

Dispensit 715

332095B

EN

***Depending on valve configuration, this valve can be used to dispense the following:
Acrylics, Urethanes, Lubricants, UV Curables, Silicone Oil, TRV Silicone, Sealants,
Epoxies, Greases, Filled Materials, Heat Sink Compounds***

Dispense Valve

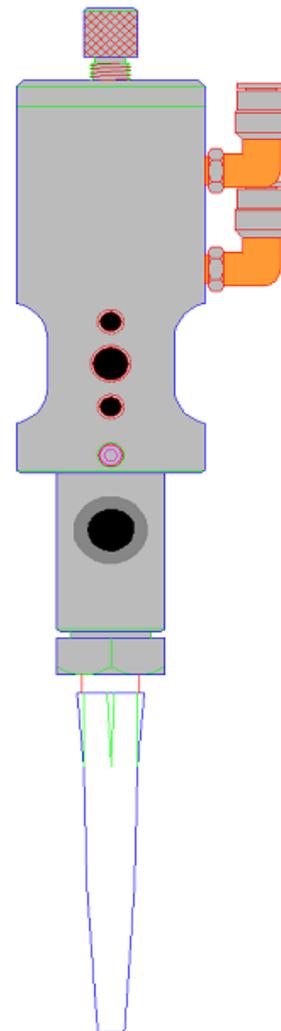
100psi (0.69 MPa, 6.9 bar) Maximum Air Working Pressure

2000psi (137.9 bar) Maximum Material Inlet Pressure



Important Safety Instructions

Read all warnings and instructions in this manual.
Save these instructions.



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715 Valve Models

715SF Valves		
Part No.	Configuration	Description
02/1210-00/98	VALVE, SNUFFER, 715, STD, P/V, SS	Stainless Steel w/Viton TM seals
02/1210-02/98	VALVE, SNUFFER, 715, STD, P/EP, SS	Stainless Steel w/EP seals
02/1210-00/99N	VALVE, SNUFFER, 715, STD, P/V, NIT	Nitralloy w/Viton TM seals
02/1210-02/99N	VALVE, SNUFFER, 715, STD, P/EP, NIT	Nitralloy w/EP seals
02/1210-22/99N	VALVE, SNUFFER, 715, STD, EP/EP, NIT	Nitralloy w/EP seals

715HF Valves		
Part No.	Configuration	Description
02/1211-00/98HC	VALVE, SNUFFER, 715, HF, P/V, SSHC	Hard Chromed Stainless Steel wetted components w/Viton TM seals
02/1211-02/98HC	VALVE, SNUFFER, 715, HF, P/EP, SSHC	Hard Chromed Stainless Steel wetted components w/EP Seals
02/1217-07/99N	VALVE, SNUFFER, 715, HF, F/V, NIT, SP	Nitralloy Fluoromyte/Viton Seals
02/1217-08/99N	VALVE, SNUFFER, 715, HF, F/V, NIT, WE	Nitralloy Spool, Fluoromyte/Viton Seals, Wet Cups
02/1211-00/99N	VALVE, SNUFFER, 715, HF, P/V, NIT	Nitralloy w/Viton TM seals
02/1211-00/98	VALVE, SNUFFER, 715, HF, P/V, SS	Stainless Steel w/Viton TM seals
02/1217-00/99N	VALVE, SNUFFER, 715, HF, P/V, NIT	Nitralloy w/Viton TM seals

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 symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <h1 style="margin: 0;">WARNING</h1>	
    	<p>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.</p> <ul style="list-style-type: none"> • 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.
	<p>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.</p> <ul style="list-style-type: none"> • Read Safety Data Sheet (SDS) 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.
	<p>BURN HAZARD Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:</p> <ul style="list-style-type: none"> • Do not touch hot fluid or equipment.
	<p>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. Protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear, and hearing protection. • Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.



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 Safety Data Sheet (SDS) 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.



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.



Changing Materials

NOTICE

Changing the material types used in your equipment requires special attention to avoid equipment damage and downtime.

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Always clean the fluid inlet strainers after flushing.
- Check with your material manufacturer for chemical compatibility.
- When changing between epoxies and urethanes or polyureas, disassemble and clean all fluid components and change hoses. Epoxies often have amines on the B (hardener) side. Polyureas often have amines on the B (resin) side.

General Information

The Model 715 Dispense Valve is an On/Off valve designed for a continuous flow of viscous material through a dispense needle in automatic, semi-automatic or manual applications. It is shipped complete with the following:

- Model 715 Dispense Valve
- Two 3 foot (.9 m) sections of pneumatic air line
- Seal Kit
- Operating and Maintenance Manual

Safety Information

This product should be used only by employees who have been given appropriate training and safety warnings as set forth in this manual. Read completely before operating.

				
<p>Do not exceed 100 psi (6.9 bar) pressure on the operating system. Do not exceed 2000 psi (137.9 bar) material inlet pressure. Higher pressures may cause serious injury or equipment damage.</p>				

NOTE: The minimum recommended pneumatic operating system pressure is 70 psi (4.8 bar) clean/dry air.

Illustration References

Throughout this manual you will find references by illustration item number to the illustrations in the manual. The references are indicated by parentheses around a number such as: (7). Illustrations represent typical valve configurations. The drawings for your exact model are inserted at the back of the manual and include the part numbers for ordering replacement parts.

General Accessories

Graco Ohio offers a full line of standard and custom accessories for your dispensing needs including:

- Valve Controllers
- Syringe Feed Systems
- Cartridge Retainers and Pressure Reservoirs
- Titan 200 High Pressure Cartridge Feed Systems
- Transfer Pump Feed Systems for 1, 5 and 55 gallon containers
- Mounting Bases and Brackets
- Custom Needles and Needle Blocks

Consult your Dispensit dealer or the factory for details.

Setup



NOTE: See **Typical Installation** diagram.

1. Perform Setup procedure for feed system components. See feed system manual(s).
2. Place an in-line air pressure regulator, air-water separator/filter, and shut-off/bleed valve between the air supply and the control solenoids.
3. Connect each 1/4 in. outside diameter supplied air line to the corresponding control solenoid. See **Typical Feed System Components** starting on page 7.
4. Connect chemical lines from feed system to metering valve material inlets. See **Typical Feed System Components** starting on page 7.

Typical Installation

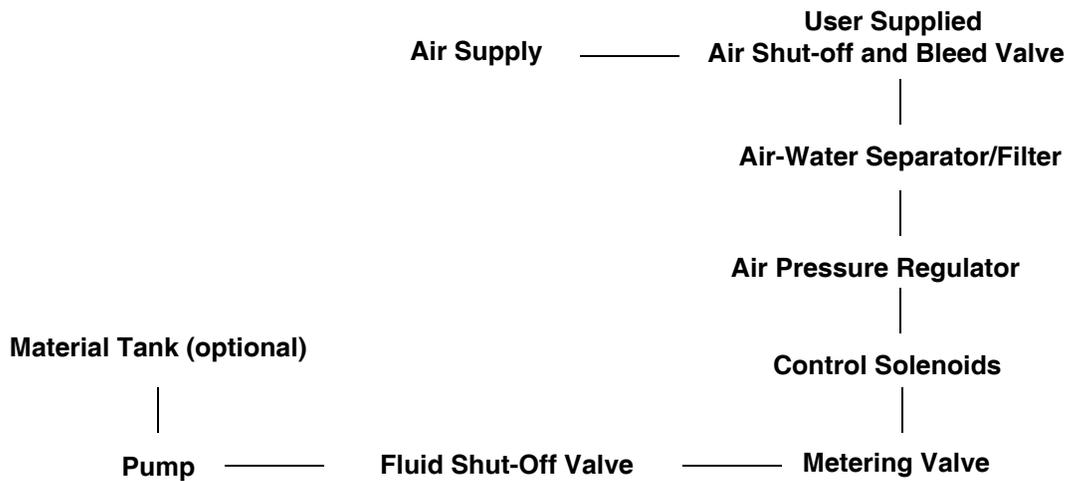


FIG. 1

Typical Feed System Components

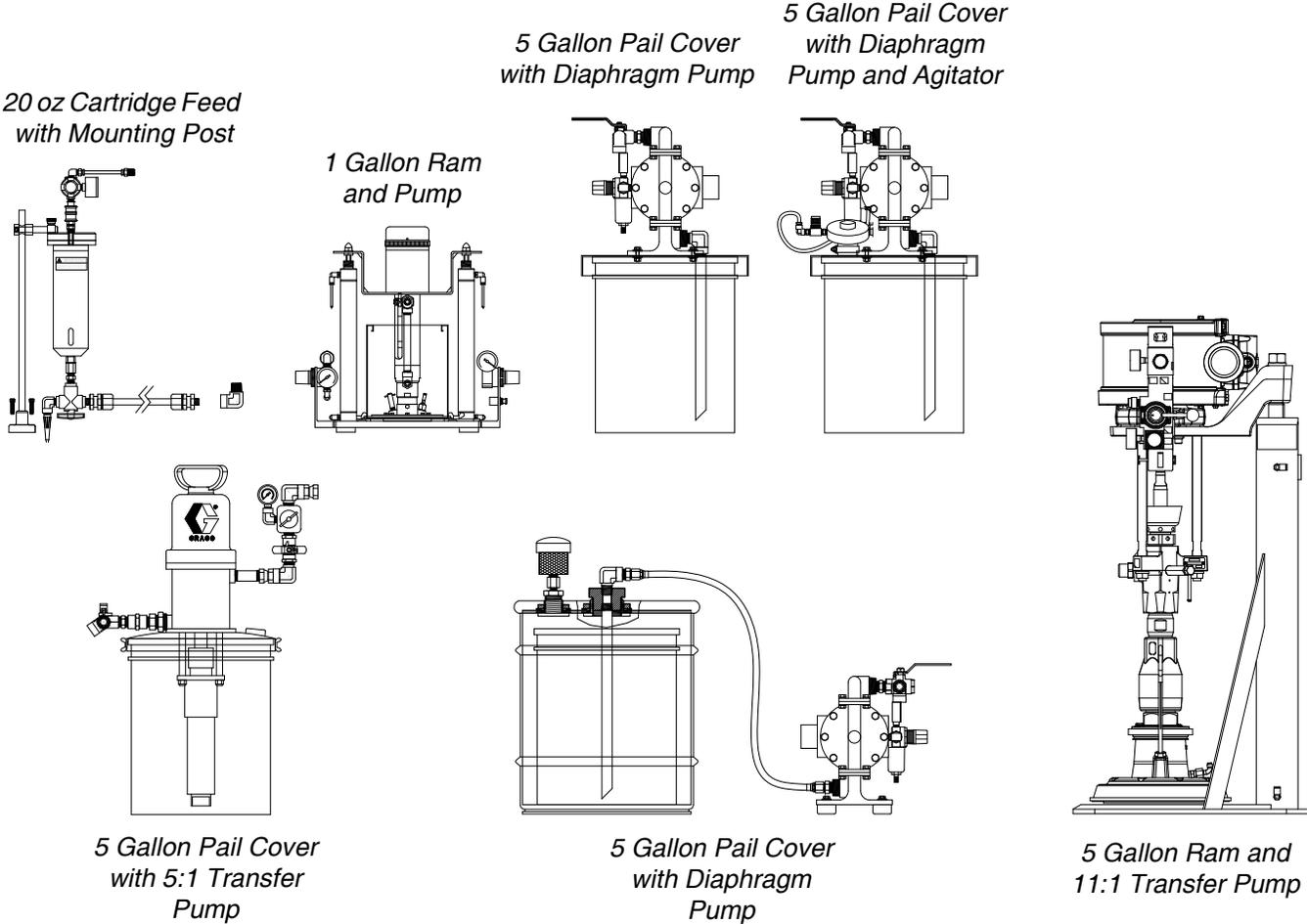
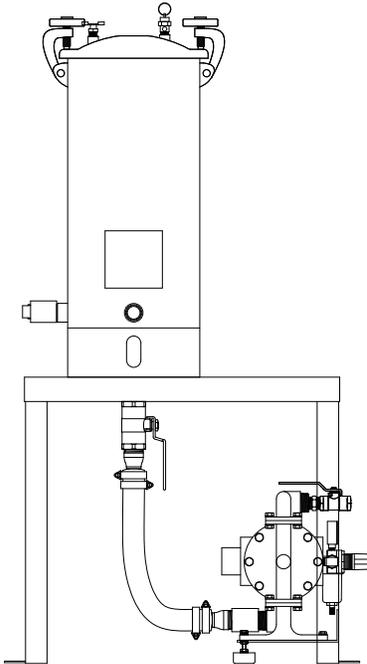
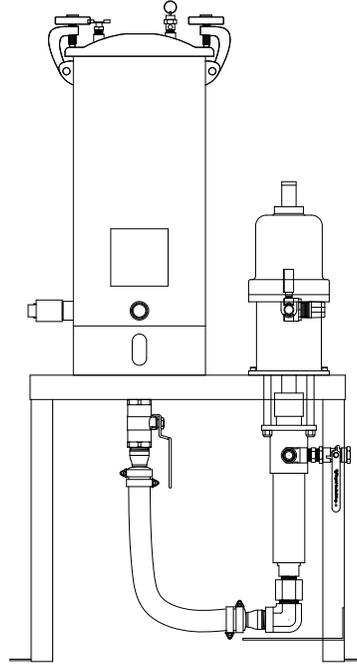


FIG. 2

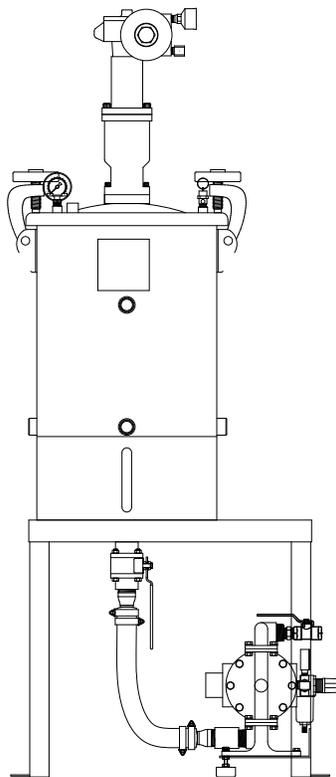
Typical Feed System Components (continued)



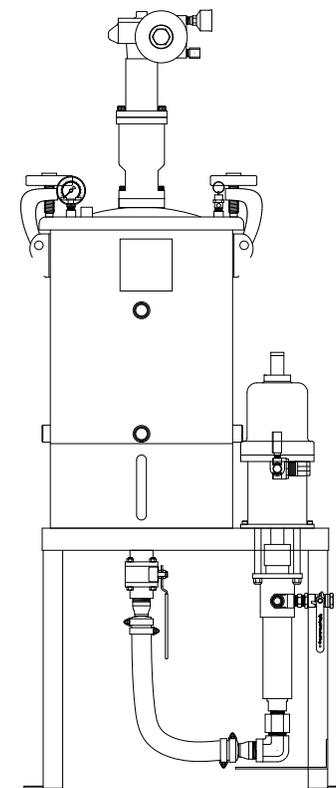
5 Gallon Tank with Diaphragm Pump and Stand



5 Gallon Tank with 5:1 Pump and Stand



10 Gallon Tank with Diaphragm Pump, Agitator, Vacuum, and Stand

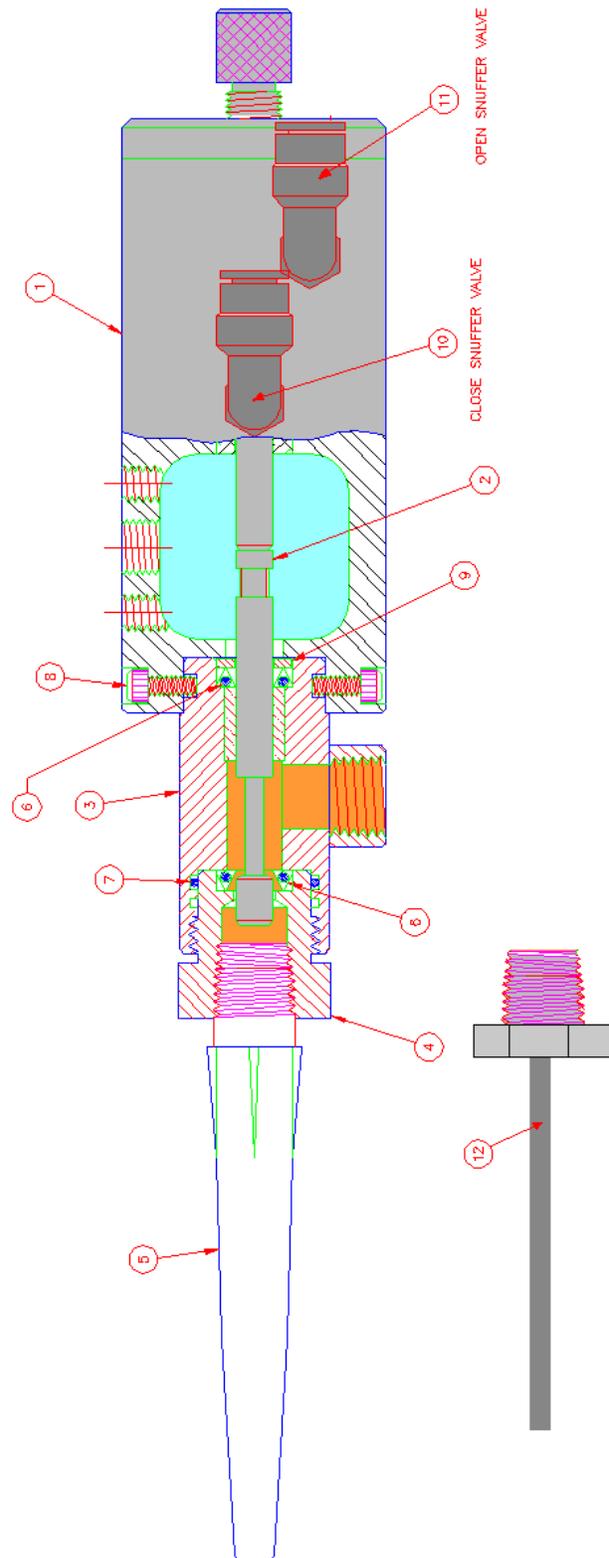


10 Gallon Tank with 5:1 Pump, Agitator, Vacuum, and Stand

FIG. 3

Description of Operation

1. The normal “ready” state of the system is as follows:
 - The material supply line is filled with dispensable material.
 - The system has been purged, filling the valve with material up to the Spool (2).
 - The Spool (2) is seated in the lower Posipak Seal (6).
2. The dispense cycle begins when the controller is activated. Air at 70 psi (4.8 bar) enters the Open port and extends the Spool (2) through the lower Posipak Seal (6).
3. Material flows through the Material Inlet (3), around the narrow section of the Spool (2) and out through the Nozzle (5) (or Needle (12)). Volume can be varied by changing the material pressure, nozzle size, dispense speed and dispense time.
4. When the correct amount of material has been dispensed, the controller relieves air from the Open port and applies air to the Close port. The Spool (2) retracts into the lower Posipak Seal (6) “snuffing” the material back into the Nozzle (5), sealing the valve and ending the dispensing process. The system is again in the normal “ready” state.



Setup Procedure

Mounting Dispense Valve

Mounting holes are drilled through the valve body. The valve may be tilted to a maximum of 60 degrees from the vertical depending on the application.

Air Controller

Operation of the Model 715 Dispense Valve requires a controller that can provide the following:

- A minimum of 0.5 SCFM (2.3 cm³) of dry unlubricated air at a minimum pressure of 70 psi (4.8 bar) and a maximum of 100 psi (6.9 bar).
- Time delay capability to allow the valve to cycle.
- Independent air pressure regulators for material supply and valve operation.
- “Purge capability” which is the ability for the operator to pass or not pass air to the valve’s Open port.
- For semiautomatic or automatic applications, a foot switch or other control to cycle the valve.
- Connection for .16”ID x .25” OD (6.35mm) pressure tubing for use between the dispense valve and controller.
- Connection for .16”ID x .25” OD (6.35mm) pressure tubing for use between the controller and material supply air inlet.

Operating Procedures

If there are any problems in getting started, refer to the Troubleshooting section on page 21.

Dry System Checkout

This is an initial checkout to determine if the setup has been properly completed. The dry checkout is conducted without any material in the system. Refer to the illustrations above or below.

1. Turn on the controller and the air supply.
2. Set the air pressure to 70 psi (4.8 bar) on the system pressure gauge.
3. In the normal “ready” state the Spool (2) is seated in the Posipak Seal (6), sealing the dispense valve. For this test, remove the Nozzle (5) so that you can visually verify that the Spool (2) extends upon actuation.
4. Momentarily press the dispense valve cycling control switch.
5. The controller applies air to the Open port of the dispense valve, the Spool (2) extends. After the time delay the controller applies air to the Close port causing the Spool (2) to retract. Visually verify the spool movement. When this happens, the system is correctly installed.

Material Loading

Material is supplied from a pressure vessel or pump with enough pressure to cause a proper rate of flow from the dispense nozzle.

NOTE: The material pressure will vary depending on the application.

				
<ul style="list-style-type: none"> • Do not exceed 100 psi (6.9 bar) pressure on the operating system. Do not exceed 2000 psi (137.9 bar) material inlet pressure. Higher pressures may cause serious injury or equipment damage. • To reduce the risk of injury or equipment damage, do not apply either operating or material supply pressure to the product until all screws, material supply connections and air system connections are in place and properly tightened. 				

Attach the air line to the regulator and set the air pressure control to the setting required for the application.

NOTE: When using a remote reservoir, the delivery tubing and fittings must be compatible with the material being dispensed and capable of withstanding the dispensing pressure.

NOTE: The minimum recommended pneumatic operating system pressure is 70 psi (4.8 bar) clean/dry air.

Wet Cup Loading

Some models are equipped with a wet cup around the Spool (2) to keep it wetted. This helps prevent curing or crystallization of material on the spool and consequent premature seal failure. Fill the wet cup with a compatible self-leveling material prior to operation if your valve is so equipped.

Wet System Checkout

Using the purge cycle on the air supply controller, run the material through the material supply line and valve until a smooth material flow is observed through the dispense nozzle.

After the purge cycle has been completed, set the air supply controller to the manual cycle mode and cycle the dispense valve several times.

Operation Adjustments

Air Supply Adjustment

The air pressure to the controller and material supply regulator is typically 70 psi (4.8 bar). Do not exceed 100 psi (6.9 bar) pressure to the dispense valve. However, the material supply pressure must be adjusted according to the type of material being dispensed. Too low a pressure will give you an inconsistent dispensed volume because the material does not have sufficient pressure to flow smoothly through the nozzle. Too high a pressure may cause material separation or packing. Use the minimum pressure needed to obtain smooth material flow during the purge cycle.

Material Output and Snuff-Back Adjustment

The material output depends on the material pressure, size of nozzle or needle, the dispense time and the rate at which the dispense valve is moved by the system to which it is attached.

The Model 715 Snuffer allows material to be drawn back into the dispense nozzle/needle when the Spool (2) retracts to minimize post-dispense dripping or drooling. This is the “snuff-back” feature. Snuff-back can be adjusted only while dispensing. The snuff-back adjustment knob on the top of the valve controls this. Turn the knob “in” or clockwise to decrease snuff-back or turn the knob “out” or counterclockwise to increase snuff-back. If desired results are not achieved try adjusting through the full range of travel.

Dispense Nozzle/Needle Height Adjustment

Ideally, the material should just contact the work piece enough to create an adhesive bond and cause a clean separation of the material from the outlet tip upon completion of the dispense cycle.

Periodic Maintenance

Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.

<p>This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, relieve pressure when you stop dispensing and before cleaning, checking or servicing the equipment.</p>				

1. Shut off material flow to the valve.
2. Cycle the valve three times to ensure all pressurized material has been removed from the system.
3. Turn off the air pressure to the valve and disconnect all of the lines.
4. The valve is now depressurized and safe to perform maintenance on.

Dispense Nozzle/Needle Replacement

If no material or reduced volumes of material come out of the dispense nozzle/needle it may be partially or completely clogged. Clean with water or solvent depending on the material dispensed. A fine wire, used cautiously, will help open clogged needles. Replace the nozzle or needle if damaged or severely clogged. Replacement nozzles and needles can be ordered by specifying the proper part number. See the **Model 715 Recommended Spare Parts** section of this manual or consult the drawings for your exact model.

Disassembly - Wet Section

Refer to the illustration on the next page and the drawings in the back of this manual for your exact model.

1. Turn off the air supply and disconnect the air lines.
2. Turn off the material supply and remove the material line from the Material Inlet (3).
3. Remove the valve from its mounting.
4. Remove the Screws (8).
5. Pull the Material Inlet (3) away from the Air Cylinder Assembly (1).
6. Grasp the end of the Spool (2) and pull it down to the fully extended position.
7. Wipe off the Spool (2) and inspect it for wear. Remove the Spool (2) if worn.
8. Remove the Nozzle (5) or Needle (12) from the Adapter (4).
9. Remove the Adapter (4) from the Material Inlet (3).
10. Remove and discard the O-ring (7).
11. Remove the Seal Retainer (9) and Posipak Seals (6).

Assembly - Wet Section

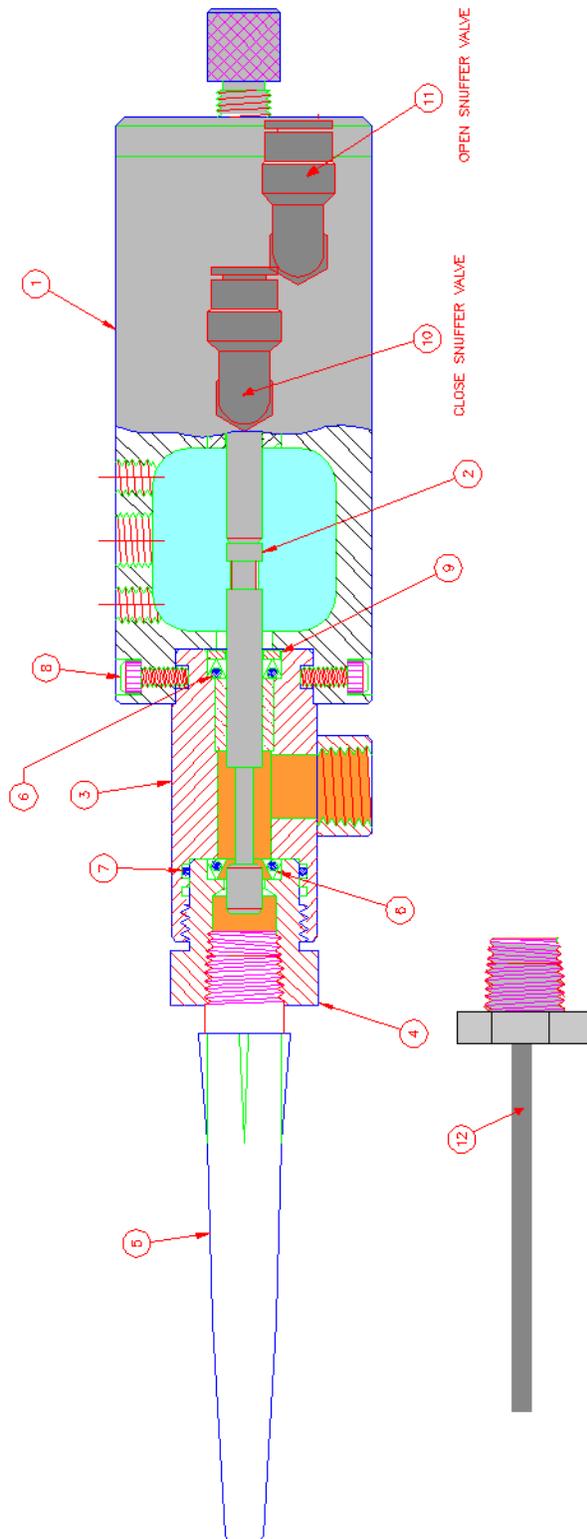
NOTE: Clean all valve parts with an appropriate solvent prior to assembly. Always install new, lightly lubricated o-rings and seals when assembling the valve. Use Krytox 203GPL (part number 84/0200-K3/11) for lubricating valve parts including seals and o-rings. Lubricate the outside of the Spool (2) before assembly. Check the Spool (2) for wear and if it is worn secure a replacement before proceeding.

NOTE: Use caution as you install new Posipak seals so that they are not pinched or torn. Do this by making sure they are lubricated, and by tucking the lips of the seal inward before uniformly pushing them into position. Always consult the illustrations and drawings to be sure that seals face the correct direction.

1. Install the Spool (2) if you removed it.
2. Install the O-ring (7) in the bottom end of the Material Inlet (3).
3. Install the Posipak Seal (6) in the top end of the Material Inlet (3). Some models have a single seal in this location and some have 3 seals in this location. Check the drawings for your exact model.
4. Install the Seal Retainer (9).
5. Slide the Material Inlet (3) carefully over the Spool (2) until it seats in the Air Cylinder Assembly (1).
6. Install the Screws (8).
7. Install the other Posipak Seal (6) into the Adapter (4).
8. Screw the Adapter (4) into the Material Inlet (3), taking care that the Posipak Seal (6) slides over the extended Spool (2) without rolling the lip.
9. Install the Nozzle (5) or Needle (12) into the Adapter (4).

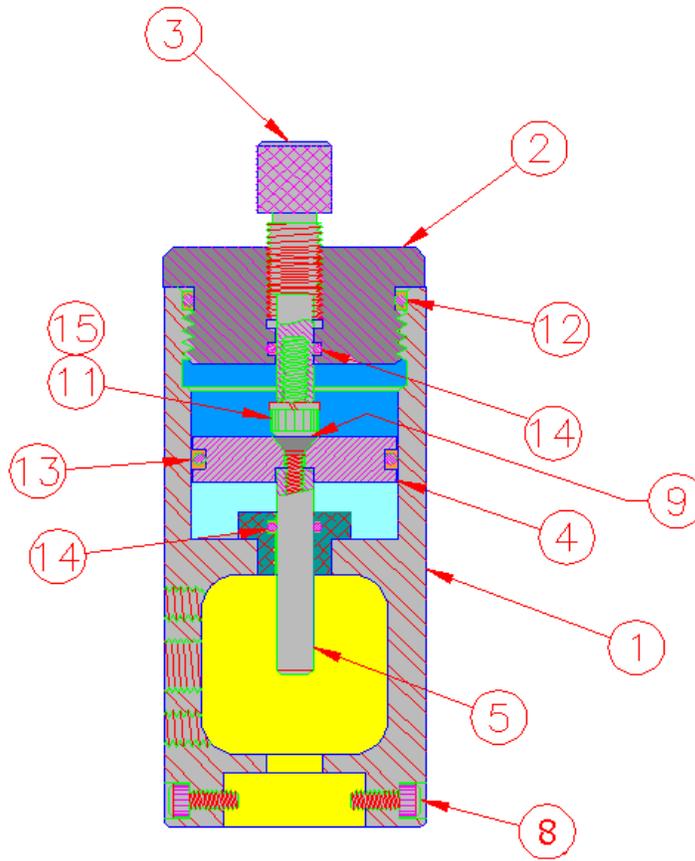
Perform the Dry System Checkout, Material Loading and Wet System Checkout procedures. The 715 Dispense Valve is now ready to be placed back in service.

Model 715 General Illustration



1	AIR CYLINDER ASSEMBLY
2	SPOOL
3	MATERIAL INLET
4	ADAPTER
5	NOXXLE (some models)
6	POSIPAK SEAL (2 pieces most models, 4 pieces some models)
7	O-RING
8	SCREW
9	SEAL RETAINER
10	ELBOW
11	ELBOW
12	NEEDLE (some models)

Model 715 Air Cylinder Assembly Illustration



1	AIR CYLINDER BODY
2	END CAP
3	SNUFF-BACK ADJUSTMENT KNOB
4	PISTON
5	PISTON ROD
6	ELBOW
8	SCREW, #6-32 x 5/16
9	SCREW, #6-32 x 1/2
11	SCREW, #10-24 x 1/2
12	O-RING
13	O-RING
14	O-RING
15	LOCK WASHER

Disassembly - Air Cylinder Assembly

Refer to the illustration on page 16 and the drawings in the back of this manual for your exact model.

1. Turn off the air supply and disconnect the air lines.
2. Turn off the material supply and remove the material line from the Material Inlet (3).
3. Remove the valve from its mounting.
4. Remove the Screws (8) and pull the Wet Section away from the Air Cylinder Assembly. Unscrew the Spool (2 on the prior illustration) from the Piston Rod (5).
5. Unscrew the End Cap (2) from the Air Cylinder Body (1).
6. Remove and discard the O-ring (12).
7. Remove the Screw (11) and Lock Washer (15) from the Snuff-Back Adjustment Knob (3).
8. Remove the Piston (4) from the Air Cylinder Body (1).
9. Remove and discard the O-ring (13).
10. Remove and discard the O-rings (14).

The 715 Dispense Valve Air Cylinder Assembly is now ready for cleaning and assembly.

Assembly - Air Cylinder Assembly

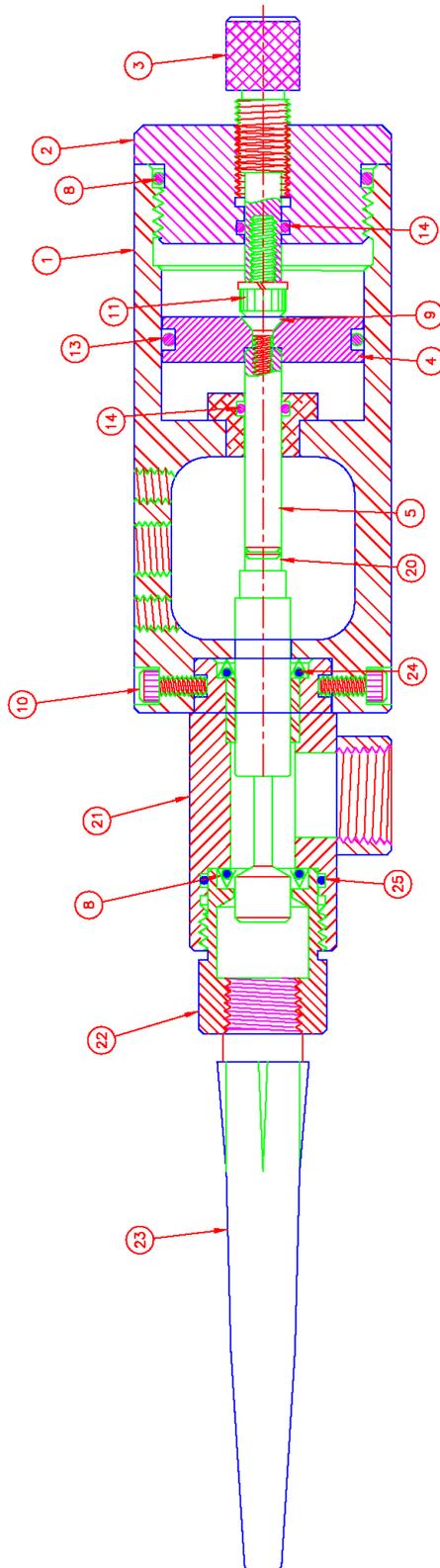
NOTE: Clean all valve parts with an appropriate solvent prior to assembly. Always install new, lightly lubricated o-rings and seals when assembling the valve. Use Krytox 203GPL (part number 84/0200-K3/11) for lubricating valve parts including seals and o-rings. Lubricate the inside of the Air Cylinder Body (1) and the outside of the Piston Rod (5) before assembly. Check the Piston Rod (5) for wear and if it is worn secure a replacement before proceeding.

1. Install the lower O-ring (14) into the groove in the Air Cylinder Body (1). This is easiest if performed from the top. Squeeze the O-ring to an oblong shape to get it started in the groove, then push it gradually into place with a small, blunt tool.
2. Install the O-ring (13) around the Piston (4).
3. Insert the Piston (4) assembly carefully into the Air Cylinder Body (1) until the Piston Rod (5) passes through the lower O-ring (14).
4. Install the upper O-ring (14) into the groove in the End Cap (2).
5. Install the Screw (11) through the Lock Washer (15) and upper O-ring (14) and into the Snuff-Back Adjustment Knob (3). Make sure the Lock Washer (15) is fully compressed.
6. Install the O-ring (12) into the Air Cylinder Body (1).
7. Screw the End Cap (2) into the Air Cylinder Body (1).
8. Screw the Spool (2 on prior illustration) into the Piston Rod (5).
9. Slide the Wet Section over the Spool (2 on prior illustration) until it seats in the Air Cylinder Body (1) and secure it with the Screws (8).

Perform the Dry System Checkout, Material Loading and Wet System Checkout procedures. The 715 Dispense Valve is now ready to be placed back in service.

Parts

715 Valve



715HF Valve Components

Ref	Part	Description	Qty
2	01/0671/97	CAP, END	1
3	01/0670/97	SCREW, ADJ	1
4	01/0672/96	PISTON, AC	1
5	01/0673/98	ROD, PISTON	1
-	94/0740-A/99	FITTING, ELBOW	2
9	96/0119/99	SCREW, FHSC	1
10	96/0168/99	SCREW, SHC	2
11	96/0125/99	SCREW, SHC	1
12	95/0125/00	O-RING, VIT	1
13	95/0123/00	O-RING, VIT	1
14	95/0904/00	O-RING, VIT	2
-	61/2904-YL/11	TUBE	3
-	61/2904-GN/11	TUBE	3
-	94/0740-B/99	CONNECTOR	2
-	94/0170/99	FITTING, CONN	2

715SF Valve Components

Ref	Part	Description	Qty
1	01/0674-1/97	HOUSING, AC, SNFR	1
2	01/0671/97	CAP, END, AC	1
3	01/0670/97	SCREW, ADJ	1
4	01/0672/96	PISTON	1
5	01/0673/98	ROD, PISTON	1
-	94/0740-A/99	FITTING, ELBOW	2
9	96/0119/99	SCREW, FHSC	1
10	96/0168/99	SCREW, SHC	2
11	96/0125/99	SCREW, SHC	1
12	95/0125/00	O-RING, VIT	1
13	95/0123/00	O-RING, VIT	1
14	95/0904/00	O-RING, VIT	2
-	96/0005/99	WASHER, LOCK, SPLIT	1
-	61/2904-YL/11	TUBE	3
-	61/2904-GN/11	TUBE	3
-	94/0740-B/99	CONNECTOR	2
-	94/0170/99	FITTING, CONN	2
21	01/0678/98	HOUSING, INLET, TWNMXR	1
22	01/0691/98	ADAPTER, SNUFFER/NOZZLE	1
23	94/0553/85	NOZZLE	1
-	01/0675/98	RETAINER, STD TWNMXR	1

715HF Valve Variable Components

Ref. No.	Description					Qty
		02/1211-00/98HC	02/1211-02/98HC	02/1211-00/98	02/1217-08/99N	
1	HOUSING, AC, SNFR	01/0674-1/97	01/0674-1/97	01/0674-1/97	01/0674-1C/97	1
-	WASHER, LOCK, SPLIT	96/005/99	96/0005/99	96/0005/99	NA	1
20	SPOOL, TWNMXR	01/0681/98HC	01/0681/98HC	01/0681/98	01/0681/99N	1
21	HOUSING, INLET	01/0682/98	01/0682/98	01/0682/98	01/0682-M1/98	1
22	ADAPTER, SNFER/NZL	01/0692/98	01/0692/98	01/0692/98	01/0692/98	1
23	NOZZLE	94/0553/85	94/0553/85	94/0553/85	94/0553/85	1
24	SEAL, POSIPAK	95/0849/11	95/0849/12	95/0849/11	95/0849-F/11	2
25	O-RING	95/0903/00	95/0903/02	95/0903/00	95/0903/00	1
-	KIT, REPAIR, SNUFFER	SPK-1211-00	SPK-1211-02	SPK-1211-00	SPK-1217-08	1
-	O-RING, VIT	NA	NA	NA	95/0117/00	1
-	GASKET	NA	NA	NA	NA	4
-	FITTING, ELBW, STREET	NA	NA	NA	NA	2

Ref. No.	Description				Qty
		02/1211-00/99N	02/1217-00/99N	02/1217-07/99N	
1	HOUSING, AC, SNFR	01/0674-1/97	01/0674-1C/97	01/0674-1B/97	1
-	WASHER, LOCK, SPLIT	96/0005/99	NA	NA	1
20	SPOOL, TWNMXR	01/0681/99N	01/0681/99N	01/0681/99N	1
21	HOUSING, INLET	01/0682/98	01/0682-M1/98	01/0682-M/98	1
22	ADAPTER, SNFER/NZL	01/0692/98	01/0692/98	01/0692/98	1
23	NOZZLE	94/0553/85	94/0553/85	94/0553/85	1
24	SEAL, POSIPAK	95/0849/11	95/0849/11	95/0849-F/11	2
25	O-RING	95/0903/00	95/0903/00	95/0903/00	1
-	KIT, REPAIR, SNUFFER	SPK-1211-00	SPK-1217-00	SPK-1217-07	1
-	O-RING, VIT	NA	95/0117/00	NA	1
-	GASKET	NA	NA	94/0740-G/01	4
-	FITTING, ELBW, STREET	NA	NA	82/0171/99	2

715SF Valve Variable Components

Ref. No.	Description				Qty
		02/1210-00/98	02/1210-02/98	02/1210-22/98	
20	SPOOL, TWNMXR	01/0677/98	01/0677/98	01/0677/98	1
24	SEAL, POSPK	95/0850/11	95/0850/12	95/0846/02	2
25	O-RING	95/0903/00	95/0903/02	95/0903/02	1
-	KIT, REPAIR, SNUFFER	SPK-1210-00	SPK-1210-02	SPK-1210-22	1

Ref. No.	Description				Qty
		02/1210-00/99N	02/1210-02/99N	02/1210-22/99N	
20	SPOOL, TWNMXR	01/0677/99N	01/0677/99N	01/0677/99N	1
24	SEAL, POSPK	95/0850/11	95/0850/12	95/0846/02	2
25	O-RING	95/0903/00	95/0903/02	95/0903/02	1
-	KIT, REPAIR, SNUFFER	SPK-1210-00	SPK-1210-02	SPK-1210-22	1

Troubleshooting

If operating difficulties are encountered, review the symptoms below. With each problem there are one or more possible causes that should be investigated to resolve the situation.

Nothing Happens

If absolutely nothing happens when trying to cycle the Dispense Head, check the pneumatic power. Check the footswitch or cycle start switch to be sure it is plugged in.

Valve Cycles, Nothing Dispensed

First, try to purge the unit; this should fix most situations. If it doesn't, check to see that there is enough pressure to the reservoir or transfer pump. Perhaps the Reservoir/Nozzle/Needle path is clogged; examine and clear or replace as necessary. Consider whether the material could have set up in the system. (See the **Wet System Checkout** and **Operation Adjustments** sections.)

Irregular Volume Dispensed

Frequently, this is caused by faulty material. The material must be a smooth (homogeneous) mixture, without any air entrapped in it. A second cause could possibly be that the material is not being supplied. Check the reservoir pressure as it may be too low for the type of material being dispensed and/or the rate at which the system moves the dispense valve may be too fast. To adjust, follow the directions found in the **Operation Adjustments** section of this manual.

Reduced Volumes Dispensed

Check to see if Nozzle/Needle is partially clogged (refer to "Periodic Maintenance" section).

No Material Dispensed

This is due to a clogged Nozzle/Needle (refer to "Periodic Maintenance" section).

Material Continues to Flow After Shut Off

This can be typical for the material and can often be compensated for by adjusting the amount of Snuff-Back. See the Material Output and Snuff-Back Adjustments section under Operation Adjustments. More extreme situations can be due to material preventing the Spool from seating properly into the Posipak Seal seat or to a worn Spool and/or seat. Refer to **Periodic Maintenance** for the Wet Section, clear the blockage or replace the worn components.

Model 715 Recommended Spare Parts

NOTE: These parts are routine supply items or wear parts not covered by warranty for normal wear.

Quantity	Description	Part Number
1	SEAL KIT, 715	<i>see assembly drawing for part number</i>
1	SPOOL	<i>see assembly drawing for part number</i>
1	PISTON ROD	<i>see assembly drawing for part number</i>
**	KRYTOX 203GPL ASSEMBLY LUBRICANT	84/0200-K3/11
Replacement Nozzles		
Quantity	Description	Nozzle Part Number
**	NOZZLE, 1/4 NPTM x 2", 1/8" Orifice	94/0553-2/85
**	NOZZLE, 1/4 NPTM x 4", 1/32" Orifice	94/0554/85
**	NOZZLE, 1/4 NPTM x 4", 3/32" Orifice	94/0555/85
**	NOZZLE, 1/4 NPTM x 4", 1/8" Orifice	94/0553/85
Replacement Needles		
Quantity	Description	Needle Part Number
**	Needle, 1/4 NPTM, 16 ga. x 2 1/2"	94/0624/98
**	Needle, 1/4 NPTM, 15 ga. x 2 1/2"	94/0624-H/98
**	Needle, 1/4 NPTM, 14 ga. x 2 1/2"	94/0624-A/98
**	Needle, 1/4 NPTM, 13 ga. x 2 1/2"	94/0624-B/98
**	Needle, 1/4 NPTM, 12 ga. x 2 1/2"	94/0624-C/98
**	Needle, 1/4 NPTM, 11 ga. x 2 1/2"	94/0624-D/98
**	Needle, 1/4 NPTM, 10 ga. x 2 1/2"	94/0624-E/98
**	Needle, 1/4 NPTM, 8 ga. x 2 1/2"	94/0624-F/98
**	Needle, 1/4 NPTM, 7 ga. x 2 1/2"	94/0624-G/98

** The quantity or needle size may vary for your application.

General Guidelines for O-Rings and U-Cup Seals

Sizes and materials of construction for O-rings and U-cup seals are selected by Graco based on compatibility with the chemicals to which they will be exposed. Solvents that may remove residual chemicals often have negative effects on the mechanical properties of O-rings and seals.

O-Ring Guidelines

- Always replace an O-ring with the identical one in size, durometer hardness, type and material of construction. Always be alert to the location and size of each O-ring as many look alike and be careful not to mix them. Often similar sizes may be used in various locations on the equipment and if replaced incorrectly, the equipment may not function properly. Refer to the Machine Operation and Service Manual for the correct part number of all O-rings used throughout the equipment and replace them with factory approved parts only.
- Re-use of O-rings is not recommended. Only re-use O-rings as a last resort. If you must re-use them, be sure that they are clean, have no cuts or flat spots and contain NO foreign material. Also, be sure not to soak them in solvent for extended periods as this can cause deterioration of the O-ring. Always replace O-rings that are cut, nicked, or distorted in shape or cross-section.
- Always apply a very thin film of Krytox 203GPL lubricant, item 84/0200-K3/11, to the entire surface of the o-ring before installation. Avoid excessive lubrication. If installing O-rings over threads on a shaft or across sharp edges, roll or push the O-ring carefully into place being careful to avoid cutting or nicking it.
- Avoid stretching the O-ring too much as it may not return to the proper size.
- Do not use any sharp tools or objects to install O-rings

U-Cup Seal Guidelines

- Always replace a U-cup seal with the identical one in size, durometer hardness, type and material of construction. Always be alert to the location and size of each U-cup seal as many look alike and be careful not to mix them. Often similar sizes may be used in various locations on the equipment and if replaced incorrectly, the equipment may not function properly. Refer to the Machine Operation and Service Manual for the correct part number of all U-cups used throughout the equipment and replace them with factory approved parts only.
- Always apply a very thin film of Krytox 203GPL lubricant, item 84/0200-K3/11, to the inner and outer lips of the seal before installation.
- Re-use of U-cup seals is not recommended. Only re-use U-cups as a last resort. If you must re-use them, be sure that they are clean, have no cuts or flat spots and contain NO foreign material. Also, be sure not to soak them in solvent for extended periods as this can cause deterioration of the seal. Always replace U-cups that are cut, have flat spots, are distorted in shape or are damaged in any manner.
- Always be alert to the proper orientation of the sealing lips and re-install them in the same direction as shown on the specific equipment assembly drawing. The U-cup seals are intended to seal in only one direction and if installed incorrectly, chemical leakage through the U-cup can occur.
- Whenever possible, push the back side of the seal over the shaft to protect the inner and outer lips. If this is not possible, carefully tuck the lip in to avoid rolling it back or cutting it.
- If installing over sharp edges, slide the seal carefully into place to avoid cutting it.
- Do not use any sharp tools or objects to install U-cups.

Technical Data

NOTE: See feed system manuals for dimensions, weights, and wetted parts lists for those components. Dimensions, weights, and wetted parts for components not covered in component feed system manuals and for combined assemblies are listed below.

Maximum Ambient Temperature	110°F (43°C)
Maximum Operating Temp.	150°F (65°C)
Maximum Outlet Fluid Working Pressure.	2000 psi (14 MPa, 138 bar)
Maximum Air Working Pressure.	100 psi (0.7 MPa, 7 bar)
Minimum Air Working Pressure	70 psi (480 kPa, 4.8 bar)
Maximum Material Inlet Pressure.	2000 psi (14 MPa, 138 bar)
Supplied Air Requirements	1 to 3 cfm at 80 psi to 100 psi
Shot Size Range (depending on metering rods selected)	0.002 cc continuous
Maximum Cycle Rate (application dependent, heat required).	Up to 60 cycles per minute
Dimensions (H x L x W)	9.88 x 2.53 x 1.75 in. (251 x 64 x 44 mm)
	<i>Graco-supplied Feed System Assemblies</i>
	<i>(depends on selected options):</i>
	<i>Smallest: 22.5 x 10 x 4 in. (572 x 254 x 102 mm)</i>
	<i>Largest: 60 x 28 x 19 in. (1524 x 711 x 483 mm)</i>
Weight	2 - 4 lb (0.91 - 1.81 kg)
Wetted Parts	<i>Metering Valve:</i> Hardened steel, 303/304, 404, UHM-WPE, Tungsten, carbide, fluoroelastomer, EPDM, PTFE, Acetal
	<i>Graco-supplied Feed System Hoses and Fittings:</i> Mild steel, 303/304, PTFE, buna, polyethylene, polypropylene
	<i>Graco-supplied Tanks:</i> Polyethylene, 303/304, mild steel

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco 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 Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco 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-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco 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.

Graco's 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.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco 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 Graco, or otherwise.

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Graco Information

Sealant and Adhesive Dispensing Equipment

For the latest information about Graco products, visit www.graco.com.

For patent information, see www.graco.com/patents.

TO PLACE AN ORDER, contact your Graco distributor, go to www.graco.com and select "Where to Buy" in the top blue bar, or call to find the nearest distributor.

If calling from the US: 800-746-1334

If calling from outside the US: 0-1-330-966-3000

All written and visual data contained in this document reflects the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 332095

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