

#### GH<sup>™</sup>130/200/230/300 and DutyMax GH/EH<sup>™</sup>230/300 Displacement Pump

334654D

For professional use only.

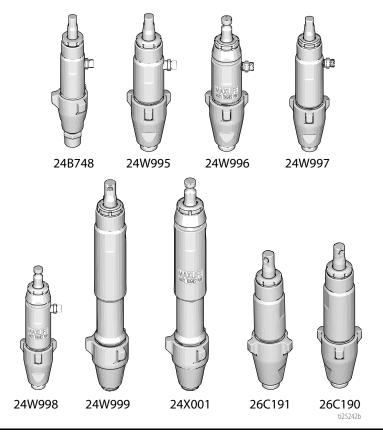
Not approved for use in explosive atmosphere or hazardous locations. For portable airless spraying of architectural paints and coatings.

Models: 24B748, 24W995, 24W996, 24W997, 24W998, 24W999, 24X001, 26C190, 26C191



#### **Important Safety Instructions**

Read all warnings and instructions in this manual and related manuals. Be familiar with the controls and the proper usage of the equipment. Save these instructions.



Use only genuine Graco replacement parts.
The use of non-Graco replacement parts may void warranty.

# Table of Contents

# **Table of Contents**

Warnings	. 3
Repair	. 4
Trigger Lock	
Pressure Relief Procedure	. 4
Disassemble Pump	. 6
Assemble Pump	. 9
Notes	
Parts	14
Pump 24B748	14
Parts List	
Parts	16
Pump 24W995	
Parts List	
Parts	18
Pump 24W996	
Parts List	
Parts	
Pump 24W997	
Parts List	
Parts	22
Pump 24W998	22
Parts List	23
Parts	24
Pump 24W999	24
Parts List	25
Parts	26
Pump 24X001	26
Parts List	27
Parts	28
Pump 26C195	28
Parts List	29
Parts	30
Pump 26C196	30
Parts List	31
Technical Specifications	
Graco Standard Warranty	
Graco Information	

## **Warnings**

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

#### **MARNING**



#### SKIN INJECTION HAZARD

High-pressure spray is able to inject toxins into the body and cause serious bodily injury. In the event that injection occurs, **get immediate surgical treatment.** 



- Do not aim the gun at, or spray any person or animal.
- Keep hands and other body parts away from the discharge. For example, do not try to stop leaks with any part of the body.
- Always use the nozzle tip guard. Do not spray without nozzle tip guard in place.



Use Graco nozzle tips.



- Use caution when cleaning and changing nozzle tips. In the case where the nozzle tip clogs
  while spraying, follow the Pressure Relief Procedure for turning off the unit and relieving
  the pressure before removing the nozzle tip to clean.
- Equipment maintains pressure after power is shut off. Do not leave the equipment
  energized or under pressure while unattended. Follow the Pressure Relief Procedure
  when the equipment is unattended or not in use, and before servicing, cleaning, or
  removing parts.
- Check hoses and parts for signs of damage. Replace any damaged hoses or parts.
- This system is capable of producing 3300 psi. Use Graco replacement parts or accessories that are rated a minimum of 3300 psi.
- Always engage the trigger lock when not spraying. Verify the trigger lock is functioning properly.
- Verify that all connections are secure before operating the unit.
- Know how to stop the unit and bleed pressure quickly. Be thoroughly familiar with the controls



#### PRESSURIZED ALUMINUM PARTS HAZARD

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.



#### 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. This protective equipment includes but is not limited to:

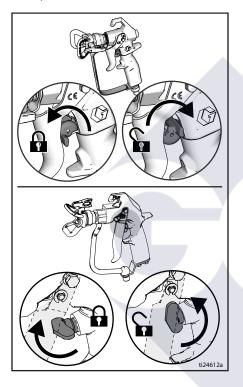
- Protective eye wear, and hearing protection.
- Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

#### **CALIFORNIA PROPOSITION 65**

This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. Wash hands after handling.

#### **Trigger Lock**

Always engage the trigger lock when sprayer is stopped to prevent the gun from being triggered accidentally by hand or if dropped or bumped.

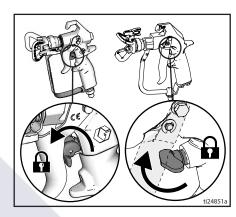


**Pressure Relief Procedure** 



This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashed fluid and moving parts, follow the **Pressure Relief Procedure** whenever sprayer is stopped and before sprayer is cleaned or checked, and before equipment is serviced.

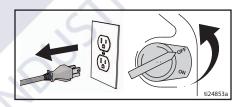
Engage trigger lock.

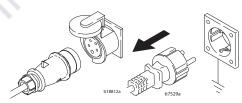


If applicable, turn electric motor ON/OFF switch to OFF position. Wait 7 seconds for power to dissipate.



3. Unplug power cord or shut engine off.





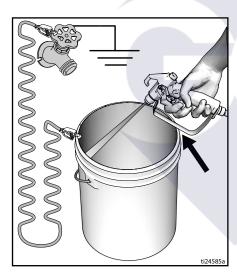
1. Disengage trigger lock.



Hold a metal part of the gun firmly to a grounded metal pail. Trigger the gun to relieve pressure.

**Solvent and oil-based fluids:** follow local code. Use only conductive metal pails, placed on a grounded surface such as concrete.

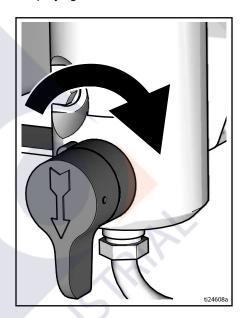
Do not place pail on a non-conductive surface such as paper or cardboard which interrupts grounding continuity.



3. Engage trigger lock.

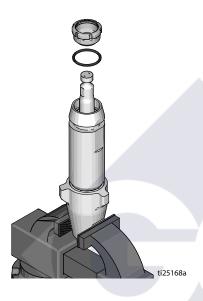


 Open any fluid drain valves in system. Leave drain valves open until ready to spray again.

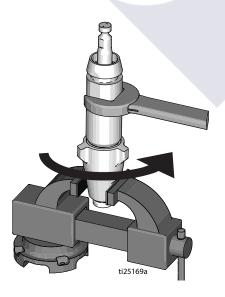


#### **Disassemble Pump**

 Remove packing nut and throat adjustment spacer.



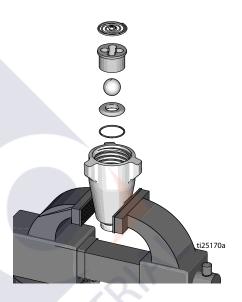
2. Unscrew cylinder from intake valve.



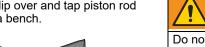
 Disassemble intake valve. Clean and inspect. O-ring may require a pick for removal.

#### NOTICE

If using a pick to remove the O-ring use care to avoid damage to the machined surfaces.



4. Tap piston rod out of cylinder with a hammer or flip over and tap piston rod out against a bench.





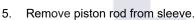


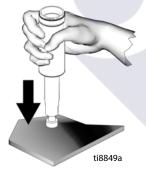


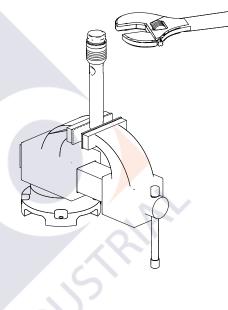
Do not clean or wipe the piston valve threads. Cleaning the piston valve threads could destroy the special sealing patch and cause the piston valve to come loose during operation, causing a pump burst and possible serious bodily injury.

6. Unscrew piston valve from piston rod.

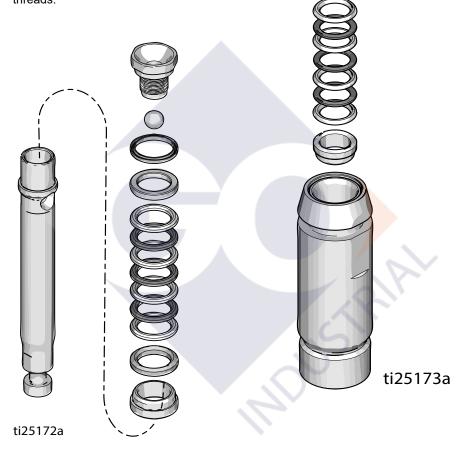






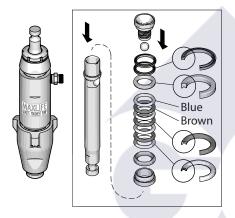


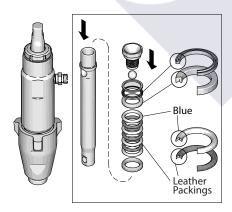
- Clean and inspect parts. (The piston has a special thread locking/sealing patch. Do not remove the patch. The patch allows for disassembly/assembly procedures before it is necessary to apply thread sealant to the threads. On fifth assembly apply thread sealant to threads.
- 8. Remove and discard throat packing and glands from the cylinder.



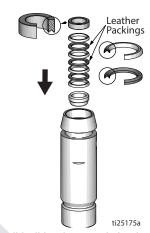
#### **Assemble Pump**

 If applicable, soak leather packings in SAE 30W oil for one hour before assembly.





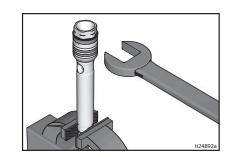
ti25174a



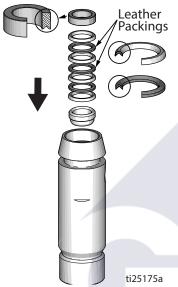
2. Install ball in piston rod. Apply thread sealant to piston valve threads; ensure that none gets on the ball.



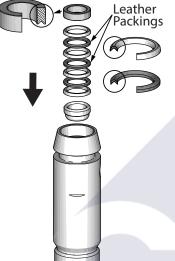
3. **GH130 model:** Torque to  $55 \pm 3$  ft-lb (75  $\pm 4$  N·m). **All other GH models:** Torque to  $100 \pm 5$  ft-lb ( $135 \pm 7$  N·m).



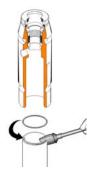
Assemble leather throat packings soaked earlier.



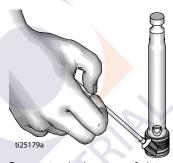
Loosely install packing nut with o-ring 5. onto cylinder.



Install o-rings inside cylinder and on 6. sleeve. Slide sleeve into bottom of cylinder. Replace o-ring if necessary.



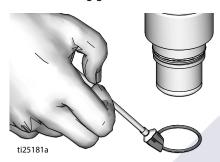
Apply liberal amounts of grease or oil to 7. piston packings.



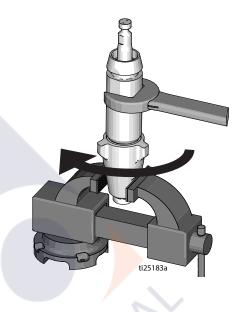
8. Grease top inch or two of piston rod that will go through the cylinder throat packings. Gently guide displacement rod up through throat packings. Tap bottom of piston valve as necessary with a leather or plastic hammer.



9. Grease o-ring and place on outside diameter ring groove.



 Clean seat thoroughly. Reassemble intake valve with a seat, ball, and new o-ring. Seat may be flipped over and used on other side.



11. For GH130 torque foot valve to 110  $\pm$  5 ft-lb (149  $\pm$  7 N•m). For GH200/230/300 torque foot valve to 200  $\pm$  15 ft-lb (271  $\pm$ 

20 N·m).

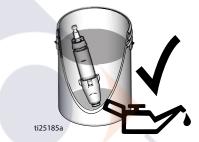


 For GH130 torque packing nut to 125 ± 10 in-lbs (14 ± 1 N•m). All other GH models torque packing nut to 140 ± 10 in-lbs (16 ± 1 N•m).



13. Storage





#### **Throat Packing Adjustment**

When pump packings begin to leak after much use, perform **Pressure Relief Procedure**, page 4, and tighten packing nut down until leakage stops or lessens. This allows approximately 100 gallons of additional operation before a repacking is required. Packing nut can be tightened without o-ring removal.



ti25186a

## **Notes**

5

### **Parts** Torque to 110 ± 5 ft/lbs (149 ± 5 N•m) Torque to 125 ± 10 in/lbs Pump 24B748 (14 ± 1 N•m) Torque to 55 ± 3 ft/lbs (75 ± 4 N•m) 22 A Soak in SAE 30W oil for 1 hour prior to assembly 20/2 26 - 10 21 14 12 13/4 24 28 5 24 9 12 17 <u>/1</u>3 14 - 23 19<u>/</u>3 18 27

14 334654D

ti25243a

Ref.	Part	Description	Qty.
1	288727	CYLINDER, pump	1
2	248210	SLEEVE, cylinder,	1
		chrome	
3	195894	HOUSING, intake	1
4+	196866	SEAT, carbide	1
5+	108526	PACKING, o-ring, ptfe	1
6+	102972	BALL, metallic	1
7	193027	GUIDE, ball	1
8*	107098	PACKING, o-ring	2
9*	156633	PACKING, o-ring	1
10	288479	ROD, piston	1
12*	193125	PACKING, vee	8
13*	15E329	PACKING, vee	3
14*	183185	GLAND, packing,	2
		female	
16*	118504	WIPER, piston	1
17*	15J382	PACKING, vee	3
18*	24U983	VALVE, piston	1
19*	101947	BALL, bearing	1
20	193032	NUT, packing	1
21	C20987	PACKING, o-ring	1
22*	183171	PLUG	1
23*	15C998	WASHER, backup	1
24*	183178	GLAND, packing, male	2
26	15J141	PIN, pump	1
27	15Y463	FITTING, bushing	1
28	196178	ADAPTER, nipple	1

<sup>\*</sup> Included in Repair Kit 288471 + Included in Repair Kit 244199

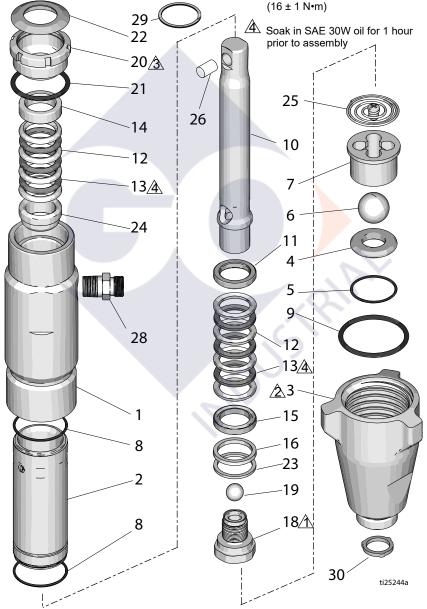
### **Parts**

### Pump 24W995

Torque to  $100 \pm 5$  ft/lbs  $(136 \pm 5 \text{ N} \cdot \text{m})$ 

 $\triangle$  Torque to 200 ± 15 ft/lbs (271 ± 20 N•m)

Torque to 140 ± 10 in/lbs (16 ± 1 N•m)



Ref.	Part	Description	Qty.
1	245413	CYLINDER, pump	1
2			1
	248979	SLEEVE, cylinder,	
		chrome	
	249121	SLEEVE, cylinder,	
_		MaxLife	
3	15E655	HOUSING, intake	_1
4+	193395	SEAT, carbide	1
5*+ C*+	107098	PACKING, o-ring	1
6*+ 7	107167	BALL, sst	1
/ 8*	198505 108822	GUIDE, ball	
o 9*	160325	PACKING, o-ring, ptfe PACKING, o-ring	2 1
10	100323	FACKING, 0-IIIIg	1
10	249000	ROD, piston	'
	249119	ROD, piston, MaxLife	
11*	189585	GLAND, packing, male	1
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	6
14*	15G657	GLAND, female	1
15*	198765	GLAND, packing,	1
		female	
16*	119636	WIPER, piston	<b>1</b>
18	249177	VALVE, piston	1
19*	107203	BALL, valve, check	1
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	1
23*	15J800	WASHER, back-up	1
24*	15G658	GLAND, male	1
25	245256	SPRING, intake ball	1
26	197443 196178	PIN, pump	1
28 29	116551	ADAPTER, nipple RING, retaining	1
29 30	119566	WASHER	1
30	119000	WASHER	

<sup>\*</sup> Included in Repair Kit 17D601 + Included in Repair Kit 240918

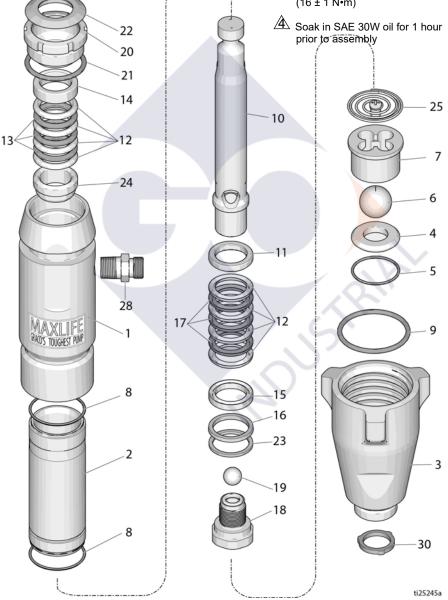
### **Parts**

### Pump 24W996

Torque to 100  $\pm$  5 ft/lbs (136  $\pm$  5 N•m)

Torque to 200 ± 15 ft/lbs (271 ± 20 N•m)

 $\triangle$  Torque to 140 ± 40 in/lbs (16 ± 1 N•m)



Ref.	Part	Description	Qty.
1	17D122	CYLINDER, pump	1
2	249121	SLEEVE, cylinder	1
3	15E655	HOUSING, intake	1
4+	193395	SEAT, carbide	1
5*+	107098	PACKING, o-ring	1
6*+	107167	BALL, sst	1
7	198505	GUIDE, ball	1
8*	108822	PACKING, o-ring, ptfe	2
9*	160325	PACKING, o-ring	
10	288469	ROD, piston	1
11*	189585	GLAND, packing, male	
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	3
14*	15G657	GLAND, female	1
15*	198765	GLAND, packing,	1
		female	
16*	119636	WIPER, piston	1
17*	15F875	PACKING, vee	3
18	287388	VALVE, piston	1
19*	107203	BALL, valve, check	1
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	<u> </u>
23*	15J800	WASHER, back-up	1
24*	15G658	GLAND, male	1
25	245256	SPRING, intake ball	1
28	15J413	FITTING, pump	1
30	119566	WASHER	1

\* Included in Repair Kit 287813 + Included in Repair Kit 240918 NOTE: For Chromex Pump Kit order 24X018

### **Parts**

### Pump 24W997

Torque to 200 ± 15 ft/lbs (271 ± 20 N•m)

 $\triangle$  Torque to 140 ± 10 in/lbs (16 ± 1 N•m)

ti25246a

A Soak in SAE 30W oil for 1 hour 22 prior to assembly <u>3</u> 20 29 21 10 26 14 25 12 <u>A</u>13 6 24 28 4 5 11 1、 9 23 12 13/4 -15 2 19 18/1 8 30

Ref.	Part	Description	Qty.
1	249532	CYLINDER, pump	1
2	248980	SLEEVE, cylinder,	1
	287817	chrome SLEEVE, cylinder,	
3	15E655	MaxLife HOUSING, intake	1
3 4+	193395	SEAT, carbide	À
5*+	107098	PACKING, o-ring	1
6*+	107167	BALL, sst	1
7	198505	GUIDE, ball	1
8*	108822	PACKING, o-ring, ptfe	2 1
9*	160325	PACKING, o-ring	
10			1
	249001	ROD, piston	
4.4.4	287816	ROD, piston, MaxLife	
11*	189585	GLAND, packing, male	
12*	198701	PACKING, vee	8
13* 14*	198718 15G657	PACKING, vee	6
1 <del>4</del> 15*	198765	GLAND, female GLAND, packing,	1
13	190703	female	
16*	119636	WIPER, piston	<b>A</b> 1
18	240580	VALVE, piston	Δi
19*	107203	BALL, valve, check	1
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	1
23*	15J800	WASHER, back-up	1
24*	15G658	GLAND, male	1
25	245256	SPRING, intake ball	1
26	197443	PIN, pump	1
28	196178	ADAPTER, nipple	1
29	116551	RING, retaining	1
30	119566	WASHER	1

<sup>\*</sup> Included in Repair Kit 17D601 + Included in Repair Kit 240918

#### **Parts** Torque to 100 ± 5 ft/lbs (136 ± 5 N•m) **Pump 24W998** Torque to 200 ± 15 ft/lbs (271 ± 20 N•m) Torque to 140 ± 10 in/lbs (16 ± 1 N•m) 22 A Soak in SAE 30W oil for 1 hour prior to assembly <u>/3</u>\20 21 25 14 12 10 <u>A</u>13 28 24 9 12 17 <u>^</u>3 15 8 16 23 -19 -18<u>/</u>1 8 30 ti25247a

Ref.	Part	Description	Qty.
1	17D123	CYLINDER, pump	1
2	287817	SLEEVE, cylinder,	1
		chrome	
3	15E655	HOUSING, intake	1
4+	193395	SEAT, carbide	1
5*+	107098	PACKING, o-ring	1
6*+	107167	BALL, sst	1 1
7	198505	GUIDE, ball	1
8*	108822	PACKING, o-ring, ptfe	2
9*	160325	PACKING, o-ring	1
10	288470	ROD, piston	1
11*	189585	GLAND, packing, male	1
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	3
14*	15G657	GLAND, female	1
15*	198765	GLAND, packing,	1
		female	
16*	119636	WIPER, piston	1
17*	15F875	PACKING, vee	3
18	287388	VALVE, piston	1
19*	107203	BALL, valve, check	1
20	15J792	NUT, packing	3 1 1 1 1
21*	157195	PACKING, o-ring	<b>▲ 1</b>
22*	112590	PLUG, throat seal	1
23*	15J800	WASHER, back-up	1
24*	15G658	GLAND, male	1
25	245256	SPRING, intake ball	1
28	15J413	FITTING, pump	1
30	119566	WASHER	1

\* Included in Repair Kit 287813 + Included in Repair Kit 240918 NOTE: For Chromex Pump Replacement Kit

order 24X019

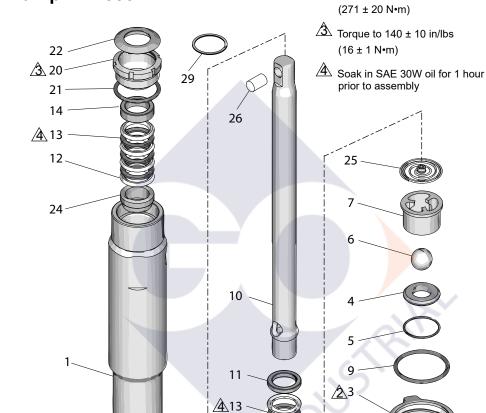
### **Parts**

#### Pump 24W999

8

2

8



12

15

16

23 19

<u>1</u>18

Torque to 100 ± 5 ft/lbs (136 ± 5 N•m)

Torque to 200 ± 15 ft/lbs

ti25248a

Ref.	Part	Description	Qty.
1	17D124	CYLINDER, pump	1
2	248980	SLEEVE, cylinder,	1
		chrome	
	287817	SLEEVE, cylinder,	
3	15A303	MaxLife HOUSING, intake	1
3 4+	15J038	SEAT, carbide	A i
5*+	107098	PACKING, o-ring	1
6*+	118602	BALL, ceramic	1
7	193391	GUIDE, ball	1
8*	108822	PACKING, o-ring, ptfe	2 1
9*	160325	PACKING, o-ring	
10	17D121	ROD, piston	1
11*	189585	GLAND, packing, male	1
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	6
14* 15*	15G657 198765	GLAND, female	1
15	190700	GLAND, packing,	
16*	119636	female WIPER, piston	1
18	287388	VALVE, piston	1
19*	118601	BALL, ceramic	▲i
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	1
23*	15F183	WASHER, back-up	1
24*	15G658	GLAND, male	1
25+	24E027	SPRING, intake ball	1
26	197443	PIN, pump	1
29	116551	RING, retaining	1

<sup>\*</sup> Included in Repair Kit 24N012 + Included in Repair Kit 24N013

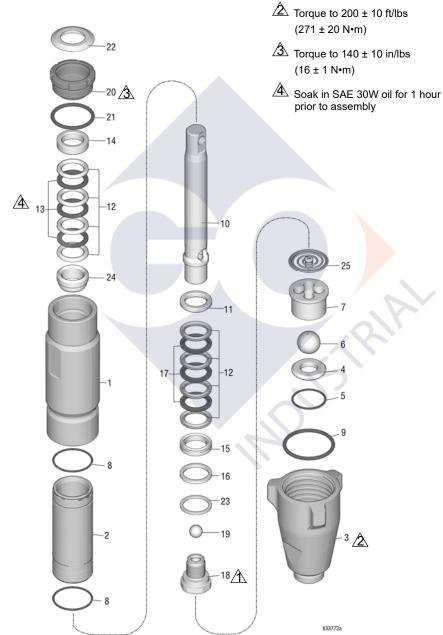
#### **Parts** $\triangle$ Torque to 100 ± 5 ft/lbs (136 ± 5 N•m) Pump 24X001 Torque to 200 ± 10 ft/lbs (271 ± 20 N·m) $\triangle$ Torque to 140 ± 10 in/lbs 22 (16 ± 1 N•m) A Soak in SAE 30W oil for 1 hour prior to assembly <u>Å</u> 20 21 14 12 <u>A</u> 13 24 25 1 10 MAXLIFE BAO'S TOUGHEST PURP 11 12 9 17 15 16 8 23 亚 19 <u>/1</u>\18 2 ti25249a

Ref.	Part	Description	Qty.
1	17D125	CYLINDER, pump	1
2	287817	SLEEVE, cylinder	1
3	15A303	HOUSING, intake	1
4+	15J038	SEAT, carbide	1
5*+	107098	PACKING, o-ring	1
6*+	118602	BALL, ceramic	1
7	193391	GUIDE, ball	8
8*	108822	PACKING, o-ring, ptfe	2
9*	160325	PACKING, o-ring	1
10	288821	ROD, piston	1
11*	189585	GLAND, packing, male	1
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	3
14*	15G657	GLAND, female	1
15*	198765	GLAND, packing,	1
		female	
16*	119636	WIPER, piston	1
17*	15F875	PACKING, vee	3
18	287388	VALVE, piston	1
19*	118601	BALL, ceramic	1
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	<b>1</b>
23*	15F183	WASHER, back-up	1
24*	15G658	GLAND, male	1
25+	24E027	SPRING, intake ball	1

<sup>\*</sup> Included in Repair Kit 24X096 + Included in Repair Kit 24N013

### **Parts**

### **Pump 26C191**

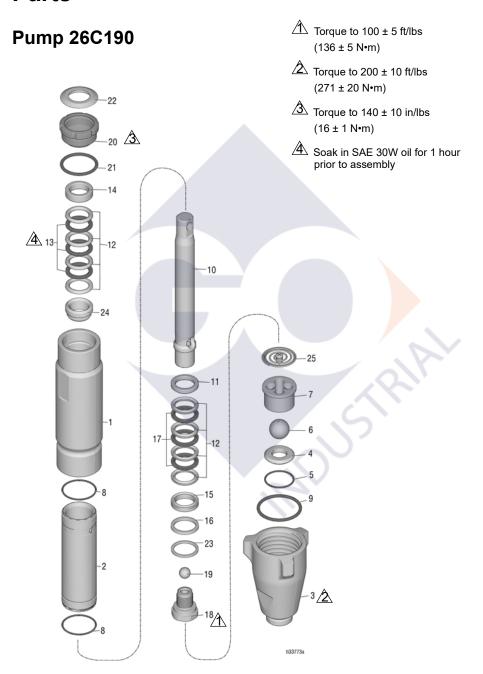


Torque to 100 ± 5 ft/lbs

(136 ± 5 N•m)

Ref.	Part	Description	Qty.
1	17W325	CYLINDER, pump	1
2	249121	SLEEVE, cylinder	1
3	15E655	HOUSING, intake	1
4+	193395	SEAT, carbide	1
5*+	107098	PACKING, o-ring	1
6*+	107167	BALL, sst	1
7	198505	GUIDE, ball	1
8*	108822	PACKING, o-ring, ptfe	2
9*	160325	PACKING, o-ring	
10	249119	ROD, piston	1
11*	189585	GLAND, packing, male	1
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	3
14*	15G657	GLAND, female	1
15*	198765	GLAND, packing,	1
		female	
16*	119636	WIPER, piston	1
17*	15F875	PACKING, vee	3
18	287388	VALVE, piston	
19*	107203	BALL, valve, check	1
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	<b>1</b>
23*	15J800	WASHER, back-up	1
24*	15G658	GLAND, male	1
25	245256	SPRING, intake ball	1
28	15J413	FITTING, pump	1
30	119566	WASHER	1

<sup>\*</sup> Included in Repair Kit 287813 + Included in Repair Kit 240918



Ref.	Part	Description	Qty.
1	17W326	CYLINDER, pump	1
2	287817	SLEEVE, cylinder	1
3	15E655	HOUSING, intake	1
4+	193395	SEAT, carbide	1
5*+	107098	PACKING, o-ring	1
6*+	107167	BALL, sst	1
7	198505	GUIDE, ball	1
8*	108822	PACKING, o-ring, ptfe	2
9*	160325	PACKING, o-ring	
10	287816	ROD, piston	1
11*	189585	GLAND, packing, male	1
12*	198701	PACKING, vee	8
13*	198718	PACKING, vee	3
14*	15G657	GLAND, female	1
15*	198765	GLAND, packing,	1
		female	
16*	119636	WIPER, piston	1
17*	15F875	PACKING, vee	3
18	287388	VALVE, piston	1 1
19*	107203	BALL, valve, check	1
20	15J792	NUT, packing	1
21*	157195	PACKING, o-ring	1
22*	112590	PLUG, throat seal	<u> 1</u>
23*	15J800	WASHER, back-up	1
24*	15G658	GLAND, male	1
25	245256	SPRING, intake ball	1
28	15J413	FITTING, pump	1
30	119566	WASHER	1

<sup>\*</sup> Included in Repair Kit 287813 + Included in Repair Kit 240918

# Technical Specifications

# **Technical Specifications**

Displacement Pumps		
Maximum fluid working pressure	3300 psi	
	25 bar, 22.8 MPa	
Inlet/Outlet Sizes		
Fluid inlet size	1-5/16 UN (m) models 24W995, 24W996, 24W997, 24W998, 26C190, 26C191	
	1-11 1/2 NPSM (M) models 24W999, 24X001	
	3/4-14 npt (m) model 24B748	
Fluid outlet size	3/8 npt (f)	
Wetted materials on all models	stainless steel, PTFE, leather, nylon, zinc-plated carbon steel, tungsten carbide, brass, fluorelastomer, acetal, polyethylene, ceramic	

### Graco Standard Warranty

### **Graco Standard Warranty**

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

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

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

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

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

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

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise

#### **Graco Information**

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

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

**TO PLACE AN ORDER,** contact your Graco distributor or call 1-800-690-2894 to identify the nearest distributor.



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

Graco reserves the right to make changes at any time without notice.

Original instructions. This manual contains English. MM 334654

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

GRACO INC. AND SUBSIDIARIES • P.O. BOX 1441 • MINNEAPOLIS MN 55440-1441 • USA Copyright 2014, Graco Inc. All Graco manufacturing locations are registered to ISO 9001.

www.graco.com
Revision D, November 2018