Dispense Technologies

Instructions

PM108 A

Cartridge Fill Module

For semi-automatic filling of 2-component adhesive cartridges

Important Safety Instructions
Read all warnings and instructions in this manual.
Save these instructions.

Contents

Models

Cartridge Fill Modules		
Part No.	**Ratio**	**Cartridge Style**
240-130-SF410	10:1	Sulzer MIXPAC™ F-System, 400 mL
240-130-SF404	4:1	Sulzer MIXPAC™ F-System, 400 mL
240-130-SF402	2:1	Sulzer MIXPAC™ F-System, 400 mL
240-130-SF401	1:1	Sulzer MIXPAC™ F-System, 400 mL

Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

⚠ WARNING

BURN HAZARD

Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.

SPLATTER HAZARD

Hot or toxic fluid can cause serious injury if splashed in the eyes or on skin. During blow off of platen, splatter may occur.

- Use minimum air pressure when removing platen from drum.

MOVING PARTS HAZARD

Moving parts can pinch, cut or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.

ELECTRIC SHOCK HAZARD

This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.

- Turn off and disconnect power at main switch before disconnecting any cables and before servicing or installing equipment.
- Connect only to grounded power source.
- All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

TOXIC FLUID OR FUMES HAZARD

Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.

- Read MSDSs to know the specific hazards of the fluids you are using.
- Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.

⚠ WARNING



THERMAL EXPANSION HAZARD

Fluids subjected to heat in confined spaces, including hoses, can create a rapid rise in pressure due to the thermal expansion. Over-pressurization can result in equipment rupture and serious injury.

- Open a valve to relieve the fluid expansion during heating.
- Replace hoses proactively at regular intervals based on your operating conditions.



SKIN INJECTION HAZARD

High-pressure fluid from dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. **Get immediate surgical treatment.**

- Engage trigger lock when not dispensing.
- Do not point dispensing device at anyone or at any part of the body.
- Do not put your hand over the fluid outlet.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** when you stop dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses and couplings daily. Replace worn or damaged parts immediately.




FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are antistatic or conductive.
- Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem.
- Keep a working fire extinguisher in the work area.

⚠ WARNING

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See Technical Data in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS from distributor or retailer.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

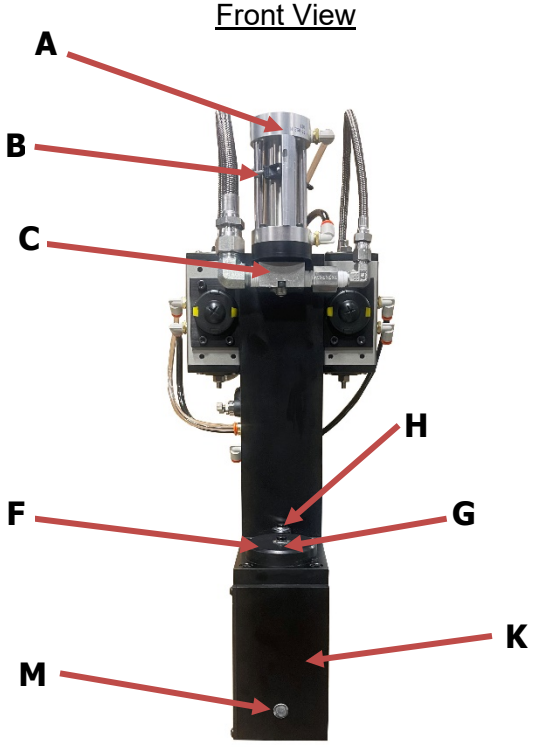
PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This protective equipment includes but is not limited to:

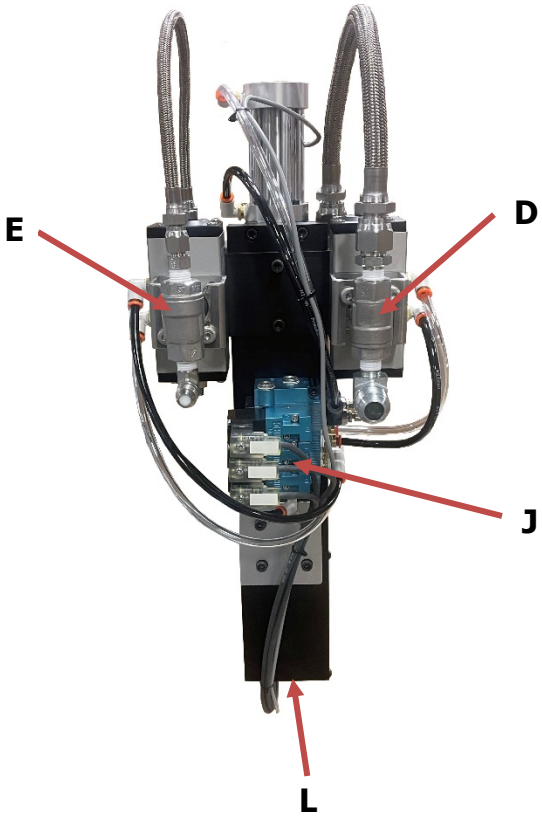
- Protective eyewear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Component Identification

Front View



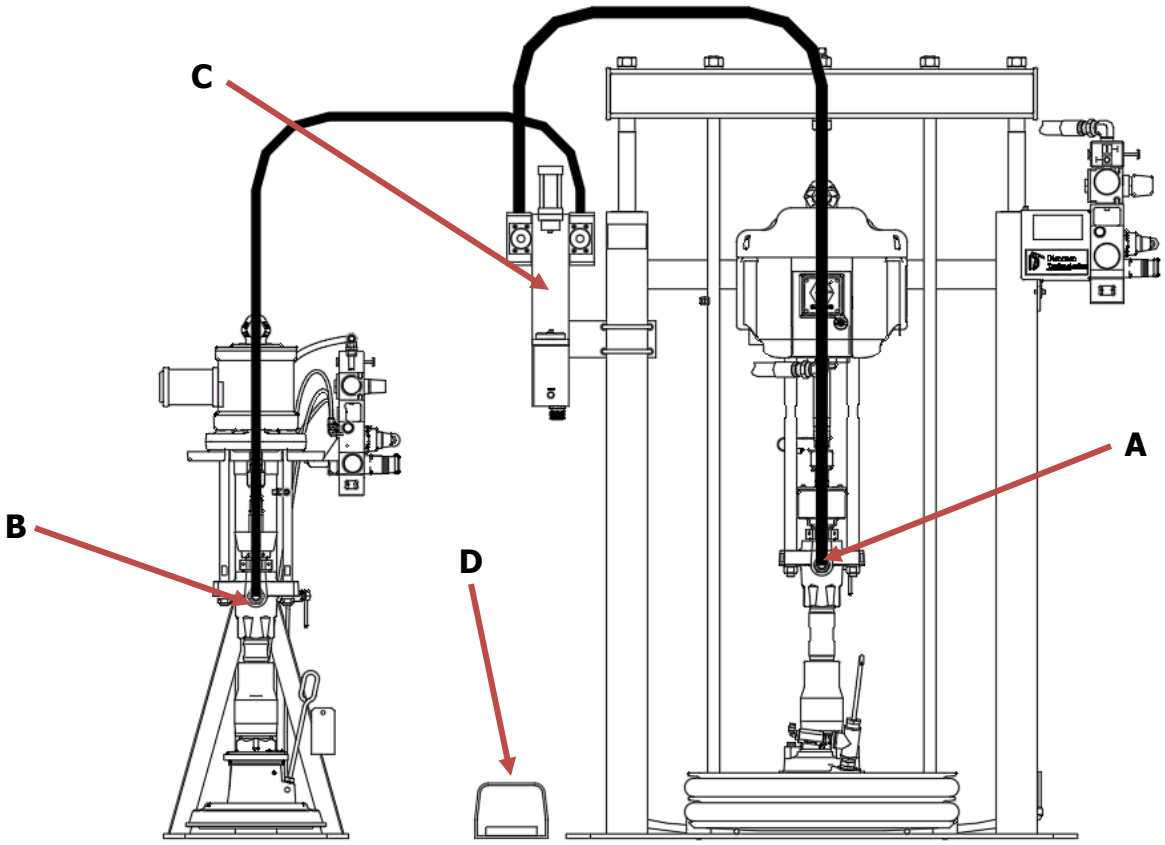
Back View



Key:

A	Air Cylinder	**G**	Full switch, Part A
B	Position switch	**H**	Full switch, Part B
C	Material manifold	**J**	Solenoid valves
D	Fill valve, Part A	**K**	Control panel
E	Fill valve, Part B	**L**	Power Switch
F	Cartridge base	**M**	Power Light

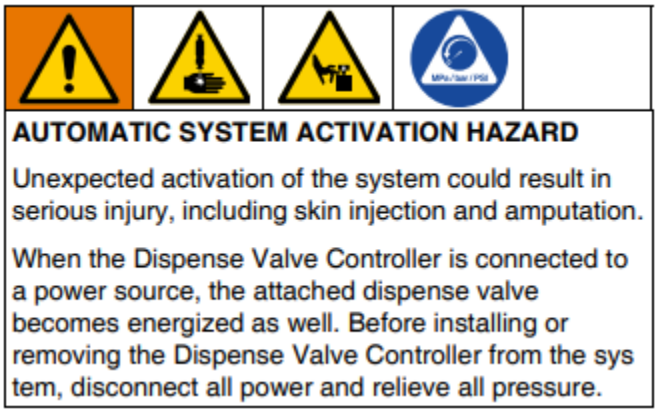
Typical System Layout



Key:

A	Major Volume Supply Pump
B	Minor Volume Supply Pump
C	Cartridge Fill Module
D	Foot Pedal

Installation



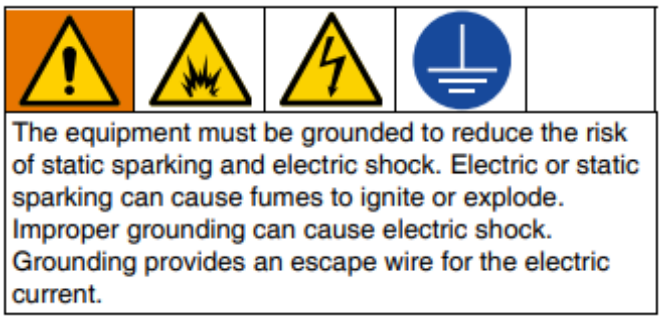
AUTOMATIC SYSTEM ACTIVATION HAZARD

Unexpected activation of the system could result in serious injury, including skin injection and amputation.

When the Dispense Valve Controller is connected to a power source, the attached dispense valve becomes energized as well. Before installing or removing the Dispense Valve Controller from the sys tem, disconnect all power and relieve all pressure.

1. Mechanically mount the cartridge fill. An optional bracket is available for mounting directly to a supply pump.
2. Connect and tighten the fluid supply lines.
3. Connect air to the supply pumps.
4. Connect air to the cartridge fill module.

Grounding



The equipment must be grounded to reduce the risk of static sparking and electric shock. Electric or static sparking can cause fumes to ignite or explode. Improper grounding can cause electric shock. Grounding provides an escape wire for the electric current.

5. Verify that the 120-volt power source is connected to earth ground.

Startup Procedures

1. Verify that the module is plugged into 110 VAC power.
2. Turn the power switch ON.
3. Turn air ON to the supply pumps and cartridge fill module. Verify air supply to cartridge fill module is between 60-80 psi (4-5.5 bar)
4. With a clean rag, remove any grease that was placed on the cartridge fill nozzles.
5. Remove any hardened material from the outlet without causing damage to the fill nozzles.
6. The system is now ready to dispense.

Sequence of Operations

1. Load an empty cartridge onto the base of the machine.
2. Press and release the foot pedal.
3. The material manifold will lower and seal on the top of the cartridge, verify that both cartridge mating adaptors are covered by the cartridge.
4. A signal from the cylinder switch is sent to the control panel to indicate that the cartridge is positioned properly and ready to fill.
5. The material fill ball valves will open.
6. The cartridges begin filling.
7. When fill is complete, the ball valves will close. The ball valves operate independently and may not close at the same time.
8. After both ball valves close the material manifold will raise, allowing the filled cartridge to be removed.

Shutdown Procedures

1. Turn air OFF to the supply pumps.
2. Turn the power switch OFF.
3. Wipe each nozzle with a clean rag.
4. Place petroleum jelly or grease on the nozzle outlet to isolate the material from the moisture in the air.

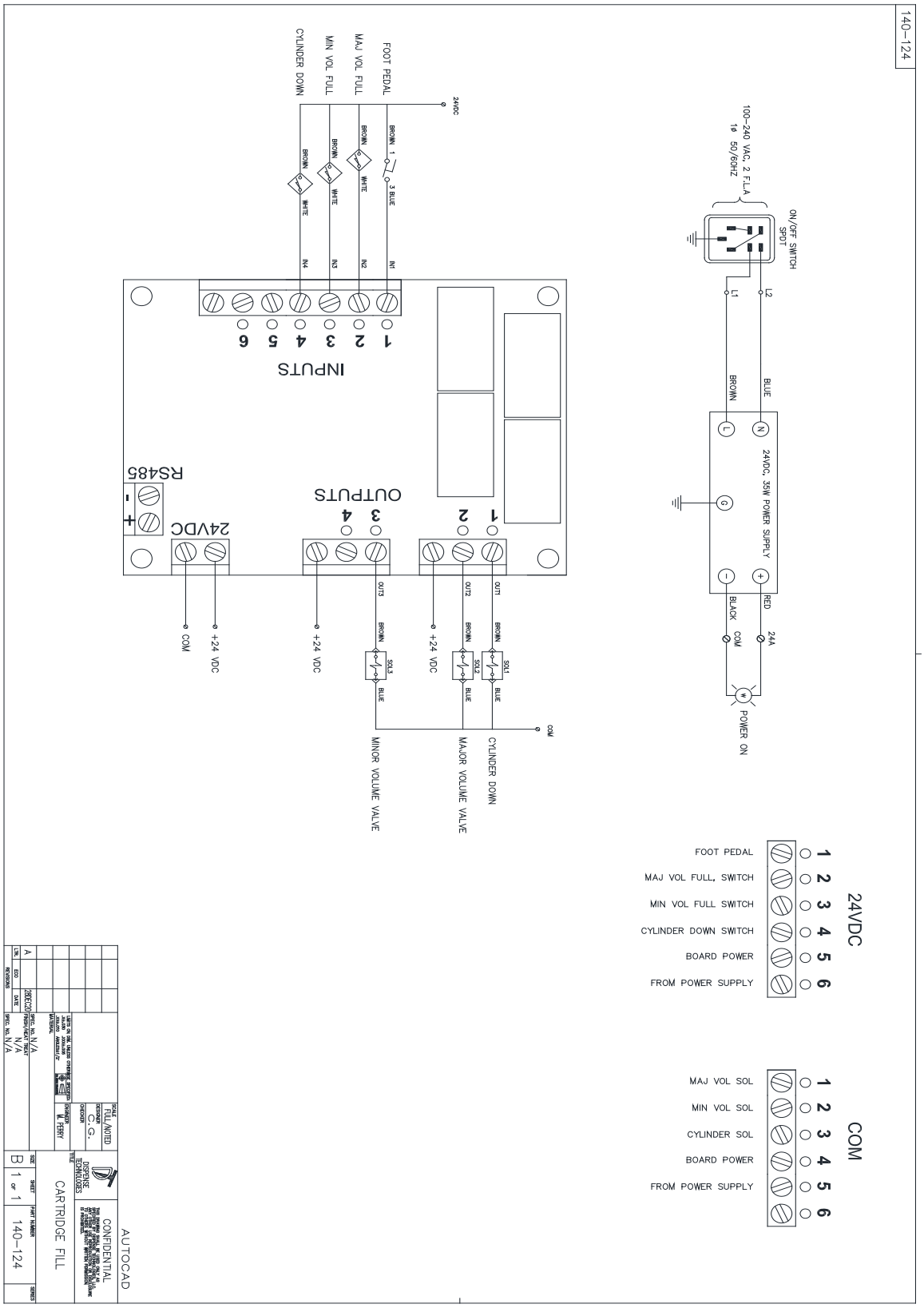
NOTES:

- If the material manifold does not make a proper connection with the cartridge when lowering, the manifold will rise again after a short delay.
- Pressing the foot pedal again at any time during the cycle will cancel the cycle and the cylinder will raise.
- If the pedal is pressed without a cartridge in place, the cylinder will lower past the cylinder switch, the material ball valves will not open and the manifold will rise again after a short delay.
- Each material ball valve operates independently. Each will close when the respective cartridge is full.

Troubleshooting

Description	Explanation
White power light not illuminated	• Verify that the power is turned on. • Verify that the power cord is connected and plugged into a working outlet. • Check the fuse.
Cycle does not start when depressing the foot pedal	• Verify that the power is turned on. • Verify that the air is turned on. • Verify that the air pressure is set to a minimum of 60 psi. • Verify that the foot pedal is plugged in.
Fill valves open but cartridges do not fill	• Make sure that the supply pumps are turned on and adjusted properly.
Slow or sluggish fill time	• Verify that the recommended air pressure is set on the supply pumps.
“Hissing” sound when dispensing	• Check/tighten all the air line connections.
Cartridges push out the bottom of the cartridge after filling is complete	• Pump supply pressure too high, lower the pressure. • Air was entrapped in the material. Completely bleed air from the pump after a drum change.
Material continues to drool from the fill ports after removing a filled cartridge	• Pump air pressure too high, lower the pump supply pressure. • Verify that the air supply to the solenoid bank is a minimum of 60 psi to properly close the fill valves. • Air bubble in dispense hose, bleed material.
After pressing the foot pedal the cylinder lowers and then raises again without filling the cartridge	• Check the adjustment of the cylinder position switch, must be “ON” when the manifold is mated with the cartridge.

Electrical Schematics



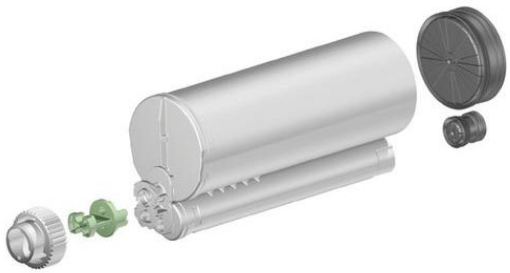
Accessories

Cartridge Dispenser		
Part No.	**Description**	**Type**
DM2X 400-10-60-01	Sulzer F-System, 10:1, 400 mL	Manual
DM2X 400-04-60-01	Sulzer F-System, 4:1, 400 mL	Manual
DM2X 400-01-60-01	Sulzer F-System, 1:1 & 2:1, 400 mL	Manual
DP2X 400-10-50-01	Sulzer F-System, 10:1, 400 mL	Pneumatic
DP2X 400-04-50-01	Sulzer F-System, 4:1, 400 mL	Pneumatic
DP2X 400-01-50-01	Sulzer F-System, 1:1, 400 mL	Pneumatic

Mixers 4:1 & 10:1 Cartridges	
Part No.	**Description**
MFHX 06-18T	Sulzer F-System, 4:1 & 10:1, 6 mm x 18 Element, Orange
MFHX 06-24T	Sulzer F-System, 4:1 & 10:1, 6 mm x 24 Element, Orange
MFHX 06-32T	Sulzer F-System, 4:1 & 10:1, 6 mm x 32 Element, Orange
MFHX 08-18T	Sulzer F-System, 4:1 & 10:1, 8 mm x 18 Element, Orange
MFHX 08-24T	Sulzer F-System, 4:1 & 10:1, 8 mm x 24 Element, Orange
MFHX 08-32T	Sulzer F-System, 4:1 & 10:1, 8 mm x 32 Element, Orange
MFHX 10-18T	Sulzer F-System, 4:1 & 10:1, 10 mm x 18 Element, Orange
MFHX 10-24T	Sulzer F-System, 4:1 & 10:1, 10 mm x 24 Element, Orange
MFHX 10-32T	Sulzer F-System, 4:1 & 10:1, 10 mm x 32 Element, Orange

Accessories

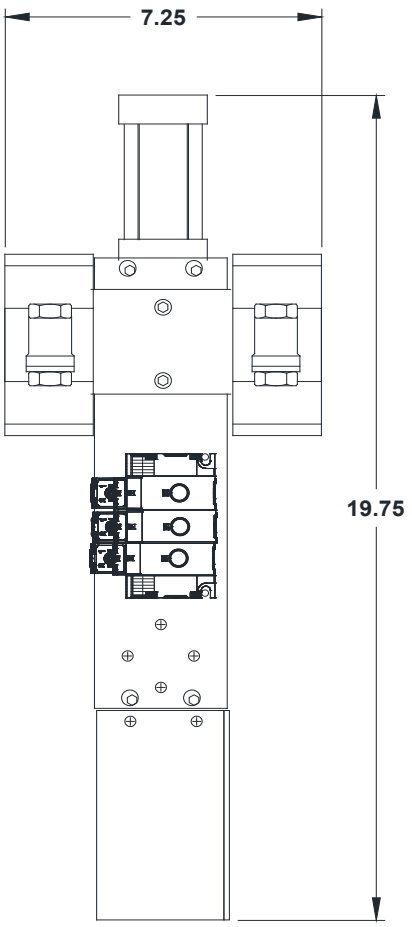
Mixers 1:1 & 2:1 Cartridges	
Part No.	**Description**
MFH 06-18T	Sulzer F-System, 1:1 & 2:1, 6 mm x 18 Element, White
MFH 06-24T	Sulzer F-System, 1:1 & 2:1, 6 mm x 24 Element, White
MFH 06-32T	Sulzer F-System, 1:1 & 2:1, 6 mm x 32 Element, White
MFH 08-18T	Sulzer F-System, 1:1 & 2:1, 8 mm x 18 Element, White
MFH 08-24T	Sulzer F-System, 1:1 & 2:1, 8 mm x 24 Element, White
MFH 08-32T	Sulzer F-System, 1:1 & 2:1, 8 mm x 32 Element, White
MFH 10-18T	Sulzer F-System, 1:1 & 2:1, 10 mm x 18 Element, White
MFH 10-24T	Sulzer F-System, 1:1 & 2:1, 10 mm x 24 Element, White
MFH 10-32T	Sulzer F-System, 1:1 & 2:1, 10 mm x 32 Element, White

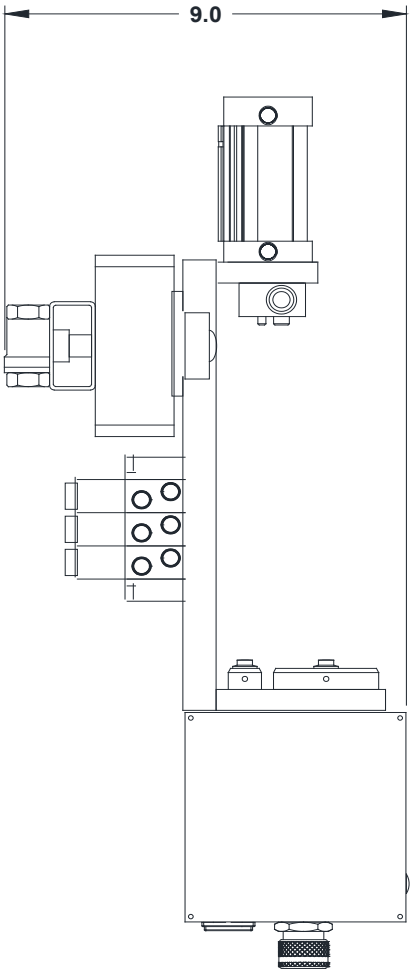


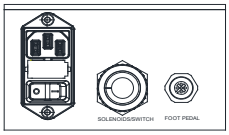
Cartridges	
Part No.	**Description**
AF 400-10-20-05	Sulzer F-System, PBT, 10:1, 400 mL
AF 400-04-20-01	Sulzer F-System, PBT, 4:1, 400 mL
AF 400-02-30-05	Sulzer F-System, Nylon, 2:1, 400 mL
AF 400-01-20-05	Sulzer F-System, PBT, 1:1, 400 mL

Technical Data

Category	Data
Air Pressure	60 - 80 psi (4 - 5.5 bar)
Line Voltage	100-240 VAC, 50/60 Hz, 1 phase, 1.5 amps
Operating Voltage	24 vdc
Maximum Operating Temperature	149° F (65° C)
Air inlet size	1/4 NPT, Female
Weight	16 lbs (7.3 Kg)







Dispense Technologies Standard Warranty

Dispense Technologies warrants all equipment referenced in this document which is manufactured by Dispense Technologies and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Dispense Technologies, Dispense Technologies will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Dispense Technologies to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Dispense Technologies' written recommendations.

This warranty does not cover and Dispense Technologies shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Dispense Technologies component parts. Nor shall Dispense Technologies be liable for malfunction, damage or wear caused by the incompatibility of Dispense Technologies equipment with structures, accessories, equipment or materials not supplied by Dispense Technologies, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Dispense Technologies.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Dispense Technologies distributor for verification of the claimed defect. If the claimed defect is verified, Dispense Technologies will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Dispense Technologies' sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

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In no event will Dispense Technologies be liable for indirect, incidental, special or consequential damages resulting from Dispense Technologies supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Dispense Technologies, or otherwise.

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