

PSM

3A9277D

1K Precision Metering System

EN

For accurate metering and dispensing of single-component materials. For professional use only.

Not approved for use in explosive atmospheres or hazardous (classified) locations.

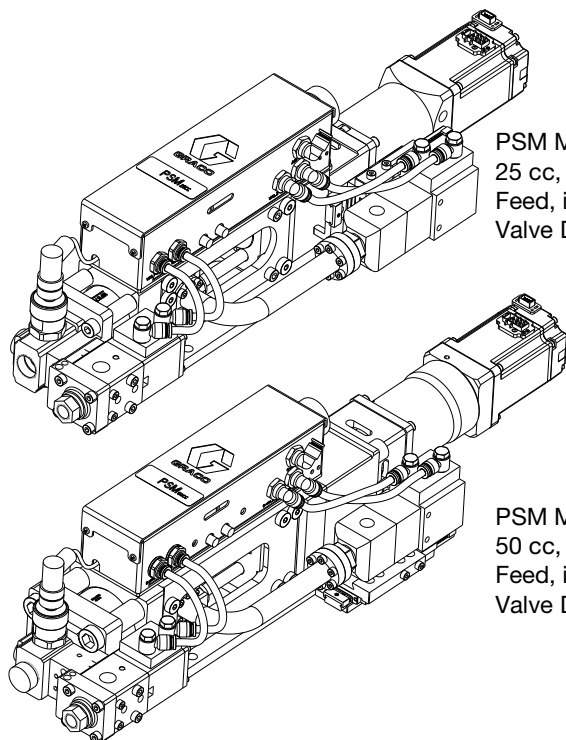
100 psi (0.7 MPa, 7 bar) Maximum Air Inlet Pressure.

See page 3 for model information, including maximum fluid working pressure and approvals.



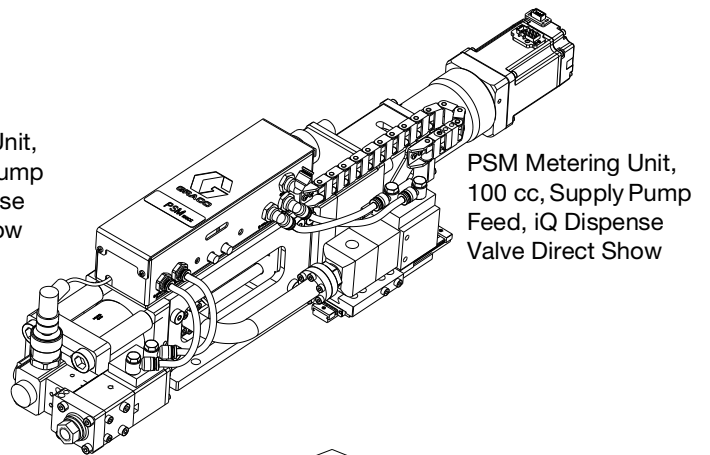
Important Safety Instructions

Read all warnings and instructions in this manual, your PSM instruction manual, and your dispensing manuals before using the equipment. Save these instructions.

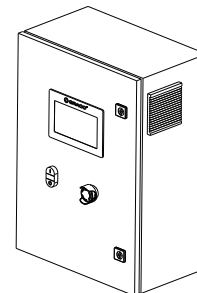


PSM Metering Unit,
25 cc, Supply Pump
Feed, iQ Dispense
Valve Direct Show

PSM Metering Unit,
50 cc, Supply Pump
Feed, iQ Dispense
Valve Direct Show



PSM Metering Unit,
100 cc, Supply Pump
Feed, iQ Dispense
Valve Direct Show



PSM Control Unit



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Related Manuals

| Manuals in English | Description |
|--------------------|---|
| 3A7273 | PSM Instruction Manual |
| 308876 | 1K Ultra-Lite™ Instructions and Parts List Manual |
| 333585 | iQ Dispense Valves Instructions and Parts List Manual |

Models

| Part | Maximum Fluid Working Pressure psi (MPa, bar) | Description | Includes: | | |
|---------|--|--|-------------------|----------------|------------------|
| | | | PSM Metering Unit | Dispense Valve | PSM Control Unit |
| 25S141 | 1200 psi (8.3 MPa, 83 bar) | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Snuff-Back | ✓ | ✓ | ✓ |
| 25S148 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Snuff-Back | ✓ | ✓ | ✓ |
| 2000828 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Tip Seal | ✓ | ✓ | ✓ |
| 2000829 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Tip Seal | ✓ | ✓ | ✓ |
| 2001633 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Ball Seal | ✓ | ✓ | ✓ |
| 2001634 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Ball Seal | ✓ | ✓ | ✓ |
| 2005191 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , without iQ Valve | ✓ | | ✓ |
| 2005192 | | PSM System, 25 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , without iQ Valve | ✓ | | ✓ |
| 25S142 | 3000 psi (20.7 MPa, 207 bar) | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Snuff-Back | ✓ | ✓ | ✓ |
| 25S167 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Snuff-Back | ✓ | ✓ | ✓ |
| 2000830 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Tip Seal | ✓ | ✓ | ✓ |
| 2000831 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Tip Seal | ✓ | ✓ | ✓ |
| 2001635 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Ball Seal | ✓ | ✓ | ✓ |
| 2001636 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Ball Seal | ✓ | ✓ | ✓ |
| 2005193 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , without iQ Valve | ✓ | | ✓ |
| 2005194 | | PSM System, 50 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , without iQ Valve | ✓ | | ✓ |
| 25S143 | 3000 psi (20.7 MPa, 207 bar) | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Snuff-Back | ✓ | ✓ | ✓ |
| 25S170 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Snuff-Back | ✓ | ✓ | ✓ |
| 2000832 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Tip Seal | ✓ | ✓ | ✓ |
| 2000833 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Tip Seal | ✓ | ✓ | ✓ |
| 2001637 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , Ball Seal | ✓ | ✓ | ✓ |
| 2001638 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , Ball Seal | ✓ | ✓ | ✓ |
| 2005195 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , SST ⁽¹⁾ , without iQ Valve | ✓ | | ✓ |
| 2005196 | | PSM System, 100 cc, Direct ⁽³⁾ , I/O ⁽⁴⁾ , CER ⁽²⁾ , without iQ Valve | ✓ | | ✓ |

(1) SST: Stainless steel material

(2) CER: Ceramic material

(3) Any PSM system can be converted from direct connection mode to remote connection mode by using remote kits. See **Remote Kits**, page 48 and order remote kits.









(4) Any PSM system can be converted to Profinet or Ethernet IP communication

mode. Order Profinet ModBus kit 2005273 for Profinet communication mode or Ethernet IP Modbus kit 2000362 for Ethernet IP communication mode. See **Communication Module**, page 49.

Safety Symbols

The following safety symbols appear throughout this manual and on warning labels. Read the table below to understand what each symbol means.

| Symbol | Meaning |
|---|------------------------------|
|  | Electric Shock Hazard |
|  | Equipment Misuse Hazard |
|  | Fire and Explosion Hazard |
|  | Moving Parts Hazard |
|  | Pressurized Equipment Hazard |
|  | Skin Injection Hazard |
|  | Skin Injection Hazard |
|  | Splash Hazard |
|  | Toxic Fluid or Fumes Hazard |

| Symbol | Meaning |
|---|--|
|  | Do Not Place Hands or Other Body Parts Near Fluid Outlet |
|  | Do Not Stop Leaks with Hand, Body, Glove or Rag |
|  | Eliminate Ignition Sources |
|  | Follow Pressure Relief Procedure |
|  | Ground Equipment |
|  | Read Manual |
|  | Ventilate Work Area |
|  | Wear Personal Protective Equipment |












Safety Alert Symbol







This symbol indicates: Attention! Become Alert! Look for this symbol throughout the manual to indicate important safety messages.





General Warnings

The following warnings apply throughout this manual. Read, understand, and follow the warnings before using this equipment. Failure to follow these warnings can result in serious injury.

|  <h2 style="margin: 0;">WARNING</h2> | |
|--|--|
|   | <p>ELECTRIC SHOCK HAZARD</p> <p>This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> • Turn off and disconnect all power before disconnecting any cables and before servicing or installing equipment. • Connect only to grounded power source. • All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations. |
|      | <p>SKIN INJECTION HAZARD</p> <p>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 in your PSM Instruction Manual 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</p> <p>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 Sheets (SDSs) to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines. |

WARNING

| | |
|---|---|
|     | <p>FIRE AND EXPLOSION HAZARD</p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. Paint or solvent flowing through the equipment can cause static sparking. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> • Use equipment only in well-ventilated area. • Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static sparking). • Ground all equipment in the work area. See Grounding instructions in your PSM Instruction Manual. • Never spray or flush solvent at high pressure. • Keep work area free of debris, including solvent, rags and gasoline. • Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present. • Use only grounded hoses. • Hold gun firmly to side of grounded pail when triggering into pail. Do not use pail liners unless they are anti-static or conductive. • Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. • Keep a working fire extinguisher in the work area. |
|   | <p>EQUIPMENT MISUSE HAZARD</p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • 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 Specifications in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Specifications in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer. • Turn off all equipment and follow the Pressure Relief Procedure in your PSM Instruction Manual 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. |

|  <h1 style="margin: 0;">WARNING</h1> | |
|--|---|
|   | <p>MOVING PARTS HAZARD Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> Keep clear of moving parts. Do not operate equipment with protective guards or covers removed. Equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure in your PSM Instruction Manual and disconnect all power sources. |
|  | <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. |


Changing Materials

| NOTICE |
|--|
| <p>Changing the material types used in your equipment requires special attention to avoid equipment damage and downtime.</p> <ul style="list-style-type: none"> 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. |







Recycling and Disposal

End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Follow the **Pressure Relief Procedure** in your PSM Instruction Manual. See **Related Manuals**, page 2.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Remove motors, circuit boards, LCDs (liquid crystal displays), and other electronic components. Recycle according to applicable regulations.
- Do not dispose of electronic components with household or commercial waste. 
- Deliver remaining product to a recycling facility.

Repair

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| |  | | | |

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow **Pressure Relief Procedure** in your PSM Instruction Manual when you stop operating and before cleaning, checking, or servicing the equipment.

To avoid injury from toxic fluids or fumes, such as plashing in the eyes or on skin, wear appropriate personal protective equipment.

To avoid injury from fire, explosion, or electric shock, all electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.

Prepare for Piston/Cylinder Replacement Kit Installation

NOTE: Graco suggests using TSL™ only in repair procedures. All procedures should be performed by an appropriate professional.

1. Follow steps 1 through 3 of the **Pressure Relief Procedure** in your PSM Instruction Manual. See **Related Manuals**, page 2.
2. Turn off the air supply when the fluid pressure drops to ZERO.
3. Go to the Advanced Screen of the PSM Control Unit (F, page 7 in your PSM Instruction Manual). Set the move speed at about 0.2 cc/s, then jog select “Piston move down” until the lower switch light is activated.

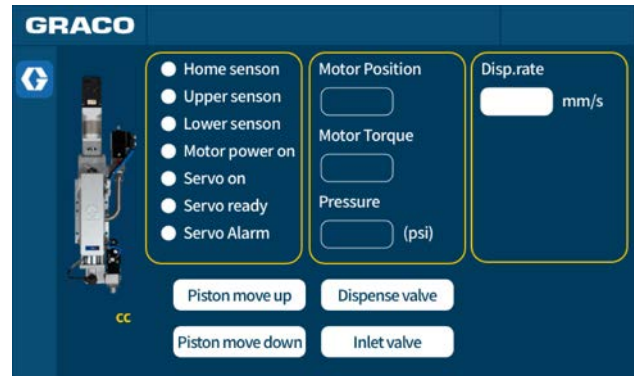


FIG. 1 Advanced Screen

NOTE: To open the Advanced mode, the operator must enter the password **1492**.

4. Turn off the system power.
5. Disconnect all cables and tubes from Junction Box Assembly (AA, page 8 in your PSM Instruction Manual).
6. Open the top cover of the Junction Box Assembly (AA, page 8 in your PSM Instruction Manual) and loosen the four fix screws in the cylinder housing (112, page 10). Next, take off the Junction Box Assembly (AA, page 8 in your PSM Instruction Manual).

Disassemble Cylinder, 25 cc

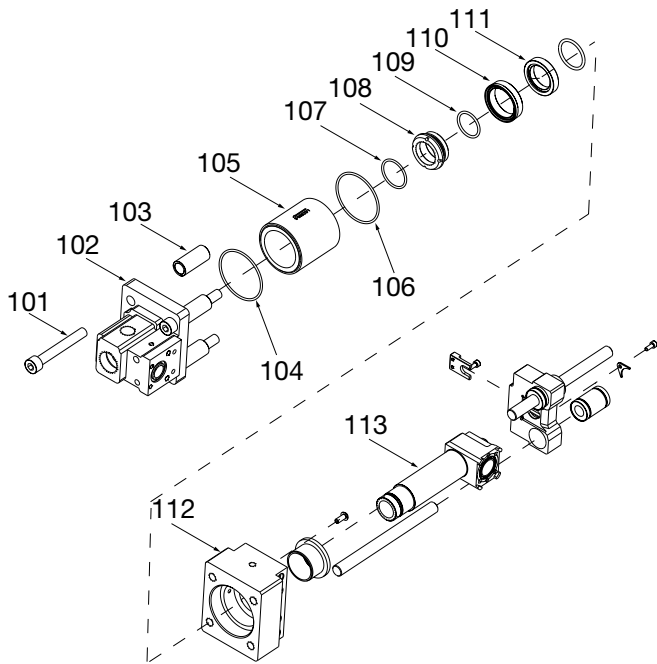


Fig. 2 Disassemble Cylinder of 25 cc

1. Remove the four screws (101).
2. Remove the Dispense Valve (AB, page 8 in your PSM Instruction Manual), support block (102) and the sleeves (103).
3. Remove the cylinder (105) and O-rings (104 and 106) from the cylinder housing (112).
4. Remove the piston nut (108) from the rod (113).
5. Remove the O-ring (107).
6. Remove the piston (110) from the rod (113).
7. Remove the O-ring (109).
8. Remove the washer (111) from the rod (113).
9. Clean all parts that have been removed.

Install Cylinder, 25 cc

1. Install the new washer (111) to the rod (113) with TSL oil.
2. Install the new O-ring (109) with TSL oil.
3. Install the new piston (110) in the correct direction.
4. Install the new O-ring (107) to the piston nut (108) with TSL oil.
5. Install the piston nut (108) and tighten the piston nut with correct torque.
6. Install the new O-ring (106) into the grooves of cylinder housing (112) with TSL oil.
7. Carefully slide the end of the cylinder (105) into the cylinder housing (112) in the correct direction. Ensure the cylinder doesn't damage the sides of the piston as the cylinder is inserted.
8. Insert the lubricated O-rings (104) into the grooves of the cylinder (105).
9. Install the support block (102).
10. Secure cylinder in place with the four sleeves (101). Diagonally tighten the screws by slowly and progressively increasing torque until the screws are securely housed.
11. Install other parts.

NOTE: Not all parts need to be replaced with new ones. The operator may replace the parts per actual situation.

Disassemble Cylinder, 50 cc and 100 cc

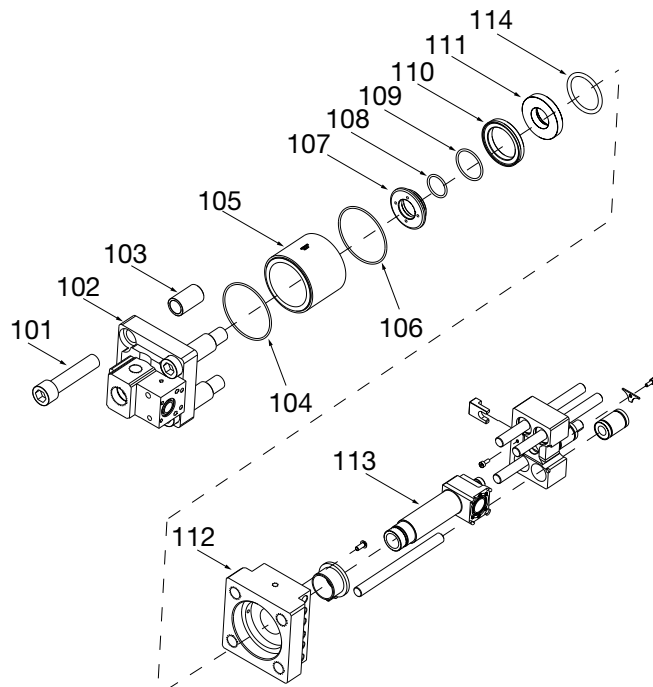


FIG. 3 Disassemble Cylinder of 50 cc and 100 cc

1. Remove the four screws (101).
2. Remove the Dispense Valve (AB, page 8 in your PSM Instruction Manual), support block (102) and the sleeves (103).
3. Remove the cylinder (105) and O-rings (104 and 106) from the cylinder housing (112).
4. Remove the piston nut (107) from the rod (113).
5. Remove the O-rings (108 and 109).
6. Remove the piston (110) from the rod (113).
7. Remove the washer (111) and the O-ring (114) from the rod (113).
8. Clean all parts that have been removed.

Install Cylinder, 50 cc and 100 cc

1. Install the new O-ring (114) and the washer (111) to the rod (113) with TSL oil.
2. Install the new piston (110) in the correct direction.
3. Install the new O-ring (109) with TSL oil.
4. Install the new O-ring (108) to the piston nut (107) with TSL oil.
5. Install the piston nut (107) and tighten the piston nut with correct torque.
6. Install the new O-ring (106) into the grooves of cylinder housing (112) with TSL oil.
7. Carefully slide the end of the cylinder (105) into the cylinder housing (112) in the correct direction. Ensure the cylinder doesn't damage the sides of the piston as the cylinder is inserted.
8. Insert the lubricated O-rings (104) into the grooves of the cylinder (105).
9. Install the support block (102).
10. Secure cylinder in place with the four sleeves (103). Diagonally tighten the screws (101) by slowly and progressively increasing torque until the screws are securely housed.
11. Install other parts.

NOTE: Not all parts need to be replaced with new ones. The operator may replace the parts per actual situation.

Prepare for Operation

1. Pressurize Supply Pump System (E, page 7 in your PSM Instruction Manual) connected to the PSM Inlet Valve (AD, page 8 in your PSM Instruction Manual). See **Related Manuals**, page 2.
2. Perform the **Prime the System** as outlined in your PSM Instruction Manual. See **Related Manuals**, page 2.
3. Perform the **Weight Check** as outlined in your PSM Instruction Manual. See **Related Manuals**, page 2.
4. Dispense several full stroke shots until the PSM Metering Unit (H, page 7 in your PSM Instruction Manual) is free of air and there is no leakage at the dispense outlet after shutoff. See your PSM Instruction Manual.

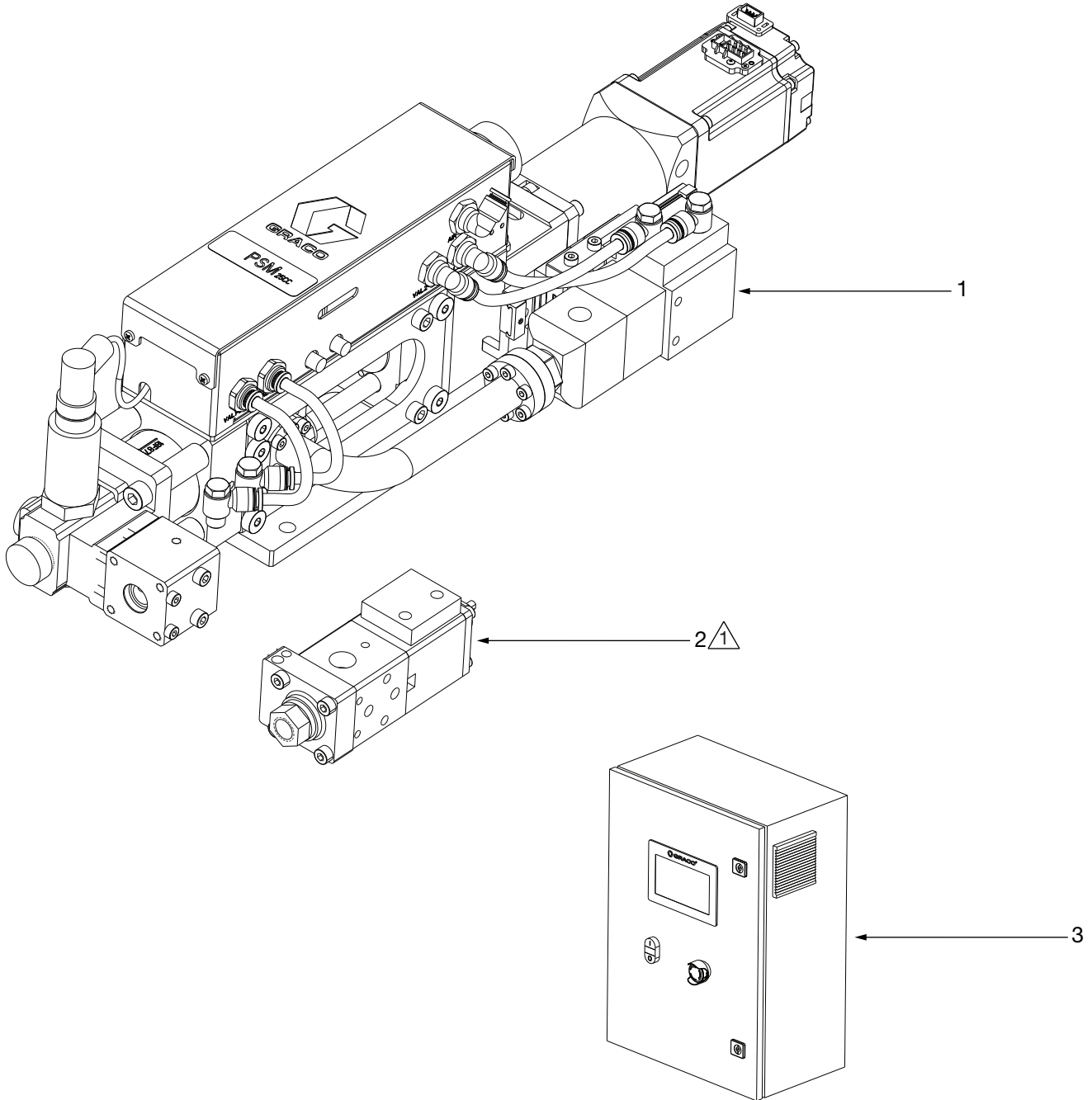
Parts


Overview

| Parts Description | Page |
|---------------------------|-------------|
| System | 14 |
| Module | 20 |
| Base | 26 |
| Metering Module | 30 |
| Power Transmission Module | 34 |
| Supply Pump Module | 38 |
| Junction Box | 42 |
| Control Unit | 44 |
| Dispense Valve Module* | 46 |

System

System, 25 cc, 25S141, 25S148, 2000828, 2000829, 2001633, 2001634, 2005191 and 2005192



 Apply sealant, Anaerobic, blue.

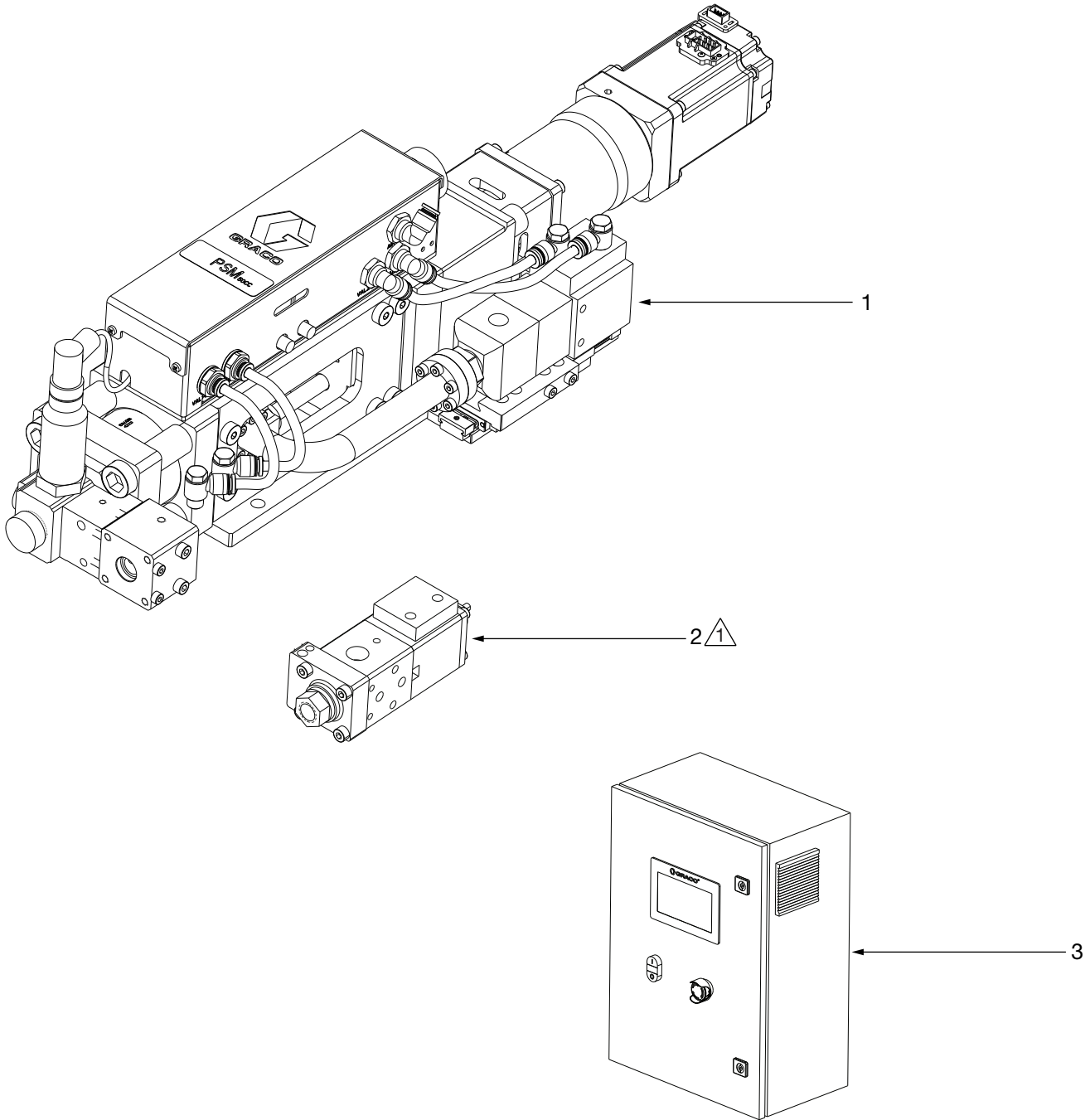
System Parts List, 25 cc


| Ref. | Part | Description | Qty. | | | | | | | |
|------|-----------|--|--------|--------|---------|---------|---------|---------|---------|---------|
| | | | 25S141 | 25S148 | 2000828 | 2000829 | 2001633 | 2001634 | 2005191 | 2005192 |
| 1 | 2002776 | MODULE, MP W/O iQ valve, PSM, 25, SST; See Module, 25 cc, 2002776 and 2002777 , page 20 | 1 | | 1 | | 1 | | 1 | |
| | 2002777 | MODULE, MP W/O iQ valve, PSM, 25, CER; See Module, 25 cc, 2002776 and 2002777 , page 20 | | 1 | | 1 | | 1 | | 1 |
| 2* | ---- | VALVE, snuff-back; See Dispense Valve Module* , page 46 | 1 | 1 | | | | | | |
| | ---- | VALVE, tip seal; See Dispense Valve Module* , page 46 | | | 1 | 1 | | | | |
| | ---- | VALVE, ball seal; See Dispense Valve Module* , page 46 | | | | | 1 | 1 | | |
| 3 | 2002837 | CONTROL, PSM, PCB; See Control Unit , page 44 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 | 2000277** | CABLE, servo motor, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 2000274** | CABLE, servo encode, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 2000270** | CABLE, junction box, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

* See *iQ Dispense Valve Manual (333585)* for details of the valves. When ordering the valve, order the valve and part 18D702 (see 47) together as a group.

** Cables between PSM metering unit and PSM control unit, which is not showed in the drawing.

System, 50 cc, 25S142, 25S167, 2000830, 2000831, 2001635, 2001636, 2005193 and 2005194



 Apply sealant, Anaerobic, blue.

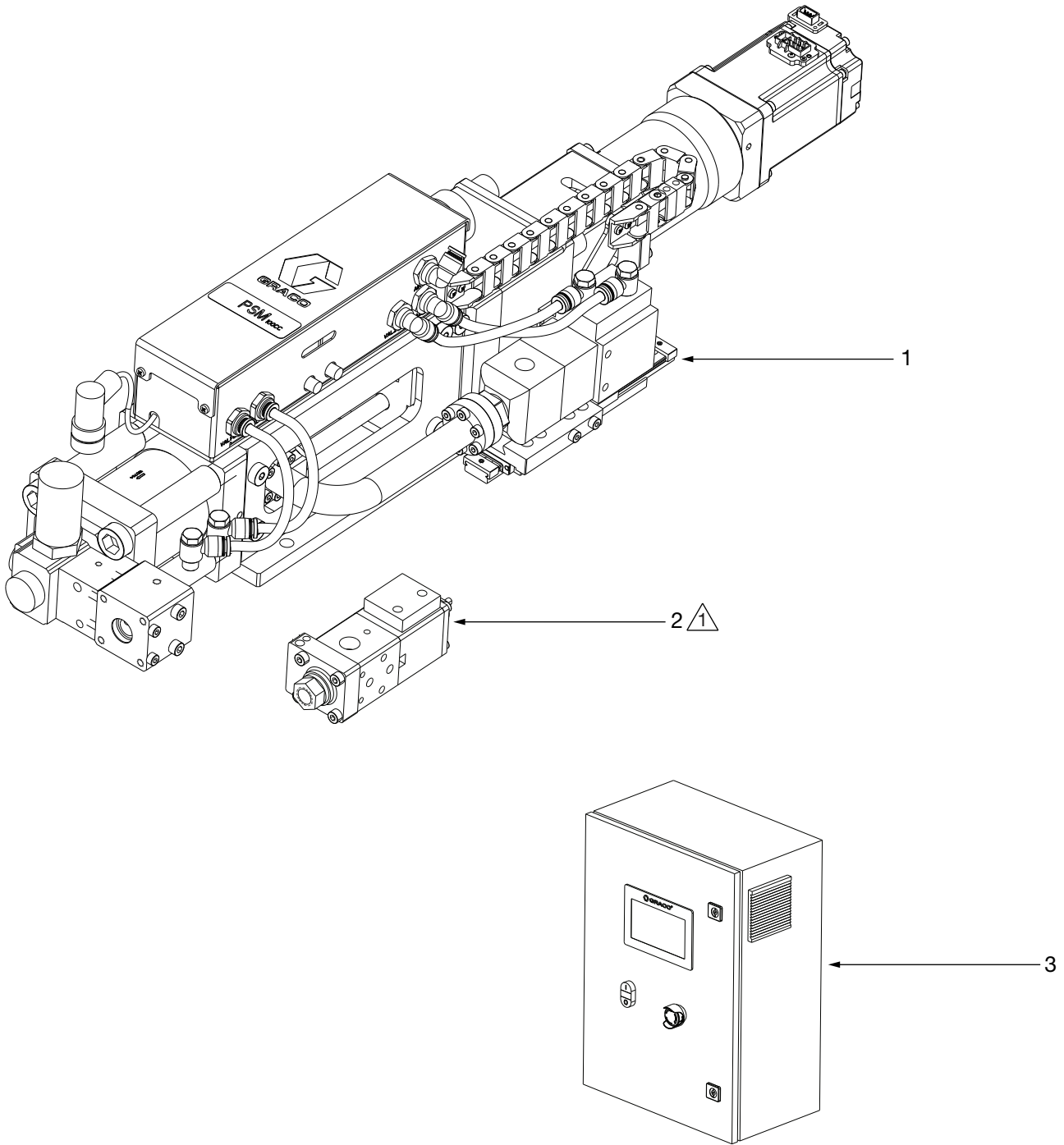
System Parts List, 50 cc


| Ref. | Part | Description | Qty. | | | | | | | |
|------|-----------|--|--------|--------|---------|---------|---------|---------|---------|---------|
| | | | 25S142 | 25S167 | 2000830 | 2000831 | 2001635 | 2001636 | 2005193 | 2005194 |
| 1 | 2002778 | MODULE, MP W/O iQ valve, PSM, 50, SST; See Module, 50 cc, 2002778 and 2002779 , page 22 | 1 | | 1 | | 1 | | | |
| | 2002779 | MODULE, MP W/O iQ valve, PSM, 50, CER; See Module, 50 cc, 2002778 and 2002779 , page 22 | | 1 | | 1 | | 1 | | |
| 2* | ---- | VALVE, snuff-back; See Dispense Valve Module* , page 46 | 1 | 1 | | | | | | |
| | ---- | VALVE, tip seal; See Dispense Valve Module* , page 46 | | | 1 | 1 | | | | |
| | ---- | VALVE, ball seal; See Dispense Valve Module* , page 46 | | | | | 1 | 1 | | |
| 3 | 2002837 | CONTROL, PSM, PCB; See Control Unit , page 44 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 | 2000277** | CABLE, servo motor, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 2000274** | CABLE, servo encode, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 2000270** | CABLE, junction box, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

* See *iQ Dispense Valve Manual (333585)* for details of the valves. When ordering the valve, order the valve and part 18D702 (see 47) together as a group.

** Cables between PSM metering unit and PSM control unit, which is not showed in the drawing.

System, 100 cc, 25S143, 25S170, 2000832, 2000833, 2001637, 2001638, 2005195 and 2005196



 Apply sealant, Anaerobic, blue.

System Parts List, 100 cc

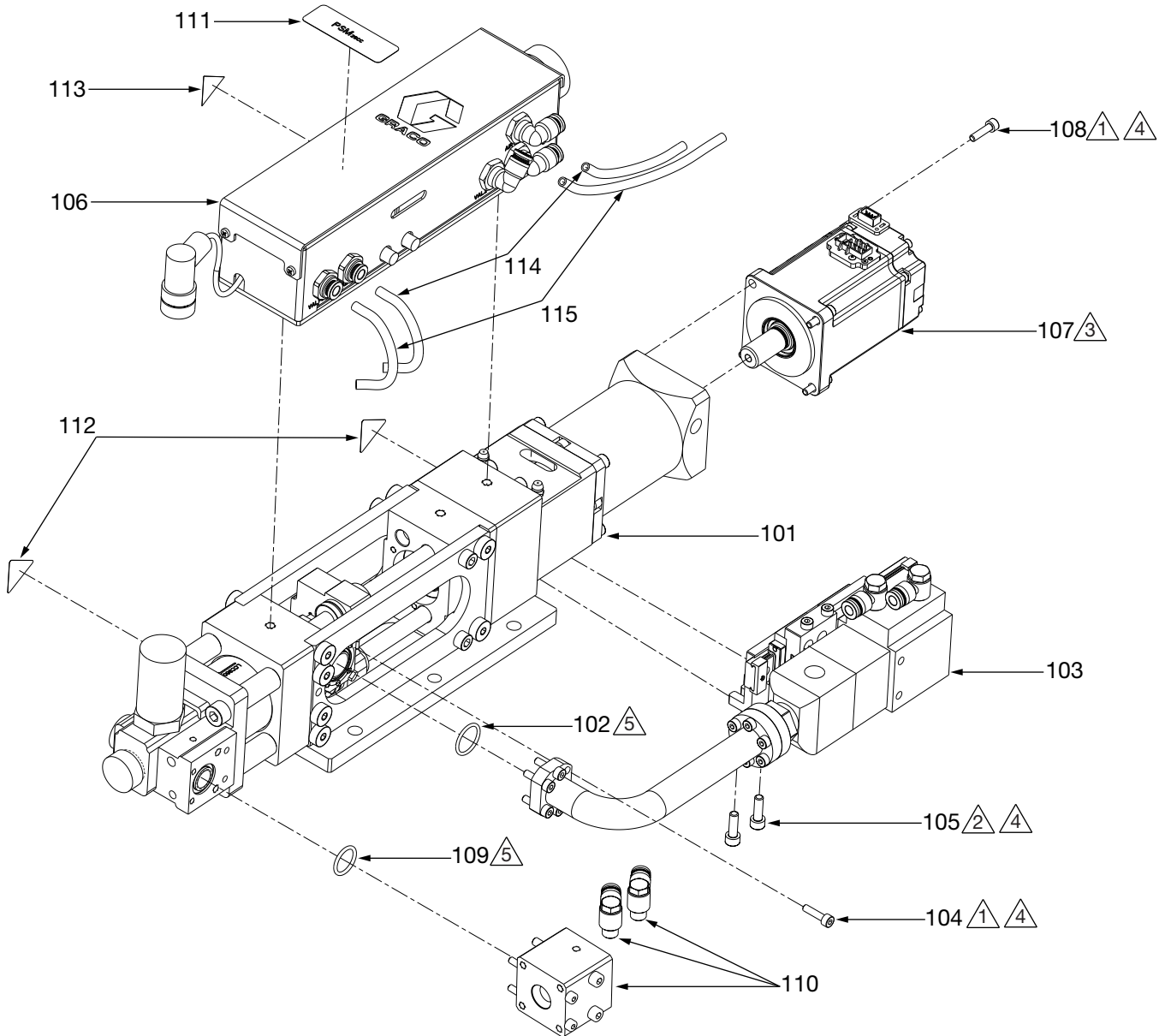
| Ref. | Part | Description | Qty. | | | | | | | |
|------|-----------|---|--------|--------|---------|---------|---------|---------|---------|---------|
| | | | 25S143 | 25S170 | 2000832 | 2000833 | 2001637 | 2001638 | 2005195 | 2005196 |
| 1 | 2002780 | MODULE, MP W/O iQ valve, PSM, 100, SST; See Module, 50 cc, 2002778 and 2002779 , page 22 | 1 | | 1 | | 1 | | | |
| | 2002781 | MODULE, MP W/O iQ valve, PSM, 100, CER; See Module, 50 cc, 2002778 and 2002779 , page 22 | | 1 | | 1 | | 1 | | |
| 2* | ---- | VALVE, snuff-back; See Dispense Valve Module* , page 46 | 1 | 1 | | | | | | |
| | ---- | VALVE, tip seal; See Dispense Valve Module* , page 46 | | | 1 | 1 | | | | |
| | ---- | VALVE, ball seal; See Dispense Valve Module* , page 46 | | | | | 1 | 1 | | |
| 3 | 2002837 | CONTROL, PSM, PCB; See Control Unit , page 44 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 | 2000277** | CABLE, servo motor, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 2000274** | CABLE, servo encode, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 6 | 2000270** | CABLE, junction box, 10 m | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |






* See *iQ Dispense Valve Manual (333585)* for details of the valves. When ordering the valve, order the valve and part 18D702 (see 47) together as a group.

** Cables between PSM metering unit and PSM control unit, which is not showed in the drawing.

Module

Module, 25 cc, 2002776 and 2002777



-  Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).
-  Torque to 1.25-1.7 ft-lb (1.7-2.3 N•m).
-  Installation direction as show.
-  Apply sealant, Anaerobic, blue.
-  Apply fluid, TSL 8 oz bottle.

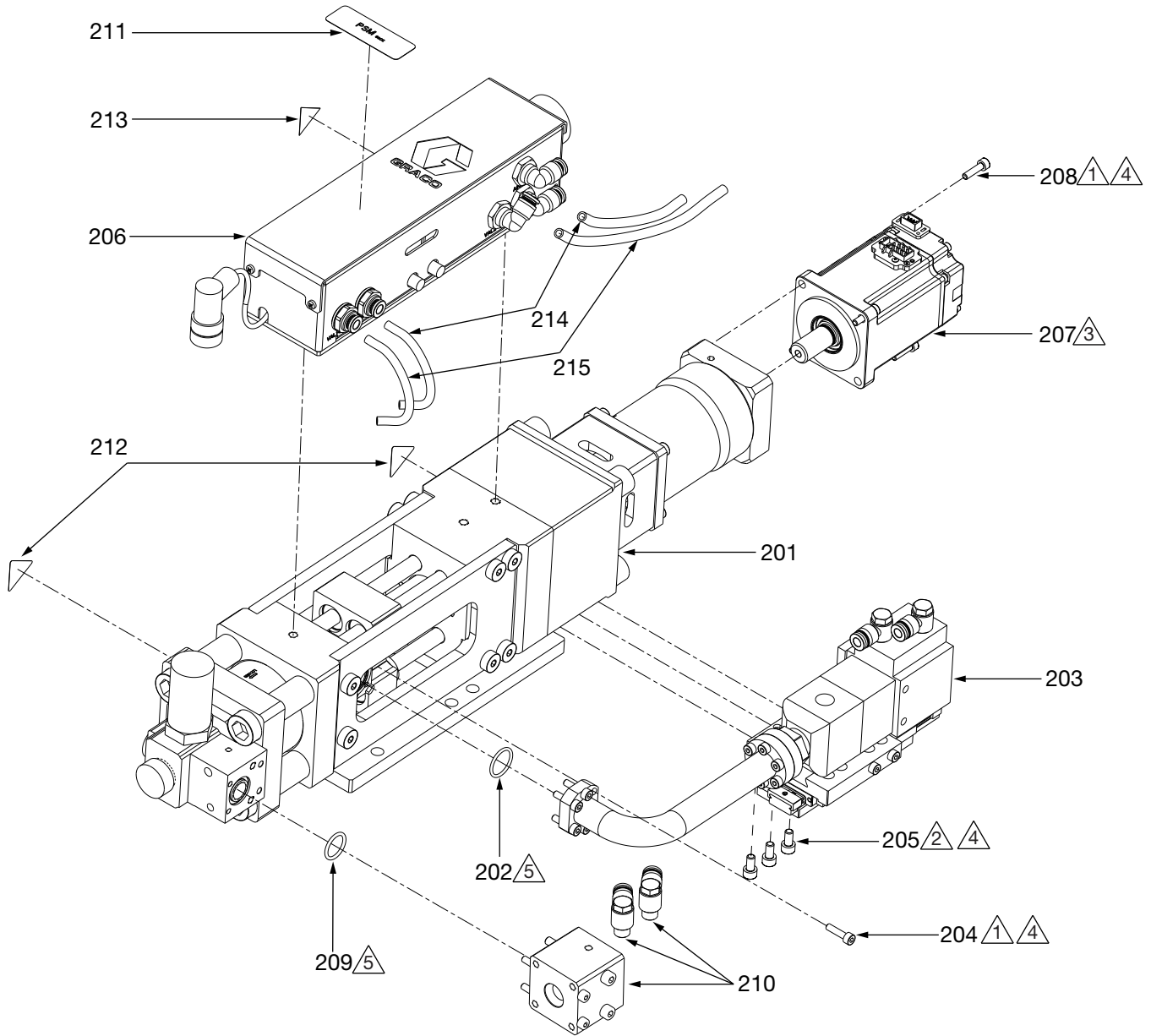
Module Parts List, 25 cc






| Ref. | Part | Description | Qty. | |
|------|-----------------------|--|---------|---------|
| | | | 2002776 | 2002777 |
| 101 | ---- | BASE, PSM, 25, SST; See Base, 25 cc , page 26 | 1 | |
| | ---- | BASE, PSM, 25, CER; See Base, 25 cc , page 26 | | 1 |
| 102 | 18D626 ⁽¹⁾ | O-RING | 1 | 1 |
| 103 | ---- | MODULE, supply, pump, PSM25, SST; See Supply Pump Module, 25 cc , page 38 | 1 | |
| | ---- | MODULE, supply, pump, PSM25, HW; See Supply Pump Module, 25 cc , page 38 | | 1 |
| 104 | ---- | SCREW, M6 x 1.0-16, socket head | 6 | 6 |
| 105 | ---- | SCREW, M5 x 0.8-16, socket head, SST | 2 | 2 |
| 106 | 25S119 | JUNCTION BOX, PSM25; See Junction Box , page 42 | 1 | 1 |
| 107 | 18D881 | MOTOR, servo, 220 V, 400 W, INO | 1 | 1 |
| 108 | ---- | SCREW, M4 x 0.7-16, socket head, SST | 4 | 4 |
| 109 | 18D698 ⁽¹⁾ | O-RING | 1 | 1 |
| 110 | ---- | KIT, direct install, outlet valve, PSM | 1 | 1 |
| 111 | 2000317 | IDENTIFICATION, PSM25 | 1 | 1 |
| 112▲ | 15H108 | LABEL, safety, warning, pinch | 2 | 2 |
| 113▲ | 189930 | LABEL, caution | 1 | 1 |
| 114 | ---- | TUBE, 6 mm OD x 4 mm ID, PU, black | 1 ft | 1 ft |
| 115 | ---- | TUBE, 6 mm OD X 4 mm ID, PU, blue | 1 ft | 1 ft |

▲ Replacement safety labels, tags, and cards are available at no cost.

(1) This part is not sold separately. Order 25cc sealing kit 2000921 when ordering this part.

Module, 50 cc, 2002778 and 2002779



-  Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).
-  Torque to 1.25-1.7 ft-lb (1.7-2.3 N•m).
-  Installation direction as show.
-  Apply sealant, Anaerobic, blue.
-  Apply fluid, TSL 8 oz bottle.

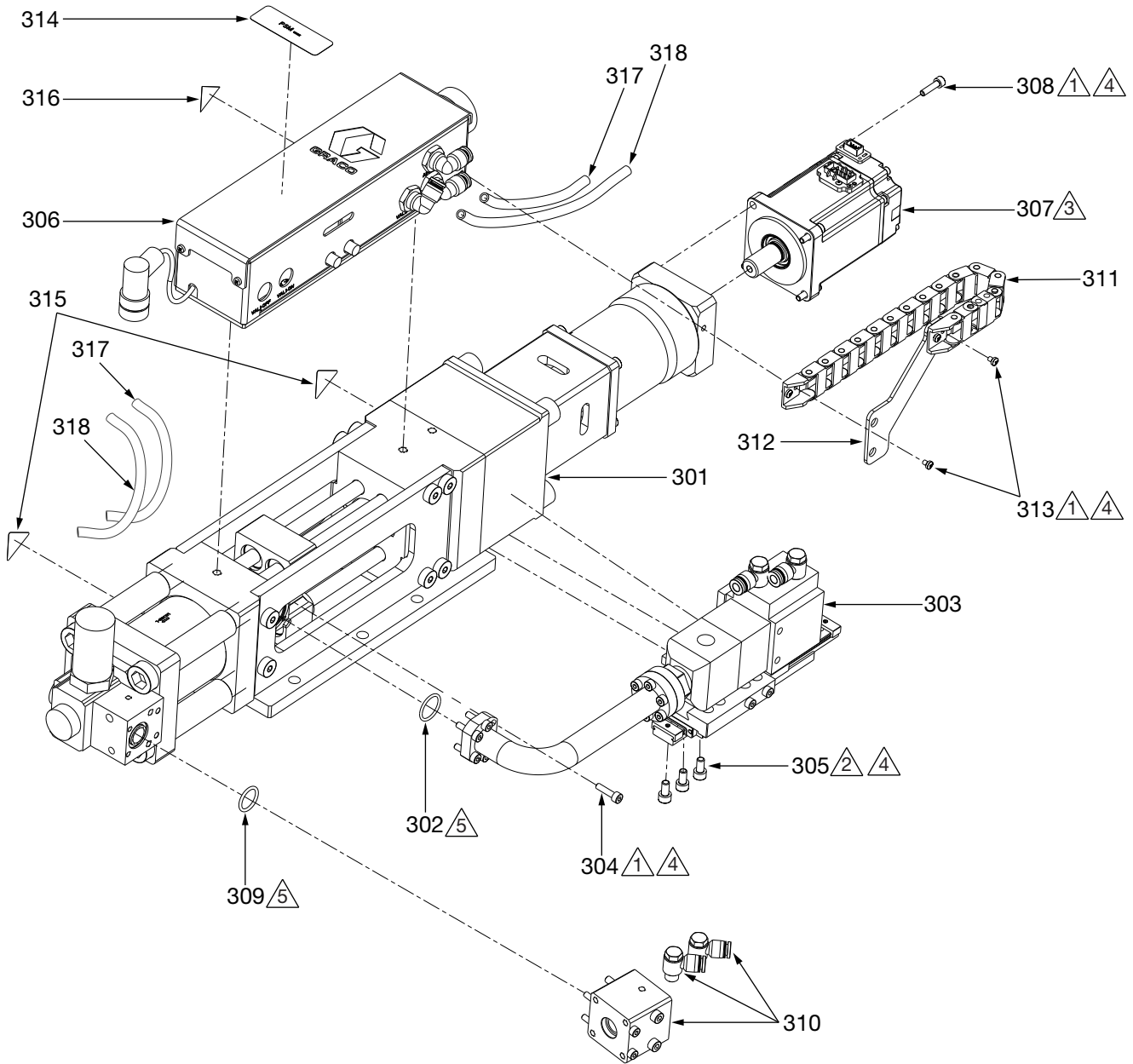
Module Parts List, 50 cc

| Ref. | Part | Description | Qty. | |
|------|-----------------------|---|---------|---------|
| | | | 2002778 | 2002779 |
| 201 | ---- | BASE, PSM, 50, SST; See Base, 50 cc and 100 cc , page 28 | 1 | |
| | ---- | BASE, PSM, 50, CER; See Base, 50 cc and 100 cc , page 28 | | 1 |
| 202 | 18D626 ⁽¹⁾ | O-RING | 1 | 1 |
| 203 | ---- | MODULE, supply, pump, PSM50, SST; See Supply Pump Module, 50 cc and 100 cc , page 40 | 1 | |
| | ---- | MODULE, supply, pump, PSM50, HW; See Supply Pump Module, 50 cc and 100 cc , page 40 | | 1 |
| 204 | ---- | SCREW, M6 x 1.0-16, socket head | 6 | 6 |
| 205 | ---- | SCREW, M5 x 0.8-10, socket head, SST | 3 | 3 |
| 206 | 25S120 | JUNCTION BOX, PSM50; See Junction Box , page 42 | 1 | 1 |
| 207 | 18D881 | MOTOR, servo, 220 V, 400 W, INO | 1 | 1 |
| 208 | ---- | SCREW, M4 x 0.7-16, socket head, SST | 4 | 4 |
| 209 | 18D698 ⁽¹⁾ | O-RING | 1 | 1 |
| 210 | ---- | KIT, direct install, outlet valve, PSM | 1 | 1 |
| 211 | 2000318 | IDENTIFICATION, PSM50 | 1 | 1 |
| 212▲ | 15H108 | LABEL, safety, warning, pinch | 2 | 2 |
| 213▲ | 189930 | LABEL, caution | 1 | 1 |
| 214 | ---- | TUBE, 6 mm OD x 4 mm ID, PU, black | 1 ft | 1 ft |
| 215 | ---- | TUBE, 6 mm OD X 4 mm ID, PU, blue | 1 ft | 1 ft |

▲ Replacement safety labels, tags, and cards are available at no cost.

(1) This part is not sold separately. Order 50/100cc sealing kit 2000922 when ordering this part.

Module, 100 cc, 2002780 and 2002781



- 1 Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).
- 2 Torque to 1.25-1.7 ft-lb (1.7-2.3 N•m).
- 3 Installation direction as show.
- 4 Apply sealant, Anaerobic, blue.
- 5 Apply fluid, TSL 8 oz bottle.

Module Parts List, 100 cc

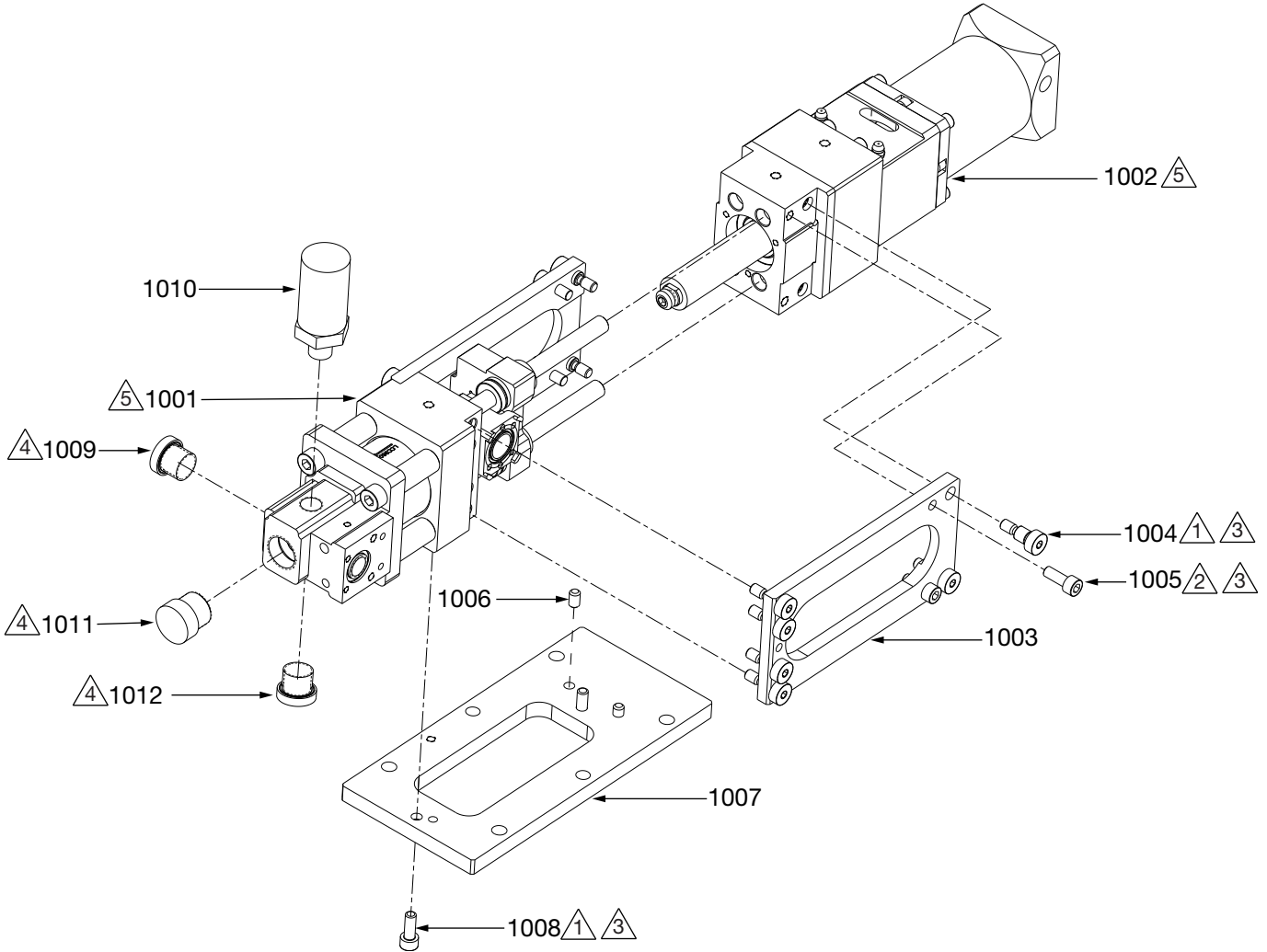
| Ref. | Part | Description | Qty. | |
|------|-----------------------|--|---------|---------|
| | | | 2002780 | 2002781 |
| 301 | ---- | BASE, PSM, 100, SST; See Base, 50 cc and 100 cc , page 28 | 1 | |
| | ---- | BASE, PSM, 100, CER; See Base, 50 cc and 100 cc , page 28 | | 1 |
| 302 | 18D626 ⁽¹⁾ | O-RING | 1 | 1 |
| 303 | ---- | MODULE, supply, pump, PSM100, SST; See Supply Pump Module, 50 cc and 100 cc , page 40 | 1 | |
| | ---- | MODULE, supply, pump, PSM100, HW; See Supply Pump Module, 50 cc and 100 cc , page 40 | | 1 |
| 304 | ---- | SCREW, M6 x 1.0-16, socket head | 6 | 6 |
| 305 | ---- | SCREW, M5 x 0.8-10, socket head, SST | 3 | 3 |
| 306 | 25S121 | JUNCTION BOX, PSM100; See Junction Box , page 42 | 1 | 1 |
| 307 | 18D881 | MOTOR, servo, 220V, 400W, INO | 1 | 1 |
| 308 | ---- | SCREW, M4 x 0.7-16, socket head, SST | 4 | 4 |
| 309 | 18D698 ⁽¹⁾ | O-ring | 1 | 1 |
| 310 | ---- | KIT, direct install, outlet valve, PSM | 1 | 1 |
| 311 | 18D795 | CHAIN, valve, PSM100 | 1 | 1 |
| 312 | 18D721 | PLATE, PSM100 | 1 | 1 |
| 313 | ---- | SCREW, M3 x 0.5-4, Phillips | 4 | 4 |
| 314 | 2000319 | IDENTIFICATION, PSM100 | 1 | 1 |
| 315▲ | 15H108 | LABEL, safety, warning, pinch | 2 | 2 |
| 316▲ | 189930 | LABEL, caution | 1 | 1 |
| 317 | ---- | TUBE, 6 mm OD x 4 mm ID, PU, black | 1 ft | 1 ft |
| 318 | ---- | TUBE, 6 mm OD X 4 mm ID, PU, blue | 1 ft | 1 ft |

▲ Replacement safety labels, tags, and cards are available at no cost.

(1) This part is not sold separately. Order 50/100cc sealing kit 2000922 when ordering this part.

Base

Base, 25 cc



△1 Torque to 5.16-6.64 ft-lb (7.0-9.0 N•m).

△2 Torque to 1.7-2.2 ft-lb (2.3-3.0 N•m).

△3 Apply sealant, Anaerobic, blue.

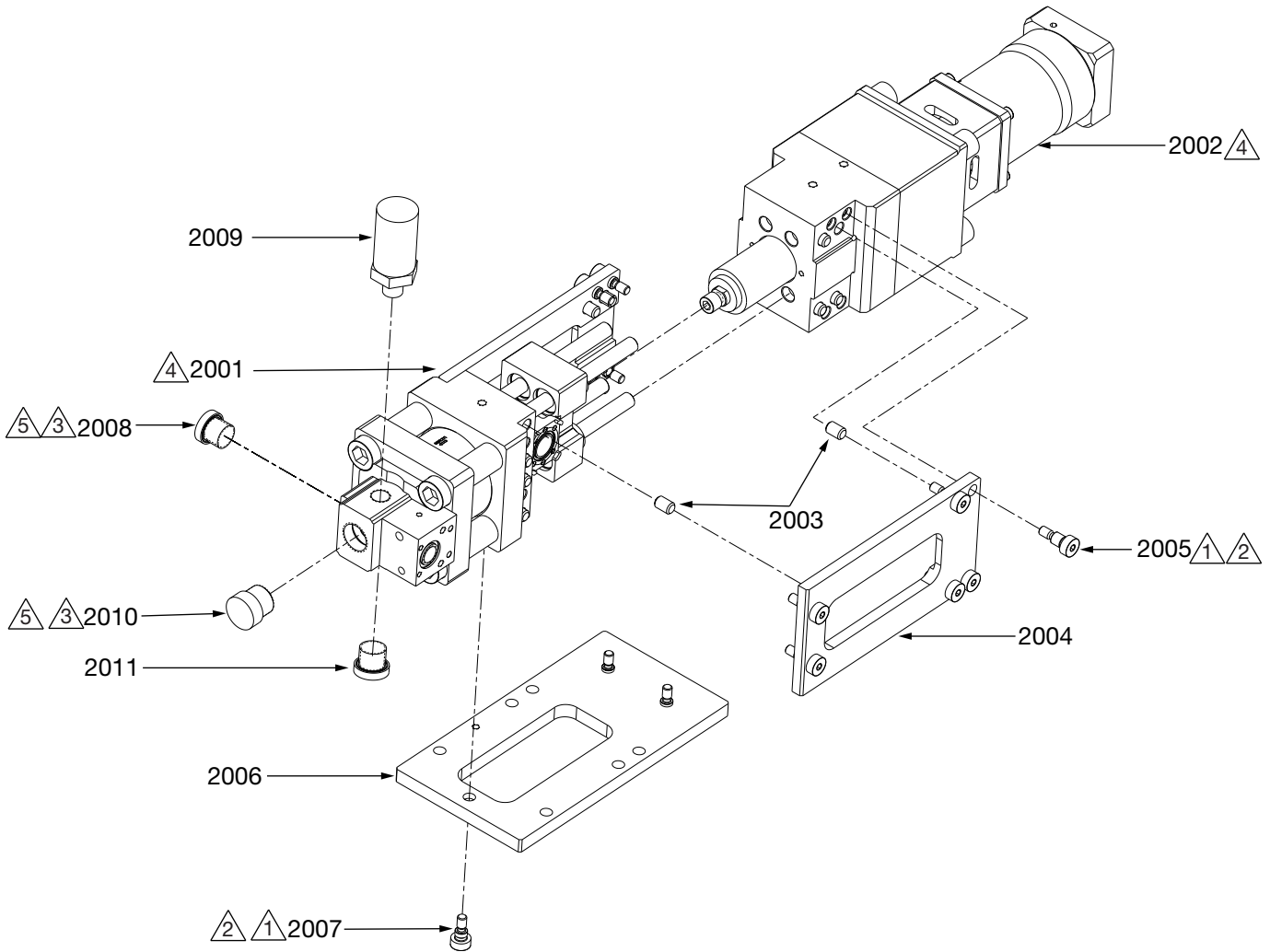
△4 Apply sealant, pipe, SST.

△5 Apply lubricant, synthetic, grease, 3 oz.

Base Parts List, 25 cc

| Ref. | Part | Description | Qty. | |
|------|--------|--|------------|------------|
| | | | 25 cc, SST | 25 cc, CER |
| 1001 | 25S134 | MODULE, metering, SST, PSM25; See Metering Module, 25 cc, 25S134 and 25S164 , page 30 | 1 | |
| | 25S164 | MODULE, metering, CER, PSM25; See Metering Module, 25 cc, 25S134 and 25S164 , page 30 | | 1 |
| 1002 | ---- | MODULE, power transmission, PSM25; See Power Transmission Module, 25 cc , page 34 | 1 | 1 |
| 1003 | 18D647 | PLATE, side, base, pump, PSM25 | 2 | 2 |
| 1004 | ---- | SCREW, shoulder, DIA 8, M6 | 12 | 12 |
| 1005 | ---- | SCREW, M6 x 1-16, socket, SST | 4 | 4 |
| 1006 | 18D657 | PIN, dowel, DIA 6-10 | 2 | 2 |
| 1007 | 18D644 | PLATE, bottom, base, pump, PSM25 | 1 | 1 |
| 1008 | ---- | SCREW, M6 x 1.0-16, socket head | 2 | 2 |
| 1009 | 18D732 | PLUG, blind flange, G 3/8 | 1 | 1 |
| 1010 | 18C018 | TRANSMITTER, pressure | 1 | 1 |
| 1011 | 18D886 | PLUG, UN 13/16-16 | 1 | 1 |
| 1012 | 18D615 | PLUG, blind flange, G 1/4 | 1 | 1 |

Base, 50 cc and 100 cc



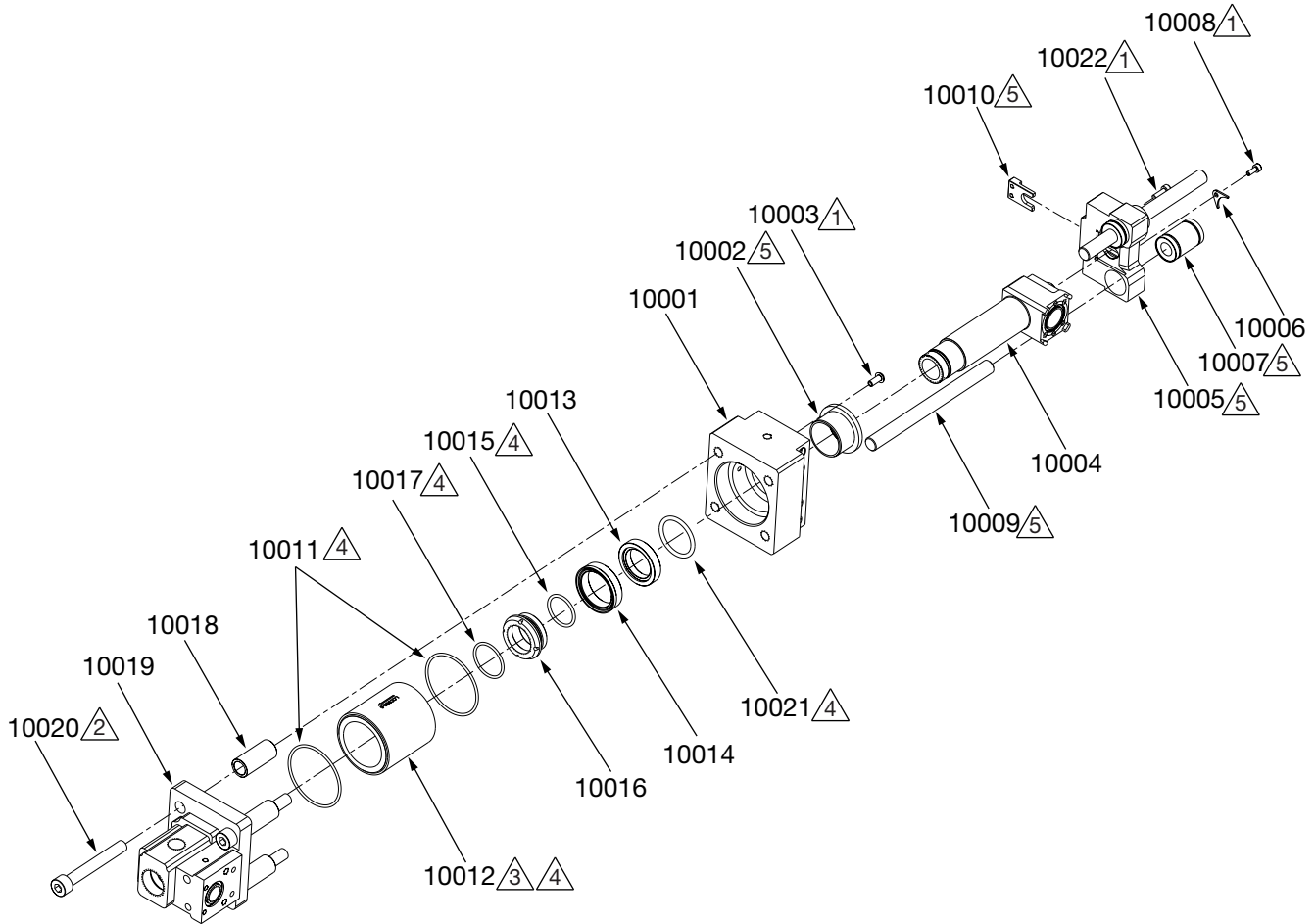
- △1 Torque to 5.16-6.64 ft-lb (7.0-9.0 N•m).
- △2 Apply sealant, Anaerobic, blue.
- △3 Apply sealant, pipe, SST.
- △4 Apply lubricant, synthetic, grease, 3 oz.

Base Parts List, 50 cc and 100 cc

| Ref. | Part | Description | Qty. | | | |
|------|--------|--|------------|------------|-------------|-------------|
| | | | 50 cc, SST | 50 cc, CER | 100 cc, SST | 100 cc, CER |
| 2001 | 25S135 | MODULE, metering, SST, PSM50; See Metering Module, 50 cc and 100 cc, 25S135, 25S165, 25S136 and 25S166 , page 32 | 1 | | | |
| | 25S165 | MODULE, metering, CER, PSM50; See Metering Module, 50 cc and 100 cc, 25S135, 25S165, 25S136 and 25S166 , page 32 | | 1 | | |
| | 25S136 | MODULE, metering, SST, PSM100; See Metering Module, 50 cc and 100 cc, 25S135, 25S165, 25S136 and 25S166 , page 32 | | | 1 | |
| | 25S166 | MODULE, metering, CER, PSM100; See Metering Module, 50 cc and 100 cc, 25S135, 25S165, 25S136 and 25S166 , page 32 | | | | 1 |
| 2002 | ---- | MODULE, power transmission, PSM50; See Power Transmission Module, 50 cc and 100 cc , page 36 | 1 | 1 | | |
| | ---- | MODULE, Power transmission, PSM100; See Power Transmission Module, 50 cc and 100 cc , page 36 | | | 1 | 1 |
| 2003 | 18D920 | PIN, dowel, DIA 8-12 | 16 | 16 | 16 | 16 |
| 2004 | 18D648 | PLATE, side, base, pump, PSM50 | 2 | 2 | | |
| | 18D649 | PLATE, side, base, pump, PSM100 | | | 2 | 2 |
| 2005 | ---- | SCREW, shoulder, DIA 8, M6 | 12 | 12 | 12 | 12 |
| 2006 | 18D645 | PLATE, bottom, base, pump, PSM50 | 1 | 1 | | |
| | 18D646 | PLATE, bottom, base, pump, PSM100 | | | 1 | 1 |
| 2007 | ---- | SCREW, DIA 8, M6 | 3 | 3 | 3 | 3 |
| 2008 | 18D732 | PLUG, blind flange, G 3/8 | 1 | 1 | 1 | 1 |
| 2009 | 18C018 | TRANSMITTER, pressure | 1 | 1 | 1 | 1 |
| 2010 | 18D886 | PLUG, UN 13/16-16 | 1 | 1 | 1 | 1 |
| 2011 | 18D615 | PLUG, blind flange, G 1/4 | 1 | 1 | 1 | 1 |

Metering Module

Metering Module, 25 cc, 25S134 and 25S164



△1 Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).

△2 Torque to 5.16-6.64 ft-lb (7.0-9.0 N•m).

△3 Metering tube direction should be appointing as shown.

△4 Apply fluid, TSL 8 oz bottle.

△5 Apply lubricant, synthetic, grease, 3 oz.

Metering Module Parts List, 25 cc

| Ref. | Part | Description | Qty. | |
|-------|-----------------------|--------------------------------------|--------|--------|
| | | | 25S134 | 25S164 |
| 10001 | 18D719 | BLOCK, tube, PSM25 | 1 | 1 |
| 10002 | 18D718 | SLEEVE, guide, PSM | 1 | 1 |
| 10003 | ---- | SCREW, M4 x 0.7-10, button head, SST | 2 | 2 |
| 10004 | 18D715 | ROD, piston, PSM25 | 1 | 1 |
| 10005 | 18D713 | BLOCK, push, PSM25 | 1 | 1 |
| 10006 | 18D711 | BRACKET, bearing limit, PSM25 | 2 | 2 |
| 10007 | 18B942 | BEARING | 2 | 2 |
| 10008 | ---- | SCREW, M3 x 0.5-8, socket | 2 | 2 |
| 10009 | 18D708 | ROD, guide, PSM25 | 2 | 2 |
| 10010 | 18D706 | HINGE, PSM25 | 1 | 1 |
| 10011 | 120874 ⁽¹⁾ | O-RING | 2 | 2 |
| 10012 | 18F875 | CYLINDER, 25, SST | 1 | |
| | 18F876 | CYLINDER, 25, CER | | 1 |
| 10013 | 18D699 | WASHER, support back, PSM25 | 1 | 1 |
| 10014 | 18D609 | PISTON, 960, PSM25, PE | 1 | |
| | 18D695 | PISTON, 960, PSM25, M22 | | 1 |
| 10015 | 18D751 ⁽¹⁾ | O-RING | 1 | 1 |
| 10016 | 18D692 | NUT, support front, PSM25 | 1 | 1 |
| 10017 | 18D765 ⁽¹⁾ | O-RING | 1 | 1 |
| 10018 | 18D687 | SLEEVE, bolt, M8, PSM25 | 4 | 4 |
| 10019 | 18D685 | BLOCK, support, PSM25 | 1 | 1 |
| 10020 | ---- | SCREW, M8 x 1.25-60, socket head | 4 | 4 |
| 10021 | 18D955 ⁽¹⁾ | O-RING, 25 x 2.65 | 1 | 1 |
| 10022 | ---- | SCREW, M3 x 0.5-16, hexagon socket | 1 | 1 |

❖ Parts included in 25cc SST metering module kit 2000914.

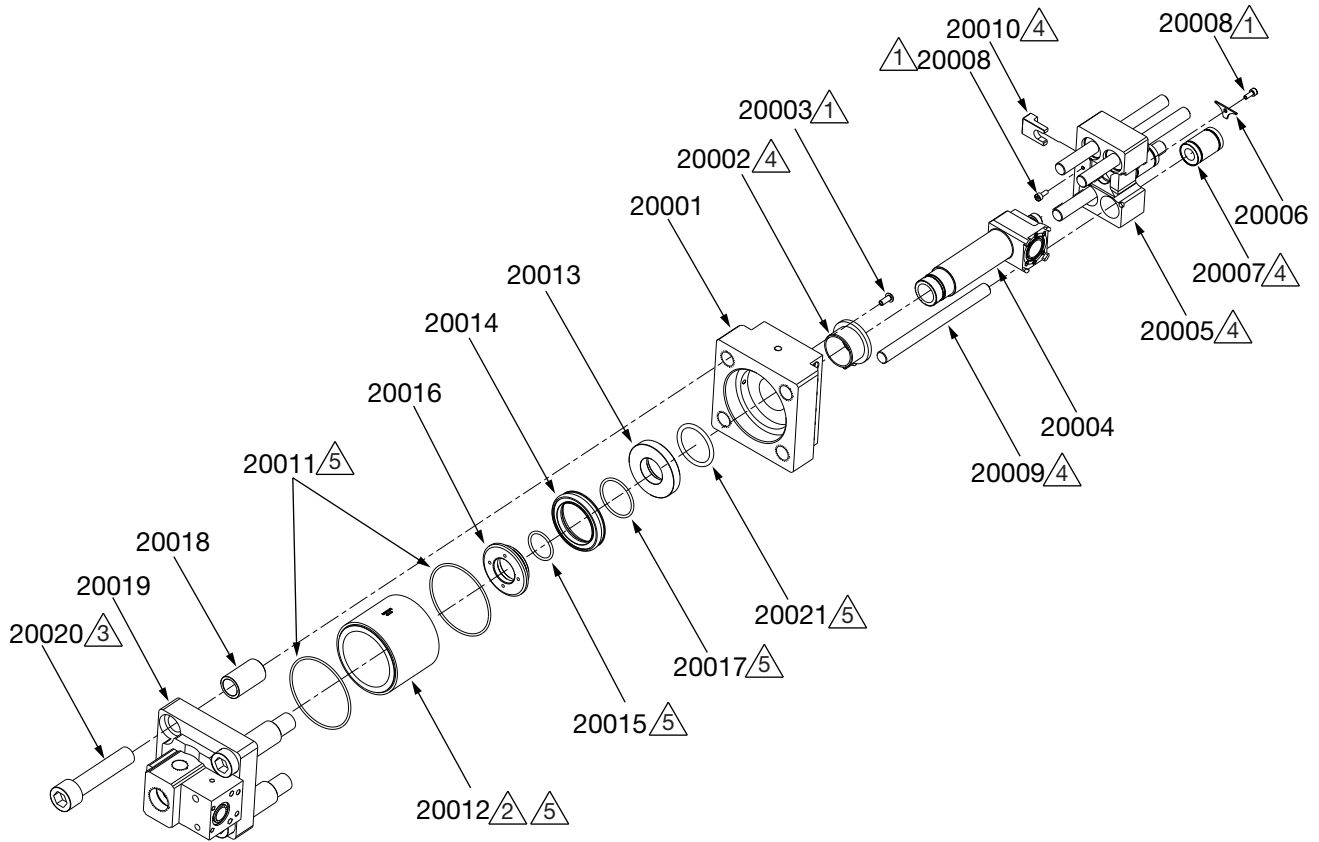
❁ Parts included in 25cc CER metering module kit 2000915.

✓ Parts included in 25cc SST piston kit 2008660.

✱ Parts included in 25cc CER piston kit 2008661.

(1) This part is not sold separately. Order 25cc sealing kit 2000921 when ordering this part.

Metering Module, 50 cc and 100 cc, 25S135, 25S165, 25S136 and 25S166



- ⚠ Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).
- ➡ Metering tube direction should be appointing as shown.
- ⚡ Torque to 6.64-7.38 ft-lb (9-10 N•m).
- ⚠ Apply lubricant, synthetic, grease, 3 oz.
- ⚡ Apply fluid, TSL 8 oz bottle.

Metering Module Parts List, 50 cc and 100 cc

| Ref. | Part | Description | Qty. | | | |
|-----------------------|------------------------|--------------------------------------|--------|--------|--------|--------|
| | | | 25S135 | 25S165 | 25S136 | 25S166 |
| 20001 | 18D720 | BLOCK, tube, PSM50,100 | 1 | 1 | 1 | 1 |
| 20002 | 18D718 | SLEEVE, guide, PSM | 1 | 1 | 1 | 1 |
| 20003 | ---- | SCREW, M4 x 0.7-10, button head, SST | 2 | 2 | 2 | 2 |
| 20004 | 18D716 | ROD, piston, PSM50 | 1 | 1 | | |
| | 18D717 | ROD, piston, PSM100 | | | 1 | 1 |
| 20005 | 18D714 | BLOCK, push, PSM50,100 | 1 | 1 | 1 | 1 |
| 20006 | 18D712 | BRACKET, bearing limit, PSM50,100 | 2 | 2 | 2 | 2 |
| 20007 | 18B942 | BEARING | 4 | 4 | 4 | 4 |
| 20008 | ---- | SCREW, M3 x 0.5-8, socket | 3 | 3 | 3 | 3 |
| 20009 | 18D709 | ROD, guide, PSM50 | 4 | 4 | | |
| | 18D710 | ROD, guide, PSM100 | | | 4 | 4 |
| 20010 | 18D707 | HINGE, PSM50,100 | 1 | 1 | 1 | 1 |
| 20011*◆★☼✓ | 18D690 ⁽¹⁾ | O-RING | 2 | 2 | 2 | 2 |
| 20012* ◆ ★ ☼ | 18D703 | CYLINDER, 50, SST, PSM | 1 | | | |
| | 18D606 | CYLINDER, 50, CER, PSM | | 1 | | |
| | 18D704 | CYLINDER, 100, SST, PSM | | | 1 | |
| | 18D607 | CYLINDER, 100, CER, PSM | | | | 1 |
| 20013*◆★☼ | 18D701 | WASHER, support back, PSM50,100 | 1 | 1 | 1 | 1 |
| 20014*◆★☼✓ | 18D697 | PISTON, 1800, PSM50,100 | 1 | 1 | 1 | 1 |
| 20015*◆★☼✓ | 18D751 ⁽¹⁾ | O-RING | 1 | 1 | 1 | 1 |
| 20016*◆★☼ | 18D694 | NUT, support front, PSM50,100 | 1 | 1 | 1 | 1 |
| 20017*◆★☼✓ | 2002505 ⁽¹⁾ | O-RING | 1 | 1 | 1 | 1 |
| 20018 | 18D679 | SLEEVE, bolt, M10, PSM50 | 4 | 4 | | |
| | 18D688 | SLEEVE, bolt, M10, PSM100 | | | 4 | 4 |
| 20019 | 18D686 | BLOCK, support, PSM50,100 | 1 | 1 | 1 | 1 |
| 20020 | ---- | SCREW, M14 x 2.0-65, socket head | 4 | 4 | | |
| | ---- | SCREW, M14 x 2.0-95, socket head | | | 4 | 4 |
| 20021✓ | 18D955 ⁽¹⁾ | O-RING, 25 x 2.65 | 1 | 1 | 1 | 1 |

* Parts included in 50cc SST metering module kit 2000916.

◆ Parts included in 50cc CER metering module kit 2000917.

★ Parts included in 100cc SST metering module kit 2000918.

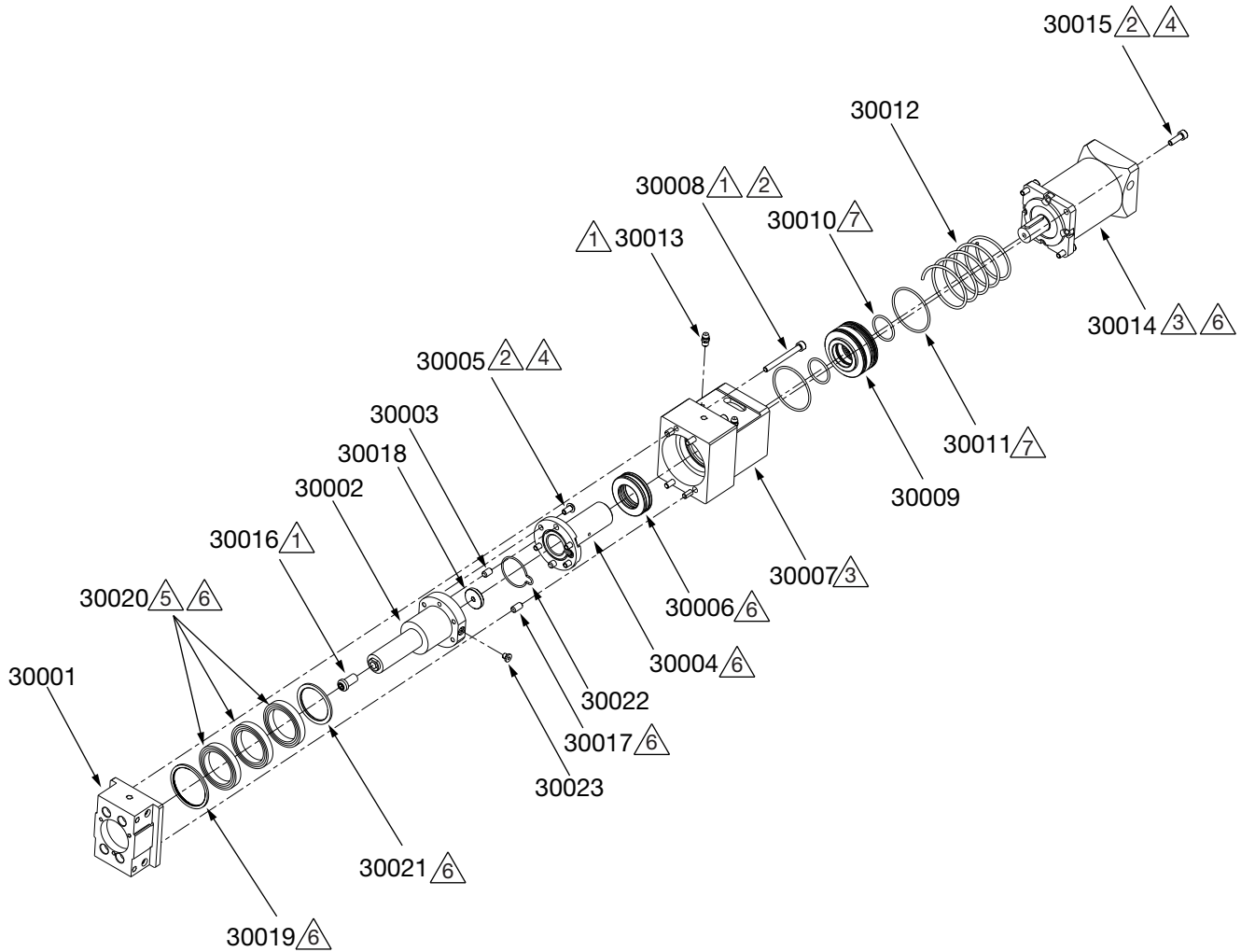
☼ Parts included in 100cc CER metering module kit 2000919.

✓ Parts included in 50/100cc piston kit 2008662.

(1) This part is not sold separately. Order 50/100cc sealing kit 2000922 when ordering this part.

Power Transmission Module

Power Transmission Module, 25 cc



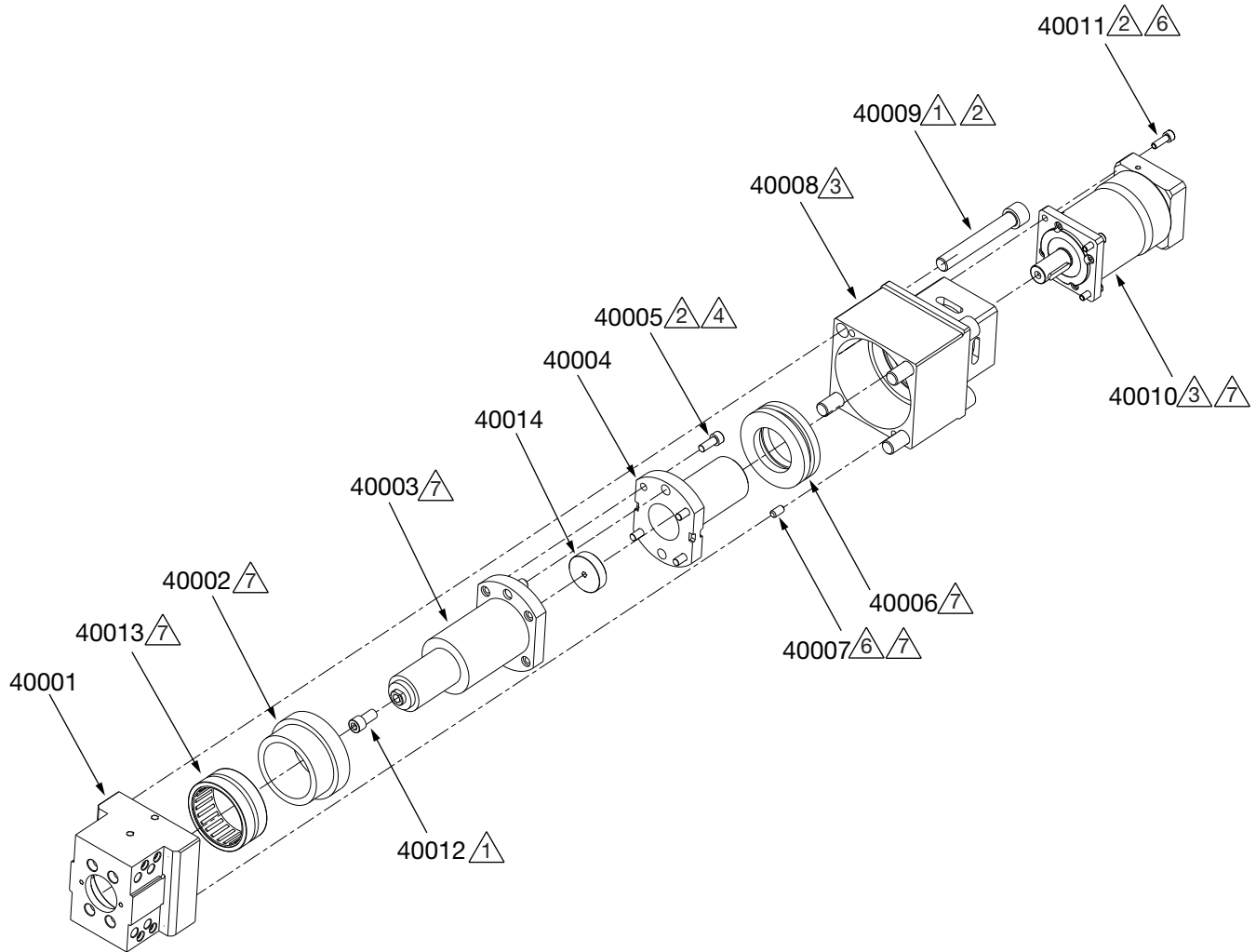
- ⚠ Torque to 1.7-2.2 ft-lb (2.3-3.0 N•m).
- ⚠ Apply sealant, Anaerobic, blue.
- ⚠ Installation direction as show.
- ⚠ Torque to 1.25-1.7 ft-lb (1.7-2.3 N•m).
- ⚠ Open direction face to motor side.
- ⚠ Apply lubricant, grease, high temperature.
- ⚠ Apply fluid, TSL 8 oz bottle.

Power Transmission Module Parts List, 25 cc

| Ref. | Part | Description | Qty. |
|-------|-----------------------|--|------|
| 30001 | 18D673 | BLOCK, sleeve, PSM25 | 1 |
| 30002 | 2002386 | KIT, ball screw, nut, PSM25 | 1 |
| 30003 | 18D657 | PIN, dowel, DIA 6-10 | 2 |
| 30004 | 18D661 | ADAPTER, axle sleeve, PSM25 | 1 |
| 30005 | ---- | SCREW, hexagon socket flat round head, M5 x 10 | 4 |
| 30006 | 18D659 | BEARING, single thrust | 1 |
| 30007 | 18D654 | HOUSING, reduction box, PSM25 | 1 |
| 30008 | ---- | SCREW, M5 x 0.8-50, socket head | 4 |
| 30009 | 18D878 | GUIDE, ring, PSM25 | 1 |
| 30010 | 18D763 ⁽¹⁾ | O-RING | 2 |
| 30011 | 120874 ⁽¹⁾ | O-RING | 2 |
| 30012 | 18D880 | SPRING, PSM25 | 1 |
| 30013 | 120892 | FITTING, grease | 2 |
| 30014 | 18B973 | BOX, reduction, ratio 20 | 1 |
| 30015 | ---- | SCREW, M5 x 0.8-16, socket head, SST | 4 |
| 30016 | ---- | SCREW, M8 x 1.25-16, button head | 1 |
| 30017 | 18D898 | PIN, dowel, DIA 6-12 | 2 |
| 30018 | 2001215 | GASKET, axle sleeve, PSM25 | 1 |
| 30019 | 2002401 | RING, axle bumper, outer | 1 |
| 30020 | 2002404 | BEARING, 7807C, angular contact ball | 3 |
| 30021 | 2002402 | RING, axle bumper, inner | 1 |
| 30022 | ---- | O-RING, 33.6 x 1.5 | 1 |
| 30023 | ---- | SCREW, M5 x 0.8-6.0, flat head, with o-ring | 1 |

(1) This part is not sold separately. Order 25cc sealing kit 2000921 when ordering this part.

Power Transmission Module, 50 cc and 100 cc



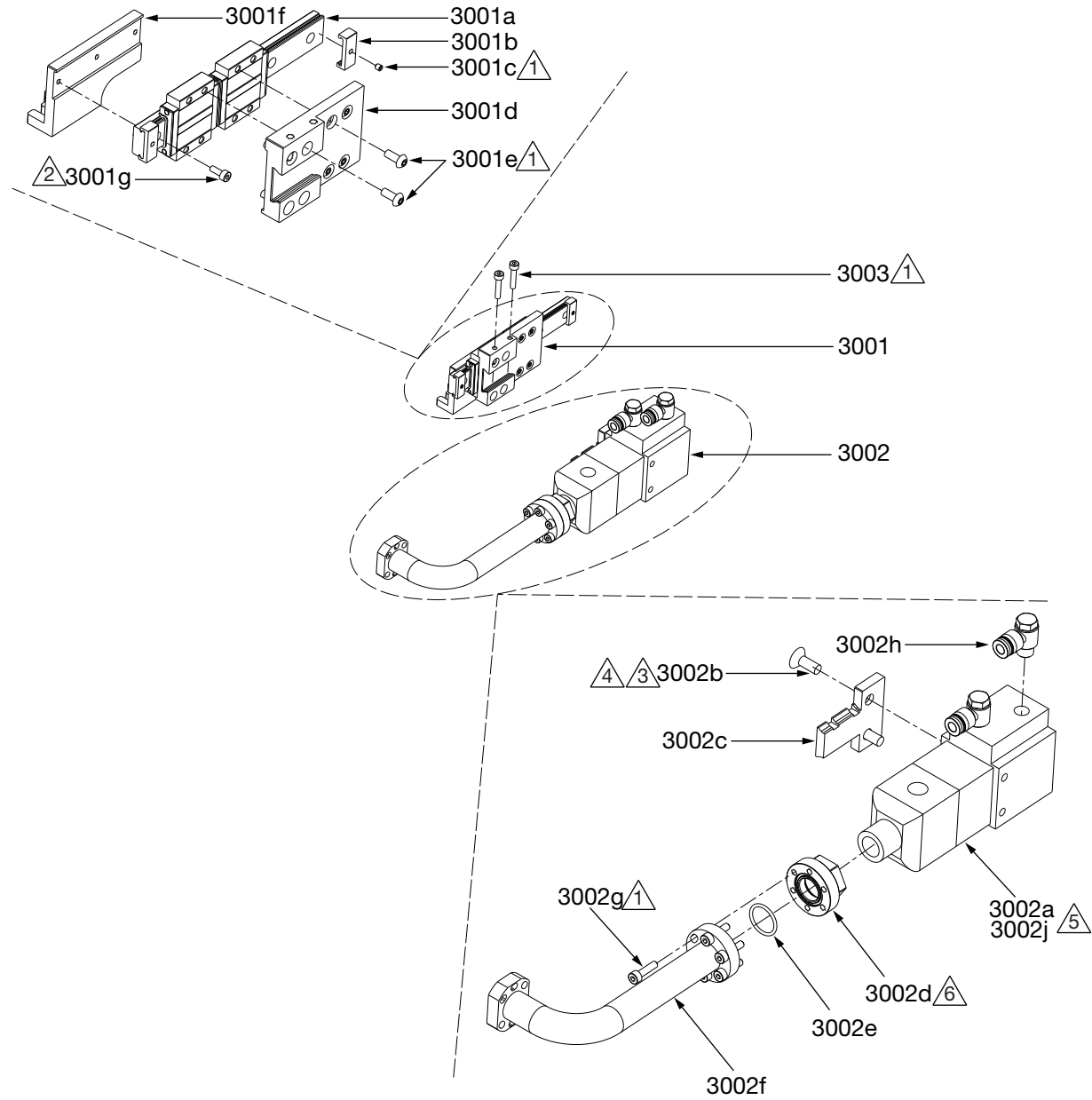
- ⚠ Torque to 5.90-6.64 ft-lb (8.0-9.0 N•m).
- ⚡ Apply sealant, Anaerobic, blue.
- ➡ Installation direction as show.
- ⚠ Torque to 2.21-2.95 ft-lb (3.0-4.0 N•m).
- ➡ Open direction face to motor side.
- ⚠ Torque to 1.25-1.7 ft-lb (1.7-2.3 N•m).
- ⚠ Apply lubricant, synthetic, grease, 3 oz.

Power Transmission Module Parts List, 50 cc and 100 cc

| Ref. | Part | Description | Qty. | |
|-------|---------|--------------------------------------|-------|--------|
| | | | 50 cc | 100 cc |
| 40001 | 18D674 | BLOCK, sleeve, PSM50,100 | 1 | 1 |
| 40002 | 18D672 | BEARING, composite | 1 | 1 |
| 40003 | 2002387 | KIT, ball screw, nut, PSM50 | 1 | |
| | 2002388 | KIT, ball screw, nut, PSM100 | | 1 |
| 40004 | 18D663 | ADAPTER, axle sleeve, PSM50 | 1 | |
| | 18D667 | ADAPTER, axle sleeve, PSM100 | | 1 |
| 40005 | ---- | SCREW, M6 x 1.0-16, socket head | 4 | 4 |
| 40006 | 18D660 | BEARING, single thrust | 1 | 1 |
| 40007 | 18D898 | PIN, dowel, DIA 6-12 | 2 | 2 |
| 40008 | 18D655 | HOUSING, reduction box, PSM50 | 1 | |
| | 18D656 | HOUSING, reduction box, PSM100 | | 1 |
| 40009 | ---- | SCREW, M12 x 1.75-85, socket head | 4 | 4 |
| 40010 | 18D723 | BOX, reduction, ratio 60 | 1 | 1 |
| 40011 | ---- | SCREW, M5 x 0.8-16, socket head, SST | 4 | 4 |
| 40012 | ---- | SCREW, M8 x 1.25-16, socket head | 1 | 1 |
| 40013 | 18D895 | BEARING, needle bearing | 1 | 1 |
| 40014 | 2000786 | GASKET, axle sleeve, PSM50,100 | 1 | 1 |

Supply Pump Module

Supply Pump Module, 25 cc



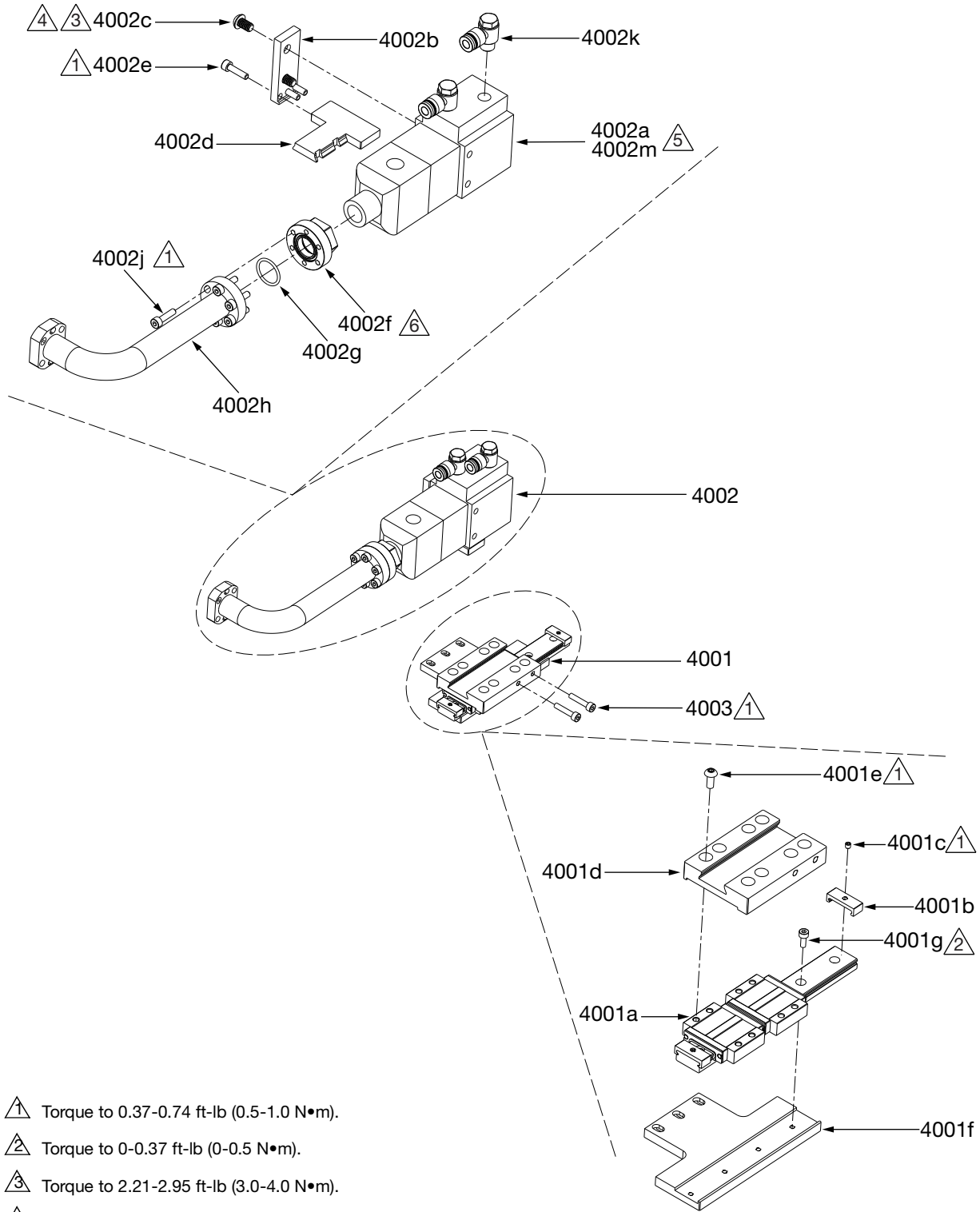
- △1 Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).
- △2 Torque to 0-0.37 ft-lb (0-0.5 N•m).
- △3 Torque to 2.21-2.95 ft-lb (3.0-4.0 N•m).
- △4 Apply sealant, Anaerobic, blue.
- △5 Adjust the direction to keep fitting thread as top surface.
- △6 Apply sealant, pipe, SST.

Supply Pump Module Parts List, 25 cc

| Ref. | Part | Description | Qty. | |
|-------|-----------------------|--------------------------------------|------------|------------|
| | | | 25 cc, SST | 25 cc, CER |
| 3001 | 25S124 | MODULE, slide track, PSM25 | 1 | 1 |
| 3001a | 18D638 | GUIDE, rail, sliders, PSM25,50 | 1 | 1 |
| 3001b | 18D637 | BLOCK, stop, done stop, PSM | 2 | 2 |
| 3001c | ---- | SCREW, set, M3 x 0.5-3, flat | 2 | 2 |
| 3001d | 18D635 | PLATE, mounting, base, PSM25 | 1 | 1 |
| 3001e | ---- | SCREW, M4 x 0.7-10, button head, SST | 8 | 8 |
| 3001f | 18D633 | PLATE, mounting, valve, PSM25 | 1 | 1 |
| 3001g | ---- | SCREW, M3 x 0.5-8, socket | 3 | 3 |
| 3002 | ---- | MODULE, 1K valve, PSM25, SST | 1 | |
| | ---- | MODULE, 1K valve, PSM25, HW | | 1 |
| 3002a | ---- | VALVE, 1K | 1 | 1 |
| 3002b | ---- | SCREW, M6 x 1.0-16, flat head | 2 | 2 |
| 3002c | 18E313 | PLATE, mounting, valve | 1 | 1 |
| 3002d | 18D627 | ADAPTER, 3/4-16 UNF, PSM | 1 | 1 |
| 3002e | 18D626 ⁽¹⁾ | O-RING | 1 | 1 |
| 3002f | 18D625 | PIPE, bend, PSM | 1 | 1 |
| 3002g | ---- | SCREW, M6 x 1.0-16, socket head | 6 | 6 |
| 3002h | 18C103 | FITTING, DIA 6, PT1/8, PV | 2 | 2 |
| 3002j | ---- | VALVE, elite 1K, no-snaffback | | 1 |
| 3003 | ---- | SCREW, M4 x 0.7-20, socket | 2 | 2 |

(1) This part is not sold separately. Order 25cc sealing kit 2000921 when ordering this part.

Supply Pump Module, 50 cc and 100 cc



- ⚠ Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).
- ⚠ Torque to 0-0.37 ft-lb (0-0.5 N•m).
- ⚠ Torque to 2.21-2.95 ft-lb (3.0-4.0 N•m).
- ⚠ Apply sealant, Anaerobic, blue.
- ⚠ Adjust the direction to keep fitting thread as top surface.
- ⚠ Apply sealant, pipe, SST.

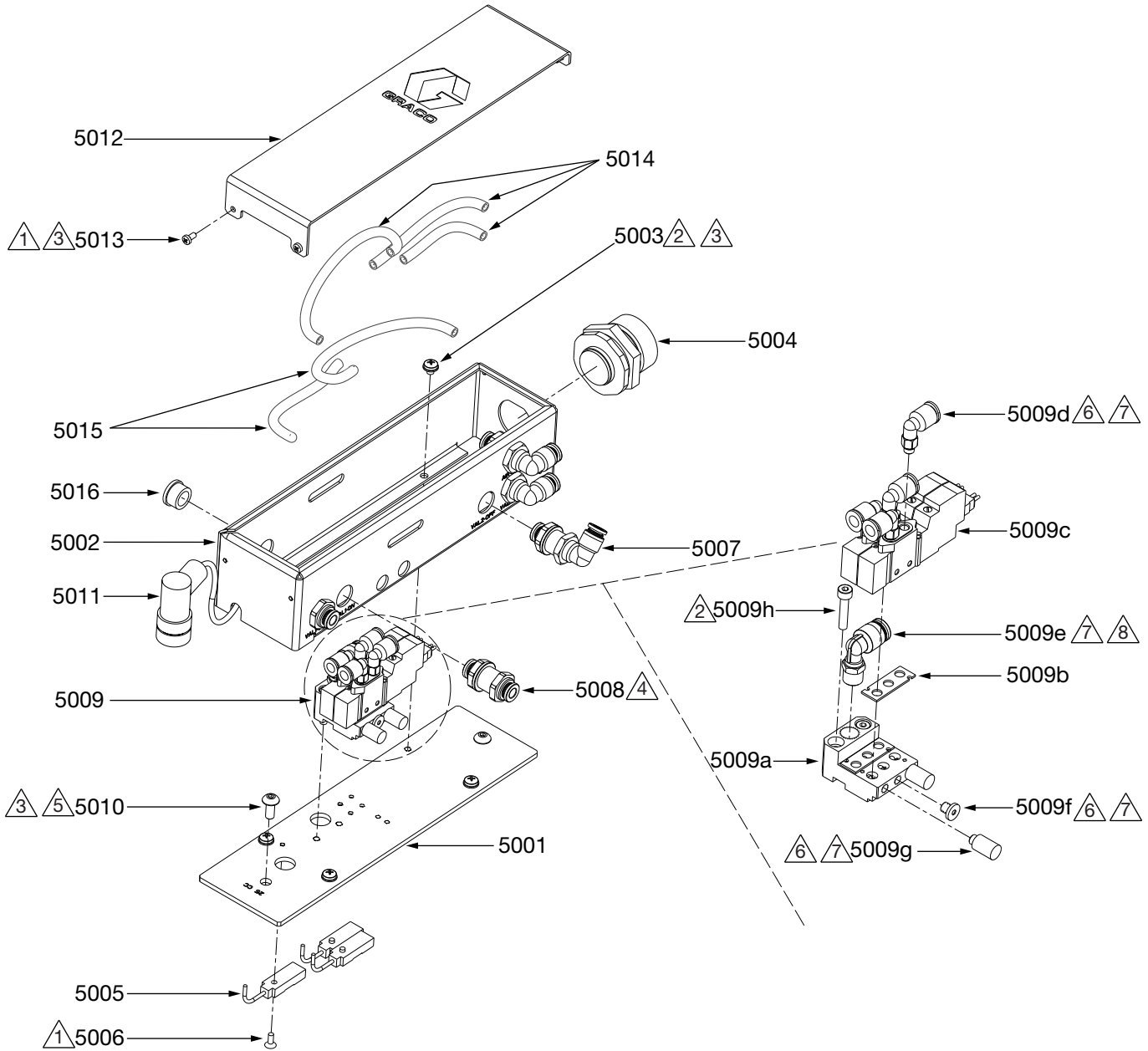
Supply Pump Module Parts List, 50 cc and 100 cc

| Ref. | Part | Description | Qty. | | | |
|-------|-----------------------|--------------------------------------|------------|------------|-------------|-------------|
| | | | 50 cc, SST | 50 cc, CER | 100 cc, SST | 100 cc, CER |
| 4001 | 25S125 | MODULE, slide track, PSM50 | 1 | 1 | | |
| | 25S126 | MODULE, slide track, PSM100 | | | 1 | 1 |
| 4001a | 18D638 | GUIDE, rail, sliders, PSM25,50 | 1 | 1 | | |
| | 18D640 | GUIDE, rail, sliders, PSM100 | | | 1 | 1 |
| 4001b | 18D637 | BLOCK, stop, done stop, PSM | 2 | 2 | 2 | 2 |
| 4001c | ---- | SCREW, set, M3 x 0.5-3, flat | 2 | 2 | 2 | 2 |
| 4001d | 18D636 | PLATE, mounting, base, PSM50,100 | 1 | 1 | 1 | 1 |
| 4001e | ---- | SCREW, M4 x 0.7-10, button head, SST | 8 | 8 | 8 | 8 |
| 4001f | 18D634 | PLATE, mounting, base, PSM50,100 | 1 | 1 | 1 | 1 |
| 4001g | ---- | SCREW, M3 x 0.5-8, socket | 4 | 4 | 4 | 4 |
| 4002 | ---- | MODULE, 1K valve, PSM50, 100, SST | 1 | | 1 | |
| | ---- | MODULE, 1K valve, PSM50, 100, HW | | 1 | | 1 |
| 4002a | ---- | VALVE, 1K | 1 | 1 | 1 | 1 |
| 4002b | 18D630 | PLATE, mounting, valve, PSM50,100 | 1 | 1 | 1 | 1 |
| 4002c | ---- | SCREW, M6 x 1-10, button head, hex | 2 | 2 | 2 | 2 |
| 4002d | 18D629 | PLATE, mounting, valve, PSM50,100 | 1 | 1 | 1 | 1 |
| 4002e | ---- | SCREW, M4 x 0.7-16, socket head, SST | 3 | 3 | 3 | 3 |
| 4002f | 18D627 | ADAPTER, 3/4-16 UNF, PSM | 1 | 1 | 1 | 1 |
| 4002g | 18D626 ⁽¹⁾ | O-RING | 1 | 1 | 1 | 1 |
| 4002h | 18D625 | PIPE, bend, PSM | 1 | 1 | 1 | 1 |
| 4002j | ---- | SCREW, M6 x 1.0-16, socket head | 6 | 6 | 6 | 6 |
| 4002k | 18C103 | FITTING, DIA 6, PT1/8, PV | 2 | 2 | 2 | 2 |
| 4002m | ---- | VALVE, elite 1K, no-snuffback | | 1 | | 1 |
| 4003 | ---- | SCREW, M4 x 0.7-20, socket | 2 | 2 | 2 | 2 |

(1) This part is not sold separately. Order 50/100cc sealing kit 2000922 when ordering this part.

Junction Box

25S119, 25S120, and 25S121



1 Torque to 0-0.37 ft-lb (0-0.5 N•m).

2 Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).

3 Apply sealant, Anaerobic, blue.

4 Rubber gasket should be assembled on the outer surface.

5 Torque to 1.25-1.7 ft-lb (1.7-2.3 N•m).

6 Torque to 1.70-2.58 ft-lb (2.3-3.5 N•m).

7 Apply sealant, pipe, SST.

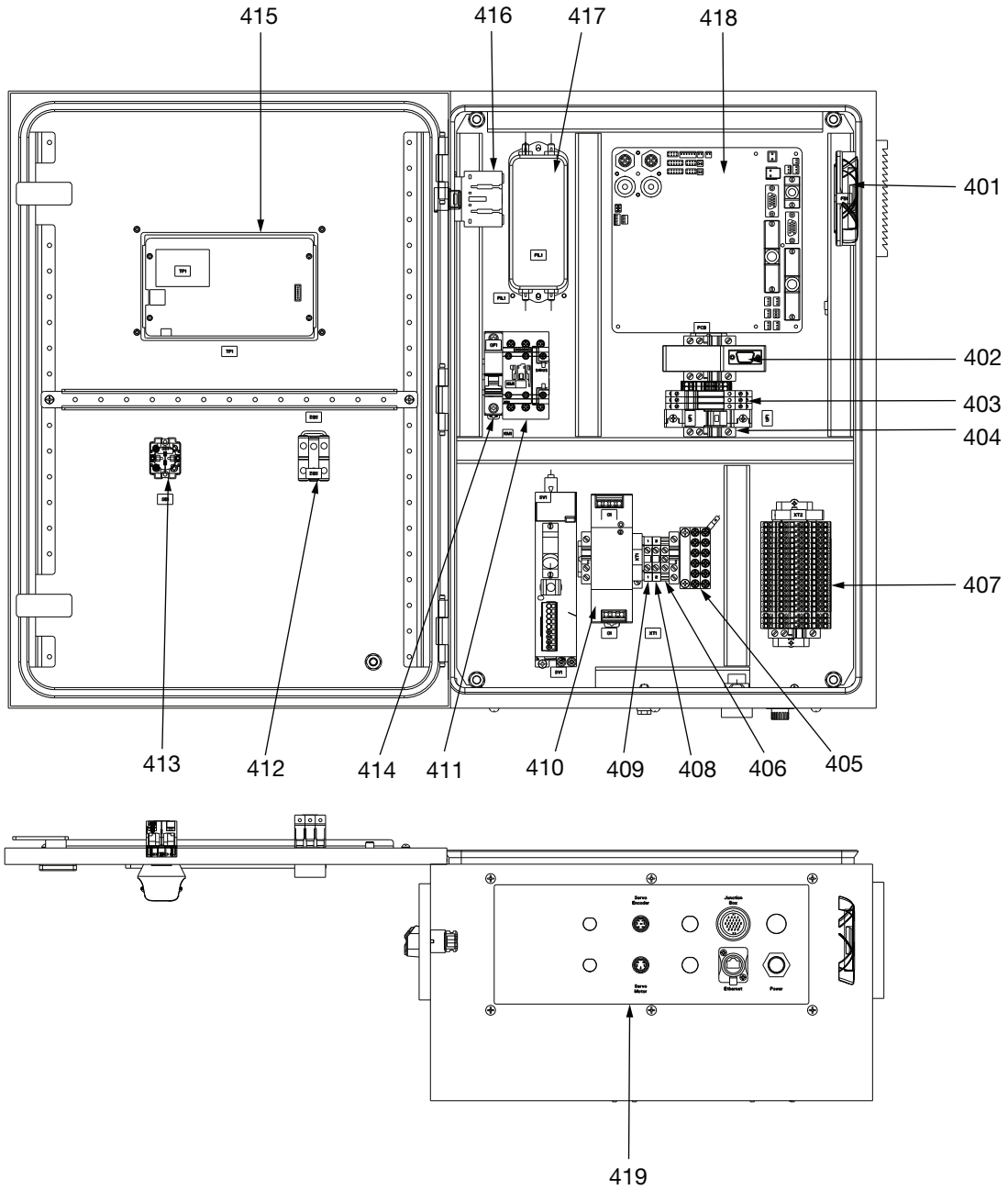
8 Torque to 4.43-5.16 ft-lb (6.0-7.0 N•m).

Junction Box Parts List

| Ref. | Part | Description | Qty. | | |
|-------|--------|--|--------|--------|--------|
| | | | 25S119 | 25S120 | 25S121 |
| 5001 | ---- | PLATE, junction box, PSM25 | 1 | | |
| | ---- | PLATE, junction box, PSM50 | | 1 | |
| | ---- | PLATE, junction box, PSM100 | | | 1 |
| 5002 | ---- | FRAME, control, PSM25 | 1 | | |
| | ---- | FRAME, control, PSM50,100 | | 1 | 1 |
| 5003 | ---- | SCREW, M4 x 0.7-5, Phillips, with washer | 4 | 4 | 4 |
| 5004 | ---- | ADAPTER, WF20, M26 | 1 | 1 | 1 |
| 5005 | ---- | SENSOR, position | 3 | 3 | 3 |
| 5006 | ---- | SCREW, M3 x 0.5-8, flat head, SST | 3 | 3 | 3 |
| 5007 | ---- | FITTING, DIA 6, M14, PLM6 | 3 | 3 | 3 |
| 5008 | ---- | FITTING, DIA 6, M14 x 1, PSM 25, 50 | 2 | 2 | |
| | ---- | FITTING, DIA 6, M14 x 1, PSM 100 | | | 2 |
| 5009 | 25S118 | MODULE, solenoid valve, PSM | 1 | 1 | 1 |
| 5009a | ---- | BLOCK, support, PSM | 1 | 1 | 1 |
| 5009b | ---- | GASKET, rubber, PSM | 2 | 2 | 2 |
| 5009c | ---- | KIT, solenoid valve, PSM | 2 | 2 | 2 |
| 5009d | ---- | FITTING, DIA 6, M5 x 0.8 | 4 | 4 | 4 |
| 5009e | ---- | FITTING, DIA 6, PT1/8 | 1 | 1 | 1 |
| 5009f | ---- | PLUG, blind flange, M5 | 1 | 1 | 1 |
| 5009g | ---- | MUFFLER, M5 | 2 | 2 | 2 |
| 5009h | ---- | SCREW, M4 x 0.7-20, socket | 2 | 2 | 2 |
| 5010 | ---- | SCREW, M5 x 0.8-12, button head, SST | 2 | 2 | 2 |
| 5011 | ---- | FITTING, transmitter, pressure | 1 | 1 | 1 |
| 5012 | ---- | COVER, control, PSM | 1 | 1 | 1 |
| 5013 | ---- | SCREW, M3 x 0.5-6, pan head, SST | 4 | 4 | 4 |
| 5014 | ---- | TUBE, 6 mm OD x 4 mm ID, PU, black | 2 ft | 2 ft | 2 ft |
| 5015 | ---- | TUBE, 6 mm OD x 4 mm ID, PU, blue | 1.5 ft | 1.5 ft | 1.5 ft |
| 5016 | ---- | CAP, hole, M14 | 2 | 5 | 5 |

Control Unit

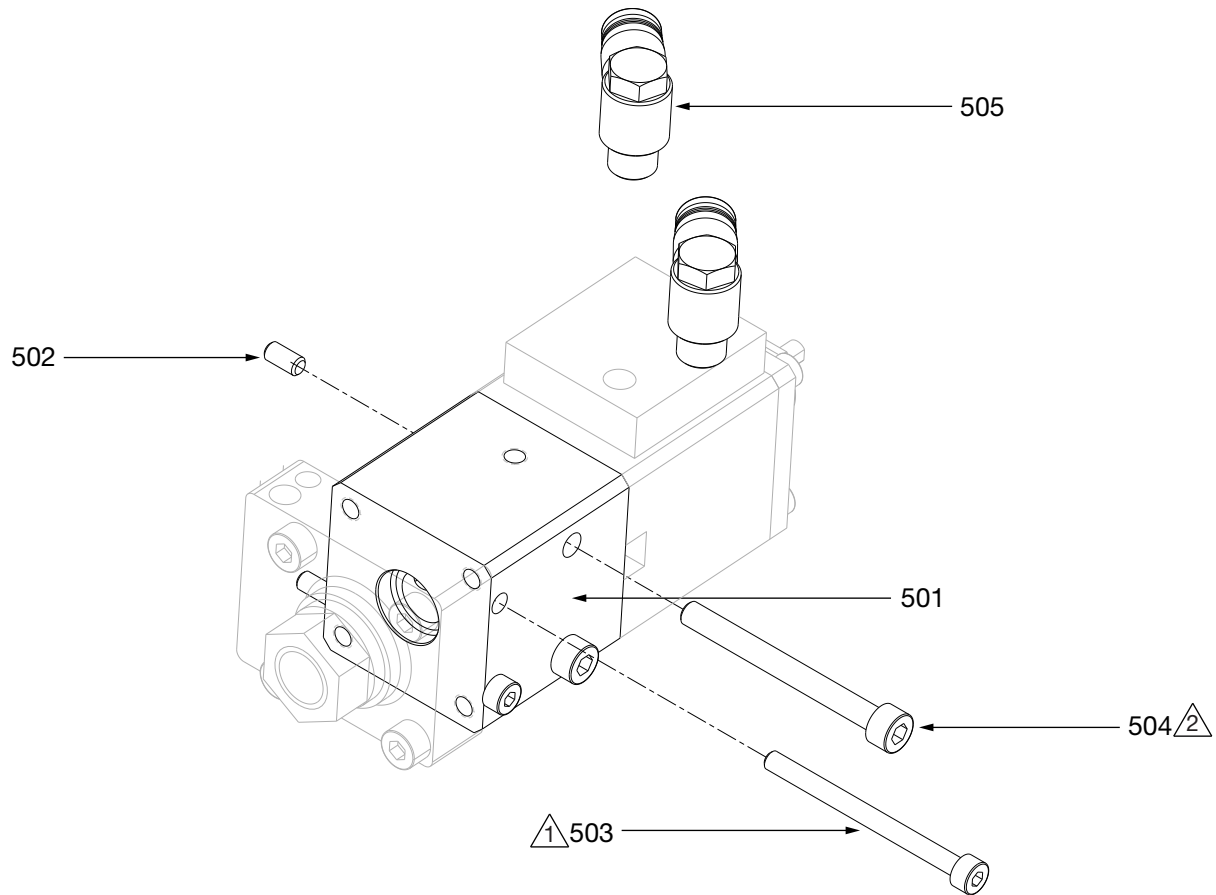
2002837





Control Unit Parts List

| Ref. | Part | Description | Qty. |
|------|---------|---------------------------------|------|
| 401 | CU0011 | FAN, assembly | 1 |
| 402 | 2000361 | MODULE, RS-232 to Ethernet | 1 |
| 403 | CU0489 | RELAY, module with base | 3 |
| 404 | CU0018 | HOLDER, fuse, ABB | 1 |
| | CU0341 | FUSE | 1 |
| 405 | CU0053 | GROUNDING BAR | 1 |
| 406 | CU0487 | TERMINAL, ground, GNYE | 1 |
| 407 | CU0488 | TERMINAL, block, gray | 20 |
| 408 | CU0019 | TERMINAL, blue | 1 |
| 409 | CU0020 | TERMINAL, gray | 1 |
| 410 | CU0016 | POWER SUPPLY, 150W, 24VDC, MW | 1 |
| 411 | CU0017 | CONTACT, 3P, 1NO+1NC, SIEMENS | 1 |
| 412 | 2000176 | STARTER, OPERATOR | 1 |
| 413 | 2000178 | STOP, ERMERGENCY | 1 |
| 414 | CU0022 | CIRCUIT BRKR, 1P, 6A, SCHNEIDER | 1 |
| 415 | ---- | DISPLAY, TOUCH SCREEN | 1 |
| 416 | CU0026 | SWITCH, DISCONNECT, 3P | 1 |
| 417 | CU0492 | CABLE, POWER SUPPLY, INSIDE | 1 |
| 418 | 2000267 | BOARD, PCB, Assembly | 1 |
| 419 | CU0397 | PANEL, SOCKET, EXTERNAL CABLES | 1 |

Dispense Valve Module*



 Torque to 0.37-0.74 ft-lb (0.5-1.0 N•m).

 Torque to 1.7-2.2 ft-lb (2.3-3.0 N•m).

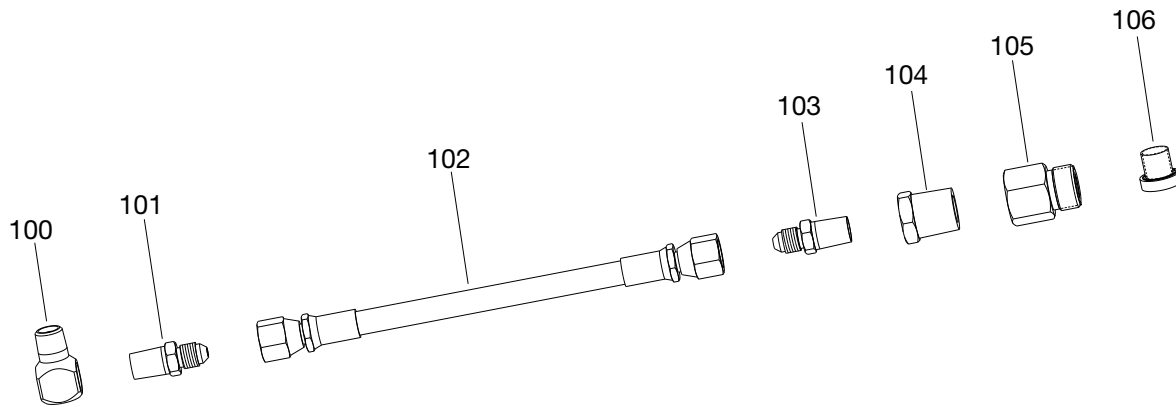
* The sketch shows only one type of the valves. For more details, refer to the related manual of iQ Dispense Valve (333585). See **Related Manuals**, page 2.

Dispense Valve Module Parts List

| Ref. | Part | Description | Qty. |
|------|--------|---------------------------------|------|
| 501 | 18D702 | BLOCK, iQ valve | 1 |
| 502 | 18D684 | PIN, dowel, DIA 4-8 | 2 |
| 503 | ---- | SCREW, M5 x 0.8-50, socket head | 2 |
| 504 | ---- | SCREW, M4 x 0.7-50, socket head | 2 |
| 505 | 18C103 | FITTING, DIA 6, PT1/8, PV | 2 |

Kits and Accessories

Remote Kits



| Kits | Description | 100 | 101 | 102 | 103 | 104 | 105 | 106 | |
|---------|--|-------------------|----------------|--------|----------------|--------|--------|--------|--|
| 2000712 | KIT, remote connection, ORFS, PSM | ---- | ---- | ---- | ---- | ---- | ---- | ---- | |
| 2000842 | KIT, hose, ASSY, JIC fitting, PSM, 3/32 x 60 | 166866 | 124961 | 16W047 | 124961 | 102022 | | | |
| 2000843 | KIT, hose, ASSY, JIC fitting, PSM, 1/8 x 60 | | | 16V531 | | | | | |
| 2000844 | KIT, hose, ASSY, JIC fitting, PSM, 3/16 x 36 | 166866 +100030 | 94/1000 /98 | 16C502 | 94/1000 /98 | 100329 | | | |
| 2000845 | KIT, hose, ASSY, JIC fitting, PSM, 3/16 x 48 | | | 16C503 | | | | | |
| 2000847 | KIT, hose, ASSY, JIC fitting, PSM, 3/16 x 72 | | | 16C504 | | | | | |
| 2000848 | KIT, hose, ASSY, JIC fitting, PSM, 1/4 x 36 | 166866 | 124961 | 16C511 | 124961 | 102022 | 18D958 | 18D615 | |
| 2000849 | KIT, hose, ASSY, JIC fitting, PSM, 1/4 x 48 | | | 16C512 | | | | | |
| 2000850 | KIT, hose, ASSY, JIC fitting, PSM, 1/4 x 60 | | | 24G990 | | | | | |
| 2000851 | KIT, hose, ASSY, JIC fitting, PSM, 1/4 x 72 | | | 16C513 | | | | | |
| 2000852 | KIT, hose, ASSY, JIC fitting, PSM, 3/8 x 36 | | 116704 | | 16C520 | 112100 | 504285 | | |
| 2000853 | KIT, hose, ASSY, JIC fitting, PSM, 3/8 x 48 | | | | 16C521 | | | | |
| 2000854 | KIT, hose, ASSY, JIC fitting, PSM, 3/8 x 60 | | | | 24F994 | | | | |
| 2000855 | KIT, hose, ASSY, JIC fitting, PSM, 3/8 x 72 | | | | 16C522 | | | | |
| 2000856 | KIT, hose, ASSY, JIC fitting, PSM, 1/2 x 36 | | 116703 | | 16C530 | C20700 | ---- | | |
| 2000857 | KIT, hose, ASSY, JIC fitting, PSM, 1/2 x 48 | | | | 16C531 | | | | |
| 2000858 | KIT, hose, ASSY, JIC fitting, PSM, 1/2 x 60 | 24G996 | | | | | | | |
| 2000859 | KIT, hose, ASSY, JIC fitting, PSM, 1/2 x 72 | 16C532 | | | | | | | |

Communication Module

| Part | Description | Qty. |
|---------|--------------------------|------|
| 2005273 | KIT, module, Profinet | 1 |
| 2000362 | KIT, module, Ethernet IP | 1 |

Sealing Kits

| Part | Description | Qty. |
|---------|------------------------------|------|
| 2000921 | KIT, sealing, PSM, 25 cc | 1 |
| 2000922 | KIT, sealing, PSM, 50/100 cc | 1 |

Metering Module Kits

| Part | Description | Qty. |
|---------|---|------|
| 2000914 | KIT, metering module, PSM, SST, 25 cc | 1 |
| 2000915 | KIT, metering module, PSM, CER, 25 cc | 1 |
| 2000916 | KIT, metering module, PSM, SST, 50 cc | 1 |
| 2000917 | KIT, metering module, PSM, CER, 50 cc | 1 |
| 2000918 | KIT, metering module, PSM, SST, 100 cc | 1 |
| 2000919 | KIT, metering module, PSM, CER, 100 cc | 1 |

Piston Kits

| Part | Description | Qty. |
|---------|-------------------------|------|
| 2008660 | KIT, piston, PSM25, SST | 1 |
| 2008661 | KIT, piston, PSM25, CER | 1 |
| 2008662 | KIT, piston, PSM50/100 | 1 |

Cables

| Part | Description | Qty. |
|---------|---------------------------|------|
| 2000277 | CABLE, servo motor, 10 m | 1 |
| 2000274 | CABLE, servo encode, 10 m | 1 |
| 2000270 | CABLE, junction box, 10 m | 1 |

Technical Specifications

| PSM System | | |
|--|--|---|
| | US | Metric |
| Maximum Inlet Fluid Pressure | 25 cc: 1200 psi 50 cc: 3000 psi 100 cc: 3000 psi | 25 cc: 8.3 MPa, 83 bar 50 cc: 20.7 MPa, 207 bar 100 cc: 20.7 MPa, 207 bar |
| Maximum Working Fluid Pressure | 25 cc: 1200 psi 50 cc: 3000 psi 100 cc: 3000 psi | 25 cc: 8.3 MPa, 83 bar 50 cc: 20.7 MPa, 207 bar 100 cc: 20.7 MPa, 207 bar |
| Maximum Air Pressure | 100 psi | 0.7 MPa, 7 bar |
| Electrical Power | 200–240 VAC, 50/60 Hz, 10 A | |
| Viscosity Range | 20–1,000,000 cps | |
| Wetted Parts | 303/304 Stainless Steel, Hard Chrome, Ceramic, UHMWPE, NBR, PTFE | |
| Shot Size Range ⁽¹⁾ | 25 cc: 0.01–25 cc 50 cc: 0.2–50 cc 100 cc: 0.5–100 cc | |
| Shot Size Repeatability | 1% | |
| Maximum Flowrate ⁽²⁾ | 25 cc: 10 cc/s 50 cc: 18 cc/s 100 cc: 20 cc/s | |
| Maximum Working Temperature | 158°F | 70°C |
| Inlet / Outlet Sizes | | |
| Air Inlet Size | 1/4 in. | 6 mm |
| Fluid Inlet Size | 1/4 in. npt (f) | |
| Fluid Outlet Size | 1/4 in. npt (f) | |
| Weight | | |
| PSM Metering Unit | 25 cc: 24 lb 50 cc: 28 lb 100 cc: 35 lb | 25 cc: 11 kg 50 cc: 13 kg 100 cc: 16 kg |
| PSM Control Unit | 71 lb | 32 kg |
| Notes | | |
| All trademarks or registered trademarks are the property of their respective owners. | | |
| (1) Minimum shot size varies based on the material type and the customer tolerance requirements. | | |
| (2) Maximum flowrate varies based on the material viscosity. | | |

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

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Original instructions. This manual contains English. MM 3A9277

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