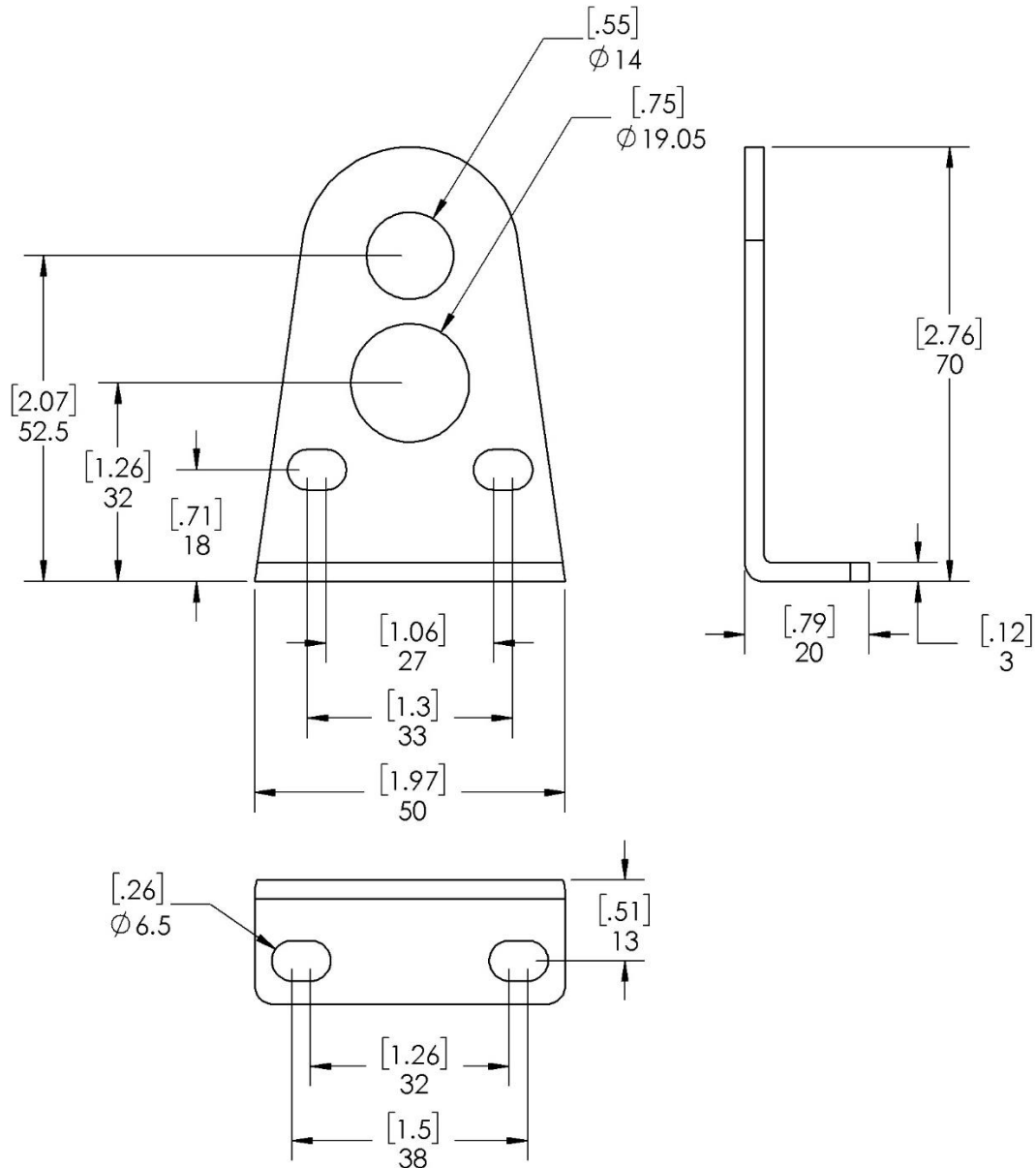
Ref.	Item Number	Description
1	5601900	Air Out Module
2	5601901	Vacuum Control Valve (inc. fittings)
3	5601902	Pressure Gauge (inc. fittings)
4	5601903	Pressure Regulator (inc. fittings)
5	5601991	Pneumatic Air Valve (inc. fittings)
6	5601906	Vacuum Transducer (inc. fittings)
7	5601887-10FT	Ø6mm O.D. Transparent PU Tubing (10ft)
8	5601992	Air in Module (inc. Y fitting)
9*	5801060-10FT	Ø1/4" O.D. Transparent PU Tubing (10ft)
10*	560746A	Straight 1/4" O.D. Push Connector x 1/4" NPT Male
11*	5779K712	Push to Connect Tube Fitting 1/4" Stem OD X 5/32" Tube OD
12*	5601969	FSX Syringe Barrel Stand
13*	5601980	Dispenser Cable & Tubing organizer
14*	5601981	Retainer Holder (CR300, 5801383 & FCG300)

*Item Not Shown

TECHNICAL DRAWING – FD100



TECHNICAL DRAWING - 5601980



TECHNICAL DRAWING - 5601981

Technical drawing of a mechanical part, showing three views: front, side, and bottom. The drawing includes dimensions in inches and millimeters.

Front View:

- Overall width: 70 [2.76]
- Overall height: 52.5 [2.07]
- Inner circular feature diameter: $\varnothing 58$ [2.28]

Side View:

- Overall height: 87.5 [3.44]
- Overall width: 43 [1.69]
- Bottom flange thickness: 3 [.12]

Bottom View:

- Overall width: 52 [2.05]
- Overall height: 35 [1.38]
- Inner circular feature diameter: 58 [2.28]
- Distance from center to mounting hole center: 25.94 [1.02]
- Distance from center to mounting hole center: 31.14 [1.23]
- Mounting hole diameter: 11 [.43]
- Mounting hole radius: R3.25 [.13]
- Mounting hole radius: R20 [.79]
- Mounting hole radius: 33.5 [1.32]
- Mounting hole radius: 30°

LIMITED WARRANTY

Manufacturer warrants this product to the original purchaser for a period of one (1) year from the date of purchase to be free from defects in material and workmanship, but not against damages caused by misuse, negligence, accident, faulty installation, abrasion, corrosion or by not operating in accordance with factory recommendations and instructions. Manufacturer will repair or replace (at factory's option), free of charge, any component of the equipment thus found to be defective, upon prepaid return of the equipment to the factory during the warranty period of the equipment. In no event shall any liability or obligation of Manufacturer arising from this warranty exceed the purchase price of the equipment. **This warranty is valid only when 5 micron filtered air is used.** The manufacturer's written liability, as stated herein, cannot be altered or enlarged except by a written statement signed by an officer of the company. In no event shall manufacturer be liable for consequential or incidental damages. A return authorization is required prior to shipping a defective machine to the factory.

Manufacturer reserves the right to make engineering or product modifications without notice.



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