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TRIBOMATIC® THREAD COAT™ SYSTEM

PUBLICATION P/N 108 016A

Nordson®

NORDSON CORPORATION

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Safety
Powder Spray Systems

1. Introduction

This section contains general safety instructions for using your Nordson equipment. Task- and equipment-specific warnings are included in other sections of this manual where appropriate. Note all warnings and follow all instructions carefully. Failure to do so may result in personal injury, death, or property damage.

To use this equipment safely,

- read and become familiar with the general safety instructions provided in this section of the manual before installing, operating, maintaining, or repairing this equipment.
- read and carefully follow the instructions given throughout this manual for performing specific tasks and working with specific equipment.
- store this manual within easy reach of personnel installing, operating, maintaining, or repairing this equipment.
- follow all applicable safety procedures required by your company, industry standards, and government or other regulatory agencies. Refer to the National Fire Protection Association (NFPA) standard 33 and to federal, state, regulatory agency, and local codes for rules and regulations covering installation and operation of powder spray systems.
- obtain and read Material Safety Data Sheets (MSDS) for all materials used.

2. Safety Symbols

Become familiar with the safety symbols presented in this section. These symbols will alert you to safety hazards and conditions that may result in personal injury, death, or property and equipment damage.

WARNING: Failure to observe this warning may result in personal injury, death, or equipment damage.

2. Safety Symbols *(contd.)*

WARNING: Risk of electrical shock. Failure to observe this warning may result in personal injury, death, or equipment damage.

WARNING: Disconnect equipment from line voltage. Failure to observe this warning may result in personal injury, death, or equipment damage.

WARNING: Risk of explosion or fire. Fire, open flames, and smoking prohibited.

WARNING: Wear protective clothing, safety goggles, and approved respiratory protection. Failure to observe may result in serious injury.

WARNING: System or material pressurized. Relieve pressure. Failure to observe this warning may result in serious injury or death.

CAUTION: Failure to observe may result in equipment damage.

3. Qualified Personnel

"Qualified personnel" is defined here as individuals who thoroughly understand the equipment and its safe operation, maintenance, and repair. Qualified personnel are physically capable of performing the required tasks, familiar with all relevant safety rules and regulations, and have been trained to safely install, operate, maintain, and repair the equipment. It is the responsibility of the company operating the equipment to see that its personnel meet these requirements.

4. Intended Use

WARNING: Use of this equipment in ways other than described in this manual may result in personal injury, death, or property and equipment damage. Use this equipment only as described in this manual.

Nordson Corporation cannot be responsible for injuries or damages resulting from nonstandard, unintended applications of its equipment. This equipment is designed and intended only for the purpose described in this manual. Uses not described in this manual are considered unintended uses and may result in serious personal injury, death, or property damage. Unintended uses may result from taking the following actions:

- making changes to equipment that have not been recommended or described in this manual or using parts that are not genuine Nordson replacement parts.
- failing to make sure that auxiliary equipment complies with approval agency requirements, local codes, and all applicable safety standards
- using materials or auxiliary equipment that are inappropriate or incompatible with your Nordson equipment
- allowing unqualified personnel to perform any task

5. Installation

Read the installation section of all system component manuals before installing your equipment. A thorough understanding of system components and their requirements will help you install the system safely and efficiently.

- Allow only qualified personnel to install Nordson and auxiliary equipment.
- Use only approved equipment. Using unapproved equipment in an approved system may void agency approvals.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Follow all instructions for installing components and accessories.
- Install all electrical, pneumatic, gas, and hydraulic connections to local code.

5. Installation *(contd.)*

- Install locking, manual, shutoff valves in the air supply lines to the system. This allows you to relieve air pressure and lock out the pneumatic system before undertaking maintenance and repairs.
- Install a locking disconnect switch or breaker in the service line ahead of any electrical equipment.
- Use only electrical wire of sufficient gauge and insulation to handle the rated current demand. All wiring must meet local codes.
- Ground all electrically conductive equipment within 10 feet (3 meters) of the spray area. Ungrounded conductive equipment can store a static charge which could ignite a fire or cause an explosion if a hot spark is discharged.
- Route electrical wiring, electrostatic cables, and air hoses and tubing along a protected path. Make sure they will not be damaged by moving equipment. Do not bend electrostatic cables around a radius of less than 6 in. (152 mm).
- Install safety interlocks and approved, fast-acting fire detection systems. These shut down the spray system if the booth exhaust fan fails, a fire is detected, or other emergency situation develops.
- Make sure the spray area floor is conductive to ground and that the operator's platform is grounded.
- Use only designated lifting points or lugs to lift and move heavy equipment. Always balance and block loads when lifting to prevent shifting. Lifting devices must be inspected, certified, and rated for a greater weight than the equipment being lifted.
- Protect components from damage, wear, and harsh environmental conditions.
- Allow ample room for maintenance, material supply container drop-off and loading, panel accessibility, and cover removal.
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning.

6. Operation

Only qualified personnel, physically capable of operating the equipment and with no impairments to their judgement or reaction times, should operate this equipment.

Read all component manuals before operating a powder spray system. A thorough understanding of all components and their operation will help you operate the system safely and efficiently.

- Use this equipment only in the environments for which it is rated. Do not operate this equipment in humid, flammable, or explosive environments unless it has been rated for safe operation in these environments.

- Before starting this equipment, check all safety interlocks, fire-detection systems, and protective devices such as panels and covers. Make sure all devices are fully functional. Do not operate the system if these devices are not working properly. Do not deactivate or bypass automatic safety interlocks or locked-out electrical disconnects or pneumatic valves.

- Know where EMERGENCY STOP buttons, shutoff valves, and fire extinguishers are located. Make sure they work. If a component malfunctions, shut down and lock out the equipment immediately.

- Before operating, make sure all conductive equipment in the spray area is connected to a true earth ground.

- Never operate equipment with a known malfunction or leak.

- Do not attempt to operate electrical equipment if standing water is present.

- Never touch exposed electrical connections on equipment while the power is ON.

- Do not operate the equipment at pressures higher than the rated maximum working pressure of any component in the system.

- Know the pinch points, temperatures, and pressures for all equipment that you are working with. Recognize potential hazards associated with these and exercise appropriate caution.

- Wear shoes with conductive soles, such as leather, or use grounding straps to maintain a connection to ground when working with or around electrostatic equipment.

6. Operation (contd.)

- Do not wear or carry metallic objects (jewelry or tools) while working with or around electrostatic equipment. Ungrounded metal can store a static charge and cause harmful shocks.

- Maintain skin-to-metal contact between your hand and the gun handle to prevent shocks while operating manual electrostatic spray guns. If wearing gloves, cut away the palm or fingers.

- Keep parts of the body or loose clothing away from moving equipment or parts. Remove personal jewelry and cover or tie back long hair.

- Wear National Institute of Occupational Safety and Health (NIOSH) approved respirators, safety glasses or goggles, and gloves, and while handling powder containers, filling hoppers, operating spray equipment, and performing maintenance or cleaning tasks. Avoid getting powder coatings on your skin.

- Never point manual guns at yourself or other persons.

- Do not smoke in the spray area. A lit cigarette could ignite a fire or cause an explosion.

- If you notice electrical arcing in a spray area, shut down the system immediately. An arc can cause a fire or explosion.

- Shut off electrostatic power supplies and ground gun electrodes before making adjustments to powder spray guns.

- Shut off moving equipment before taking measurements or inspecting workpieces.

- Wash exposed skin frequently with soap and water, especially before eating or drinking. Do not use solvents to remove coating materials from your skin.

- Do not use high-pressure compressed air to blow powder off your skin or clothes. High-pressure compressed air can be injected under the skin and cause serious injury or death. Treat all high-pressure fittings and hoses as if they could leak and cause injury.

7. Less-obvious Dangers

Operators should also be aware of less-obvious dangers in the workplace that often cannot be completely eliminated:

- exposed surfaces on the equipment which may be hot or have sharp edges and cannot be practically safeguarded
- electrical equipment which may remain energized for a period of time after the equipment has been shut off
- vapors and materials which may cause allergic reactions or other health problems
- automatic hydraulic, pneumatic, or mechanical equipment or parts that may move without warning
- unguarded, moving mechanical assemblies

8. Action in the Event of a System or Component Malfunction

Do not operate a system that contains malfunctioning components. If a component malfunctions, turn the system OFF immediately.

- Disconnect and lock out electrical power. Close and lock out hydraulic and pneumatic shutoff valves and relieve pressures.
- Allow only qualified personnel to make repairs. Repair or replace the malfunctioning component.

9. Maintenance and Repair

Allow only qualified personnel to perform maintenance, troubleshooting, and repair tasks.

- Always wear appropriate protective devices and use safety devices when working on this equipment.
- Follow the recommended maintenance procedures in your equipment manuals.
- Do not service or adjust any equipment unless another person trained in first aid and CPR is present.
- Use only genuine Nordson replacement parts. Using unapproved parts or making unapproved modifications to equipment may void agency approvals and create safety hazards.

9. Maintenance and Repair (contd.)

- Disconnect, lock out, and tag electrical power at a disconnect or breaker in the service line ahead of electrical equipment before servicing.
- Do not attempt to service electrical equipment if there is standing water present. Do not service electrical equipment in a high-humidity environment.
- Use tools with insulated handles when working with electrical equipment.
- Do not attempt to service a moving piece of equipment. Shut off the equipment and lock out power. Secure equipment to prevent uncontrolled movement.
- Relieve air pressures before servicing equipment. Follow the specific instructions in this manual.
- Make sure that the room where you are working is sufficiently ventilated.
- If a “power on” test is required, perform the test carefully and then shut off and lock out power as soon as the test is over.
- Connect all disconnected equipment ground cables and wires after servicing the equipment. Ground all conductive equipment.
- Service lines connected to panel disconnect switches may still be energized unless they are disconnected. Make sure the power is off before servicing. Wait 5 minutes for capacitors to discharge after shutting off the electrical power.
- Turn off the electrostatic power supply and ground the gun electrode before adjusting or cleaning.
- Keep high-voltage connection points clean and insulated with dielectric grease or oil.
- Check all ground connections periodically with a megohm meter. Resistance to ground must not exceed one megohm. If arcing occurs, shut down the system immediately.

9. Maintenance and Repair (contd.)

- Check interlock systems periodically to ensure their effectiveness.

WARNING: Operating faulty electrostatic equipment is hazardous and can cause electrocution, fire, or explosion. Make resistance checks part of your periodic maintenance program.

- Do not store flammable materials in the spray area or room. Keep containers of flammable materials far enough away from spray booths to prevent their inclusion in a booth fire. If a fire or explosion occurs, flammable materials in the area will increase the chances and the extent of personal injuries and property damage.

- Practice good housekeeping procedures. Do not allow dust or powder coatings to accumulate in the spray area or booth or on electrical equipment. Read this information carefully and follow instructions.

10. Disposal

Dispose of equipment and materials used in operation and cleaning according to your local regulations.

SECTION 2
EQUIPMENT FAMILIARIZATION

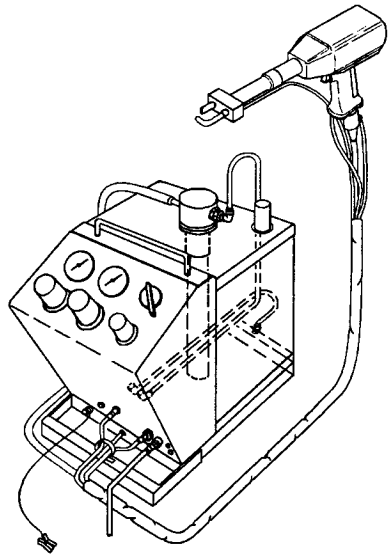

Figure 1 - TRIBOMATIC® THREAD COAT™ System.

The Nordson TRIBOMATIC®THREAD COAT™ is used to apply corrosion resistant powder coatings to heated pipe threads. The system is designed to provide uniform coating cover to a specified number of pipe threads. The system consists of a modified TRIBOMATIC® manual spray gun, a TRIBOMATIC® Thread Coat System control unit, powder pump, and tube kit.

The manual spray gun uses an air-knife nozzle which may be adjusted to coat different pipe diameters and varying numbers of threads as the customer requires.

The system may be used with 100, 115, 200, 220, 230, or 240 VAC input power.

The Thread Coat System control unit consists of a control panel and a 5 liter powder hopper. The control panel contains the power ON/OFF switch; fluidizing, diffuser, air knife and ejector air regulators; an electrical connector for manual gun trigger; an electrical connector for earth ground; a shop air connector; and an air knife connector.

The tube kit is a tubing/cable assembly which is covered by a protective sheath. The tube kit is the interface between the Thread Coat System control unit and the manual spray gun for the electric trigger signal, and air and powder input.

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SECTION 3
INSTALLATION

The Thread coat system may be installed as follows:

Installation of Powder Pump:

1. Install suction tube into tube holder on bottom of powder pump and twist and press pump into pump mounting on hopper cover.

Note: End of suction tube should be no less than 1 inch (25.4 mm) above hopper fluidizing plate.

2. Install 3 millimeter I.D. ejector air tubing (black tube at rear of base) into pump air fitting. Make sure tubing path protects tubing from kinking or damage.

3. Install powder feed hose (clear hose in tube kit) onto pump venturi throat retainer.

Installation of Manual Spray Gun and Control Unit:

1. Press diffuser into base of gun handle.

2. Connect trigger connector to plug at base of gun handle.

3. Connect clear hose in tube kit to the barbed fitting at the base of the diffuser.

4. Connect the blue hose in the tube kit to the small elbow on the side of the diffuser.

5. Press the sprayhead assembly on to the barrel of the manual gun.

6. Connect the black hose in tube kit to the fitting on the nozzle.

7. Remove the front panel of the control unit.

8. Adjust the voltage switch on the transformer assembly to the input voltage desired. Reinstall the front panel on the control unit.

9. Connect the blue hose in the tube kit to the fitting marked "pistol" on the front panel of the control unit.

10. Connect the black hose in the tube kit to the knife air fitting at the front base of the control unit.

11. Connect the blue tube which exits from the rear of the base to the fitting at the base of the hopper.

12. Install ground wire into ground connector on the front of control unit. Connect opposite end to true earth ground.

13. Connect main input air into connector marked "air" on front panel of control unit.

14. Connect plug to electrical outlet.

SECTION 4
OPERATION

WARNING: Make sure all equipment in spray area is connected to a true earth ground before beginning spray operations. Ungrounded equipment can store a potentially dangerous charge. Gun must always be grounded during operation.

WARNING: Make sure fire detection system and all safety interlocks are working properly before beginning spray operations. Never spray powder while fire detection system is in by-pass mode.

1. Fill the hopper two-thirds full of clean, dry powder and check to ensure that the supply air is on.

2. Turn ON ventilation fans and recovery system, if used.

3. Check all equipment ground connections.

4. Turn fluidizing air needle valve, and ejector and diffuser air regulators counterclockwise so that no air will be delivered to pump and diffuser.

5. Turn main switch to ON position.

6. Lift lid on powder hopper. Adjust fluidizing air pressure until powder assumes the characteristics of a liquid. Rotate diffuser air regulator knob clockwise until gauge reads approximately 3 bar (44 psi). Slowly rotate ejector air regulator knob until gauge reads approximately 2 bar (28 psi).

7. Aim gun and depress trigger. Note powder pattern as it is sprayed. Adjust diffuser and ejector air regulators as necessary. Keep air pressures to minimum required to achieve desired results. Keep air pressure as low as possible to minimize air consumption, powder usage, and wear on powder contact surfaces.

WARNING: Ground handgun spacer and nozzle before removing or adjusting. These parts may retain a potentially dangerous electrical charge.

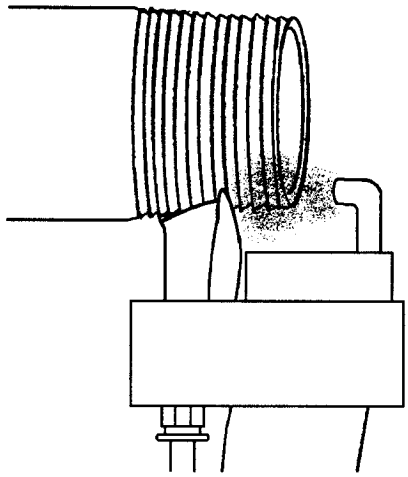

Figure 4-1 — Positioning Spray Gun

8. Position manual spray gun as shown in Figure 4-1. Test spray a few pipes. Check for proper film build, nozzle positioning, and air knife cutoff. Sprayhead may be adjusted for pipe wall thickness by loosening the small screw at the nozzle. The nozzle may then be re-positioned and clamped in place. Number of threads coated may be changed by loosening the small screw on the nozzle clamp. The nozzle clamp may then be moved to accommodate a greater or lesser number of threads.

SECTION 5
PREVENTIVE MAINTENANCE

WARNING: Ground handgun spacer and nozzle before removing. These parts may retain a potentially dangerous electrical charge.

WARNING: NEVER blow out tubes inside gun unless ground wires are connected to gun and to a true earth ground. A potentially dangerous charge will build up in gun unless connected to ground.

WARNING: DO NOT use compressed air to blow powder off skin or clothing. Compressed air can be injected under skin, causing serious injury or even death.

WEEKLY

Note: Do not use knife or other sharp object to clean powder off "wetted" parts. Scratches will cause powder buildup and/or impact fusion.

1. Disassemble diffuser and clean with compressed air. Replace worn parts. Place end of powder feed tubing in booth and blow out with compressed air.

2. Remove sprayhead, spacer and nozzles and clean with compressed air. Replace worn parts.

3. Make sure gun is connected to ground, blow out with compressed air.

4. Remove powder and clean hopper. Disassemble pump and clean, replace worn parts. Check ejector air check valve located under console base, clean or replace if necessary. Wipe console with a clean cloth.

5. Clean spray area. Leave ventilation fans on while cleaning.

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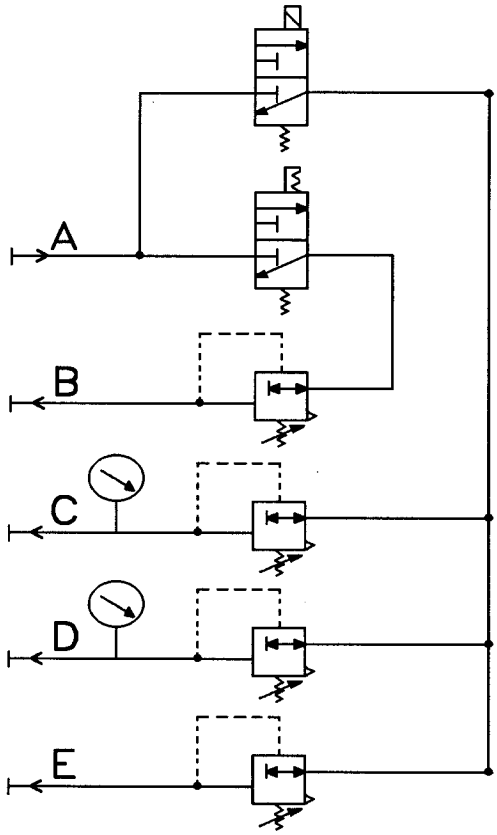
SECTION 6
TROUBLESHOOTING



A	Air in
B	Fluidizing Air Out
C	Powder Out
D	Diffuser Air Out
E	Extender Air Out

Figure 5- Air Schematic

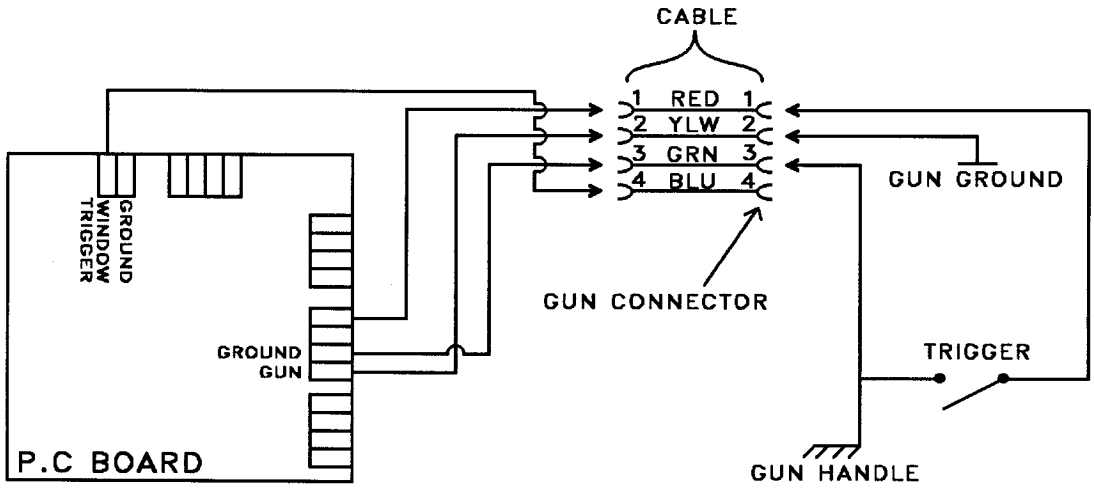


Figure 6- Electrical Schematic

PROBLEM:	Probable Cause:	Suggested Correction:
Powder does not flow when gun triggered (hand gun) or console turned ON.	1. No air supply or ejector (flow rate) air pressure set too low.	1. Check air supply to system. Increase ejector air pressure.
	2. Blockage in powder delivery system.	2. Check for blockages in powder delivery system, starting with gun, then diffuser, powder feed tubing, pump, ejector air check valve. Check powder supply for dampness, replace if necessary.
	3. Hand gun trigger valve malfunction, pilot valve malfunction, ejector regulator valve malfunction.	3. Refer to air schematic. Check for air flow from return line from hand gun trigger valve when depressed. Check for air pressure at pilot valve port "Z" and if present, check for output from ganged connectors at port "A". Replace pilot valve if no output when supply air pressure is present at port "Z". Check main switch for air flow through switch when in ON position. Check ejector air regulator for proper functioning. Replace components if necessary.
	4. Diffuser air pressure too high.	4. Decrease diffuser air pressure.

PROBLEM:	Probable Cause:	Suggested Correction:
Powder puffing from gun, poor atomization.	1. Diffuser-to-ejector air pressure ratio incorrect.	1. Increase diffuser air pressure.
	2. Diffuser filter clogged.	2. Disassemble diffuser and clean, replace worn parts if necessary. Filter must be installed in diffuser so that baffle tape is directly under diffuser air inlet.
	3. Powder feed hose too short.	3. Install longer powder feed tubing.

PROBLEM:	Probable Cause:	Suggested Correction:
Poor powder charging (no electrostatic wrap or adhesion).	1. Ejector pressure too high.	1. Reduce ejector air pressure while maintaining proper diffuser-to-ejector air pressure ratio.
	2. Powder not suitable for tribo charging.	2. Consult with powder manufacturer.
	3. Workpiece not properly grounded.	3. Check conveyor rollers and hangers for coating build up that could affect ground. Resistance between workpiece and ground should not exceed one megohm.
	4. Diffuser air pressure too low, or diffuser filter clogged.	4. Increase diffuser air pressure. Disassemble diffuser and clean with low pressure compressed air.

PROBLEM:	Probable Cause:	Suggested Correction:
Inadequate powder flow.	1. Wet powder causing blockage in system.	1. Check powder supply for dampness, replace if necessary. Check air filters and drier for proper operation. Clean system components.
	2. Poor fluidization of powder in hopper.	2. Increase or decrease fluidizing air pressure. Allow powder to fluidize properly before beginning coating operations.
	3. Ratio of diffuser-to-ejector air incorrect.	3. Adjust diffuser and ejector air pressure settings. Refer to operating instructions for proper ratio.
	4. Venturi plug worn out.	4. Replace venturi plug.

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SECTION 7
DISASSEMBLY AND REPAIR

Manual Spray Gun:

1. Disconnect powder feed tubing, diffuser air tubing, and trigger cable or trigger air tubing and ground wires.
2. Remove connecting tube and deflector from gun.
3. Remove diffuser from gun using a twisting motion.
4. Unscrew inlet and outlet connectors from diffuser and remove filter.
5. Refer to Nordson manual 37-6 for further procedures.

Hopper and Pump:

1. Shut down system. Disconnect ejector and fluidizing tubing and powder feed hoses. Vacuum powder from hopper.
2. Remove pumps from mountings. Refer to Nordson manual 37-7 for pump maintenance.
3. Disconnect exhaust vent hose, if used.
4. Refer to Nordson manual 37-3 for further procedures.

Control Unit:

1. Remove screws securing front panel to housing. Valves and circuit board are secured to panel with screws. Regulators are secured to panel by knurled locking ring on front of panel. Gauges are secured to panel by brackets. Remove air tubing, center nut and bracket and remove gauge from rear of panel.

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SECTION 8
PARTS LIST

There is one parts list and an accompanying figure for the Tribomatic Thread Coat System.

The number in the **REF.** column indicates the number assigned to the part in the illustration preceding the list. The code NS (Not Shown) is used for parts that are not included in the illustration. A dash (-) is used when the part number applies to all the parts in the illustration.

A letter in the **NOTE** column refers to a note below the parts list which gives additional information concerning that part. **Special attention should be given to noted parts.**

The six digit number in the **PART NO.** column is the Nordson Corporation part number assigned to that part. A series of dashes in this column means that the part cannot be ordered separately; it can only be obtained as part of the assembly or subassembly of which it is a component.

The **DESCRIPTION** column gives the Nordson Corporation name of the part, together with its dimensions and other physical properties where appropriate, and is the name that should be used when ordering replacement parts. Indented parts are components of assemblies and/or subassemblies.

For example:

Ref.	Note	Part No.	Description	Qty.
1		000 000	Top Level Assembly	1
2	A	000 000	• Assembly or Part	2
3		000 000	• • Subassembly or Part	1

If you order item 1, items 2 & 3 will be included.
If you order item 2, item 3 will be included.
If you order item 3, you will receive item 3 only.

The number in the **QTY.** column is the quantity required per unit or assembly. When the quantity is not applicable, a dash will appear in the column. An "ASR" in the column means that the quantity required per installation should be ordered.

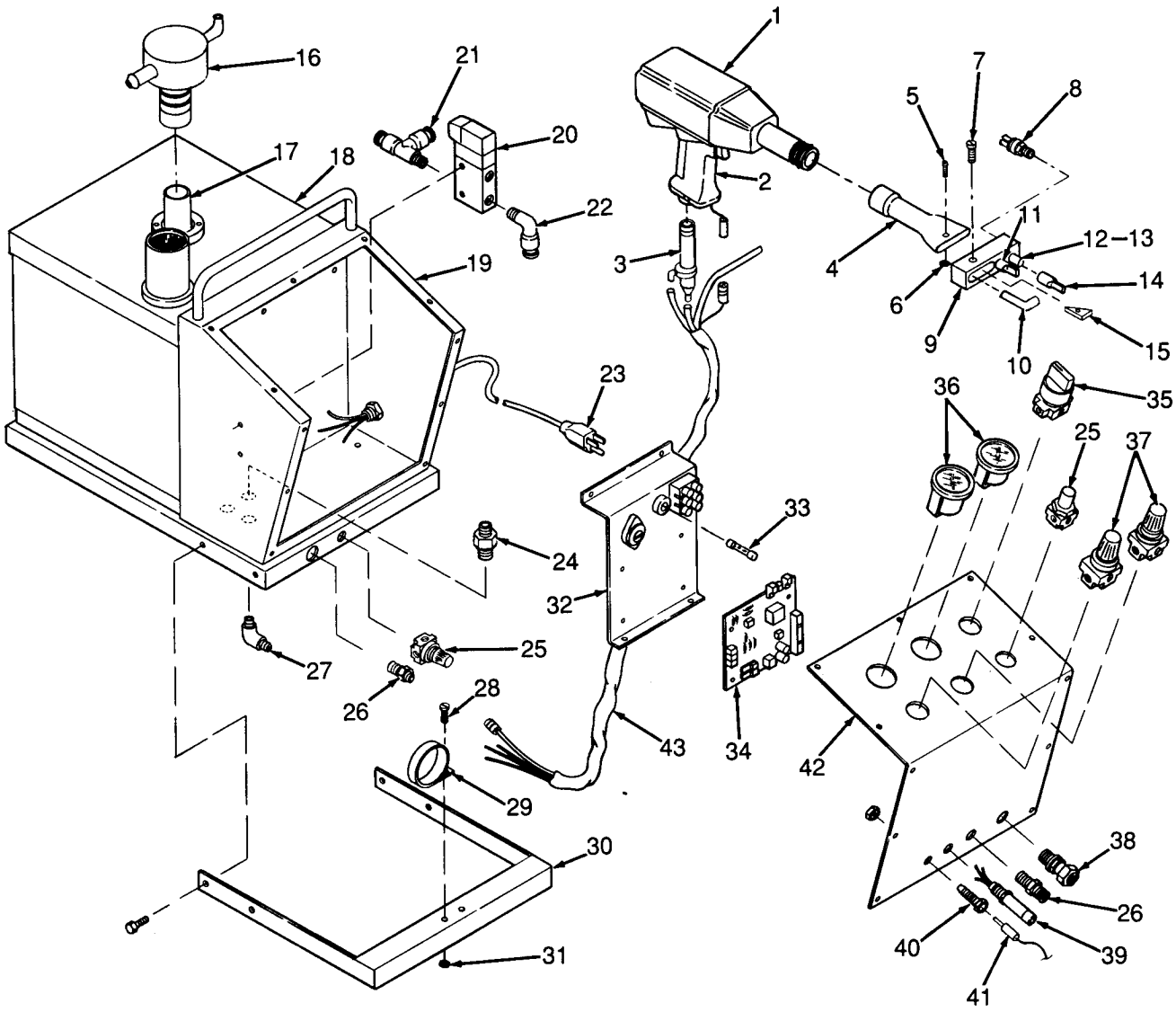

Figure 8-1 — Tribomatic® Thread Coat System.

Parts List - Tribomatic® Thread Coat System.

Note: Names of parts included in an assembly are indented after each assembly or sub-assembly.

Ref.	Note	Part No.	Description	Qty.
-		630 750	System, Thread Coat	-
_		630 410	• Handgun, Gen 2	1
1		630 413	• • Chargetube, Handgun	1
2		630 411	• • Base, Handgun	1
3		630 425	• Diffuser, Handgun	1
-		630 752	• Sprayhead, Thread Coat System	1
4		630 754	• • Nozzle, Tube, Flow	1
5		301 420	• • Screw, Rnd. Hd., Slotted, #6-32 x 5/8	1
6		301 421	• • Nut, #6	1
7		981 621	• • Screw, Fillister Hd., #10-32 x 3/4	1
8		630 427	• • Fitting, Air, Straight	1
9		630 755	• • Clamp, Nozzle	1
10		630 757	• • Tube, Nozzle	1
11		630 758	• • Nozzle, Horizontal	1
12		630 764	• • Tube	2
13		630 763	• • Restrictor	1
14		630 756	• • Nozzle, Vertical	1
15		630 759	• • Divider, Flow	1
16		630 034	• Pump, Powder	1
17		630 056	• Tube, Suction, 5 Liter Hopper	1
18	A	630 044	• Hopper, Powder, 5 Liter	-
-		630 751	• Control, Thread Coat System	-
19		630 749	• • Cabinet, AH-1	1
20		630 571	• • Valve, Solenoid	1
21		630 743	• • Tee	1
22		630 742	• • Fitting, Elbow, 6mm	1
23		931 009	• • Cable, Main	1
24		630 505	• • Fitting, Quick Disc. 4mm	3
25		630 570	• • Regulator	2
26		630 831	• • Union, Bulkhead, 4mm	2
27		630 833	• • Fitting, Elbow, 4mm	3
28		630 745	• • Screw, M6 x 15	1
29		630 746	• • Clamp, Tube Kit	1
30		630 747	• • Frame	1
31		630 744	• • Nut, M6	1
32		630 767	• • Transformer Assy, TCS	1
33		630 576	• • • Fuse, 630 mA, Slow Blow	1
34		630 573	• • Circuit Board	1
35		630 572	• • Switch, Main	1
36		630 549	• • Gauge	2

CONTINUED ON FOLLOWING PAGE

Ref.	Note	Part No.	Description	Qty.
37		630 082	• • Regulator	2
38		630 767	• • Fitting, NPTF, ¼-18	1
39		630 558	• • Connector, Female, Handgun	1
40		630 768	• • Plug, Ground, Female	1
41		630 301	• Wire, Ground, w/Clamp and Plug	1
42		630 748	• • Panel, TCS	1
43		630 753	• Tube Kit, Thread Coat Sys.	1
44		242 351	• • Cover, Hose	2.9 Mt.
45		900 549	• • Tube, Powder, ⅜	3.9 Mt.
46		630 597	• • Tubing, 4mm, Blue	3.3 Mt.
47		630 598	• • Tubing, 4mm, Black	3.9 Mt.
48		630 583	• • Cable, 4 Cord	3.5 Mt.
49		630 556	• • Connector, Male	2

Note (A) - See Nordson Manual 37-3 for parts breakdown.

Kit List - Spare Parts, Tribomatic® Thread Coat System.

Note: Names of parts included in an assembly are indented after each assembly or sub-assembly.

Ref.	Note	Part No.	Description	Qty.
-		630 766	Kit, Spare parts, TCS	-
1		630 025	• O-Ring, Pump, Diffuser	1
2		630 035	• Fitting, Air	1
3		630 038	• Throat, Venturi	1