Electrostatic Waterborne Solutions

Proven Reliability and Ease of Use for Spraying Waterborne Material

PROVEN QUALITY. LEADING TECHNOLOGY.

Graco offers three solutions

Graco offers three solutions for spraying waterborne coatings with electrostatic applicators. Superior transfer efficiency, reduced manufacturing costs and positive environmental impact.

HydroShield Waterborne Systems

Operator friendly isolation systems allow flexibility and control of the spraying process.

WB100 and WB3000 Isolation Systems

Durable low and high pressure isolation cabinets contain 19 L (5 gallons) of charged material.

Pro Xp WBx Electrostatic Guns

High performing guns externally charge material — no additional equipment required.

HydroShield® Waterborne Systems

Reliable components and system control make HydroShield an operator friendly solution. Improve transfer efficiency and safety, while easily spraying waterborne material with Pro Xp WB manual electrostatic air spray and air-assist guns.

Refill without shutting system down

Higher productivity is achieved by not needing to shut down the system to refill. The internal isolation pump automatically refills when the gun trigger is released.

Market proven components

Comprised of Pro Xp WB guns, isolation pump, controller interface and other parts used in the marketplace for years, HydroShield brings together Graco durability into one system.

Unique operator control

The controller interface allows the operator to set system parameters and spray settings for precise process control.

Built-in safety

In addition to safety grounding components to protect the operator, the automatic refill feature reduces the need to open the isolation cabinet. Reduced operator interaction means a safer workplace.

System configuration flexibility

HydroShield is available in a variety of configurations.

- Low pressure systems spray with Pro Xp WB air spray guns.
- High pressure systems include a Merkur pump for air assisted airless spraying.
- Options for gun hoses and gun flush box ready systems are also available.
- System configurations with colour change valves and flushing sequence capability.

Ease of painting without operator interaction with the supply system

Low Pressure Feed System

Feed with a low pressure paint supply, including Triton, pressure pot or circulation system

Air Spray Systems

Low pressure configurations deliver a high finish quality with the Pro Xp WB gun

Air assist Systems

Merkur 15:1 or 30:1 pump inside the cabinet boosts fluid pressure to the high pressure gun

Pro Xp Waterborne Gun

When the trigger is released the system is activated to fill (see page 9 for more information on waterborne guns)

Gun Flush Box Ready

Configurations are available to connect and control gun flush box operation

Colour Change Valves

Valves for colour change and flush sequences mount on the side of the cabinet (see pg 7)

NO		DESCRIPTION
1	*Controller Interface*	Operate easily with system functions in one location and simple screens
2	*Isolation Cabinet*	Constructed with durable materials and components for extended life
3	*Isolation Valve*	Designed to allow the system to fill without concern of electrostatic breakdown
4	*Cleansing Solution*	Ensures the isolation valve is cleaned of residual waterborne material
5	*Light Tower*	Indicates the fluid level in the internal pump Green: 50% full or more Yellow: Below 50% full, but more than 10% full Red: Below 10% full

Service Components		Easy access and few parts make downtime minimal and maintenance simple
6	*Isolation Pump*	Contains 1150cc (39 oz) of material which refills for continuous spraying
7	*Ground Rod*	Protects the operator when opening the cabinet

Spray settings in one location on simple screens making it easy to operate

Operation Modes Show:

standby

prime

purge

spray

System status

Indicates pump fill level, inlet air, ground status and kV output

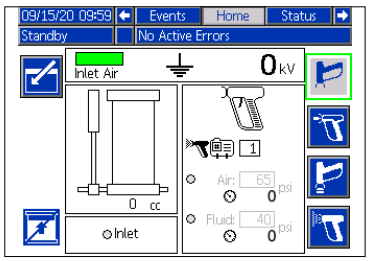
Do not fill mode

Reduces material waste

Preset Status

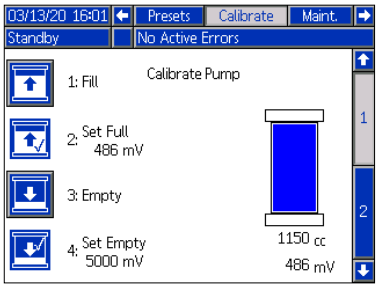
Indicates preset setting and activity

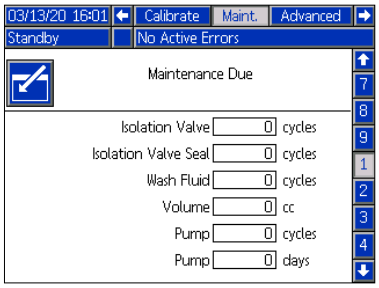
Home Screen



Information about the system status and operation of spray modes

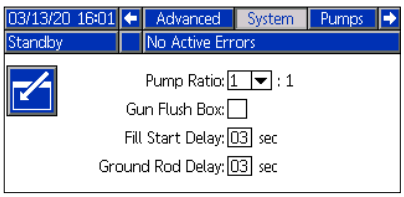
Maintenance Screens





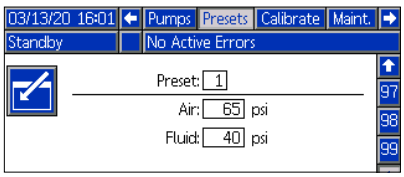
Keep your system running smoothly with calibration capability and maintenance schedules

Delay Settings Screen



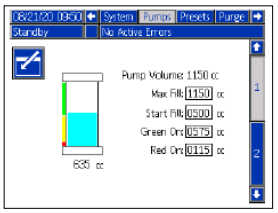
Customize fill delay and ground rod delay for painter spray techniques

Preset Screen



Configure as many as 99 presets for different gun air and fluid pressure needs

Pump Fill Screen



Customize maximum volume and level of pump depletion before refill based on production needs

Colour change and flushing capability maximizes productivity and minimizes material waste

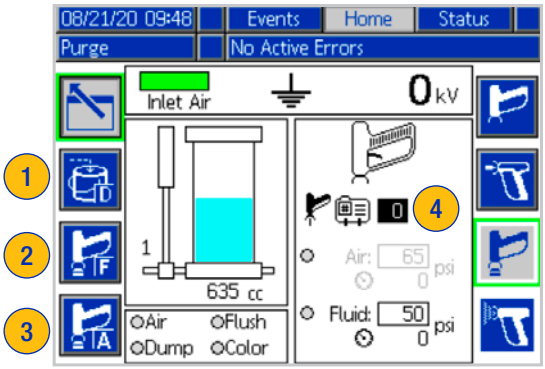
HydroShield Systems with colour change valves allow for ease of managing multiple colours and precisely control flushing. Available as a low pressure or high pressure system.

HydroShield Colour Change Systems are equipped with 6 valves, 3 valves for colours and 3 valves for flush sequences, including flush material, air push and a dump valve.

- Colour change sequence are completed through the controller interface with either manual or preset purge operations.
- Dump valve allows for minimal waste by recovering material in the isolation pump.
- Flushing sequences with flush material and air chop for complete rinse of the system.
- Colour change valves can be added for manufacturing flexibility.

Home Screen

Visually indicates flush sequence action including changing pump colours for material contents



Manual purge

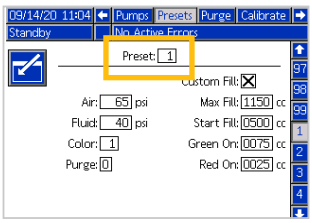
Operation by cycling between buttons for

1. Dump Valve
2. Flush Material
3. Air Push

4 *Purge Sequences*

Can be set up and activated with presets

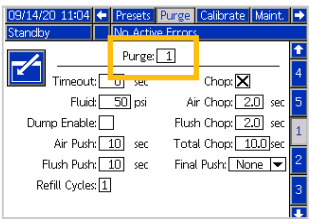
99 Spray Presets



Optimize spraying and flushing with customizable settings for

- Air and fluid pressure to the gun
- Colour valve designation for the material
- Purge Profile for optimal flushing sequence
- Custom fill level of the internal isolation pump, including light tower indication

Purge Profiles



Allow for 5 unique presets which designate

- Flush fluid pressure and tim
- Number of cycles the internal isolation pump is refilled
- Ability to activate material dump from the isolation pump
- Sequence and time setup of flush chop with air and flush material

WB100™ & WB3000™ Isolation Systems

The dependable way to isolate waterborne coatings.
Ideal for electrostatic spray booths.

WB3000 with a Merkur™ ES 30:1 Air-Assist Pump

Use for high pressure spraying with waterborne electrostatic air-assist gun

NO	TITEL	DESCRIPTION
1	*Standard Voltage Display*	Easily monitor voltage for overall performance
2	*WB100 with Triton™ 1:1 Pump*	Use for low pressure spraying with waterborne electrostatic air spray gun
3	*Material Supply Container*	Easily remove and refill 19 liter (5 gallon) container
4	*Portable Cabinet*	Move to various applications
5	*Pro Xp Waterborne Gun*	When the trigger is released the system is activated to fill (see page 9 for more information on waterborne guns)

Pro Xp Waterborne (WB) Guns

Electrostatically spray waterborne materials with isolation systems

Internal Power Supply

Improve operator mobility with no heavy cords to slow down spraying

Alternator Speed Indicator

Changes colour with electrostatic performance

Light Trigger Pull

Reduces muscle strain and operator fatigue

Control Knobs

Access and adjust easily

Atomizing Air Control

Adjust from full to minimal to fit spraying needs

Ergonomic Handle

Fits nicely in your hand for comfortable spraying

Smart Controls

Available for all waterborne models

- kV, current and hertz
- Easy, low kV setting
- Digital diagnostic mode for troubleshooting

High transfer efficiency for low or high pressure applications

PRO XP WB MODELS FOR HYDROSHIELD AND WB ISOLATION SYSTEMS

Air Spray Gun

For low pressure spraying

- Delivers high quality finish
  Sprays with various aircaps and nozzle

Air-Assist Gun

For high pressure spraying

- Delivers a fine finish
- Sprays with AEF or AEM tip

Mold Release Gun

For low pressure spraying with an air assist spray tip

- Delivers fine atomized particles needed for mold release applications
- Sprays with an AEM or AEF spray tip

Pro Xp WBx External Charge Waterborne Air Spray Gun

Reduce material and environmental costs without extra equipment. Waterborne material stays grounded and is charged at tip of the gun with a probe, delivering a consistent, high quality finish.

NO TOOL PROBE REMOVAL

Turn 180° to remove

External Charging Probes

Designed for quick release and easy cleaning

Two Probe Options for Different Needs

- Long probe provides the best transfer efficiency and wrap
- Short probe provides electrostatic charging in tight spaces

Optimized for Waterborne Paints

- Superior finish quality
- Designed so air caps stay clean longer

Increased Operator Comfort

- Lightweight, compact design with ergonomic handle makes all-day spraying comfortable

Improved Operator Control

- Smart gun eliminates guesswork
- Control knobs make spraying adjustments easy

Technical Specifications

Hydroshield - Air Spray	
Maximum Fluid Working Pressure	7.0 bar (0.7 MPa, 100 psi)
Maximum Fluid Inlet Pressure	7.0 bar (0.7 MPa, 100 psi)
Maximum Air Working Pressure	7.0 bar (0.7 MPa, 100 psi)
Minimum System Inlet Air Pressure	4.8 bar (0.48 MPa, 70 psi)
Maximum System Inlet Air Pressure	7.0 bar (0.7 MPa, 100 psi)
Isolation System Air Inlet Fitting	1/2 npt(m)
Isolation System Fluid Inlet Fitting	1/4 npsm(m)
Maximum Fluid Hose Length	30.5 m (100ft.)
Maximum Fluid Operating Temperature	48°C (120°F)
External Power Requirements	100-240VAC, 50-60Hz
Weight	113 kg (250 lb)
Approvals	FM US, FMC, CE
Manual	**3A7312**

Hydroshield - Air Assist	
Maximum Fluid Working Pressure	
Merkur 15:1 System	100 bar (10.4 MPa, 1500 psi)
Merkur 30:1 System	200 bar (20.7 MPa, 3000 psi)
Maximum Fluid Inlet Pressure	7.0 bar (0.7 MPa, 100 psi)
Maximum Air Working Pressure	7.0 bar (0.7 MPa, 100 psi)
Minimum System Inlet Air Pressure	4.8 bar (0.48 MPa, 70 psi)
Maximum System Inlet Air Pressure	7.0 bar (0.7 MPa, 100 psi)
Isolation System Air Inlet Fitting	1/2 npt(m)
Isolation System Fluid Inlet Fitting	1/4 npsm(m)
Maximum Fluid Operating Temperature	48°C (120°F)
External Power Requirements	100-240VAC, 50-60Hz
Weight	136kg (300 lb)
Approvals	FM US, FMC, CE
Manual	**3A7370**

Pro Xp 40 kV WBx Gun Models	
Maximum Voltage Output	40 kV
Maximum Working Fluid Pressure	7.0 bar (0.7 MPa, 100 psi)
Maximum Working Air Pressure	7.0 bar (0.7 MPa, 100 psi)
Gun Weight (without hose)*	560 g (19.8 oz)
Gun Length	22 cm (8.7 in)
Recommended paint resistivity range	≤ 1 MΩ/cm
Fluid Inlet	3/8 npsm(m)
Air Inlet	1/4 npsm(m) left handed thread
Instruction Manual	**3A4795**

*Standard gun model. For other models reference the instruction manual.

	Pro Xp60 WB	Pro Xp60 AA WB
Maximum Voltage Output	60 kV	60 kV
Maximum Working Fluid Pressure	7.0 bar (0.7 MPa, 100 psi)	210 bar (21 MPa, 3000 psi)
Maximum Working Air Pressure	7.0 bar (0.7 MPa, 100 psi)	7.0 bar (0.7 MPa, 100 psi)
Gun Weight (without hose)*	600 g (21 oz)	660 g (23 oz)
Gun Length	24 cm (9.5 in)	24. cm (9.7 in)
Recommended paint resistivity range	≤ 1 MΩ/cm	≤ 1 MΩ/cm
Fluid Inlet	3/8 npsm(m)	1/4-18 npsm(m)
Air Inlet	1/4 npsm(m) left handed thread	1/4 npt left handed thread
Instruction Manual	**3A2496**	**3A2497**

*Standard gun model. For other models reference the instruction manual.

WB100	
Maximum Fluid Working Pressure	7.0 bar (0.7 MPa, 100 psi)
Maximum Air Working Pressure	7.0 bar (0.7 MPa, 100 psi)
Minimum Air Pressure at Gun Inlet	3.2 bar (0.32 MPa, 45 psi)
Maximum System Inlet Air Pressure	7.0 bar (0.7 MPa, 100 psi)
WB System Air Consumption	425–565 l/min (15–20 scfm)
Short Circuit Current Output	125 microamperes
Voltage Output	0.35 J with fluid hose 24M733 installed with Pro Xp WB gun 60 kV
Isolation Enclosure Air Inlet Fitting	1/4 npt
Triton Pump	Manual 309303
WB100 Manual	**3A2496**

WB3000	
Maximum Fluid Working Pressure	210 bar (21 MPa, 3000 psi)
Maximum Air Working Pressure	7.0 bar (0.7 MPa, 100 psi)
Minimum Air Pressure at Gun Inlet	3.2 bar (0.32 MPa, 45 psi)
Maximum System Inlet Air Pressure	7.0 bar (0.7 MPa, 100 psi)
WB System Air Consumption	220–400 l/min (7.5–14 scfm)
Short Circuit Current Output	125 microamperes
Voltage Output	0.35 J with fluid hose 24M733 installed with Pro Xp WB gun 60 kV
Isolation Enclosure Air Inlet Fitting	1/4 npt
Merkur Pump	Manual 3A0732
WB3000 Manual	**3A2497**

Pro Xp WB Air Spray Ordering Information

Part number	Item	Description
L60T18	Pro Xp60 WB	Standard electrostatic air spray gun for waterborne coatings.
L60M18	Pro Xp60 WB	Smart electrostatic air spray gun for waterborne coatings.
L60M19	Pro Xp60 MR	Smart electrostatic air spray gun for waterborne mold release coating applications. Requires an AEM or AEF spray tip for operation.

AIRCAP SELECTION CHART

Part number (colour)	Pattern Shape	Length mm (in)	Recommended Fluid Viscosity cp at 21°C (70°F)	Recommended Production Rates
24N477 (black)	Round end	381-432 (15-17)	Light to medium (20–70 cp)	Up to 450 cc/min (15 oz/min)
24W279 (green)				
24N438 (black)				
24N376 (black) 24N276 (blue) 24N277 (red) 24N278 (green)	Tapered end	432- 483 (17-19)		
24N274 (black)		305-356 (12-14)		

- Distance to target: 254 mm (10 in)
- Inlet air pressure: 3.4 bar (34 kPa, 50 psi)
- Fan air: adjusted for maximum width
- Fluid flow rate: 300 cc/min (10 oz/min)

NOZZLES SELECTION CHART

Colour Coded Fluid Nozzle for Standard Materials

Part number	Colour	Orifice Size - mm (inch)
24N619	Black	0.55 (0.022)
24N613	Black	0.75 (0.029)
25N895	Green	1.0 (0.042)
25N896	Gray	1.2 (0.047)
24N616	Black	1.5 (0.055)
25N897	Brown	1.8 (0.070)
24N618	Black	2.0 (0.080)

Precision high wear nozzles (PHW) for Abrasive Materials

hardened SST seat and damage resistant SST tip; for standard coatings, abrasives, and metallics

Part number	Colour	Orifice Size - mm (inch)
25N831	Green	1.0 (0.042)
25N832	Gray	1.2 (0.047)
25N833	Black	1.5 (0.055)
25N834	Brown	1.8 (0.070)

For a complete list of parts and accessories, refer to the Pro Xp Waterborne Manual **3A2496**.

Pro Xp WB Air-Assist Ordering Information

Part number	Item	Description
H60T18	Pro Xp60 AA WB	Standard electrostatic air-assist gun for waterborne coatings.
H60M18	Pro Xp60 AA WB	Smart electrostatic air-assist gun for waterborne coatings.

AEF FINE FINISH PRE-ORIFICE

Recommended for high finish quality applications at low and medium pressures. AEF tips have a pre-orifice that assists in atomizing sheer thinning materials. Order desired tip, Part No. AEFxxx, where xxx = 3-digit number from the matrix below.

Orifice Size mm (inch)	Fluid Output fl l/min (oz/min)		Maximum Pattern Width at 305 mm (12 inches) mm (inches)					
	at 41 bar (4.1 MPa, 600 psi)	at 70 bar (7.0 MPa, 1000 psi)	150-200 (6-8)	200-250 (8-10)	250-300 (10-12)	300-350 (12-14)	350-400 (14-16)	400-450 (16-18)
			Spray Tip					
0.203 (0.008)	0.25 (8.5)	0.32 (11.0)				608		
0.254 (0.010)	0.28 (9.5)	0.37 (12.5)	310	410	510	610	710	810
0.305 (0.012)	0.35 (12.0)	0.47 (16.0)	312	412	512	612	712	812
0.356 (0.014)	0.47 (16.0)	0.62 (21.0)	314	414	514	614	714	814
0.406 (0.016)	0.59 (20.0)	0.78 (26.5)	-	416	516	616	716	-

*Tips are tested in water. Fluid output (Q) at other pressures (P) can be calculated by this formula: Q = (0.041) (QT) √P where QT = fluid output (l/min) at 41 bar from the above table for the selected orifice size.

AEM SPRAY TIPS

Recommended for high finish quality applications at low and medium pressures. Order desired tip, Part No. AEMxxx, where xxx = 3-digit number from the matrix below.Order desired tip, Part No. AEFxxx, where xxx = 3-digit number from the matrix below.

Orifice Size mm (inch)	Fluid Output fl l/min (oz/min)		Maximum Pattern Width at 305 mm (12 inches) mm (inches)							
	at 41 bar (4.1 MPa, 600 psi)	at 70 bar (7.0 MPa, 1000 psi)	50-100 (2-4)	100-150 (4-6)	150-200 (6-8)	200-250 (8-10)	250-300 (10-12)	300-350 (12-14)	350-400 (14-16)	400-450 (16-18)
			Spray Tip							
0.178 (0.007)	4.0 (0.1)	5.2 (0.15)	107	207	307	-	-	-	-	-
0.229 (0.009)	7.0 (0.2)	9.1 (0. 27)	-	209	309	409	509	609		-
0.279 (0.011)	10.0 (0.3)	13.0 (0.4)	-	211	311	411	511	611	711	-
0.330 (0.013)	13.0 (0.4)	16.9 (0.5)	-	213	313	413	513	613	173	813
0.381 (0.015)	17.0 (0.5)	22.0 (0.7)	-	215	315	415	515	615	715	815
0.432 (0.017)	22.0 (0.7)	28.5 (0.85)	-	217	317	417	517	617	717	-
0.483 (0.019)	28.0 (0.8)	36.3 (1.09)	-	-	319	419	519	619	719	-
0.533 (0.021)	35.0 (1.0)	45.4 (1.36)	-	-	-	421	521	621	721	821
0.584 (0.023)	40.0 (1.2)	51.9 (1.56)	-	-	-	423	523	623	723	823
0.635 (0.025)	50.0 (1.5)	64.8 (1.94)	-	-	-	425	525	625	725	825
0.736 (0.029)	68.0 (1.9)	88.2 (2.65)	-	-	-	-	-	-	-	829
0.787 (0.031)	78.0 (2.2)	101.1 (3.03)	-	-	-	431	-	631	-	831
0.838 (0.033)	88.0 (2.5)	114.1 (3.42)	-	-	-	-	-	-	-	833812
0.939 (0.037)	108.0 (3.1)	140.0 (4.20)	-	-	-	-	-	-	737	
0.990 (0.039)	118.0 (3.4)	153.0 (4.59)	-	-	-	-	539	-	-	-

*Tips are tested in water. Fluid output (Q) at other pressures (P) can be calculated by this formula: Q = (0.041) (QT) √P where QT = fluid output (l/min) at 41 bar from the above table for the selected orifice size.

HydroShield Ordering Information

Part number	Gun Flush Box Equipped*	Colour Change and Flush Valves**
WMBL00		
WMBL01	✓	
WMBL02		✓
WMBL03	✓	✓

* Gun flush box must be purchased separately
** Systems include 6 fluid valves (3 colour and 3 flush). Additional valves may be added.

Part number	Item	Description
L60T18	Pro Xp60 WB	Standard electrostatic air spray gun for waterborne coatings.
L60M18	Pro Xp60 WB	Smart electrostatic air spray gun for waterborne coatings.
L60M19	Pro Xp60 MR	Smart electrostatic air spray gun for waterborne mold release coating applications. Requires an AEM or AEF spray tip for operation.

Part number	Pump Included	Gun Flush Box Equipped*	Colour Change and Flush Valves**
WMBH00	Merkur 30:1		
WMBH01	Merkur 30:1	✓	
WMBH02	Merkur 30:1		✓
WMBH03	Merkur 30:1	✓	✓
WMBH04	Merkur 15:1		
WMBH05	Merkur 15:1	✓	
WMBH06	Merkur 15:1		✓
WMBH07	Merkur 15:1	✓	✓

* Gun flush box must be purchased separately
** Systems include 6 fluid valves (3 colour and 3 flush). Additional valves may be added.

Part number	Item	Description
H60T18	Pro Xp60 AA WB	Standard electrostatic air-assist gun for waterborne coatings.
H60M18	Pro Xp60 AA WB	Smart electrostatic air-assist gun for waterborne coatings.

Part number	Grounded Air Hose with stainless steel braid ground path (Red)
235068	1.8 m (6 foot)
235069	4.6 m (15 foot)
235070	7.6 m (25 foot)
235071	11 m (36 foot)
235072	15 m (50 foot)
235073	23 m (75 foot)
235074	30.5 m (100 foot)

Part number	Air Assist WB Fluid Hose
25R012	7.6 m (25 foot)
25R013	11 m (36 foot)
25R014	15 m (50 foot)
25R015	23 m (75 foot)
25R016	30.5 m (100 foot)

Part number	HydroShield Cleansing Solution
25R200	3.75 L bottle (1 gallon)
26B400	Triton 1:1 Supply pump and Mount kit
26D031	1 Colour Change Valve Kit
26D032	2 Colour Change Valve Kit

Part number	Air Spray WB Fluid Hose
25R002	7.6 m (25 foot)
25R003	11 m (36 foot)
25R004	15 m (50 foot)
25R005	23 m (75 foot)
25R006	30.5 m (100 foot)

Part number	Description
WB100	
24P630	Waterborne isolation enclosure with standard electrostatic air spray gun L60T18, grounded air hose 235070 and waterborne fluid hose 24M732.
24P631	Waterborne isolation enclosure with smart electrostatic air spray gun L60M18, grounded air hose 235070 and waterborne fluid hose 24M732.
24P734	Waterborne isolation enclosure with mold release smart electrostatic gun L60M19, grounded air hose 235070 and waterborne fluid hose 24M732.
WB3000	
24N551	Waterborne isolation enclosure with standard electrostatic air-assisted spray gun H60T18, grounded air hose 235070 and waterborne fluid hose 24M732.
24P632	Waterborne isolation enclosure with standard electrostatic air-assisted spray gun H60M18, grounded air hose 235070 and waterborne fluid hose 24M732.

Part number	Description
PRO XP 40 KV WBX GUN MODELS	
L40M28	Smart 40 kV air spray gun
L40T28	Standard 40 kV air spray gun
PROBE KIT	
25E639	Long probe kit includes 2 probes
25E664	Short probe kit includes 2 probes

For a complete list of parts and accessories, refer to the Pro Xp WBx Waterborne Manual **3A4795**

ABOUT GRACO

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

GRACO LOCATIONS

MAILING ADDRESS
P.O. Box 1441
Minneapolis, MN 55440-1441
Tel: 612-623-6000
Fax: 612-623-6777

AMERICAS

MINNESOTA
Worldwide Headquarters
Graco Inc.
88-11th Avenue N.E.
Minneapolis, MN 55413

EUROPE

BELGIUM
European Distribution Center
Graco Distribution BV
Industrieterrein-Oude Bunders
Slakweidestraat 31
3630 Maasmechelen,
Belgium
Tel: 32 89 770 700
Fax: 32 89 770 777

ASIA PACIFIC

AUSTRALIA
Graco Australia Pty Ltd.
Suite 17, 2 Enterprise Drive
Bundoora, Victoria 3083
Australia
Tel: 61 3 9468 8500
Fax: 61 3 9468 8599

CHINA
Graco Fluid Equipment
(Shanghai) Co.,Ltd
Building 7, No. 1-2, Wenshui
Road 299
Jing'an District
Shanghai 200436
P.R. China
Tel: 86 512 6260 5711
Fax: 86 21 6495 0077

INDIA
Graco Hong Kong Ltd.
India Liaison Office
Room 432, Augusta Point
Regus Business Centre 53
Golf Course Road
Gurgaon, Haryana
India 122001
Tel: 91 124 435 4208
Fax: 91 124 435 4001

JAPAN
Graco K.K.
1-27-12 Hayabuchi
Tsuzuki-ku
Yokohama City, Japan 2240025
Tel: 81 45 593 7300
Fax: 81 45 593 7301

KOREA
Graco Korea Inc.
38, Samsung 1-ro 1-gil
Hwaseong-si, Gyeonggi-do, 18449
Republic of Korea
Tel: 82 31 8015 0961
Fax: 82 31 613 9801

Graco is certified ISO 9001.

Europe
+32 89 770 700
FAX +32 89 770 777
WWW.GRACO.COM