

# **Dosing Valve**

313342D

ΕN

For use with XM and Xtreme Mix<sup>™</sup> plural-component sprayers. For professional use only.

## Part No. 255478, Series B

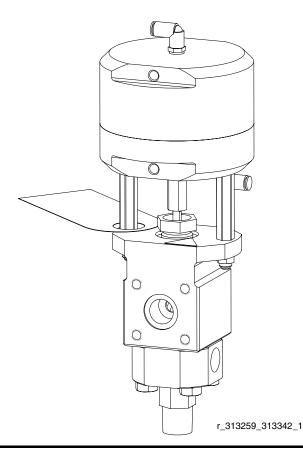
XM Sprayer Dosing Valve Assembly

Maximum working pressure 7250 psi (50 MPa, 500 bar)

### Part No. 245846, Series A

Xtreme Mix<sup>™</sup> Sprayer Dosing Valve Assembly *Maximum working pressure 7250 psi (50 MPa, 500 bar)* 





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## **Related Manuals**

Manuals are available at www.graco.com.

## Component Manuals in U.S. English:

Manual	Description
312359	XM Operation
313289	XM Repair
313292	XM OEM, Instructions-Parts
313343	High Flow Severe Duty Shutoff Check Valve, Instructions-Parts

## **Warnings**

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

## **AWARNING**



#### **FIRE AND EXPLOSION HAZARD**

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



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



#### **EQUIPMENT MISUSE HAZARD**

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all
  equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information
  about your material, request MSDS forms from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment.
- 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.



#### PRESSURIZED EQUIPMENT HAZARD

Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.

- Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

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## WARNING



#### **MOVING PARTS HAZARD**

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

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** in this manual. Disconnect power or air supply.



#### **TOXIC FLUID OR FUMES HAZARD**

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



- Read MSDS's 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.
- Always wear impervious gloves when spraying or cleaning equipment.



#### **BURN HAZARD**

Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.



#### PERSONAL PROTECTIVE EQUIPMENT

You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:

- Protective eyewear
- Clothing and respirator as recommended by the fluid and solvent manufacturer
- Gloves
- Hearing protection

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## Setup

Follow the instructions below to setup dosing valve 255478 on a XM plural-component sprayer as the hard-ener and resin dosing valves.

#### NOTE:

Dosing valve 245846 was used on the old Xtreme Mix<sup>™</sup> and should not be installed on XM sprayers.

1. Remove plug (31) if 255478 will be used on a machine with pressure transducers (P).

#### NOTE:

Valves are shipped with the parts orientated as a hardener valve.

- Resin dosing valve (left side): Remove screws (27) and turn seat housing (26) 90° so that the side ports are facing to the left for the sampling valve (S) and to the rear for the temperature sensor (not shown). See Fig. 1.
- 3. Hardener dosing valve (right side): If necessary, remove screws (27) turn seat housing (26) 90° so

- that the side ports are facing to the right and rear for the sampling valve (S) and temperature sensor (T).
- 4. Transfer all valves, fittings, and sensors from the dosing valve being removed from the machine to the new valve.
- 5. Use new o-ring (36) when replacing recirculation valve (R). If not using valve (R), plug port with plug (33). See parts illustration on page 8.
- 6. If not using sampling valve (S), plug port with plug (29).
- 7. Replace seat housing (26) with screws (27).
- Fill dosing valves A and B packing nuts (7) with throat seal liquid (TSL) and tighten 1/4 turn after nut contacts packings; about 145-155 in.-lbs (16-18 N•m).
- 9. See XM plural-component sprayer repair manual 313289 for installation instructions.

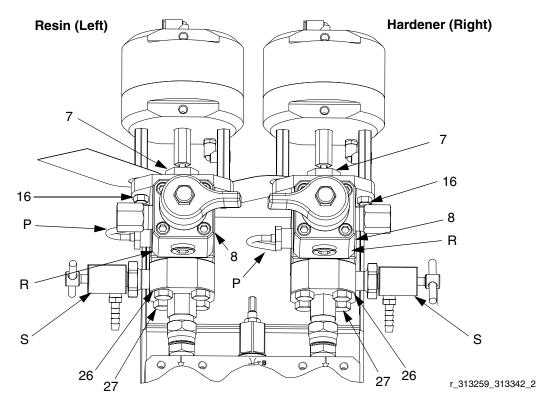


Fig. 1: Hardener and Resin Dosing Valve 255478 Orientation

## Repair



Reference parts illustration on page 8.

## **Disassemble Fluid Section**

- Remove dosing valve from sprayer system. See system repair manual for instructions.
- 2. Mount the valve upside down in a vice holding the upper flats of housing (8).
- 3. Remove screws (27) and seat housing (26). Remove seat (24), and o-rings (25) from housing (8).
- 4. Remove housing (8) from vice and clamp upper flats of air cylinder (2) in vice.
- Unscrew packing nut (7) and remove locknuts (16).
   Pull fluid housing (8) straight up off of needle assembly (10) and packing stack (17, 18, 19).
- 6. Unscrew needle (10) from piston rod (5).
- 7. Remove packings (17, 18, 19). Inspect needle (10) and replace if worn.

#### Replace air cylinder seals:

1. Unscrew cylinder (4) from cap (2).

#### NOTE:

For 255478 only: A phillips screwdriver can be used as a handle in the holes on the flats to unscrew cap (2).

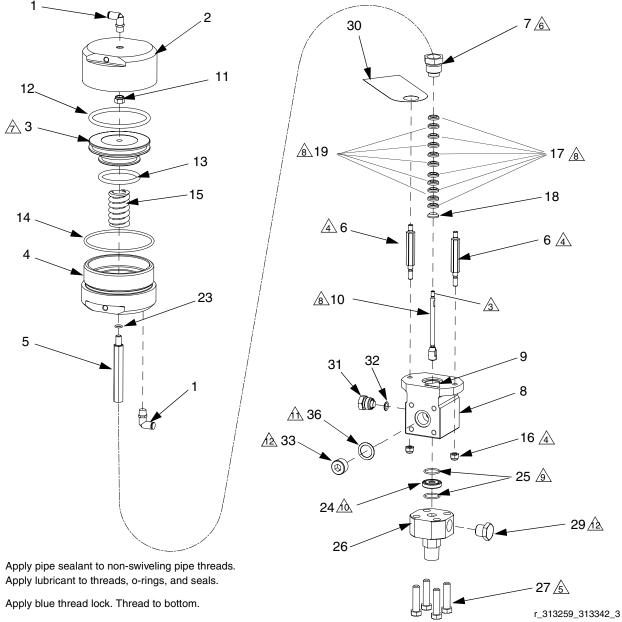
- 2. Unscrew locknut (11).
- 3. Remove piston (3) and replace o-rings (12, 13, 14, and 23).
- Clean all parts and lubricate seals with lithium grease.
- 5. Reassemble using illustration and notes on page 8 and 9.
- Use loose o-ring (36) when re-mounting your circulation valve to the front of the dosing valve 255478.

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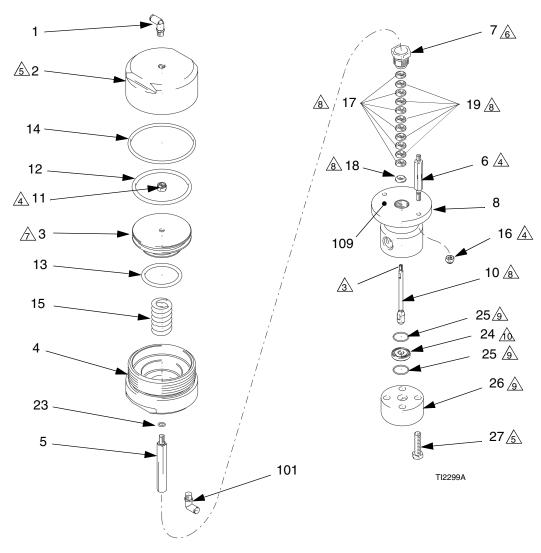
## **Parts**

## 255478, Dosing Valve for XM Plural-Component Sprayers



- Apply blue thread lock. Thread to bottom.
- Torque to 5-7 ft-lbs (7-9 N•m).
- Tighten packing nut 1/4 turn after nut bottoms out; 145-155 in./lbs (16-18 N•m). Check packing nut tightness about once a month. Keep packing nut filled with TSL.
- Lubricate and press piston evenly into cylinder.
- © Clean ball housing (10) and packing cavity before reinstalling packings (17, 18, 19). Lubricate packings and install with lips facing down away from packing nut (7) in order shown.
- Replace o-rings (25) when seat housing (26) is removed.
- https://linspect.com/side/is/action/
- Use o-ring (36) if replacing circulation valve 255278.
- 12 Use if recirculation valve is not used.

## 245846, Xtreme Mix<sup>™</sup> Dosing Valve



- 1. Apply pipe sealant to non-swiveling pipe threads.
- 2. Apply lubricant to threads, o-rings, and seals.
- Apply blue thread lock. Thread to bottom.
- △ Torque to 5-7 ft-lbs (7-9 N•m).
- 5 Torque to 30-40 ft-lbs (41-54 N•m).
- Tighten packing nut 1/4 turn after nut bottoms out; 145-155 in./lbs (16-18 N•m). Check packing nut tightness about once a month. Keep packing nut filled with TSL.
- Lubricate and press piston evenly into cylinder.

- Clean needle (10) and packing cavity before reinstalling, packings (17, 18, 19). Lubricate packings and install with lips facing down away from packing nut (7) in order
- Replace o-rings (25) when seat housing (26) is removed.
- Inspect reversible seat for damage. If one side is worn, reverse seat

#### **Common Parts**

Ref.	Part No.	Description	Qty.
3	15A841	PISTON, valve	1
5	15B545	ROD, piston	1
6	15A834	ROD, tie	2
7	15A835	NUT, packing	1
9▲	15H108	LABEL, pinch point	1
10 <i>†</i>	245850	STEM, needle and ball	1
11	111040	NUT, lock, insert, nylock, 5/16	1
12* <i>†</i>	117336	O-RING	1
13* <i>†</i>	117370	O-RING	1
14* <i>†</i>	117337	O-RING	1
15 <i>†</i>	109141	SPRING, compression	1
16	102040	NUT, lock, hex	2
17* <i>†</i>	117334	PACKING, UHMWPE; blue	6
18* <i>†</i>	189901	GLAND, male	1
19* <i>†</i>	117335	PACKING, leather	5
23*†	111959	O-RING	1
24 <i>†</i>	15A830	SEAT	1
25*†	15T260	O-RING, solvent resist WHT	2
27	102637	SCREW, cap; 3-16 x 1/2 in.	4

- ▲ Replacement Danger and Warning labels, tags, and cards are available at no cost.
- Parts included in Seal Kit 234098 (purchase separately).
- † Parts included in Rebuild Kit 234131 (purchase separately).

Repair kits 234098 and 234131 work for either 255478 or 245846 dosing valves.

### **Varying Parts**

		Dosing		
Ref.	Description	255478	245846	Qty.
1	FITTING, tube, elbow	112781	598140	2
2	CAP, valve	15R975	15A840	1
4	CYLINDER, valve	15R974	15A840	1
8	HOUSING, outlet	15R973	15A833	1
26	HOUSING, seat	15M936	15A832	1
29🌣	PLUGE, pipe; 3/8 npt	198292	N/A	1
30	TAG, instruction	15B678	N/A	1
31	PLUG, port, pressure transducer	198241	N/A	1
32	O-RING, solvent resistant	121399	N/A	1
33🏗	PLUG, pipe; 1/2 npt	100361	N/A	1
36	O-RING, PTFE	121139	N/A	1

- ❖ Optional. Use if your valve doesn't use recirculation valves, sample valves, or thermo-wells.
- **★** Series A valves used the 598140 5/32 OD fitting. Series B valves use the 112781 1/4 in. OD fitting.

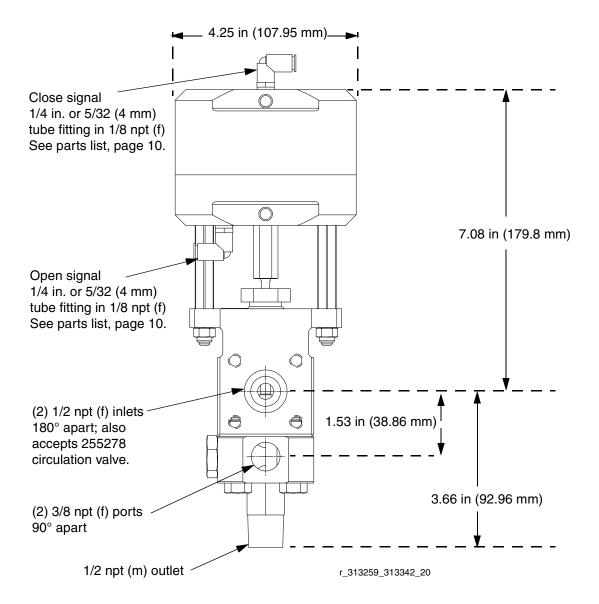
## **Technical Data**

Valve function Normally open by spring; air to close; air assist to open

Wetted parts . . . . . . . . . . . . . . . . . carbon steel, zinc plating, carbide, polyethylene, leather;

fluid housings on 255478 are electroless nickel plated

## **Dimensions**



## **Graco Standard Warranty**

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

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

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

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

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## **Graco Information**

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

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.

Phone: 612-623-6921 or Toll Free: 1-800-328-0211 Fax: 612-378-3505

All written and visual data contained in this document reflects the latest product information available at the time of publication.

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Original instructions. This manual contains English. MM 313342

Graco Headquarters: Minneapolis International Offices: Belgium, China, Japan, Korea

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