

Prodigy® HDLV® Powder Transfer System for Spectrum® Feed Centers

Customer Product Manual

Part 1064855A04

Issued 10/08

**For parts and technical support, call the Industrial Coating
Systems Customer Support Center at (800) 433-9319 or
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Section 1

Safety

Introduction

Read and follow these safety instructions. Task- and equipment-specific warnings, cautions, and instructions are included in equipment documentation where appropriate.

Make sure all equipment documentation, including these instructions, is accessible to all persons operating or servicing equipment.

Qualified Personnel

Equipment owners are responsible for making sure that Nordson equipment is installed, operated, and serviced by qualified personnel. Qualified personnel are those employees or contractors who are trained to safely perform their assigned tasks. They are familiar with all relevant safety rules and regulations and are physically capable of performing their assigned tasks.

Intended Use

Use of Nordson equipment in ways other than those described in the documentation supplied with the equipment may result in injury to persons or damage to property.

Some examples of unintended use of equipment include

- using incompatible materials
- making unauthorized modifications
- removing or bypassing safety guards or interlocks
- using incompatible or damaged parts
- using unapproved auxiliary equipment
- operating equipment in excess of maximum ratings

Regulations and Approvals

Make sure all equipment is rated and approved for the environment in which it is used. Any approvals obtained for Nordson equipment will be voided if instructions for installation, operation, and service are not followed.

All phases of equipment installation must comply with all federal, state, and local codes.

Personal Safety

To prevent injury follow these instructions.

- Do not operate or service equipment unless you are qualified.
- Do not operate equipment unless safety guards, doors, or covers are intact and automatic interlocks are operating properly. Do not bypass or disarm any safety devices.
- Keep clear of moving equipment. Before adjusting or servicing any moving equipment, shut off the power supply and wait until the equipment comes to a complete stop. Lock out power and secure the equipment to prevent unexpected movement.
- Relieve (bleed off) hydraulic and pneumatic pressure before adjusting or servicing pressurized systems or components. Disconnect, lock out, and tag switches before servicing electrical equipment.
- Obtain and read Material Safety Data Sheets (MSDS) for all materials used. Follow the manufacturer's instructions for safe handling and use of materials, and use recommended personal protection devices.
- To prevent injury, be aware of less-obvious dangers in the workplace that often cannot be completely eliminated, such as hot surfaces, sharp edges, energized electrical circuits, and moving parts that cannot be enclosed or otherwise guarded for practical reasons.

Fire Safety

To avoid a fire or explosion, follow these instructions.

- Do not smoke, weld, grind, or use open flames where flammable materials are being used or stored.
- Provide adequate ventilation to prevent dangerous concentrations of volatile materials or vapors. Refer to local codes or your material MSDS for guidance.
- Do not disconnect live electrical circuits while working with flammable materials. Shut off power at a disconnect switch first to prevent sparking.
- Know where emergency stop buttons, shutoff valves, and fire extinguishers are located. If a fire starts in a spray booth, immediately shut off the spray system and exhaust fans.
- Clean, maintain, test, and repair equipment according to the instructions in your equipment documentation.
- Use only replacement parts that are designed for use with original equipment. Contact your Nordson representative for parts information and advice.

Grounding



WARNING: Operating faulty electrostatic equipment is hazardous and can cause electrocution, fire, or explosion. Make resistance checks part of your periodic maintenance program. If you receive even a slight electrical shock or notice static sparking or arcing, shut down all electrical or electrostatic equipment immediately. Do not restart the equipment until the problem has been identified and corrected.

Grounding inside and around the booth openings must comply with NFPA requirements for Class 2, Division 1 or 2 Hazardous Locations. Refer to NFPA 33, NFPA 70 (NEC articles 500, 502, and 516), and NFPA 77, latest conditions.

- All electrically conductive objects in the spray areas shall be electrically connected to ground with a resistance of not more than 1 megohm as measured with an instrument that applies at least 500 volts to the circuit being evaluated.
- Equipment to be grounded includes, but is not limited to, the floor of the spray area, operator platforms, hoppers, photoeye supports, and blow-off nozzles. Personnel working in the spray area must be grounded.
- There is a possible ignition potential from the charged human body. Personnel standing on a painted surface, such as an operator platform, or wearing non-conductive shoes, are not grounded. Personnel must wear shoes with conductive soles or use a ground strap to maintain a connection to ground when working with or around electrostatic equipment.
- Operators must maintain skin-to-handle contact between their hand and the gun handle to prevent shocks while operating manual electrostatic spray guns. If gloves must be worn, cut away the palm or fingers, wear electrically conductive gloves, or wear a grounding strap connected to the gun handle or other true earth ground.
- Shut off electrostatic power supplies and ground gun electrodes before making adjustments or cleaning powder spray guns.
- Connect all disconnected equipment, ground cables, and wires after servicing equipment.

Action in the Event of a Malfunction

If a system or any equipment in a system malfunctions, shut off the system immediately and perform the following steps:

- Disconnect and lock out electrical power. Close pneumatic shutoff valves and relieve pressures.
- Identify the reason for the malfunction and correct it before restarting the equipment.

Disposal

Dispose of equipment and materials used in operation and servicing according to local codes.

Section 2

Description

Introduction

See Figure 2-1. The Prodigy HDLV (High-Density powder, Low-Volume air) powder transfer system uses the Nordson Prodigy High-Capacity HDLV Pump to draw powder from the bottom of the cyclones and return it to the Spectrum II Powder Feed Center.

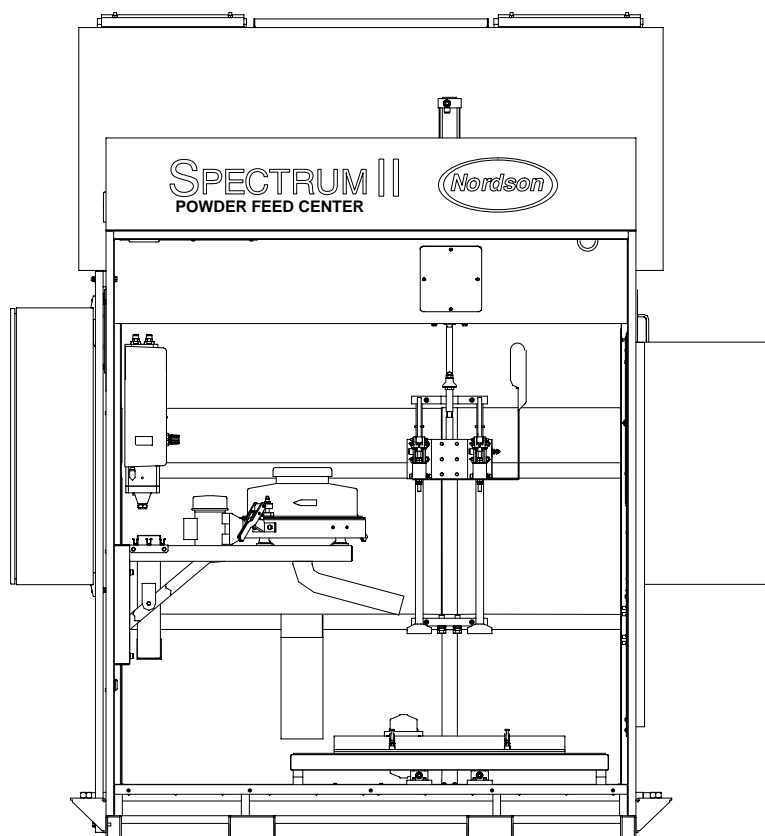


Figure 2-1 Spectrum II Powder Feed Center
with HDLV Powder Transfer System

Note: Shown with optional bulk feed HDLV pump.

System Operation

See Figure 2-2. As oversprayed powder is reclaimed by the cyclones (1), it falls into the transfer pan (2). The transfer pan fluidizes the reclaimed powder, allowing the reclaim pump (3) to draw the powder out of the transfer pan and send it to the sieve (4). The reclaimed powder is sieved and returned to the feed source (typically a rectangular hopper) in the powder feed center.

The optional bulk virgin transfer pump (5) automatically pumps virgin powder into the sieve when the powder level in the feed source drops below the level sensor.

Powder Tubing Length

See Figure 2-2. Keep the suction and delivery tubing under the following lengths to maintain optimum powder delivery. For best results, keep the suction and delivery tubing as short as possible.

Suction	3.65 m (12 ft)
Delivery	30.5 m (100 ft)

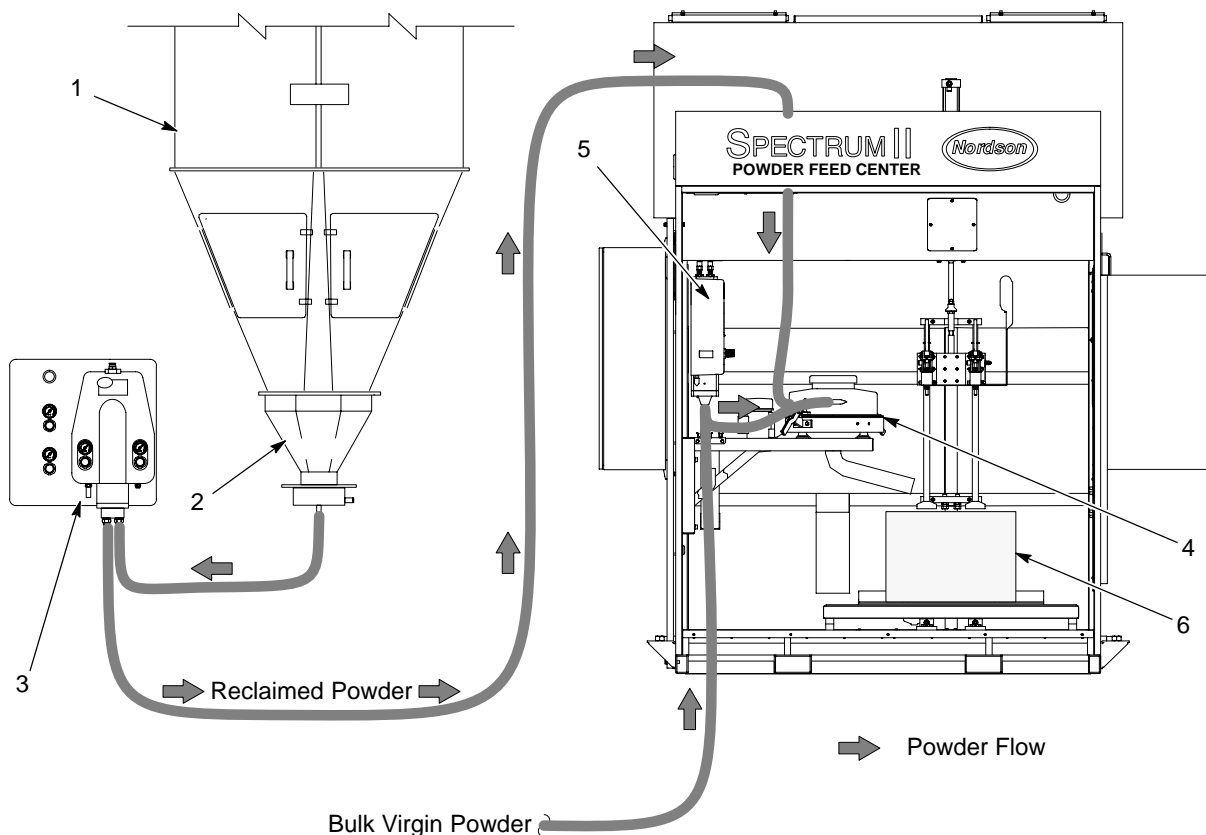


Figure 2-2 HDLV Transfer System Operation

- | | | |
|-----------------|-----------------|------------------------------|
| 1. Cyclones | 3. Reclaim pump | 5. Bulk virgin transfer pump |
| 2. Transfer pan | 4. Sieve | 6. Feed source |

Note: The bulk virgin transfer pump (5) is optional.

Section 3

Setup, Operation, and Maintenance



WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Initial Setup

Use the settings given in *Software Settings* and *HDLV Reclaim Pump Panel Air Pressure Settings* as guidelines for setting up your HDLV powder transfer system.

The settings listed in this manual are average starting points. Adjust the settings as necessary to suit your application requirements. After you have determined the settings that work best for your system, it is unlikely that you will have to adjust them again.

Software Settings

See Figure 3-1. From the **Setup Menu**, touch the **Transfer** button. The **Powder Transfer Setup** menu appears, allowing you to adjust the operating parameters of the HDLV powder transfer system.

Refer to Table 3-1 for the default **Powder Transfer Setup** menu settings.



Touch this button to view descriptions of the functions on the **Powder Transfer Setup** menu.

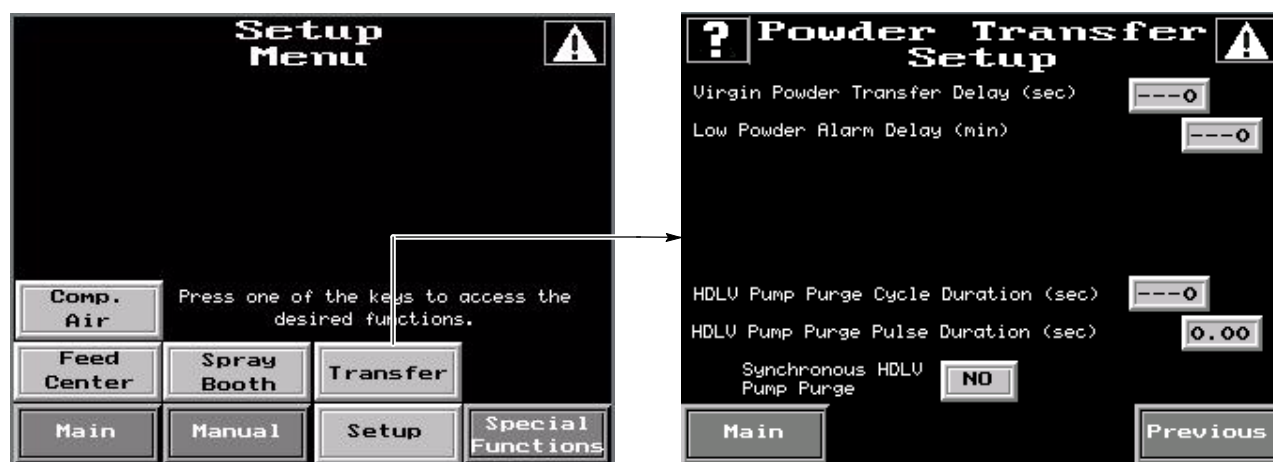


Figure 3-1 Software Settings

Table 3-1 Default Powder Transfer Setup Menu Settings

Function	Default Setting
Virgin Powder Transfer Delay (sec)	40
Low Powder Alarm Delay (min)	4
HDLV Pump Purge Cycle Duration (sec)	30
HDLV Pump Purge Pulse Duration (sec)	0.25
Synchronous HDLV Pump Purge	NO

HDLV Reclaim Pump Panel Air Pressure Settings

See Figure 3-2 and Table 3-2 for a description of the functions and typical air pressure settings for the regulators and gauges on the HDLV reclaim pump panel.

Table 3-2 HDLV Reclaim Pump Panel Air Pressure Settings

Heading	Description	Air Pressure Setting	Function
1	RECLAIM PUMP MANUAL PURGE Button	—	Allows the operator to manually send pulses of line air pressure through the reclaim pump during a color change.
2	RECLAIM TRANSFER PUMP SUPPLY	4.8 bar \pm 0.7 bar (70 psi \pm 10 psi)	Regulates the incoming air to the reclaim transfer pump.
3	TRANSFER PAN FLUIDIZE AIR	0.14-0.2 bar (2-3 psi)	Regulates fluidizing air pressure to the transfer pan at the bottom of the cyclones.
4	Conveying Air Regulator/Gauge	0.7-1.0 bar (10-15 psi)	Regulates the negative and positive air pressure that draws powder in and forces powder out of the pump.
5	Pinch Pressure Regulator/Gauge	2.4-2.75 bar (35-40 psi)	Regulates the air pressure being applied to the pinch valves.

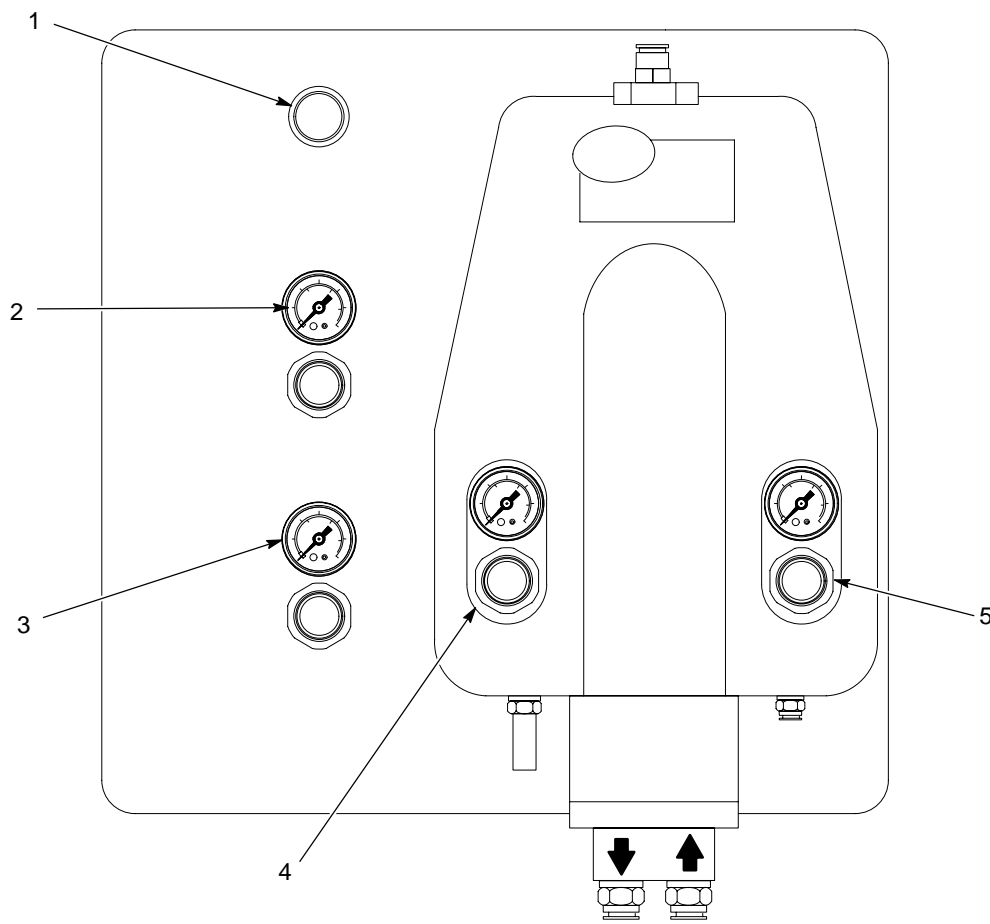


Figure 3-2 HDLV Reclaim Pump Panel

Operation

The HDLV powder transfer system may be operated either automatically or manually.

Automatic Operation

See Figure 3-3. The HDLV powder transfer system is typically controlled automatically. You may enable and disable the HDLV transfer system's automated functions using the **Auto Menu** and the **Color Change** menu.

Refer to the *Color Change* section of this manual for specific information about the functions on the **Auto Menu** and **Color Change** menu.

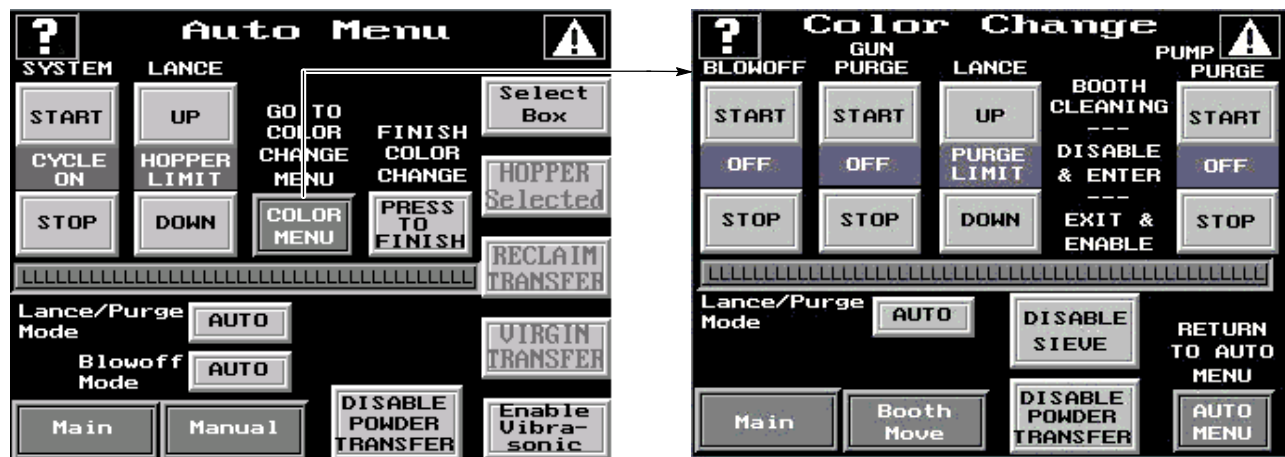


Figure 3-3 Automatic Control Menus

Manual Control

See Figure 3-4. From the **Manual Menu**, touch the **Feed Center** button. During troubleshooting and maintenance, you may manually enable and disable the HDLV transfer system's functions using the **Feed Center Control** menus.



Touch this button to view descriptions of the functions on the **Feed Center Control** menus.

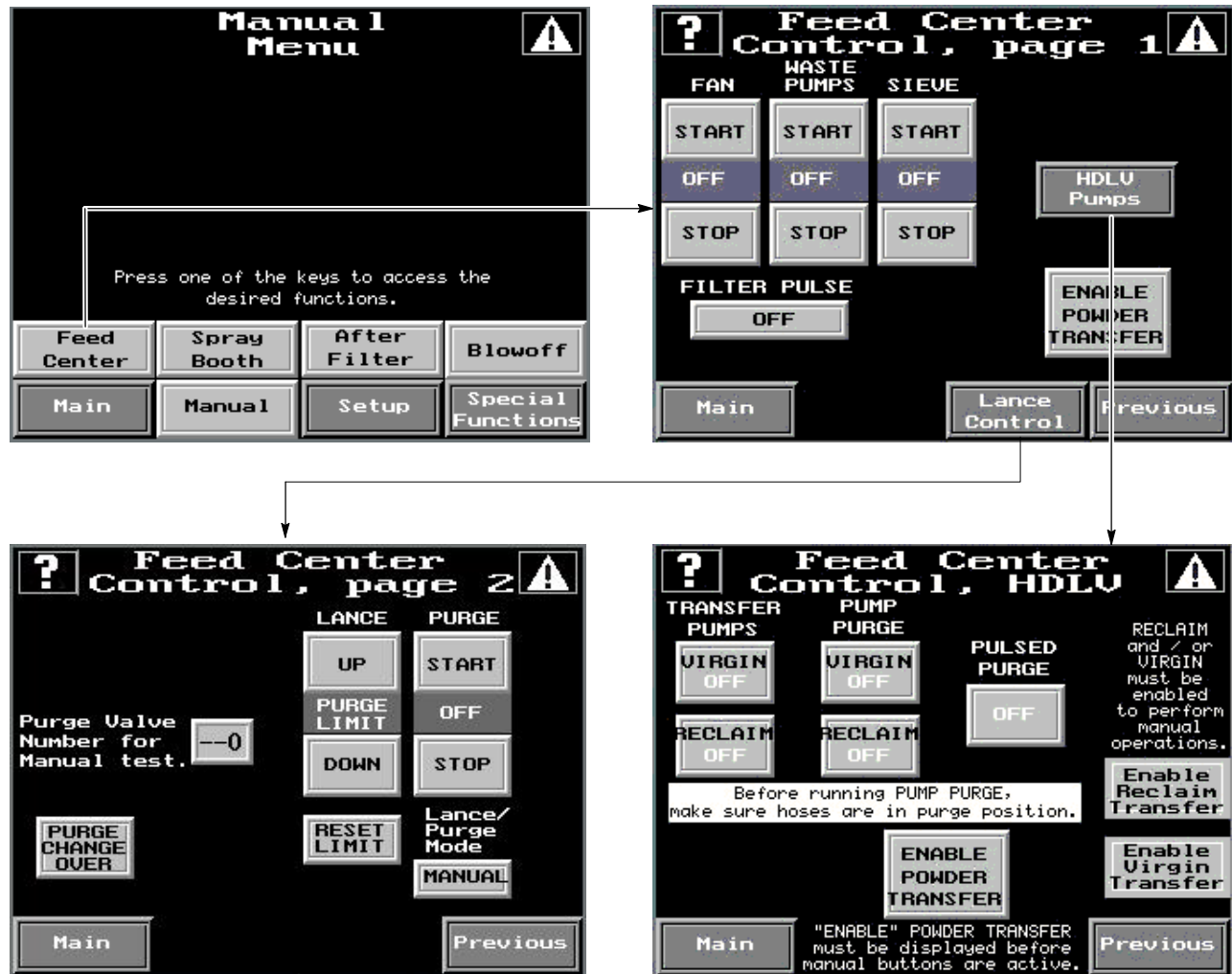

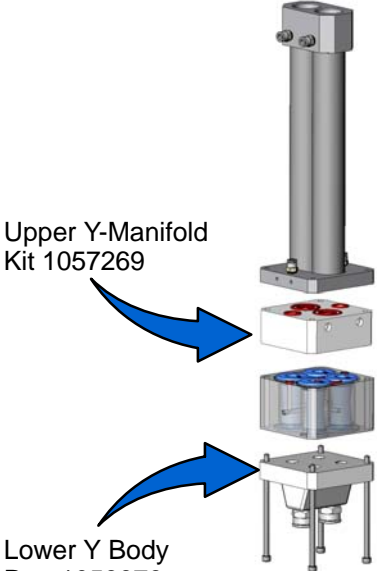


Figure 3-4 Manual Feed Center Control Menus

Maintenance

Component	Maintenance Procedure	
HDLV Reclaim and Bulk Feed Pumps	<p>Daily</p> <p>Inspect the pinch valve body for signs of powder leakage. If you see powder in the pinch valve body or stress cracks in the pinch valves, replace the pinch valves.</p>	 <p>Pinch Valves Kit 1092272</p>
	<p>Every Six Months or Each Time You Disassemble the Pump</p> <p>Disassemble the pump assembly and inspect the lower Y body and upper Y-manifold for signs of wear or impact fusion. Clean these parts in an ultrasonic cleaner if necessary.</p> <p>NOTE: To reduce downtime, keep a spare upper Y-manifold and lower Y body in stock to install while you are cleaning the other set.</p>	 <p>Upper Y-Manifold Kit 1057269</p> <p>Lower Y Body Part 1053976</p>
Fluidizing Plate (in transfer pan)	<p>Periodically clean the fluidizing plate and inspect it for signs of air contamination. If the plate is discolored and appears to be contaminated, replace it. Refer to <i>Transfer Pan Cleaning</i> for replacement instructions. Check your air supply and correct any contamination problems.</p>	
Transfer Pan	<p>Periodically disassembly and clean the transfer pan. Refer to Transfer Pan Cleaning for instructions.</p> <p>NOTE: The frequency with which you clean the transfer pan will depend on several factors, including powder type used and operator experience.</p>	

Transfer Pan Cleaning



CAUTION: Remove the plenum and fluid plate before cleaning the transfer pan. The solvent used to clean the transfer pan will damage the fluid plate and gasket.

Use the following procedures to clean the transfer pan or replace the fluidizing plate or gasket.

Disassemble the Transfer Pan

1. See Figure 3-5. Disconnect the 16-mm powder tubing (6) from the bulkhead union (7). Remove the bulkhead union from the discharge tube (4).
2. Remove the plenum (3) from the transfer pan (11) by removing the eight bolts (10) and nuts (9).
3. Remove the jam nut (8) and sealing washer (4) from the discharge tube. Use two wrenches: one on the flats of the discharge tube and the other on the jam nut.
4. Lift the fluidizing plate (1) with gasket (2) and discharge tube out of the plenum. Unscrew the discharge tube from the fluidizing plate.
5. Remove the gasket from the fluidizing plate and inspect both parts. If either part is damaged, replace it.

NOTE: If you replace the fluidizing plate, replace the gasket, too.

Clean the Transfer Pan



CAUTION: Remove the plenum and fluid plate before cleaning the transfer pan. The solvent used to clean the transfer pan will damage the fluid plate and gasket.

Clean any impact-fused powder from the inside of the transfer pan using solvent.

Assemble the Transfer Pan



CAUTION: Install the discharge tube into the threaded side of the fluidizing plate. (The threaded side is marked with a black dot.) Installing the discharge tube incorrectly may damage the fluidizing plate or discharge tube and cause leakage around the fluidizing plate.

1. See Figure 3-5. Install the discharge tube (5) into the threaded side of the fluidizing plate (1) until the discharge tube is either
 - flush with the opposite side of the fluidizing plate, or
 - bottoms out against the fluid plate.Do not over tighten the discharge tube.
2. Install the fluidizing plate, gasket (2), and discharge tube assembly into the plenum (3).
3. Install the sealing washer (4) and jam nut (8) onto the end of the discharge tube. Tighten the jam nut snugly using two wrenches: one on the flats of the discharge tube and the other on the jam nut. Do not over tighten the jam nut.
4. Install the plenum assembly onto the bottom of the transfer pan (11) using the eight bolts (10) and nuts (9).
5. Install the bulkhead union (7) onto the discharge tube and connect the 16-mm powder tubing to the bulkhead union.

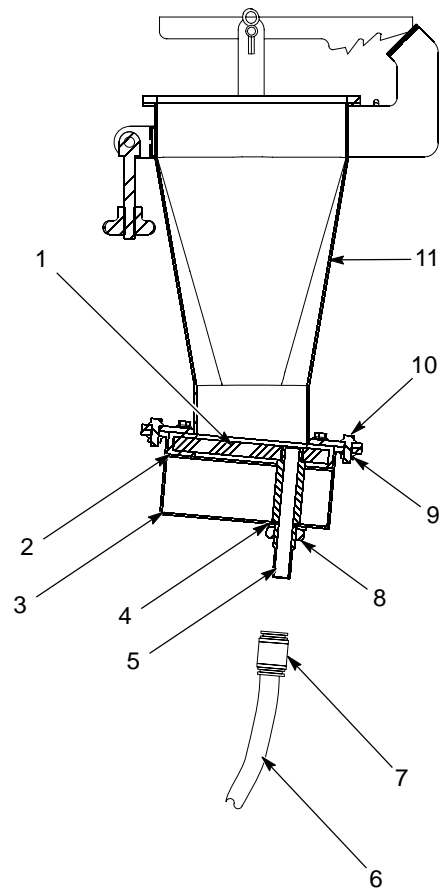


Figure 3-5 Transfer Pan Cleaning

- | | |
|------------------------|-------------------|
| 1. Fluidizing plate | 7. Bulkhead union |
| 2. Gasket | 8. Jam nut |
| 3. Plenum | 9. Nuts |
| 4. Sealing washer | 10. Bolts |
| 5. Discharge tube | 11. Transfer pan |
| 6. 16-mm transfer line | |

Troubleshooting

Refer to the *Prodigy High-Capacity HDLV Pump* manual, part 1053991, for detailed troubleshooting information.

Section 4

Color Change



WARNING: Allow only qualified personnel to perform the following tasks. Follow the safety instructions in this document and all other related documentation.

Introduction

Use the following procedures to change powder colors. Follow the procedures listed in your system and application equipment manuals to clean the booth canopy and powder application equipment.

The operators start the automated tasks of the color change process by using the **Color Change** and **Auto Menu** screens.

NOTE: Your powder coating system may not have all of the equipment or functions described in this section. Disregard any steps that refer to equipment or functions that are not present in your system.

Types of Color Changes

Refer to Table 4-1 for descriptions of the two types of color changes.

Table 4-1 Types of Color Changes

Color Change Type	Description
Similar Shade	When changing from either <ul style="list-style-type: none"> • a light powder to another light powder, or • a dark powder to another dark powder.
Different Shade or Different Powder Type	When changing from either <ul style="list-style-type: none"> • a light powder to a dark powder, • a dark powder to a light powder, • a standard powder to a special powder, or • a special powder to a standard powder.
NOTE: The time that it takes to perform a different shade/powder type color change will depend on how many spray guns are in your system.	

Performing a Color Change

Two operators typically perform the color change process. The two operators are responsible for cleaning the following things:

Operator	Responsible for these Booth Components	Refer to this Documentation
A	<ul style="list-style-type: none">Booth interiorCyclones and/or color module	Powder coating system manual
B	Powder feed center	<i>Color Change Process</i> on page 4-4

Operators A and B typically perform their respective color change procedures at the same time.

Menu Navigation

Figure 4-1 illustrates how to access the menus necessary to perform a color change.



Touch this button to view descriptions of the settings on the current menu.

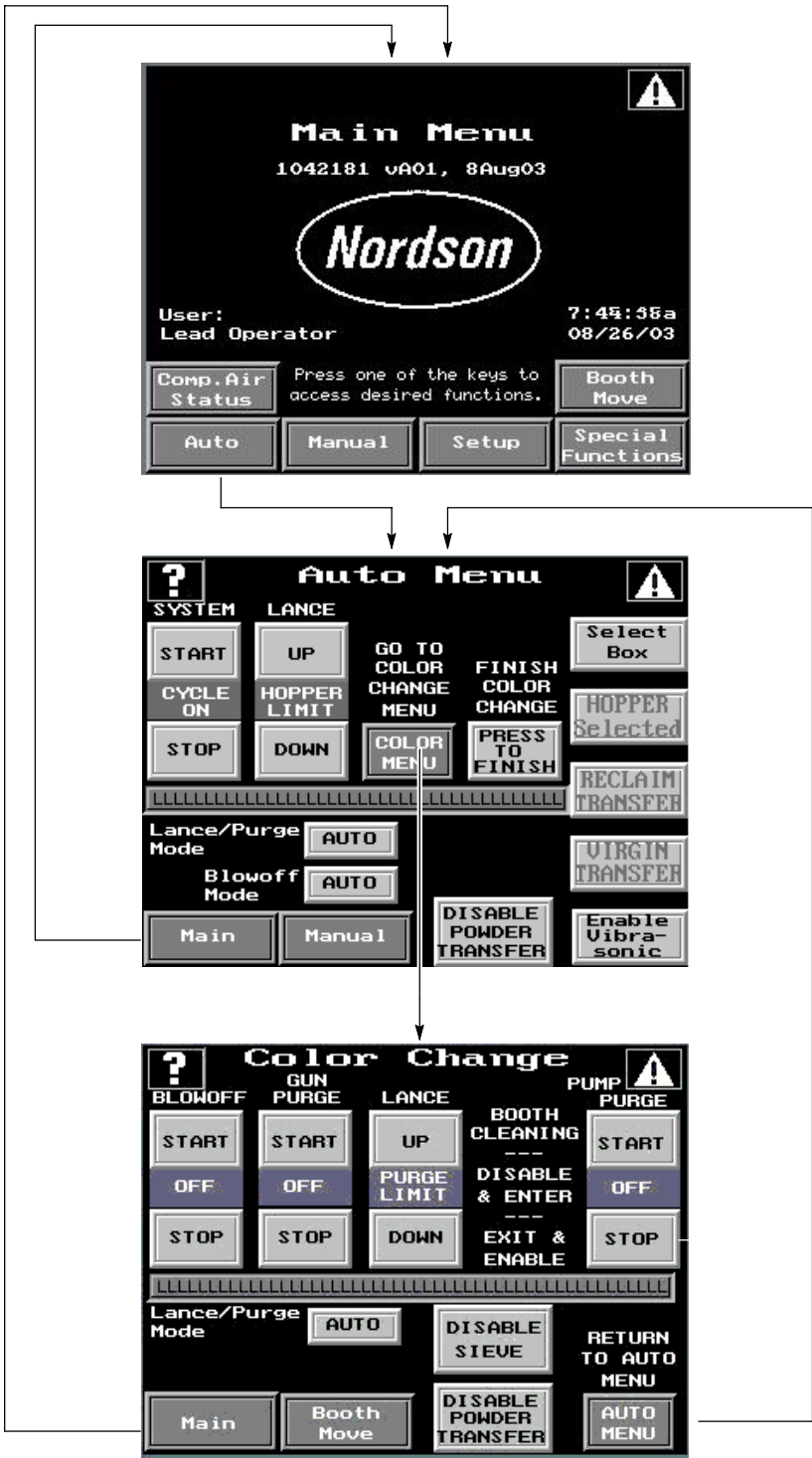


Figure 4-1 Color Change Menu Navigation

Color Change Process

NOTE: Refer to the *Color Change* section in your quick-color change powder coating system manual for a more detailed description of the booth cleaning process.

Procedure	Tasks	
	Operator A See Figure 4-2	Operator B See Figure 4-3
NOTE: If the optional bulk virgin powder feed system is enabled before a color change, the bulk feed pump will be purged during Procedure 4. If it is not enabled, a message will appear after you touch the BLOWOFF START button, asking whether or not to allow bulk feed pump purge.		
1	Close the booth doors and, if applicable, move the booth offline.	
2	From the Color Change menu, touch the BLOWOFF START button. If prompted, touch the YES button to allow the virgin pump to purge. The system automatically performs the following tasks: NOTE: Perform procedure 3 while the system is performing these tasks. NOTE: To interrupt the gun blow-off cycle, touch the BLOWOFF STOP button. <ul style="list-style-type: none"> • A message appears, asking whether to allow virgin pump purge. • HDLV bulk feed pump stops. HDLV reclaim pump continues to cycle. • Oscillators (if used) stop and the spray guns move into the fully extended position. • Feed center vibrating table stops and lance assembly raises. • In/out gun positioners retract (one at a time) and powder is blown off the spray guns. When the gun blow-off cycle is complete, the COLOR CHANGE CYCLE DONE indicator flashes.	
3	1. Blow off the door seams from the outside at the cyclone end of the booth. 2. See Figure 4-3 Disconnect all hoses from the sieve deck (4) and park them in the purge chute (1). 3. See Figure 4-3 If your powder feed center has an optional virgin bulk feed system, disconnect the transfer hose from the bulk feed pickup tube and park the hose in the transfer hose purge chute (1).	1. From the Color Change menu, touch the DISABLE SIEVE button. 2. Unclamp the sieve and turn the chute (6) until it is directly over the purge chute (1). 3. Disconnect all hoses from the sieve deck (4) and park them in the purge chute (1). NOTE: If you are using the optional fluidizing hopper, set the fluidizing air to zero and disconnect the air tubing before removing the hopper from the feed center. 4. Remove the powder source from the feed center.

Continued...

Procedure	Operator A See Figure 4-2	Operator B See Figure 4-3
4	<p>Touch the GUN PURGE START button, then push the PUMP PURGE START button twice. The system automatically performs the following tasks:</p> <p>NOTE: Perform procedure 5 while the system is performing these tasks.</p> <p>NOTE: To interrupt the gun purge cycle, touch the GUN PURGE STOP button. To interrupt the pump purge cycle, touch the PUMP PURGE STOP button.</p> <ul style="list-style-type: none"> • Lance assembly lowers onto the purge manifold. • Purge manifold sends pulses of air through the lances, pumps, hoses, and spray guns. • Lance assembly raises. • Pulses of air purge the HDLV reclaim pump and HDLV bulk feed pump, if applicable. <p>When the gun purge cycle is complete, the COLOR CHANGE CYCLE DONE indicator flashes.</p>	
5	After HDLV reclaim pump (2) has purged for 5-10 seconds, open the transfer pan (4) while the pump continues to purge. Latch the pan open and blow out all powder remaining in the pan.	Blow powder off the lance assembly (2).

Continued...

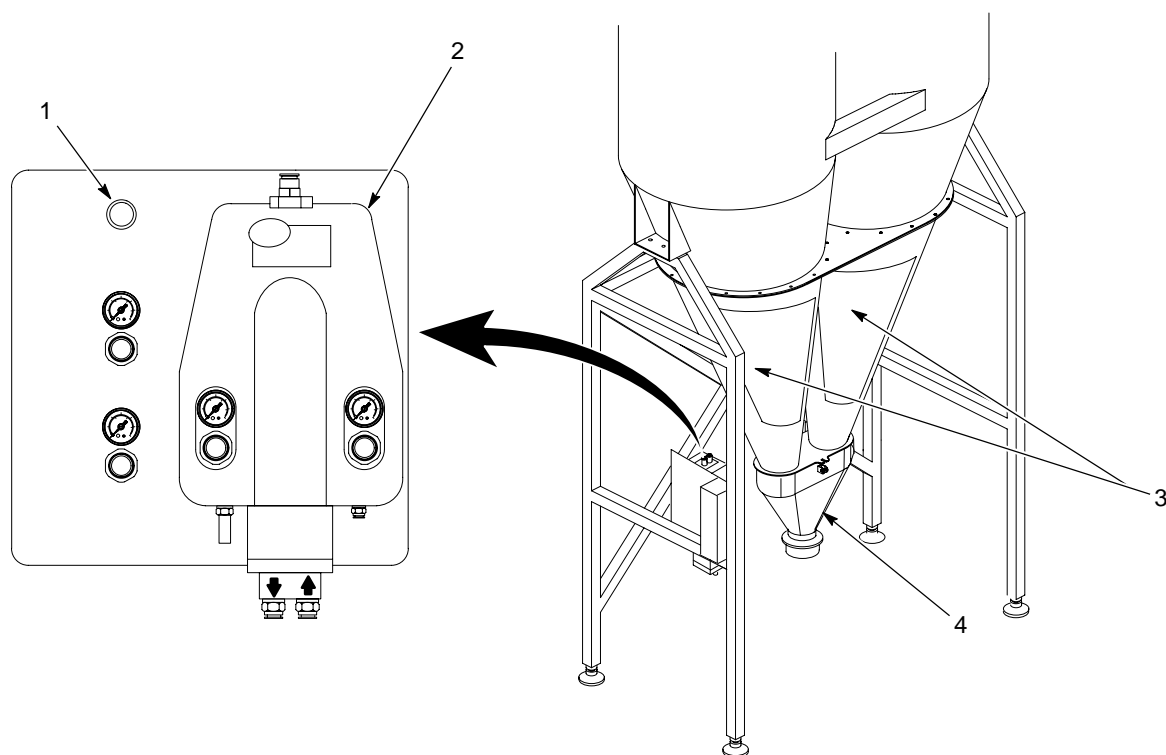


Figure 4-2 Operator A Color Change Tasks

1. MANUAL PURGE button

3. Cyclone access doors

4. Transfer pan

2. HDLV reclaim pump

Color Change Process *(contd)*

Procedure	Tasks	
	Operator A See Figure 4-2	Operator B See Figure 4-3
6	<ol style="list-style-type: none"> 1. Turn the OPERATION keyswitch on the system control panel to the DISABLE position. This disables in/out gun positioner and oscillator operation. 2. Blow off door sills at the entry end of the booth and clean the booth interior. Refer to your powder coating system manual for booth cleaning instructions. 	<ol style="list-style-type: none"> 1. Disconnect the transfer hoses from the sieve deck (4). Remove the sieve deck and blow the powder off the inside and outside surfaces of the deck, including the hose inlets. Set the deck aside. <p>NOTE: If your system has the optional Vibrasonic sieve screen, unplug the Vibrasonic transducer cable from its support bracket and use caution when cleaning around the screen's Vibrasonic transducer.</p> <ol style="list-style-type: none"> 2. Remove the sieve screen (5). <p>Similar Shade Color Change:</p> <ol style="list-style-type: none"> a. Blow off the sieve screen and pan/chute (6). b. Assemble the sieve and turn the pan until the chute is pointed toward the lance assembly (2). Clamp the sieve. c. Install the appropriate powder source. <p>Different Shade Color Change:</p> <ol style="list-style-type: none"> a. Set the sieve screen aside to clean later. Blow off the sieve deck and pan/chute (6). b. Install the new sieve screen. Assemble the sieve and turn the pan until the chute is pointed toward the lance assembly (2). Clamp the sieve.
7	<ol style="list-style-type: none"> 1. Blow out any remaining powder in the transfer pan (4) while pressing the MANUAL PURGE button (1). 2. Open the cyclone access doors (3) and blow off all interior surfaces of the cyclones. 3. Close and latch the cyclone access doors. <p>Spray-to-Reclaim Mode Operation: Close and latch the transfer pan.</p> <p>Spray-to-Waste Mode Operation: Leave the transfer pan open.</p>	Connect the transfer hoses to the sieve deck.

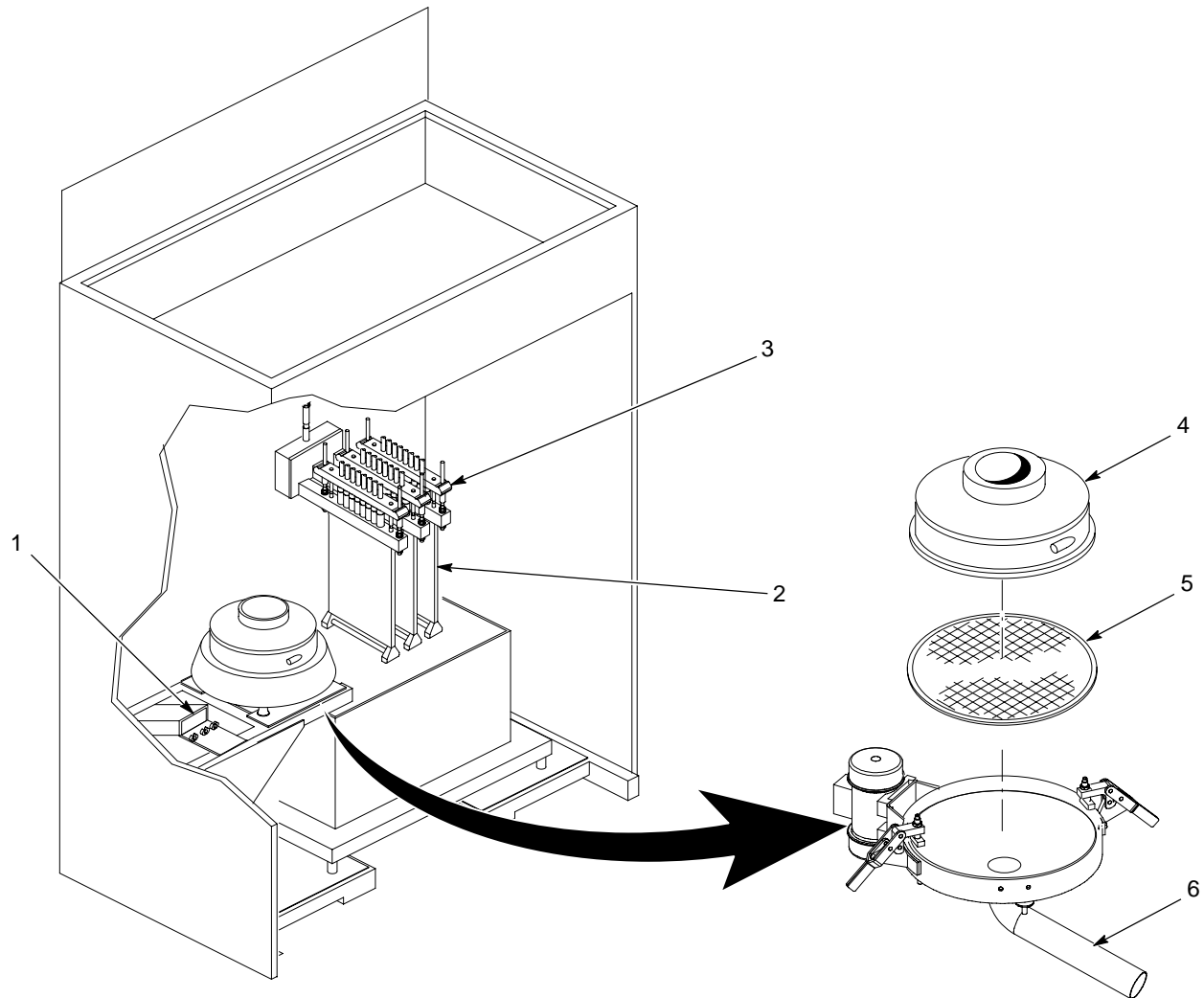


Figure 4-3 Operator B Color Change Tasks

- | | |
|-------------------|-----------------------|
| 1. Purge chute | 3. Feed hose manifold |
| 2. Lance assembly | 4. Sieve deck |

- | |
|--------------------|
| 5. Sieve screen |
| 6. Sieve pan/chute |

Note: Optional HDLV bulk feed pump not shown.

Color Change Process *(contd)*

Procedure	Tasks	
	Operator A See Figure 4-2	Operator B See Figure 4-3
NOTE: Perform procedure 8 only if you are performing a different shade color change. If you are performing a similar shade color change, proceed to procedure 9.		
8	Remove the powder feed hose from each spray gun and install the other feed hose.	<ol style="list-style-type: none"> 1. Remove the feed hose manifolds (3) from the lance assembly (2). Store the feed hoses and manifold assemblies in the appropriate hose locker. 2. Blow down into the powder pumps on the lance assembly to clear away any remaining powder. 3. Remove the appropriate feed hoses and manifold assemblies from the hose locker and install them onto the lance assembly. 4. Install the new powder feed source, connect the fluidizing air tubing, and set the fluidizing air to 0.3 bar (5 psi), if applicable.
9	<ol style="list-style-type: none"> 1. From the Color Change menu, touch the ENABLE SIEVE button. 2. From the Color Change menu, touch the AUTO MENU button. 3. From the Auto Menu, touch the FINISH COLOR CHANGE PRESS TO FINISH button. The spray guns move back into the booth and begin oscillating, if applicable. 4. From the Auto Menu, touch the ENABLE POWDER TRANSFER button. 5. Touch either the Select Box or Select Hopper button to lower the lance assembly to the appropriate location. 6. Touch the following buttons to specify how the system will operate for this color run: <p>Enable Reclaim Transfer: Operates the booth in spray-to-reclaim mode</p> <p>Enable Virgin Transfer: Turns on the bulk feed system</p> <p>Enable Vibrasonic: Turns on the Vibrasonic sieve screen</p> <p>NOTE: After a few minutes, the powder in the feed source will fluidize and the system will start spraying powder. Spray approximately 0.5 kg (one lb) of powder to waste before performing procedure 10. The amount of time that it will take to spray 0.5 kg (one lb) of powder will vary depending on the components in your system. Spraying the powder to waste seasons the ducts and cyclones to allow for more effective powder reclaim.</p>	
10	Bulk Feed Systems Only: Connect the bulk feed hose to the pickup tube and install it into the bulk powder source.	Spray-to-Reclaim Mode Operation Only: Remove the reclaim and bulk feed (if applicable) transfer hoses from the purge chute (1) and connect them to the sieve deck ports (4).

Section 5

Parts

Introduction

To order parts, call the Nordson Finishing Customer Support Center at (800) 433-9319 or contact your local Nordson representative.

Using the Illustrated Parts List

Numbers in the Item column correspond to numbers that identify parts in illustrations following each parts list. The code NS (not shown) indicates that a listed part is not illustrated. A dash (—) is used when the part number applies to all parts in the illustration.

The number in the Part column is the Nordson Corporation part number. A series of dashes in this column (- - - -) means the part cannot be ordered separately.

The Description column gives the part name, as well as its dimensions and other characteristics when appropriate. Indentions show the relationships between assemblies, subassemblies, and parts.

- If you order the assembly, items 1 and 2 will be included.
- If you order item 1, item 2 will be included.
- If you order item 2, you will receive item 2 only.

The number in the Quantity column is the quantity required per unit, assembly, or subassembly. The code AR (As Required) is used if the part number is a bulk item ordered in quantities or if the quantity per assembly depends on the product version or model.

Letters in the Note column refer to notes at the end of each parts list. Notes contain important information about usage and ordering. Special attention should be given to notes.

Item	Part	Description	Quantity	Note
—	0000000	Assembly	1	
1	000000	• Subassembly	2	A
2	000000	• • Part	1	

HDLV Reclaim Pump Panel

See Figure 5-1.

Item	Part	Description	Quantity	Note
1	303132	VALVE, $\frac{3}{4}$ in. in/out, air operated	1	
2	1064551	VALVE, push button, control	1	
3	226715	GAUGE, air, 0-100 psi, panel mount	1	
4	1058680	REGULATOR, 7-125 psi, panel mount	1	
5	226714	GAUGE, air, 0-30 psi, panel mount	1	
6	1057513	REGULATOR, 0-30 psi, panel mount	1	
7	1092240	PUMP ASSEMBLY, high-capacity HDLV, Generation II, packaged	1	A
8	-----	CONNECTOR, male, elbow, 8 mm x $\frac{1}{4}$ in. NPT	2	
9	-----	NUT, hex, serrated, $\frac{1}{4}$ -20, steel, zinc	6	
10	-----	SCREW, hex, serrated $\frac{1}{4}$ -20 x 0.75 in., steel, zinc	4	
11	-----	CONNECTOR, male, elbow, 6 mm x $\frac{3}{8}$ NPT	2	
12	-----	CONNECTOR, male, 6 mm x $\frac{1}{8}$ in. NPT	4	
13	-----	CONNECTOR, female, 6 mm x $\frac{1}{8}$ in. NPT	2	
14	-----	SCREW, hex head, self tapping, $\frac{1}{4}$ -20 x 1.00 in., steel, zinc	2	

NOTE A: Refer to the *Prodigy High-Capacity HDLV Pump* manual, part 1092270, for a breakdown of the parts included in this assembly.

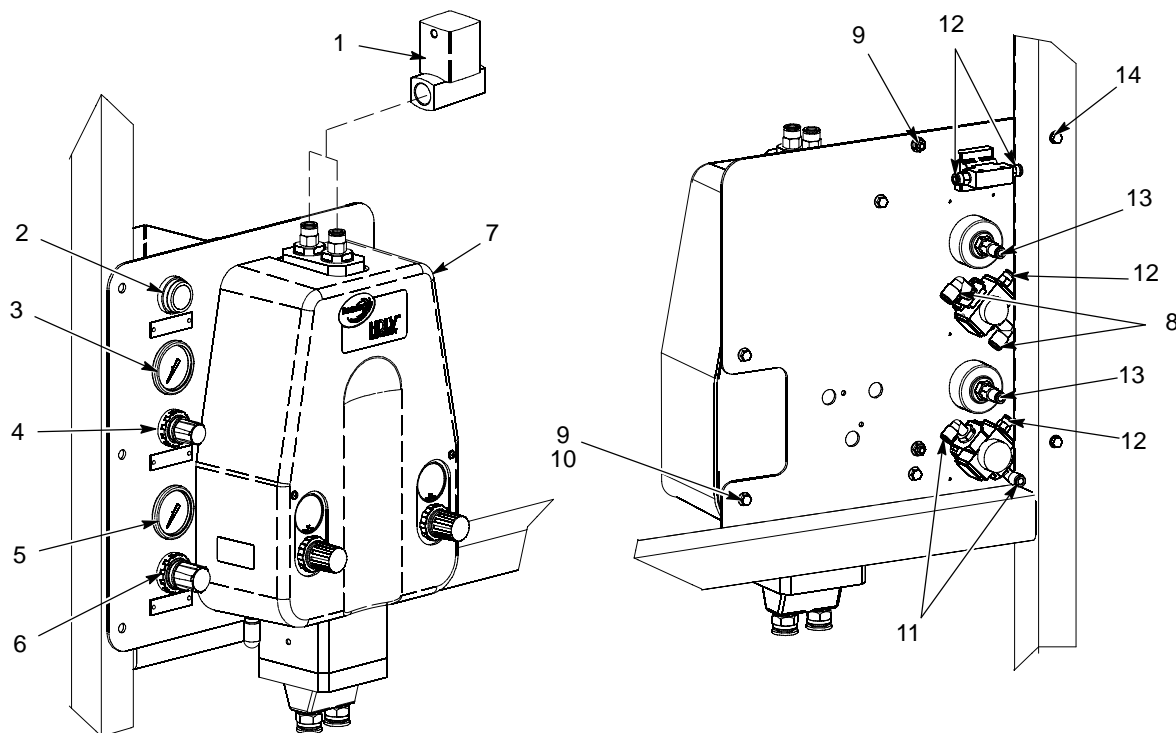


Figure 5-1 HDLV Reclaim Pump Panel Parts

Transfer Pan

See Figure 5-2.

Item	Part	Description	Quantity	Note
1	1062989	GASKET, transfer pan, HDLV	1	
2	1062693	PLATE, fluidizing, transfer pan, HDLV	1	
3	1062694	GASKET, fluid plate, pan, transfer, HDLV	1	
4	-----	NUT, hex, jam, M20	1	
5	-----	BULKHEAD UNION, 16 mm	1	
6	-----	TUBE, discharge, transfer pan, HDLV	1	
7	-----	WASHER, sealing, $\frac{3}{4}$ pipe size	1	
8	-----	NUT, hex, serrated, $\frac{1}{4}$ -20, steel, zinc	8	
9	-----	SCREW, hex, serrated, $\frac{1}{4}$ -20 x 0.750 in., steel, zinc	8	
10	1064551	KIT, latch, transfer pan, cyclone	1	
11	-----	• LATCH, retainer, pan	1	
12	-----	• PIN, clevis, 0.31 dia x 1.25 in. long	1	
13	-----	• PIN, cotter, 0.125 in.	1	
14	-----	• SPRING, torsion	1	

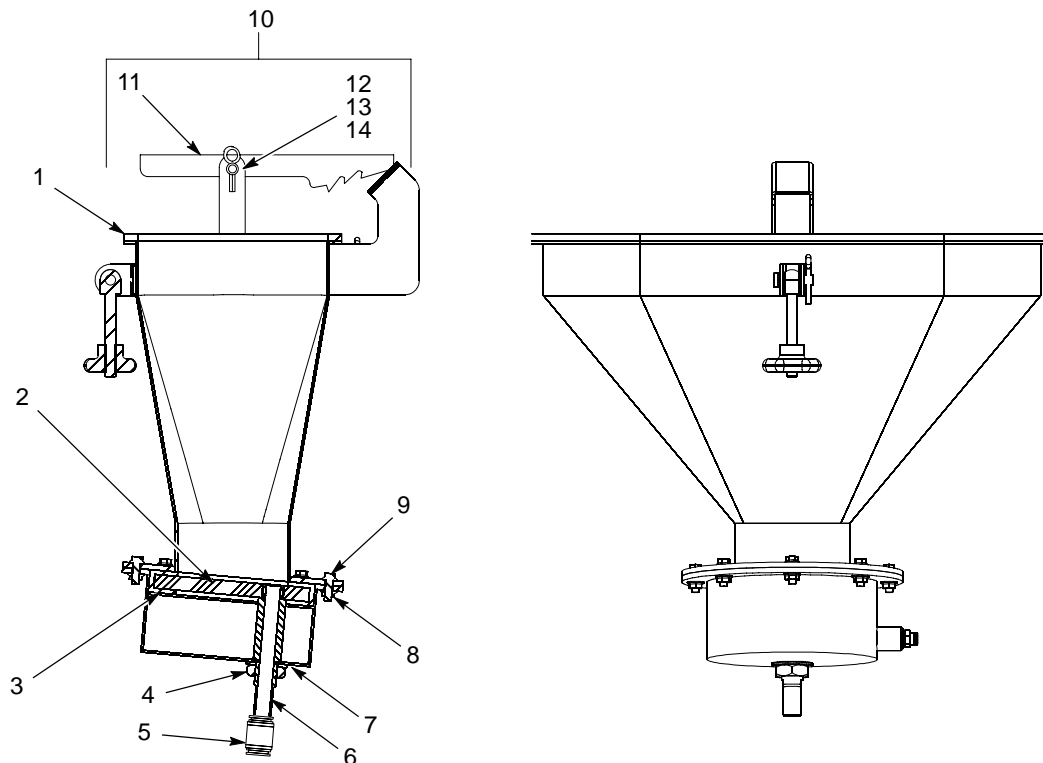


Figure 5-2 Transfer Pan Parts

Optional Bulk Feed System Parts

Part	Description	Note
1014553	PROBE, level sensor, normally closed, quick disconnect, M18	
1092240	PUMP ASSEMBLY, high-capacity HDLV, Generation II, packaged	

Section 6

Tubing Diagrams

HDLV Reclaim Pump Panel

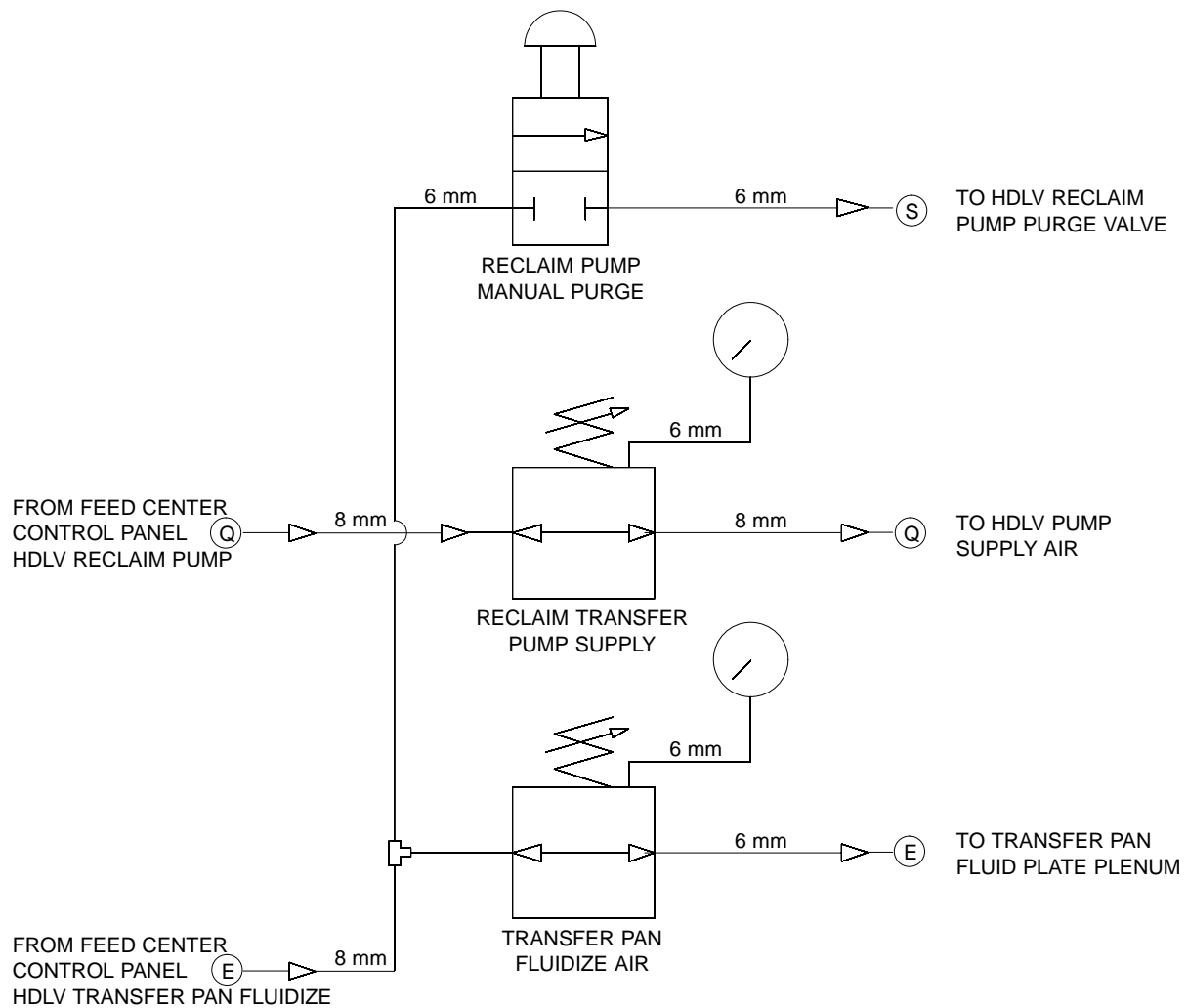


Figure 6-1 HDLV Reclaim Pump Panel Tubing Diagram

System Tubing Diagram

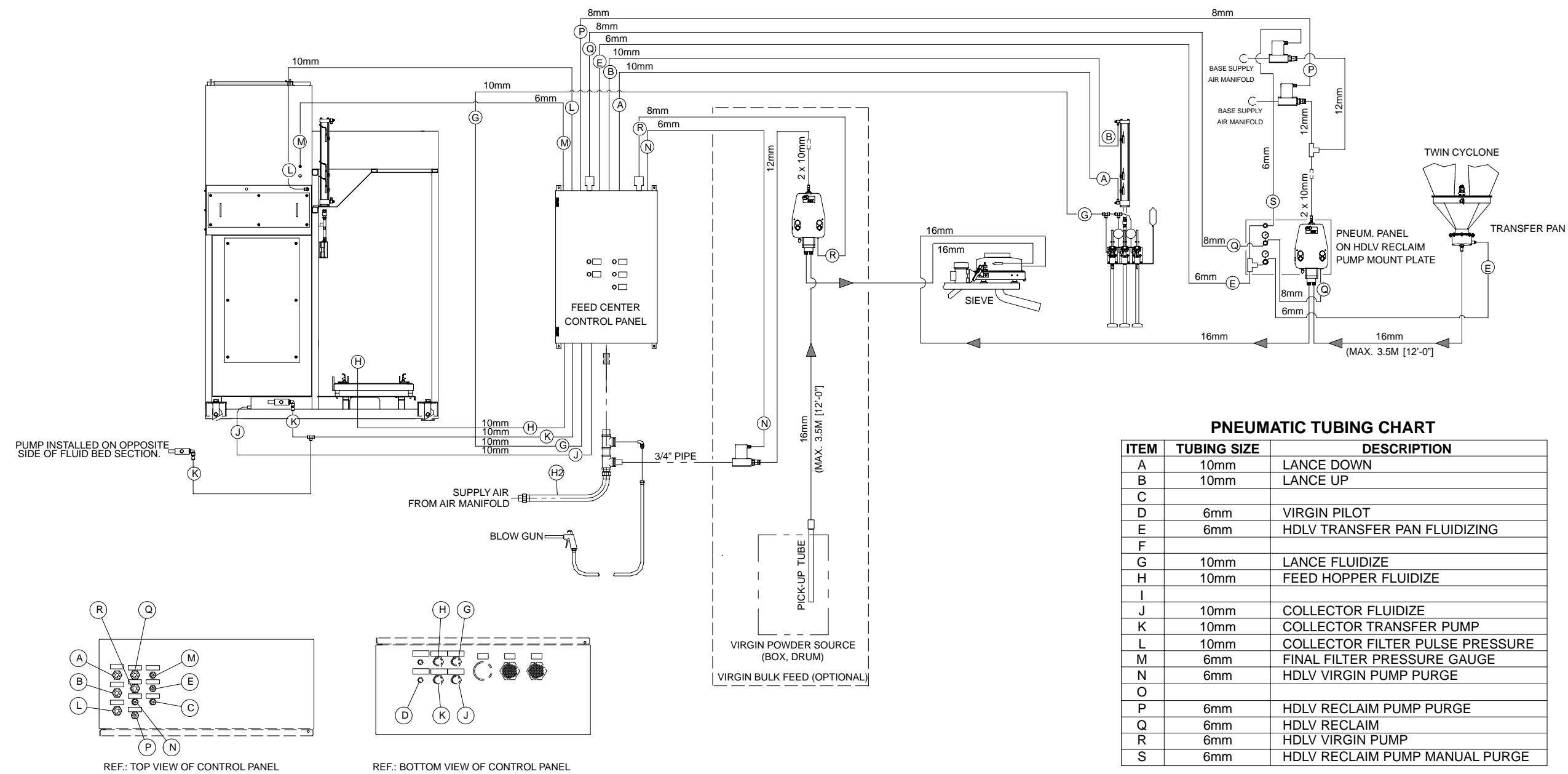


Figure 6-2 System Tubing Diagram