

# Maritime Equipment Easy Maintenance On Board



## **CONTENT**

INTRODUCTION Why Partner With Graco	p.	4 - 5
CLEANING		
Deck Cleaning	p.	6
Chemical Cargo Cleaning	p.	7
SANITISING		
Sanitising, Disinfecting & Deodorising Jobs	p.	8 - 9
SURFACE PREPARATION		
Small Surface Preparation Jobs	p.	10 - 11
Vapour Abrasive Blasting	p.	12 - 13
Dust Removal	p.	14 - 15
FLUID TRANSFER		
Electric Operated Diaphragm Pumps	p.	16
Air Operated Double Diaphragm Pumps	p.	17
Air Operated Double Diaphragm Pumps > Model Overview	p.	18 - 21
Popular Models	p.	22 - 23
COATING		
Spot Repair & Small Maintenance Jobs	p.	24 - 27
Cargo Hold Maintenance & Bigger Maintenance Jobs	p.	28 - 29
Accessories	p.	30 - 39
LUBRICATION		
Light-Duty Oil & Grease Pumps	p.	40 - 43
Heavy-Duty Oil & Grease Pumps	p.	44 - 45
Hose Beels	n	46 - 47

### **WHY PARTNER WITH GRACO?**

#### **FLEET OWNERS AND SHIP CHANDLERS**

- The only 'pump' manufacturer to offer you such a wide range of marine equipment.
- With 3,300 distributors around the world, you have easy access to our products and spare parts.
- The wide-ranging ATEX and IECEx approved products provide the perfect solution for hazardous areas on board your petroleum tankers or bulk cargo carriers.
   You benefit from reliable products supported by many years of experience.
- Sharing user experiences, training information and latest developments.

#### **MARINE CATALOGUE**

- Overview of our extensive range of marine products designed to work within the toughest marine conditions.
- Our products are listed with the Graco Partnumber and the IMPA Reference where applicable, and they are illustrated to ease the ordering process between the shipowner and shipboard personnel and the ship supplier.
- You can order the complete range from one contact and delivery happens worldwide. Contact details are listed at the end of the catalogue.





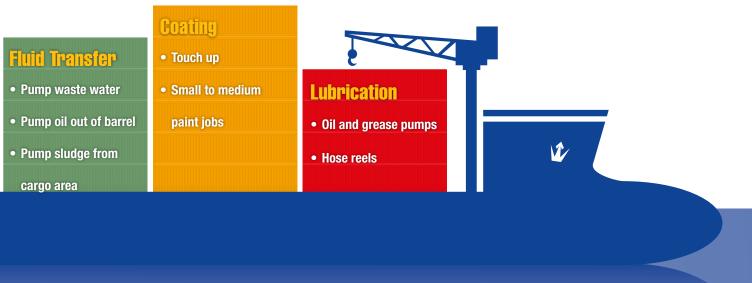
#### **COMMITMENT TO QUALITY SINCE 1926**

Graco strives for continuous improvement and excellence.

To guarantee superior quality and to meet the market's changing requirements, we prioritize the investment of human and financial resources in Research and Development.

Every day, over 440 engineers perform research, product and process development. Innovative technologies and extensive field testing are a natural part of our process to develop new products.

Every aspect of our production is subject to constant testing and evaluation. It's the foundation to deliver products with long service life and low cost of ownership. The insurance to help you grow your business.





### **DECK CLEANING**

#### **HYDRA-CLEAN® AIR-OPERATED CART-MOUNT**

The Hydra-Clean® Pressure Washer is designed for high pressure and high volume cleaning. Its high flow rate reduces the time taken to complete cleaning tasks saving on labour costs.

The unit itself can be operated on base oil, fresh and salt water, making it ideal for deck and tank cleaning.

The Hydra-Clean® can be used in hazardous areas as it's ATEX approved.



#### Air-operated

Low sound level — ideal for on board cleaning on cruise ships High pressure and high flow cleaning Up to 276 bar (4000 psi) and 34 lpm (9 gpm)

Easy to use

Use with hot or cold water, detergents or strong chemical solutions up to 93°C (200°F)

• Supports multiple guns

Use 2 spray wands at the same time to support multiple operators

ATEX approved

The air-driven motor enables use in explosion classified areas. Ideal for cleaning on board of tankers

Δ .	
Accessories	
$\neg$	

247878 Std. Discharge hose (3/8" x 15 m):
 10 bar with M & F QD's

247880 Gun SST quick disconnect connections

24W471 Hose Reel Kit:

344 bar (5000 psi) maximum pressure

• 15T272 Coupler, 3/8" QR , 3/8-18 NPT:

For adding a second hose with gun to the outlet

of the pump



IMPA REFERENCE	59 07 39	59 07 34			
GRACO PART NUMBER	247553	258664			
Pump Package	30:1 Cart Mount	40:1 Cart Mount			
Max. Working Pressure	211 bar (21.1 MPa / 3065 psi)	276 bar (27.6 MPa/ 4000 psi)			
Max. Air Input Pressure	7 bar (0.7 MPa / 100 psi)				
Fluid Flow at 60 cpm	25.9 lpm (6.8 gpm)	17.4 lpm (4.6 gpm)			
Cycle	430 cc (14.5 oz)	290 cc (9.8 oz)			
Air Inlet Size	3/4"	npt(f)			
Fluid Inlet Size	1	in			
Fluid Outled Size	3/8 in				
Manual	312585				
Pump Std Repair Kit	17L796 24C162				
Optional PTFE Repair Kit	222846				

## **CHEMICAL CARGO CLEANING**

#### **HYDRA-CLEAN® AIR-OPERATED 10:1 DRUM-MOUNT**

It is the ideal solution for a majority of fluid handling tasks on board.

The pump is designed to be mounted on any open head universal drum and it can spray vertically up to 12 m (39.3 ft). It is ideal for applying chemicals and detergents onto surface, washing down, general transfer of fluids and chemical injection into pressurised systems.



- Start-up ready
  Delivered with lubricator, hoses, spray gun and nozzle
- Ease of use
  Use with open-head universal drums vertically spraying up to 12 m (39.3 ft)
- Efficient cleaning
   Use with hot or cold water, detergents or strong chemical solutions up to 93°C (200°F)
- Supports multiple guns
   Use 2 spray wands at the same time to support multiple operators
- ATEX approved
   The air-driven motor enables use on all vessel types.

<u>Accessories</u>	
• 247878	Std. Discharge hose (3/8" x 15 m):
	10 bar with M & F QD's
• 247880	Gun SST quick disconnect connections
• 24W471	Hose Reel Kit:
	344 bar (5000 psi) maximum pressure
• 15T272	Coupler, 3/8" QR, 3/8-18 NPT:
	For adding a second hose with gun to the outlet of

the pump



IMPA REFERENCE	
GRACO PART NUMBER	6880119
Pump Package	10:1 Drum Mount
Max. Working Pressure	125 bar (12.5 MPa/ 1800 psi)
Max. Air Input Pressure	12.5 bar (1.2 MPa / 180 psi)
Fluid Flow at 60 cpm	11.4 lpm (3 gpm)
Cycle	189 cc (6.4 oz)
Air Inlet Size	1/2" npt(f)
Fluid Inlet Size	1/2 in
Fluid Outlet Size	3/4 in
Manual	308116
Pump Std Repair Kit	224401
Optional PTFE Repair Kit	224889

## SANITISING, DISINFECTING AND DEODORISING JOBS

#### **SANISPRAY HP™**

When sanitising a small room or the entire deck, you want to have the right equipment to do the job. Otherwise, surfaces might not be efficiently disinfected or the equipment might be even unsafe to use. Graco's SaniSpray HP-range is specifically designed to disinfect any surface safely, fast and thoroughly.

The complete line of SaniSpray HP sprayers is built to deliver the highest level of productivity on every job.

Whether you need to treat a small spot or an entire deck, there is a SaniSpray HP model with the performance you need to take on the task.



#### Advantages

- Consistent atomisation and coverage
   Delivers the proper atomisation required to quickly and consistently coat surfaces to disinfect and sanitise efficiently
- Ready to spray
   Comes with everything you need to start immediately. Just add disinfectant and get to work.
- High speed and productivity
   Choose the SaniSpray HP model by its flow rate to match job requirements

IMPA REFERENCE				
GRACO PART NUMBER	25R943 (230V CEE) 25R949 (230V UK)	25R945 (230V CEE) 25R950 (230V UK)	25R946 (230V CEE) 25R948 (230V IT/DK/CH/UK)	25R947 (230V CEE) 25R951 (110V UK)
Graco Model	SaniSpray HP 20* Corded Handheld Sprayer	SaniSpray HP 20 Cordless Handheld Sprayer	SaniSpray HP 65 Portable Hopper Sprayer	SaniSpray HP 130 2-Gun Cart Sprayer
Max. Flow Rate	0.6 lpm (0.16 gpm)	0.6 lpm (0.16 gpm)	1.9 lpm (0.5 gpm)	3.8 lpm (1 gpm) Ability to use 2 guns simultaneously
Max. Tip Size	.019"	.019"	.023"	.031"
Pressure		Adjustable 69 bar (	6.9 MPa, 0-1000 psi)	
Particle** Micron Size		Adjustable Particle - Micron Si	ize - Fine Mist to Coarse Spray	
Capacity	Fill & Spray 1.25 litres (0.33 gal)	Fill & Spray Pour & Go 1.25 litres (0.33 gal) 5.7 litres (1.5 gal)		High Production Use Any Container
Power Sources	230V CEE Corded 230V UK Corded	DEWALT 18V Cordless Lithium Ion Batteries	230V CEE Corded 230V IT,DK, CH, UK Corded	230V CEE Corded 110V UK Corded
Includes  • 313 Fine Spray Tip • 515 & 619 Coarse Spray Tip • 40 cm (15.7 in) Spray Extension • 5 FlexLiner Bags • Storage Plug • Storage Bag • Storage Plug		SaniSpray HP Gun  '4" x 15m (50ft) BlueMax II Hose  1/8" x (4.5 ft) BlueMax Whip Hose  515 Fine Spray Tip  617 & 619 Medium & Coarse High Production Spray Tips  40 cm (15.7 in) Spray Extension	<ul> <li>(2) SaniSpray HP Guns</li> <li>(2) ¼" x15m (50 ft) BlueMax II Hose</li> <li>(2) 1/8" x (4.5 ft) BlueMax Whip Hose</li> <li>(2) 617 Fine Spray Tips</li> <li>(2) 617 &amp; (2) 619 Medium &amp; Coarse High Production Spray Tips</li> <li>(2) 40 cm (15.7 in) Spray Extension</li> </ul>	
Modular Repair	Yes	Yes	Yes	Yes

<sup>\*</sup> SaniSpray HP 20 Corded Handheld Sprayer cannot spray alcohol based (flammable) products.

<sup>\*\*</sup> Particle size will vary based on tip size, pressure and disinfectant product. Average particle size measured when spraying water ranges from 30 to 110 microns

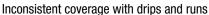
<sup>\*\*\*</sup> DEWALT ® and the DEWALT Logo are trademarks of DEWALT Industrial Tool Co. and are used under licence.

Graco's SaniSpray HP products have been designed to deliver consistent coverage, without heavy drips and runs, so that you can achieve specified disinfectant dwell times. Only Graco's SaniSpray HP sprayers are designed and built specifically to be compatible with sanitising and disinfecting chemicals while applying them with maximum efficiency.

#### **THE OLD WAY**

#### THE SANISPRAY HP WAY







Consistent coverage from edge to edge

#### **Compatible Disinfectants**

- Approved Alcohol-based (Flammable) Active Ingredients - Ethanol, Isopropanol (except for SaniSpray HP 10 and 20 Corded models)
- Approved Non-Alcohol Based Active Ingredients -Aldehydes, Phenols, Quaternary Ammonium Compounds, Sodium Hypochlorite (Bleach), Peroxyacetic Acid, Hydrogen Peroxide, Hypochlorous Acid
- Consult with your material manufacturer to confirm spray application and equipment compatibility

				R/	AC X LP TIP	S:				
		LESS		M.	TERIAL FL	DW		MORE		
		FINE	MIST	A	TOMISATIO	N	COARSI	COARSE SPRAY		
	IN	.013"	.015"	.017"	.019"	.021"	.023"	.025"		
Narrow	6-8	LP 313	LP 315							
	8-10		LP 415	LP 417	LP 419	LP 421	LP 423	LP 425		
SPRAY PATTERN WIDTH	10-12		LP 515	LP 517	LP 519	LP 521	LP 523	LP 525		
	12-14		-	LP 617	LP 619	LP 621	LP 623	LP 725		
Wide	14-16		-	-	-	-	LP 723	LP 725		
	SaniSnra	av 20 Optimal Ran	ne e	SaniSnray 6	5 Optimal Range		SaniSpray 130 (	Intimal Range		

## **SMALL SURFACE PREPARATION JOBS**

#### **GRINDLAZER<sup>TM</sup>**

Proper surface preparation is essential to ensure optimal adhesion of any coating to the surface by removing all surface contaminants — leaving the surface clean, dry, properly profiled and sound.

The GrindLazer HandHeld Series is a great choice for small onboard surface preparation jobs.

The rugged and compact desing allows for easy touch-ups, edging and removal of renders and coatings from steel surfaces in hard-to-reach areas.



#### <u>Advantages</u>

- Versatile
   Handles both horizontal and vertical surfaces
- Long life
  Steel and high-impact plastic construction
- Flexible

  Available in both drum and rotary styles

IMPA REFERENCE			
GRACO PART NUMBER	25N391	25N392	
Graco Model	GrindLazer Standard DC21 E	GrindLazer Standard RC71 E	
Cutter Type	Drum	Rotary	
Max. Working Width	5 cm (2 in)	17.5 cm (7 in)	
Cutter Drum Diameter	10 cm (4 in)	10 cm (4 in)	
Engine/Motor – cm³ (HP)	230V Makita	230V Makita	
Max. Cut Rate	10 m²/hr (100 ft²/hr)	10 m²/hr (100 ft²/hr)	
Vacuum Port	✓	✓	
Manual	3A5575	3A5575	

Both units come with a Carbide Flail cutter drum.

A Steel Star cutter drum is recommended when removing epoxy and corrosion on a steel surface.

#### **USED ON: GrindLazer Standard DC21 E**

See Repair manual for additional Cutter Stacking Recommendations.



CUTTER Type	PROFILE	INDIVIDUAL CUTTER	FULLY ASSEMBLED DRUM	DRUM Rebuild Kit	CUT WIDTH	#CUTTERS	#SPACERS	#RODS
CARBIDE FLAIL	DRUM STYLE (	CUTTER		•				
_ S # * # *_	-	19A009	-	-	-	1	-	-
- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fine	-	25M891	25M892	2 in / 5 cm	48	6	6
172-172-17	Medium	-	25M889	25M890	2 in / 5 cm	36	42	6
-04044-	Course	-	25N060	25N065	2 in / 5 cm	30	60	6
STEEL STAR	DRUM STYLE (	CUTTER						
P	-	19A063	-	-	-	1	-	-
	Fine	-	25M909	25M910	2 in / 5 cm	90	0	6
ninin	Medium	-	25M905	25N066	2 in / 5 cm	54	60	6
CARBIDE STAR	DRUM STYLE CUTTER							
<sub>[6</sub> 0000000] <b>800000</b>	-	19A005	-	-	-	1	-	-
*****	Fine	-	25M903	25M904	2 in / 5 cm	54	0	6
	Medium	-	25M901	25M902	2 in / 5 cm	42	36	6

#### **USED ON: GrindLazer Standard RC71 E**

See Repair manual for additional Cutter Stacking Recommendations.



CUTTER Type	PROFILE	INDIVIDUAL CUTTER	FULLY ASSEMBLED DRUM	DRUM REBUILD KIT	CUT WIDTH	#CUTTERS	#SPACERS	#RODS
CARBIDE FLAIL	ROTARY STYL	E CUTTER						
	-	19A009	-	-	-	1	-	-
	Fine	-	25M915	25M916	7 in / 17.5 cm	42	36	6
	Medium	-	25M911	25N068	7 in / 17.5 cm	28	7	7
STEEL STAR	ROTARY STYL	E CUTTER	<u>'</u>	<u>'</u>				
	-	19A063	-	-	-	1	-	-
	Fine	-	25M919	25M920	7 in / 17.5 cm	21	21	7
	Medium	-	25M917	25M918	7 in / 17.5 cm	56	7	7
CARBIDE STAR	ROTARY STYL	E CUTTER	'	1				
	-	19A005	-	-	-	1	-	-
	Fine	-	25M931	25M932	7 in / 17.5 cm	28	35	7
	Medium	-	25M929	25M930	7 in / 17.5 cm	21	28	7

### **VAPOUR ABRASIVE BLASTING**

#### ECOQUIP 2™ EQP

Whether you plan to remove old coatings on deck or corrosion control on steel structures on board, it's time to consider an alternative to your power/pressure washer, chemical cleaners or hand/bristle tools. Graco's EcoQuip  $2^{TM}$  EQp is a portable and powerful machine that gets the job done quickly and effectively.

Graco's Vapour Abrasive Blast Equipment (EcoQuip  $2^{TM}$ ) reduces dust by up to 92% compared to traditional dry blasting. The machine uses very little water, making containment and cleanup of debris simple while still delivering the right profile.



Small and portable
 Easy to move on the deck (99.8 kg/ 220 lb)

Versatile

Handles both horizontal and vertical surfaces

ATEX approved

Can be used on all vessel types

Limited health risks

Limited risks due to vibrations caused by hand tools

Environmentally friendly

Up to 92% less dust and less media consumption compared to dry blasting minimizes tenting and containment. Uses less abrasive and less water, so you have no large slurry mess to clean up

#### <u>Accessories</u>

•	17D788 17R840	Blast Control Switch Pneumatic Pinch Hose Replacement Kit EQp
	17110-10	τ ποιτ ποσο ποριασοπιστι τιτ Εφρ
•	26A075	Blast Hose Replacement 1"
•	26A077	Blast Hose Extension 1"
•	26A029	1" Nozzle Extension with Handles
•	17R451	Blast Hose Replacement 1"
•	24Z140	Blast Hose Replacement 1/2"
•	24Z141	Blast Hose Extension 1/2"
•	24Z931	1/2" Nozzle Extension with Handle
•	17R024	#4 Nozzle for 1/2" Blast Hose

#### Basic Technical Requirements

- Blast media (e.g. garnet, crushed glass,...)
- A 1" blast hose is recommended to provide a larger blast pattern
- A water connection or an external water tank

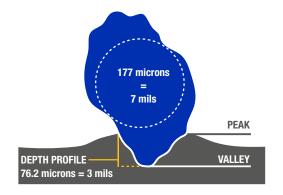


IMPA REFERENCE	59 08 16	59 08 17	
GRACO PART NUMBER	278861	278862	
Graco Model	EQp ATEX Low Flow Package	EQp ATEX High Flow Package	
Pot Capacity	57 litres (2 ft³)	57 litres (2 ft³)	
Enclosure	Coated	Coated	
Blast Circuit	16 mm (5/8 in)	16 mm (5/8 in)	
Max. Compressed Air	8.5 m³/min (300 cfm)	8.5 m³/min (300 cfm)	
Max. Blast Pressure	10.3 bar (150 psi)	10.3 bar (150 psi)	
Nozzle	#5	#6	
Blast Hose ID	12.7 mm (1/2 in)	25.4 mm (1 in)	
Blast Hose Length	15 m (50 ft)	15 m (50 ft)	
Manual	3A4802	3A4802	

#### A PERFECT SURFACE PREPARATION BY CHOOSING THE RIGHT ABRASIVE.

- Abrasives for vapour blasting should always be non-ferrous, heavier than water and not dissolving in it.
- As a general rule, the blaster should use the finest abrasive necessary to attain the required surface preparation parameters.

Abrasive size, mesh		#20/40	#30/60	#80
	Alumina	75 – 115 microns 3.35 – 4.5 mils	55 – 85 microns 2.16 – 2.95 mils	35 – 65 microns 1.4 – 2.0 mils
Profile, Hy5, microns, mils;	Garnet	70 – 110 microns 2.75 – 4.30 mils	50 – 80 microns 1.97 – 3.15 mils	30 – 60 microns 1.18 – 2.36 mils
acc. to IS08503/1*	Copper Slag	60 – 100 microns 2.36 – 3.94 mils	45 – 70 microns 1.77 – 2.75 mils	25 – 50 microns 1.0 – 1.97 mils
	Crushed Glass	55 – 75 microns 2.16 – 3.35 mils	35 - 50 microns 1.4 – 1.97 mils	15 – 30 microns 0.6 – 1.18 mils



<sup>\*</sup> Please take into consideration that above data is based on the most optimal setup and results may vary based on local parameters

#### **RECOMMENDED ABRASIVE SIZES FOR ECOQUIP EQP**

Mesh	Inch max	Inch average	Inch min	Microns max	Microns average	Microns min
20	0.0430	0.0270	0.0180	1 092	686	487
25	0.0320	0.0220	0.0140	813	559	356
30	0.0300	0.0190	0.0120	762	483	305
40	0.0220	0.0140	0.0095	559	356	241
45	0.0195	0.0120	0.0080	495	305	203
50	0.0160	0.0100	0.0065	406	254	165
60	0.0130	0.0080	0.0050	330	203	127
70	0.0115	0.0065	0.0040	292	165	102
80	0.0095	0.0057	0.0035	241	145	89



Possible

Only if you have to. Large size abrasives are recommended only in mixtures with small abrasives like 30/60 or 20/40

## **DUST REMOVAL**

#### **LAZERVAC<sup>TM</sup>**

Cleaning up after blasting or grinding to remove all the dust can be most time-consuming, and labour is costly.

All dust must be removed before you can move on to the next stage of the job because any residue left will spoil the coating. Use Graco's LazerVac for all-round surface preparation jobs to efficiently remove and reduce airborne dust.



More uptime

Toolless design allows for quick fi

Toolless design allows for quick filter change-out while on the job

Safer jobsites
 OSHA-compliant filtration removes dust, resulting in
 a safer environment

• Reduced filter clogging

Separate motor operates dual paddles, which knock down the debris from the filter while you work, preventing filter clogging



IMPA REFERENCE	
GRACO PART NUMBER	26B003(EU) / 26B004(IT) 26B005(CH) / 26B006(DK)
Graco Model	LazarVac 330
Air Power - Air Watts	1665
Air Flow - I/sec. (cfm)	175 l/sec (375 cfm)
Vacuum Pressure	186.8 mmHg (100") water
Capacity	75 litres (20 gal)
Motor Engine cc (hp)	230V electric (3.0)
Manual	3A5576

#### **Accessories**

•	17X185	Filter for LazerVac 330 (1 piece)
•	17X695	Dust bags for LazerVac 330 (20 pieces)
•	17X156	Standard vacuum hose (9 m/29.5 ft)
•	17X704	High-temperature vacuum hose (9 m/29.5 f



## **ELECTRIC OPERATED DIAPHRAGM PUMPS**

#### **HUSKYTM E-SERIES**

The Husky<sup>™</sup> E-series consists of unique electric pumps. They combine the advantages of an air-operated double diaphragm pump into an electric pump. The Husky<sup>™</sup> E-series are the only electric pumps that can stall under pressure, without damaging the pump. They are the ideal solution for all onboard fluid transfers when air supply is an issue.



#### **Advantages**

#### Energy efficient

Electric drive reduces energy consumption up to 5x compared to traditional air operated diaphragm pumps

#### Stall under pressure

Patent pending technology allows the pumps to stall under pressure preventing pump failures from clogged lines or closed valves

- · Seal-less design
  - Eliminates leaking and failures due to run-dry pump conditions
- Easy to move
  - Available in cart-mount

IMPA REFERENCE	59 17 70
GRACO PART NUMBER	648142
Graco Model	Husky 1050e
Connection Size	1 in
Thread Type	NPT(f) or BSPT
Max. Flow Rate	148 lpm (48 gpm)
Max. Discharge Pressure	4.8 bar (0.48 MPa, 70 psi)
Materials of Construction	Aluminium
Centre Section	Aluminium
Maximum Solids	3.2 mm (1/8 in)
AC Motor Power	2 HP
BLDC Motor Power	2.2 HP
Pump Weight	33.6 kg - 49.7 kg (80 lb - 109.5 lb) (depending on configuration)
Instruction Manual	334188
Repair Parts Manual	334189

## AIR OPERATED DOUBLE DIAPHRAGM PUMPS

#### **HUSKYTM**

Husky<sup>™</sup> pumps are the perfect solution for bilge evacuation or when pumping oil out of barrels, seawater to wash the deck, or sludge out of the cargo area. They are designed to help you get the job done right every time, and are built to save you money. Reliable, efficient, accurate, safe and clean: built to give you peace of mind even in the harshest sea conditions.



ATEX approved

A risk-free solution for every vessel type

Rugged construction

Resists corrosion for reliable performance and long life

Designed to last

Heavy-duty design offers long life, increased productivity and lower overall cost of ownership: diaphragms last five times longer than others in its class

Flow rates and sizes

Up to 1135 lpm (300 gpm). Port sizes ranging from  $\frac{1}{4}$ " to 3" in NPT, BSP, and flange options

Easy maintenance

The Husky has fewer parts than industry peer. The complete air valve is externally accessible so it can be services fast and easily without removing the pump

Modular air valve

Stall-free, low pulsation air valve provides smooth and rapid changeover for increased efficiency and minimizes downtime





# AIR OPERATED DOUBLE DIAPHRAGM PUMPS > MODEL OVERVIEW

IMPA	59 17 65	59 17 66	59 17 67
Graco Model	HUSKY 205 PLASTIC	HUSKY 307 PLASTIC	HUSKY 515 PLASTIC
Connection Size	6.3 mm (1/4 in)	9.4 mm (3/8 in)	12.7 mm (1/2 in) and 19.1 mm (3/4 in)
Thread Type	NPT or BSP	NPT or BSP	NPT or BSP
Air Valve	Standard and Remote	Standard	Standard and Remote
Max. Flow Rate	19 lpm (5 gpm)	26 lpm (7 gpm)	57 lpm (15 gpm)
Max. Discharge Pressure	7 bar (0.7 MPa, 100 psi)	7 bar (0.7 MPa, 100 psi)	7 bar (0.7 MPa, 100 psi)
Materials of Construction	Polypropylene	Polypropylene	Polypropylene
Centre Section	Polypropylene	Polypropylene	Polypropylene
Materials for Seats		<ul><li>Acetal</li><li>Polypropylene</li><li>Stainless Steel</li></ul>	<ul><li>Acetal</li><li>Duckbill</li><li>Polypropylene</li><li>Stainless Steel</li></ul>
Materials for Balls	<ul><li>Acetal</li><li>Polypropylene</li><li>PVDF</li></ul>	<ul><li>Buna</li><li>PTFE</li><li>Santoprene</li><li>TPE</li></ul>	<ul><li>Buna</li><li>Fluoroelastomer</li><li>PTFE</li><li>Stainless Steel</li><li>TPE</li></ul>
Materials for Diaphragms	PTFE Santoprene	<ul><li>Buna</li><li>PTFE</li><li>Santoprene</li><li>TPE</li></ul>	<ul><li>Buna</li><li>Fluoroelastomer</li><li>PTFE</li><li>Stainless Steel</li><li>TPE</li></ul>
Maximum Solids	1.5 mm (0.06 in)	1.6 mm (0.063 in)	2.5 mm (0.094 in)
Pump Weight	0.9 kg (2.0 lb) Polypropylene	2.4 kg (5.2 lb) Polypropylene	2.9 kg (6.5 lb) Polypropylene
Instruction Manual	308652	308553	308981
Repair Parts Manual			

	59 17 68	
HUSKY 716 METAL	HUSKY 1050 PLASTIC	HUSKY 1050 METAL
19.1 mm (3/4 in)	25.4 mm (1 in)	25.4 mm (1 in)
NPT or BSP	ANSI/DIN Flange	NPT or BSP
Standard and Remote	Standard, Smart and Remote	Standard, Smart and Remote
61 lpm (16 gpm)	189 lpm (50 gpm)	189 lpm (50 gpm)
7 bar (0.7 MPa, 100 psi)	8.6 bar (0.9 MPa, 125 psi)	8.6 bar (0.9 MPa, 125 psi)
Aluminium / 316 Stainless Steel	Polypropylene	316 Stainless Steel / Aluminium
Polypropylene	Polypropylene	Coated Aluminium     Polypropylene
<ul><li>Acetal</li><li>Polypropylene</li><li>Stainless Steel</li></ul>	<ul> <li>Polypropylene</li> </ul>	<ul><li>316 SST</li><li>Acetal</li><li>Geolast</li><li>Polypropylene</li><li>Santoprene</li></ul>
<ul> <li>Buna</li> <li>Duckbill</li> <li>Fluoroelastomer</li> <li>Polypropylene</li> <li>PTFE</li> <li>Santoprene TPE</li> </ul>	Santoprene     PTFE	<ul><li>316 SST</li><li>Acetal</li><li>Geolast</li><li>PTFE</li><li>Santoprene</li></ul>
<ul><li>Buna</li><li>Fluoroelastomer</li><li>Polypropylene</li><li>PTFE</li><li>Santoprene</li></ul>	<ul><li>PTFE/EPDM 2 Piece</li><li>Santoprene</li></ul>	<ul><li> Geolast</li><li> PTFE/EPDM 2 Piece</li><li> Santoprene</li></ul>
2.5 mm (0.094 in)	3.2 mm (0.125 in)	3.2 mm (0.125 in)
3.9 kg (8.5 lb) Aluminium 8.2 kg (18 lb) Stainless Steel	8.2 kg (18 lb) Polypropylene	10.4 kg (23 lb) Aluminium 16.5-18.6 kg (36.3-41 lb) Stainless Steel
308981	312877	312877
308797	313435	313435

# AIR OPERATED DOUBLE DIAPHRAGM PUMPS > MODEL OVERVIEW

IMPA	59 17 69		
Graco Model	HUSKY 1590 PLASTIC	HUSKY 1590 METAL	HUSKY 2150 PLASTIC
Connection Size	38.1 mm (1-1/2 in)	38.1 mm (1-1/2 in)	50.8 mm (2 in)
Thread Type	ANSI	NPT or BSP	ANSI/DIN Flange
Air Valve	Standard and Remote	Standard and Remote	Standard and Remote
Max. Flow Rate	379 lpm (100 gpm)	379 lpm (100 gpm)	568 lpm (150 gpm)
Max. Discharge Pressure	8.3 bar (0.8 MPa, 120 psi)	8.3 bar (0.8 MPa, 120 psi)	8.3 bar (0.8 MPa, 120 psi)
Materials of Construction	Polypropylene	316 Stainless Steel / Aluminium	Polypropylene
Centre Section	316 Stainless Steel     Coated Aluminium	<ul><li> 316 Stainless Steel</li><li> Coated Aluminium</li></ul>	<ul><li>316 Stainless Steel</li><li>Coated Aluminium</li></ul>
Materials for Seats	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Hardened SST</li> <li>Polypropylene</li> <li>Stainless Steel</li> </ul>	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>Hardened SST</li> <li>Polypropylene</li> <li>Santoprene</li> <li>Stainless Steel</li> <li>TPE</li> </ul>	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Polypropylene</li> <li>PVDF</li> <li>Stainless Steel</li> </ul>
Materials for Balls	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>PTFE</li> <li>Stainless Steel</li> <li>TPE</li> </ul>	<ul> <li>Acetal</li> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>Hardened SST</li> <li>PTFE</li> <li>Santoprene</li> <li>Stainless Steel</li> <li>TPE</li> </ul>	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>PTFE</li> <li>Santoprene</li> <li>TPE</li> </ul>
Materials for Diaphragms	Buna     Fluoroelastomer     Geolast     PTFE     TPE	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>PTFE</li> <li>Santoprene</li> <li>TPE</li> </ul>	<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>PTFE</li> <li>Santoprene</li> <li>TPE</li> </ul>
Maximum Solids	4.8 mm (0.188 in)	4.8 mm (0.188 in)	6.3 mm (0.25 in)
Pump Weight	16 kg (35 lb) Polypropylene	15.2 kg (33.5 lb) Aluminium 40 kg (86 lb) Stainless Steel	22 kg (49 lb) Polypropylene
Instruction Manual	308549	308441	308550
Repair Parts Manual			

HUSKY 2150 METAL	HUSKY 3300 PLASTIC	HUSKY 3300 METAL
50.8 mm (2 in)	76.2 mm (3 in)	76.2 mm (3 in)
NPT or BSP	ANSI/DIN Flange	NPT/BSP/ DIN/ANSI (AL only)
Standard and Remote	Standard	Standard
568 lpm (150 gpm)	1059 lpm (280 gpm)	1135 lpm (300 gpm)
8.3 bar (0.8 MPa, 120 psi)	7 bar (0.7 MPa, 100 psi)	8.6 bar (0.9 MPa, 125 psi)
Polypropylene / Aluminium / 316 Stainless Steel	Polypropylene	316 Stainless Steel, Aluminium
<ul><li> 316 Stainless Steel</li><li> Coated Aluminium</li></ul>	<ul> <li>Polypropylene</li> </ul>	Aluminum, Polypropylene*     (*SST pump only)
<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Polypropylene</li> <li>PVDF</li> <li>Santoprene</li> <li>Stainless Steel</li> <li>TPE</li> </ul>	Polypropylene     Santoprene     Stainless Steel	<ul> <li>Acetal</li> <li>Geolast</li> <li>Santoprene</li> <li>Stainless Steel</li> <li>TPE</li> </ul>
<ul> <li>Acetal</li> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>Hardened SST</li> <li>PTFE</li> <li>Santoprene</li> <li>TPE</li> </ul>	FKM PTFE Santoprene	<ul><li>Acetal</li><li>Geolast</li><li>PTFE</li><li>Santoprene</li></ul>
<ul> <li>Buna</li> <li>Fluoroelastomer</li> <li>Geolast</li> <li>PTFE</li> <li>Santoprene</li> <li>TPE</li> </ul>	2 pc PTFE     FKM     Santoprene	<ul><li>2 pc PTFE</li><li>Geolast</li><li>Santoprene</li><li>TPE</li></ul>
6.3 mm (0.25 in)	12.7 mm (0.5 in)	12.7 mm (0.5 in)
26.3 kg (58 lb) Aluminium 50.3 kg (111 lb) Stainless Steel	90.7 kg (200 lb) Polypropylene	68 kg (150 lb) Aluminium 115.6 kg (255 lb) Stainless Steel
308368	3A0410	3A0410
	3A0411	3A0411

## **POPULAR MODELS**

#### ► HUSKY 515 – ½ INCH

- Designed to handle all fluids
- · Ideal for smaller onboard jobs such as emptying and filling vessels with chemical and petroleum fluids
- . Mainly used to transfer lubricants to the motor or other parts which need lubrication

PART NUMBER	DESCRIPTION			
D5B911	PP fluid sec	PP fluid section, centre section, porting and seats. PTFE O-rings, balls and diaphragms - Plastic		
	REPAIR KIT	REPAIR KITS		
	D05001	515 Diaphragms, PTFE		
	241657	515 Air Valve		

#### HUSKY 1050 – 1 INCH

- . The best solution for transferring sediment from the bilges in no time
- · Can handle erosion and corrosion
- · Light weight and easy to carry around on board
- Stainless Steel models are ATEX certified and ensure great safety when transferring chemicals and petroleum liquids in hazardous environments

PART NUMBER		DESCRIPTION
649006	649006 PP fluid section, centre section, porting, seats. PTFE O-rings, balls, diaphragms - Plastic	
647671	647671  PP fluid section, centre section, porting. Buna seats, balls, diaphragms - Metal	
647156		
651042 SST fluid section, porting. Aluminium centre section. Acetal seats. PTFE 0-rings, balls, diaphragms - Metal		
651041 SST fluid section, porting. Aluminium centre section, PP seats. PTFE 0-rings, balls, diaphragms - Metal		

#### REPAIR KITS

24B627 1050 Diaphragm, PTFE		1050 Diaphragm, PTFE
	24B768	1050 Air Valve

#### HUSKY 1590 – 1- ½ INCH

- Used in shipbuilding industry for emptying the bilges
- . Able to transfer any type of fluid on a ship

PART NUMBER	DESCRIPTION					
DB2911	PP fluid section porting, seats. Aluminium centre section. PTFE O-rings, balls, diaphragms - Plastic					
DBC777 <b>€</b>	Alu fluid section, porting, centre section. Buna seats, balls, diaphragms - Metal					
DBC911 🚳 Alu fluid section, porting, centre section. Buna seats, balls, diaphragms - Metal						
DTD311 😥	ptp311 SST fluid section, centre section, porting, seats. PTFE O-rings, balls, diaphragms - Metal					

#### REPAIR KITS

D0C001	1590 Diaphragm, PTFE (for P/N DB2911)
D0B007	1590 Diaphragm, Buna (for P/N DBC777)
D0B001	1590 Diaphragm, PTFE (for P/N DBC911)
236273	1590 Air Valve (for P/N DBC911)
255061	1590 Air Valve (for P/N DTD311)

#### **HUSKY 2150 – 2 INCH**

- Used for transferring large amounts of oil and/or chemical products
- Emptying oil and chemical tanks
- Cleaning the tanks before other liquids need to be transferred in the same tank

PART NUMBER	DESCRIPTION				
DF2911	DF2911 PP fluid section, porting, seats. Aluminium centre section. PTFE 0-rings, balls, diaphragms s - Plastic				
DFC777 🔂	DFC777 🐼 Alu fluid section, centre section, porting. Buna seats, balls, diaphragms - Metal				
DFC911					
DVD311 😥	SST fluid section, centre section, porting, seats. PTFE 0-rings, balls, diaphragms - Metal				

#### REPAIR KITS

D0G001	2150 Diaphragm, PTFE (for P/N DF2911)
D0F001	2150 Diaphragm, Buna (for P/N DFC777)
D0F001	2150 Diaphragm, PTFE (for P/N DFC911-DVD311)
236273	2150 Air Valve (for P/N DF2911 – DFC777 – DFC911)
255061	2150 Air Valve

#### **HUSKY 3300 – 3 INCH**

- Only used for larger transfer applications such as filling and emptying tanks
- Can handle almost all fluids used on a ship

PART NUMBER	DESCRIPTION					
652404	PP fluid section, centre section, porting, seats. PTFE O-rings, balls, diaphragms - Plastic					
652439	PFluid section, porting, seats. Aluminium centre section. PTFE O-rings, balls, diaphragms - Plastic					
652146 😥	Alu fluid section, centre section, porting. Buna seats, O-rings, balls, diaphragms - Metal					
652160 😥	♠ Alu fluid section, centre section, porting, seats. PTFE 0-rings, balls, diaphragms - Metal					
652882	SST Fluid section, porting, seats. Aluminium centre section. PTFE O-rings, balls, diaphragms - Metal					

#### REPAIR KITS

24K209	3300 Diaphragm, PTFE (for P/N 652404)
24K897	3300 Diaphragm, Buna (for P/N 652439)
24K860	3300 Air Valve

## **SPOT REPAIR & SMALL MAINTENANCE JOBS**

#### **MERKUR - PNEUMATIC AIRLESS SPRAYER**

Graco offers you superior performance with advanced technology. To fit a wider variety of applications, you can choose from four different motor options, making the Merkur a suitable unit for almost all small onboard maintenance jobs. Ergonomy, lower emissions, cost-saving and finishing are the keywords of this new pump generation.

#### **Advantages**

#### Superior performance

Low pulsation and no stalling, low air consumption and easier to clean

#### Ergonomy

A compact and lightweight unit, equipped with control plate at operator height, is easy to use and move around

#### Reduced costs

Fewer spare parts offers an increased ease of serviceability and a lower cost of ownership

#### Durable construction

The stainless steel pump construction can withstand the harsh onboard marine environment





IMPA REFERENCE	27 08 46	27 08 48	27 08 44		27 08 49
GRACO PART NUMBER	G30C55	G36C11	G48C07	16U920	16U918
Graco Model	MERKUR SPRAYER 30:1 - CART	MERKUR SPRAYER 36:1 - CART	MERKUR SPRAYER 48:1 - CART	MERKUR SPRAYER 48:1 - CART	MERKUR SPRAYER 72:1 - CART
Pump Ratio	30:1	36:1	48:1	48:1	72:1
Spray Gun Type	XTR	G40	G40	XTR	XTR
Fluid Flow at 60 cpm	4.5 lpm (1.2 gpm)	6 lpm (1.6 gpm)	4.5 lpm (1.2 gpm)	4.5 lpm (1.2 gpm)	3 lpm (0.8 gpm)
Max. Fluid Outlet Pressure	206 bar (20.6 MPa/ 3000 psi)	248 bar (24.8 MPa/ 3600 psi)	275 bar (27.5 MPa, 4000 psi)	330 bar (33 MPa, 4800 psi)	500 bar (50 MPa, 7200 psi)
Max. Air Inlet Pressure	7 bar (0.7 MPa, 100 psi)	7 bar (0.7 MPa, 100 psi)	5.8 bar (0.58 MPa, 85 psi)	7 bar (0.7 MPa, 100 psi)	7 bar (0.7 MPa, 100 psi)
Air Consumption at 7 bar (100 psi) and 20 cpm	0.48 m³/min (17 scfm)	0.74m³/min (26 scfm)	0.74m³/min (26 scfm)	0.57m³/min (20 scfm)	0,57m³/min (20 scfm)
Fluid Inlet Size	3/4" npt(m)	3/4" npt(m)	3/4" npt(m)	1-1/4" npt (m)	1-1/4" npt (m)
Fluid Outlet Size	3/8" npt(m)	3/8" npt(m)	3/8" npt(m)	3/8" npt(m)	3/8" npt(m)
Air Inlet (Motor)	1/4" npt(f)	1/2" npt(f)	1/2" npt(f)	1/2" npt(f)	1/2" npt(f)
Weight	108 kg (238 lb)	114 kg (251 lb)	110 kg (242.5 lb)	45 kg (99 lb)	45 kg (99 lb)
Manual	312797	312797	312797	332245	332245
Manual Motor	312796	312796	312796	312796	312796

Accessorie	:5

256410	Hopper 5 I (1.5 gal) polyethylene	256425	Fluid Filter Drain Valve, Stainless Steel 350 bar (35 MPa / 5000 psi)
222121	Fluid Regulator: Stainless Steel Maximum working pressure:	224458	Replacement Filter Screen Element 3-pack elements, 30 mesh, SST
	103 bar (10.3 MPa / 1500 psi)	224459	Replacement Filter Screen Element 3-pack elements, 60 mesh, SST
	Regulator range: 10-28 bar (1-2.8 MPa /150-1200 psi)	24A540	Air Control Gauge Covers 5 sheets of 10 covers
24A587	Pump Outlet Fluid Filter: Stainless Steel 60 mesh		

(250 micron), 350 bar (35 MPa / 5000 psi)

#### **PRESIDENT & MONARK - PNEUMATIC AIRLESS SPRAYERS**

As two of the most reliable paint sprayers in the industry, the President and Monark are considered the reference for onboard paint jobs. Their rugged design makes them easy to service, reducing downtime and repair costs. The units are ready-to-use and are equipped with gun fluid hose swivel and whip hose, providing your operators the maximum comfort and ease of handling.

#### <u>Advantages</u>

Proven and durable

Reliable, low maintenance air motor

Small and portable

Easy to move around the ship

Positive displacement

2-ball piston design provides uniform and easily controlled delivery

Versatile

Stainless steel or carbon steel models available to handle various fluids

Flexible

Drum and stubby length models available for mounting and application flexibility





IMPA REFERENCE		27 01 06			27 01 07
GRACO PART NUMBER	218956	232411	232433	224342	231921
Graco Model	MONARK 5:1 200L DRUM	MONARK 23:1 CART			PRESIDENT 30:1 CART
Pump Ratio	5:1	23:1	23:1	10:1	30:1
Max. Fluid Working Pressure	35 bar (3.5 MPa, 507 psi)	160 bar (16 MPa, 2300 psi)	160 bar (16 MPa, 2300 psi)	125 bar (12.5 MPa, 1800 psi)	210 bar (21 MPa, 3000 psi)
Max. Air Inlet Pressure	12 bar (1.2 MPa, 180 psi)	7 bar (0.7 MPa, 100 psi)	7 bar (0.7 MPa, 100 psi)	12 bar (1.2 MPa, 180 psi)	7 bar (0.7 MPa, 100 psi)
Air Consumption at 7 bar (100 psi)	0.08 m³/min (3 scfm)	0.056 m³/min (2 scfm)	0.056 m³/min (2 scfm)		0.29 m³/min (10 sfcm)
Max. Flow Ratio	7.95 lpm (2.1 gpm)	2 lpm (0.5 gpm)	2 lpm (0.5 gpm)	11.36 lpm (3 gpm)	4 lpm (1.05 gpm)
Air Hose Connection	NPT 3/8 female	NPT 3/8 Female	NPT 3/8 Female	NPT 3/8 Female	NPT 3/8 Female
Paint Hose Connection	NPT 3/4 Female	NPSM 1/4 Male	NPSM 1/4 Male	NPT 1/2 Female	NPSM 1/4 Male
Weight	16.86 kg (37.16 lb)	20 kg (45 lb)	21 kg (46.3 lb)	13.82 kg (30.47 lbs)	39 kg (85 lb)
Manual	307044	307043	308765	308116	308635
Manual Motor	307043	308762	307043	306982	307043

#### Repair Parts/Kits

206728 Repair parts kit for Monark air motors

218136 Repair kit PTFE 23:1 Monark

239328 Repair kit, 23:1 Monark

207385 Repair kit for President air motors

## **SPOT REPAIR & SMALL MAINTENANCE JOBS**

#### CLASSIC 390 PC & ST MAX 395 PC - ELECTRIC AIRLESS SPRAYERS

The Classic 390 PC and ST Max 395 PC are two of the lightest professional sprayers, making them ideal for top-quality maintenance. They are equipped with a fast and easy pump replacement system which saves you time and money due to pump repair times and changes.

#### **Advantages**

Flexible

Available in compact stand version and cart version

Variable pressure control

Position indicator allows repeatable setting while spraying light-to-heavier materials

Ready-to-spray

Gun, filter, hose, tip and guard included

Less downtime

With a spare pump ready, you will always be able to finish your job



IMPA REFERENCE	27 08 52	27 08 71	27 08 51	27 08 61		
GRACO PART NUMBER	17C348	17C347	17C346	17E864	17E865	
Graco Model	Classic 390 PC EURO Stand	Classic 390 PC UK – Stand	Classic 390 PC multicord Stand	ST Max 395 PC EURO Stand	ST Max 395 PC EURO Hi Boy	
Power Source	230V	110V		230V	230V	
Max Working Pressure		228 bar (22.8 MPa, 3300 psi)	228 bar (22.8 MPa, 3300 psi)			
Max Fluid Flow	1.8 lpm (0.47 gpm)			2 lpm (0.54 gpm)		
Max Tip Size – 1 gun	0.53 mm (00.21")			0.58 mm (0.023")		
Min Generator	3000W			3500W		
Motor HP	5/8 DC			7/8 TEFC DC		
Weight		14 kg (30 lb)		20.5 kg (45.1 lb)	30 kg (66 lb)	
Manual		334567		334	1530	

#### Accessories

223771 BlueMax II Hose ¼" x 30 m (1/4" x 100 ft)
17Y043 Contractor Spray Gun with RAC X LP-517 tip

LP517 Low Pressure RAC x LP

287021 RAC X Tip Extension 50 cm (20")

240794 BleuMax II Hose 1/4" x 15 m (1/4" x 50 ft)

24V490 JetRoller System 18 cm (3.54") 25A841 JetRoller System 23 cm (9)

#### ST MAX II PC PRO - ELECTRIC AIRLESS SPRAYER

Graco's midsize electric airless sprayers make it easier to get more work done in one day with increased flow and production rates. Available in compact stand or cart version, their durable design can withstand even the most rugged environments.



Less downtime

Pump can be swapped in minutes and is easy to maintain The design allows for fast cleaning with less water

Variable pressure control

Position indicator allows repeatable setting while spraying light-to-heavier materials

Ready-to-spray

Gun, filter, hose, tip and guard included

Easy transport

Compact design that's lightweight and easy to move around



IMPA REFERENCE		27 08 62	27 08 72	27 08 64	27 08 54	27 08 65	27 08 55	27 05 75
GRACO PART NUMBER	17E871	17E872	17E873	17E874	17E875	17E876	17E877	17E878
Graco Model	ST Max 495 PC Pro EURO Stand	ST Max 495 PC Pro Multi Cord Stand	ST Max 495 PC Pro UK Stand	ST Max 495 PC Pro EURO Hi Boy	ST Max 495 PC Pro Multi Cord Hi Boy	ST Max 595 PC Pro EURO Hi Boy	ST Max 595 PC Pro Multi Cord Hi Boy	ST Max 595 PC Pro UK Hi Boy
Power Source	230V	230V	110V	230V	230V	230V	230V	110V
Max Working Pressure 227 bar (22.7 MPa, 3300 psi)			osi)	227 bar (22.7 MPa, 3300 psi)		227 bar (22.7 MPa, 3300 psi)		
Max Fluid Flow	4	2.3 lpm (0.6 gpm	)	2.3 lpm (0.6 gpm)		2.3 lpm (0.6 gpm)		
Max Tip Size – 1 Gun	p Size – 1 Gun 0.63 mm (0.025")			0.63 mm (0.025") 0.68 mm (0.027")			)	
Min Generator	Generator 3750W			3750W			4000W	
Motor HP	Motor HP 1.2 Brushless DC			1.2 Brushless DC			1.6 Brushless DC	
Weight	15 kg (34 lb)			30 kg (66.1 lb) 33 kg (72		33 kg (72 lb)		
Manual	334530			334530 334530			334530	

## CARGO HOLD MAINTENANCE & BIGGER MAINTENANCE JOBS

#### **KING - PNEUMATIC AIRLESS SPRAYER**

The Graco King pneumatic airless sprayers are easy to maintain, with low pulsation for improved performance. They are designed to withstand the harshest environmental conditions and easily handle the toughest protective coatings and corrosion control applications. The heavy-duty cart is exceptionally robust and provides protection for the pump and accessories. When looking for a dependable, durable and rugged airless protective coatings sprayer to get the job done, choose the Graco King.

#### **Advantages**

Simple maintenance

All motor parts are easily accessible and require simple maintenance

Reduced icing potential

Up to 70% reduction with thermally isolated poppets

Less pulsation

Higher exhaust capacity in the air valve for faster, smoother changeover and no pressure drops

Improved sealing and strength

Enhanced edge loading and seven throat pickings instead of five

Multi-gun capabilities

The ability to spray with up to six guns is now a reality, thanks to the more powerful and efficient changeovers





IMPA REFERENCE		27 08 12	27 08 13			
GRACO PART NUMBER	K40FH1	K60FH1	K70FH1			
Graco Model	King XL40-180 - Heavy-Duty Cart	King XL60-220 - Heavy-Duty Cart	King XL70-180 - Heavy-Duty Cart			
Pump Ratio	40:1	60:1	70:1			
Motor Type	3400 cc XL Air Motor	6500 cc X	L Air Motor			
Output Per Cycle	180 cc	220 cc	180 cc			
Max. Working Pressure	262 bar (26.2 MPa, 3800 psi)	417 bar (41.7 MPa, 6000 psi)	500 bar (50 MPa, 7250 psi)			
Max. Air Input Pressure		7 bar (0.7 MPa, 100 psi)				
Output at 60 cpm	11 lpm (2.9 gpm)	12.9 lpm (3.4 gpm)	11 lpm (2.9 gpm)			
Manual	3A0293	3A5422D	3A5422D			

#### Accessories

262826 Gun Splitter, 2 guns, with independent flush

206994 Throat Seal Liquid (TSL)

#### **E-XTREME - ELECTRIC AIRLESS SPRAYER**

Rugged and reliable, the Graco e-Xtreme electric airless sprayer is the world's first electric sprayer for protective coatings and corrosion control applications approved for hazardous locations. The sprayer provides long-lasting durability that boosts your productivity. The unit is ideal for medium to big jobs and is still easy to move around on board. In addition, electric technology eliminates pulsation and motor icing, making your jobs run smoothly - every time!

#### <u>Advantages</u>

- Portable
   Easy to move around on deck
- Reliable

  Electric power is safe, reliable and convenient
- No icing
   Reduces downtime due to freeze-ups
- Plug-in and spray
   No compressor needed





IMPA REFERENCE	27 01 09		27 01 10						
GRACO PART NUMBER	24Z901	24Z909	24Y901	24Y909					
Graco Model	e-Xtreme Ex35 - cart mount	e-Xtreme Ex35 - wall mount	e-Xtreme Ex45 - cart mount	e-Xtreme Ex45 - wall mount					
Max. Working Pressure	240 bar 310 bar (24 MPa, 3500 psi) (31 MPa, 4500 psi)								
Max Recommended Tip Size	0.53 mm (0.021") 0.58 mm (0.023") at 276 bar (28 MPa, 400 psi) spray pressure at 220 bar (22 MPa, 3200 psi) spray pressure								
Min Hose Length and ID	15 m (50ft) - 10 mm (3/8")								
Input Voltage		200 to 240 V, sing	le phase, 50/60 Hz						
Input Power		2.5	kVA						
Sound Pressure		70	dBA						
Pump Lower	145 cc 180 cc								
Weight		135 kg	(295 lb)						
Manual	3A3	2164	3A3	2164					

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24F969	Repair kit for Ex35, lower (180 cc)	16W645	Gearbox oil for electric driver 11
24F971	Repair kit for Ex45, lower (145 cc)	24Z269	Cable assembly with 1 gland, 30 m
244459	Fluid filter element, 60 mesh, twin pack	24Z273	Cable assembly with 2 glands, 30 m

244468 Fluid filter element, 100 mesh, twin pack

## **AIRLESS SPRAY GUNS**



#### AIRLESS SPRAY GUNS – CONTRACTOR SERIES – 248 BAR (2.48 MPA, 3600 PSI)

The Contractor Guns from Graco are designed to be the longest lasting and most reliable airless spray guns. They aim to provide the maximum performance, reliability and comfort. Their durable nickel finish is corrosion resistant and easier to clean.

IMPA REFERENCE	27 01 21											
GRACO PART NUMBER	288420	288421	288425	288429	288430	288431						
Graco Model	Contractor	Contractor	Contractor	Contractor FTx	Contractor FTx	Contractor FTx						
Max Fluid Working Pressure		248 bar (24.8 MPa, 3600 psi)										
Inlet Size		1/4 NPSM										
Orifice Diameter			3.2 mm	า (0.125")								
Trigger	2-finger trigger	2-finger trigger	4-finger trigger	2-finger trigger	4-finger trigger	4-finger trigger						
Tip	RAC X 515 Switch tip		RAC 5 517 RAC X 517 Switch tip Switch tip		RAC X 515 Switch tip	RAC 5 517 Switch tip						
Tip Guard	RAC X HandTite guard	RAC 5 HandTite guard	RAC X HandTite guard	RAC X HandTite guard	RAC X HandTite guard	RAC 5 HandTite guard						
Weight		1	624 gr	(22 oz)	1	1						



#### AIRLESS SPRAY GUNS – XTR5 SERIES - 345 BAR (34.5 MPA, 5000 PSI)

The XTR5-series has a rugged, ergonomic design that handles the toughest protective coatings. The small profile allows easy access and spraying in tight areas with a max 345 bar (34.5 MPa, 5000 psi) fluid pressure.

IMPA REFERENCE	27 09 01	27 09 02	27 09 03		
GRACO PART NUMBER	XTR500	XTR502	XTR504		
Graco Model	XTR-5	XTR-5	XTR-5		
Handle Shape	Round	Oval-insulated	Round		
Trigger	Four-finger trigger	Four-finger trigger	Four-finger trigger		
Tip	No tip	519 XHD RAC	519 XHD RAC		



#### AIRLESS PAINT SPRAY HAND GUNS – SILVER PLUS - 345 BAR (34.5 MPA, 5000 PSI)

Graco's Silver Guns are known for their durability, long life, spraying performance, and comfortable design. They are the preferred gun for high pressure applications, with a 345 bar (34.5 MPa, 5000 psi) fluid rating for spraying the toughest materials.

IMPA		27 01 23									
GRACO PART NUMBER	235460	235461	243283								
Graco Model	Silver Plus	Silver Plus	Silver Plus								
Max Fluid Working Pressure	345 bar (34.5 MPa, 5000 psi)										
Inlet Size		1/4 NPSM									
Orifice Diameter		2.3 mm (0.09")									
Trigger	2-finger trigger	4-finger trigger	2-finger trigger								
Tip	No tip	No tip	RAC5 5179 switch tip								
Tip Guard	Standard dripless tip guard	Standard dripless tip guard	RAC5 HandTite guard								
Weight	1.03 kg (2.76 lb)	1.3 kg (3.5 lb)	0.51 kg (1.13 lb)								



#### AIRLESS SPRAY GUNS – XTR7 SERIES – 500 BAR (50 MPA, 7250 PSI)

The XTR7-series is built for extreme conditions. They have a fluid rating of 500 bar (50 MPa, 7250 psi). And their lightweight, compact design allows for easy maneuverability.

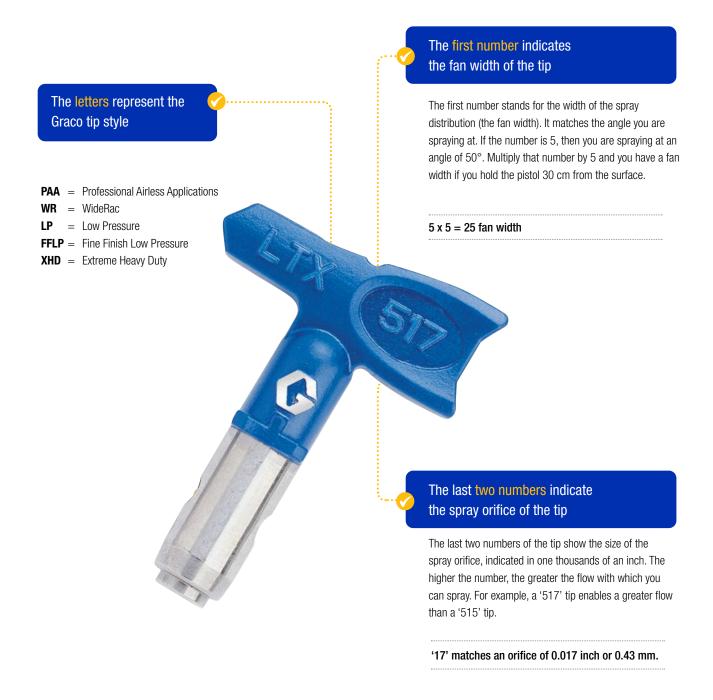
IMPA REFERENCE	27 09 04	27 09 05	27 09 06		
GRACO PART NUMBER	XTR700	XTR702	XTR704		
Graco Model	XTR-7	XTR-7	XTR-7		
Handle Shape	Round	Oval-insulated	Round		
Trigger	Four-finger trigger	Four-finger trigger	Four-finger trigger		
Tip	No tip	519 XHD RAC	519 XHD RAC		

### TIPS

Improve spraying productivity and reduce downtime with the Graco HD RAC Switch Tips.

- Saves time No screwdriver needed
- Change tip sizes in seconds without removing the tip guard housing
- · Locking tab ensures tip stays securely in the guard

Choose a tip with an orifice size rated for the paint or coating you'll be spraying. Size the spray tip according to the tip rating of your sprayer. If you plan on using multiple spray guns on your job, pick a tip size that matches the multiple gun tip rating of your sprayer.





## **SWITCH TIPS**

#### **RAC X**

Choose RAC X tips for airless applications up to 350 bar (35 MPa, 5076 psi)

- (FF)LP tip (green) for fine finish applications
- PAA/WA tip (blue) for all professional airless applications

• 246215 Guard RAC X 7/8" thread

• 246437 Guard RAC X 11/16" thread

• 246770 Guard RAC X 18 x 1.5" thread



RAC X FFLP  MAXIMUM PRESSURE BAR/PSI/M 350/5076/35.0											
RAC X FF	LP	ORII	FICE	ORI	FICE	ORI	FICE	ORII	FICE	ORIFICE	
MAXIMUM PRESSURE BAR/PSI/MPA: 350/5076/35.0		0.008"		0.010"		0.012"		0.014"		0.016"	
	FAN WIDTH	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMP/
FELP 5	5 cm (1.97")	FFLP-108	27 11 20	FFLP-110	27 11 21	FFLP-112	27 11 22				
	40 (0 0411)	EELD OOO	07.00.07	EEL D. 040	07.00.00	EEL D. 040	07.00.00	EEL D. 04.4	07.00.40		



/35.0		0.0	00	0.0	10	0.0	12	0.0	14	0.016	
	FAN WIDTH	TIP SIZE	IMPA CODE								
	5 cm (1.97")	FFLP-108	27 11 20	FFLP-110	27 11 21	FFLP-112	27 11 22				
	10 cm (3.94")	FFLP-208	27 09 07	FFLP-210	27 09 08	FFLP-212	27 09 09	FFLP-214	27 09 10		
	15 cm (5.9")	FFLP-308	27 09 17	FFLP-310	27 09 18	FFLP-312	27 09 19	FFLP-314	27 09 20		
	20 cm (7.87")			FFLP-410	27 09 28	FFLP-412	27 09 29	FFLP-414	27 09 30		
	25 cm (9.84")			FFLP-510	27 09 38	FFLP-512	27 09 39	FFLP-514	27 09 40	FFLP-516	27 11 23
	30 cm (11.81")									FFLP-616	27 11 24

RAC X LP MAXIMUM PRESSURE BAR/PSI/MPA: 280/4050/28.0		ORIFICE		ORIFICE		ORIFICE		ORIFICE		ORIFICE		ORIFICE		ORIFICE	
		0.013"		0.015"		0.017"		0.019"		0.021"		0.023"		0.025"	
LP	FAN WIDTH	TIP SIZE	IMPA CODE												
G	15 cm (5.9")	LP-313		LP-315											
	20 cm (7.87")			LP-415		LP-417		LP-419		LP-421		LP-423		LP-425	
	25 cm (9.84")			LP-515		LP-517		LP-519		LP-521		LP-523		LP-525	
	30 cm (11.81")					LP-617		LP-619		LP-621		LP-623		LP-625	
	35 cm (13.78")											LP-723		LP-725	



RAC X PAA  MAXIMUM PRESSURE BAR/PSI/MPA: 350/5076/35.0		ORIFICE		ORIFICE		ORIFICE		ORIFICE		ORIFICE		ORIFICE	
		0.0	)15"	0.0017"		0.0019"		0.021"		0.023"		0.025"	
	FAN WIDTH	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE	TIP SIZE	IMPA CODE
	10 cm (3.94")	PAA-215	27 09 44	PAA-217	27 09 45	PAA-219	27 09 46	PAA-221	27 09 47				
G	15 cm (5.9")	PAA-315	27 09 48	PAA-317	27 09 49	PAA-319	27 09 50	PAA-321	27 09 53	PAA-323	27 09 54	PAA-325	27 09 55
	20 cm (7.87")	PAA-415	27 09 56	PAA-417	27 09 57	PAA-419	27 09 58	PAA-421	27 09 59	PAA-423	27 09 60	PAA-425	27 09 68
	25 cm (9.84")	PAA-515	27 09 69	PAA-517	27 09 70	PAA-519	27 09 72	PAA-521	27 09 73	PAA-523	27 09 74	PAA-525	27 09 75
	30 cm (11.81")	PAA-615	27 09 76	PAA-617	27 09 77	PAA-619	27 09 78	PAA-621	27 09 79	PAA-623	27 09 80	PAA-625	27 09 81
	35 cm (13.78")							PAA-721	27 09 82	PAA-723	27 09 83		
	40 cm (15.75")			DA A_017	27.00.94	DA A _010	27.00.95	DA A_921	27.00.96				

**PAA-1221** 27 09 87

**WA-1223** 27 09 88

**WA-1225** 27 09 89

60 cm (23.62")

#### **XHD**

For heavy-duty application up to 500 bar (50 MPa, 7252 psi). Recommended for Xtreme sprayers and XTR airless spray guns.

XHD Guard is compatible with XHD tips:

- XHD001 XHD RAC Guard (22.22 mm 7/8")
- XHD005 XHD RAC Guard (17.46 mm 11/16")



XHD		ORII	FICE	ORI	ICE	ORIFICE									
MAXIMUM PRESSURE BAR/PSI/MPA: 500/7252/50.0		0.013"		0.0	0.015" 0.0		0.017" 0.01		0.0		21"	0.023"		0.025"	
	FAN WIDTH	TIP SIZE	IMPA CODE												
	20 cm (7.87")	XHD-413		XHD-415	27 09 11	XHD-417	27 09 12	XHD-419	27 09 13	XHD-421	27 09 14	XHD-423	27 09 15	XHD-425	27 09 16
	25 cm (9.84")	XHD-513	27 09 21	XHD-515	27 09 22	XHD-517	27 09 23	XHD-519	27 09 24	XHD-521	27 09 25	XHD-523	27 09 26	XHD-525	27 09 27
	30 cm (11.81")	XHD-613	27 09 31	XHD-615	27 09 32	XHD-617	27 09 33	XHD-619	27 09 34	XHD-621	27 09 35	XHD-623	27 09 36	XHD-625	27 09 37



## **EXTENSIONS**

#### **CLEANSHOT POLEGUN**

- Provides better spray control and less fatigue
- Balanced design no excessive weight at the end of the pole



IMPA REFERENCE	27 10 15	27 10 16		
GRACO PART NUMBER	287026	287027		
Graco Model	CleanShot Polegun	Cleanshot Polegun		
Max Fluid Working Pressure	248 bar (25 MPa, 3600 psi)	248 bar (25 MPa, 3600 psi)		
Inlet Size	1/4" NPSM	1/4" NPSM		
Orifice Diameter	2.27 mm (0.09")	2.27 mm (0.09")		
Length	90 cm (2.95 ft)	180 cm (5.09 ft)		
Weight	1.03 kg (2.76 lb)	1.03 kg (2.76 lb)		

#### ► HEAVY-DUTY EXTENSIONS

- Tough, lightweight aluminium construction
- Can be combined for extended reach up to 3.6 m (12 ft)
- Attach to any airless spray gun
- Ideal for high-pressure spraying or low pressure rolling

IMPA REFERENCE	27 10 15				27 10 16			
GRACO PART NUMBER	232121	232122	232123	232124	232125			
Max Fluid Working Pressure	248 bar (24.8 MPa, 3600 psi)							
Length	25 cm (10")	50 cm (20")	100 cm (40")	150 cm (60")	200 cm (80")			



#### ► RAC X TIP EXTENSIONS

• Includes: RAC X HandTite guard standard with 22 mm (7/8") gun nut and OneSeal

IMPA REFERENCE	27 10 11	27 10 12	27 10 13	27 10 14	27 10 16				
GRACO PART NUMBER	287019	287020	287021	287022	232125				
Max Fluid Working Pressure	280 bar (28 MPa, 4050 psi)								
Length	25 cm (10")	38 cm (15")	50 cm (20")	75 cm (30")	200 cm (80")				

# **JETROLLER**

### **JETROLLER**

The JetRoller combines rolling and spraying into one action, saving time and labour on spray/back roll projects. It consists of a spray roller, a spray extension and a hand roller in one complete kit. Lightweight and portable, it fits existing airless sprayers and is the ideal time-saving addition to your painting arsenal. Ideal for rough or porous surfaces.



IMPA REFERENCE	27 04 21	27 04 22	27 04 23	27 04 24	27 04 25
GRACO PART NUMBER	24U172	24W128	24V490	24V491	25A841
Roll Style	USA	USA	Europe	Europe	UK
Roll Frame	22.86 cm (9")	45.72 cm (18")	18 cm (7.08")	25 cm (9.84")	22.86 cm (9")
Tip	LTX721	WR1223	PAA515	PAA721	LTX721
In-Line Valve	✓	✓	✓	✓	✓
45° Swivel	-	-	-	-	-
Clean Shot	/	<b>✓</b>	/	/	/

# HOSES

#### BLUEMAX II HOSES

#### Airless hoses for small maintenance jobs

- Light weight and flexible over 10% lighter weight and increased hose flexibility improves usability while spraying under pressure
- Highest safety standards conductive core meets the highest worldwide safety standards unlike competitive ground wire hose designs
- Minimal hose coil memory superior flexibility and reduced coil memory provides ease of use during coiling and uncoiling
- Corrosion resistant plated spring guards are more corrosion resistant
- Available in a wide variety of lengths and diameters



#### > 227 BAR (22.7 MPA, 3300 PSI)

IMPA REFERENCE							
GRACO PART NUMBER	223756	240794	223771	240797	238358	238959	238359
Graco Model		BlueMax II A	Airless Hose	E	BlueMax II Whip Hos	e	
Length	4.5 m (15 ft)	15 m (50 ft)	30 m (100 ft)	15 m (50 ft)	0.9 m (3 ft)	1.4 m (4.5 ft)	1.8 m (6 ft)
Hose Diameter	6.35 mm (1.4")	6.35 mm (1.4") 6.35 mm (1.4") 6.35 mm (1.4") 9.52 mm (3.8")				4.76 mm (3/16")	4.76 mm (3/16")
Size ID		1.4" 18N	PSM FXF		1.4" 18NPSM MXF		

### AIRLESS (AIR-ASSISTED) GUN, TIP AND HOSE KITS

- A complete set of gun and hose combined into an economical package
- Easy to keep a spare kit ready





### > XTREME DUTY HOSES

### High-pressure hoses for air-operated sprayers

- Complete line of strong and safe hoses
- Colour-coded by pressure to take the guesswork out of using the right hose
- Easy-to-order, configurable part numbering system
- Durable design reduces downtime



### > 310 BAR (31 MPA, 4500 PSI)

IMPA REFERENCE	27 10 21	27 10 22	27 10 23	27 10 24	27 10 25	27 10 26	27 10 27	27 10 28	27 10 29	
GRACO PART NUMBER	H42525	H42550	H4251X	H43825	H43850	H4381X	H45025	H45050	H4501X	
Length	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	
Hose Diameter	6.4 mm (1/4")			9.5 mm (3/8")			12.7 mm (1/2")			
Size ID	1/4" Female NPSM			3/	3/8" Female NPSM			1/2" Female NPSM		



### > 386 BAR (38.6 MPA, 5600 PSI)

IMPA REFERENCE	27 10 31	27 10 32	27 10 33	27 10 34	27 10 35	27 10 36	27 10 37	27 10 38	27 10 39
GRACO PART NUMBER	H52525	H52550	H5251X	H53825	H53850	H5381X	H55025	H55050	H5501X
Length	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)
Hose Diameter	6.4 mm (1/4")			9.5 mm (3/8")			12.7 mm (1/2")		
Size ID	1/4" Female NPSM			3/	'8" Female NPS	M	1/2" Female NPSM		



## > 500 BAR (50 MPA, 7250 PSI)

IMPA REFERENCE	27 10 41	27 10 42	27 10 43	27 10 44	27 10 45	27 10 46	27 10 47	27 10 48	27 10 49
GRACO PART NUMBER	H72525	H72550	H7251X	H73825	H73850	H7381X	H75025	H75050	H7501X
Length	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)	7.6 m (25 ft)	15.2 m (50 ft)	30.5 m (100 ft)
Hose Diameter	6.4 mm (1/4")			9.5 mm (3/8")			12.7 mm (1/2")		
Size ID	1/4" Female NPSM			3/	3/8" Female NPSM		1/2" Female NPSM		M

# **LIGHT-DUTY OIL & GREASE PUMPS**

#### **FAST-BALL**

Use the Fast-Ball for onboard lower volume and short-run transfers of petroleum and synthetic based oils. These pumps are designed to provide a reliable fluid flow and ensure smooth pumping.

#### <u>Advantages</u>

Durable

Rated for continuous duty in challenging applications

Less pump wear

In-line design with fewer moving parts in the air motor assembly means less downtime and low repair costs

Flexible

Use with both petroleum- and synthetic-based oils

Ready to use

Convenient pump packages come with everything you need to get started immediately

#### **Accessories**

247431 Fast-Ball Repair Kit

222308 Bung adapter

222118 Connection hose kit (4.5 m - 14.76 ft)
222119 Connection hose kit (1.8 m - 5.9 ft)





IMPA REFERENCE	61 74 61	61 74 61	61 74 61	
GRACO PART NUMBER	222051	222103	222104	
Graco Model	Fast-Ball Universal Oil Pump	Fast-Ball 200 litre Oil Pump Bung Mounted	Fast-Ball 1041 litre Oil Pump Bung Mounted	
Pump Ratio	1:1	1:1	1:1	
Max Fluid Output Pressure	12.4 bar (1.24 MPa, 180 psi)	12.4 bar (1.24 MPa, 180 psi)	12.4 bar (1.24 MPa, 180 psi)	
Fluid Flow at 80 cpm	18-22.7 lpm	18-22.7 lpm	18-22.7 lpm	
Air Use and Flow at 80 cpm	0.20 m³/min at 11.7 lpm	0.20 m³/min at 11.7 lpm	0.20 m³/min at 11.7 lpm	
Output per Cycle	151 cc	151 cc	151 cc	
Air Inlet	1/4" NPT (F)	1/4" NPT (F)	1/4" NPT (F)	
Fluid Inlet	1 – 1/2" NPT (F)	1 – 1/2" NPT (F)	1 – 1/2" NPT (F)	
Fluid Outlet	3/4" NPT (F)	3/4" NPT (F)	3/4" NPT (F)	
Weight	3.6 kg (7.9 lb)	5.9 kg (13 lb)	6.4 kg (14.1 lb)	
Manual	307906	307906	307906	

# **LIGHT-DUTY OIL & GREASE PUMPS**

#### **LD AIR-POWERED PUMPS**

The affordable and full featured LD is designed for lower volume applications.

These pumps are fine-tuned for a compact, flexible and still incredibly durable solution.

When transferring oil or grease on board out of 20 to 200 litre drums, you should consider the LD as it offers field-proven performance for a solution that works as hard as you.

#### <u>Advantages</u>

#### Durable

Patent-pending cup and plate design eliminates the need for O-rings for a more durable, longer-lasting solution

#### High performance

Fast repairs, flexible configuration, industry leading five year warranty, and so many other field-proven features

#### Reliable

Patent-pending self-cleaning design increases reliability in dirty air environments and minimizes pressure drop with rapid changeovers for reduced stalling and smoother flow

#### Ease of use

Air inlet and exhaust locations are easy to configure with just four bolts for simple, hassle-free installations

#### Constant

NXT Air Valve is designed to reduce icing in continuous use applications and uses less air than competitive pumps for better efficiency. Easy to repair or replace without tearing down internal pump components for less downtime

#### <u>Accessories</u>

24H798 Air Valve Repair Kit
24J757 Air Motor Service Kit (npt)
24J758 Air Motor Service Kit (bspp)
24J759 Air Motor Service Kit (bspt)



IMPA REFERENCE					
GRACO PART NUMBER	24G582	24G594	24G606	24J030	25C549
Graco Model	LD 3:1 Oil Pump, 200L Drum, Metallic tube	LD 5:1 Oil Pump, 200L Drum, Metallic tube	LD 50:1 Grease Pump, 180 kg (400 lb)	LD 50:1 Grease Pump 16 kg (35 lb), Stationary Package	LD 50:1 Grease Pump 16 kg (35 lb) Mobile Package
Maximum Fluid Working Pressure	31 bar (3.10 MPa, 450 psi)	51.7 bar (5.17 MPa, 750 psi)	51.7 bar (5.17 MPa, 750 psi)	35 bar (3.5 MPa, 5000 psi)	51.7 bar (5.17 MPa, 750 psi)
Fluid Pressure Ratio	3:1	5:1	50:1	50:1	50:1
Air Operation Range	1.37 to 10.3 bar (20 to 150 psi)	1.37 to 10.3 bar (20 to 150 psi)	1.37 to 10.3 bar (20 to 150 psi)	1.37 to 10.3 bar (20 to 150 psi)	1.37 to 10.3 bar (20 to 150 psi)
Max Recommended Pump Speed	120 cycles per minute	180 cycles per minute	120 cycles per minute	120 cycles per minute	180 cycles per minute
Cycles Per Litre (Gallon)	7 cycles per litre (29 cycles per gallon)	10 cycles per litre (37 cycles per gallon)	103 cycles per kg (47 cycles per pound)	7 cycles per liter (29 cycles per gallon)	10 cycles per liter (37 cycles per gallon)
Wetted Parts	Zinc Plated Carbon, St Polyurethane, Nicke	eel, Aluminium, Nitrile, el Plated Aluminium	Steel, Brass, Nitrile Rubber, Polyurethane, UHMWPE, Acetal	Steel, Brass, Nitrile Rubber, Polyurethane, UHMWPE, Acetal	
Approximate Weight	3.2 kg (7 lb)	3.2 kg (7 lb)	7.7 kg (17 lb)	12.98 kg (28.61 lb)	15.07 kg (33.22 lb)
Air Inlet	1/4"	1/4"	1/4"	1/4"	1/4"
Fluid Inlet	1"	1"	Priming Piston	1"	1"
Fluid Outlet	1/2"	1/2"	1/4"	1"	1"
Manual	3A1334	3A1334	3A1334	3A1335	3A1335
Repair Kit Manual	3A1494	3A1494	3A1495	3A1495	3A1495

# **HEAVY-DUTY OIL & GREASE PUMPS**

#### **FIRE-BALL**

When working in one of the most demanding environments, you need a pump you can rely on.

Graco's Fire-Ball pumps are designed for applications requiring continuous duty and are built to last.

With so many unique maintenance saving features, Fire-Ball pumps reduce downtime and save you money.

Whether you're pumping oil or grease for low, medium or high volume applications, trust Graco's Fire-Ball pumps to get the job done!

#### **Advantages**

Durable

Non-corrosive air motor design for long life (metal parts made of stainless steel, aluminum and chrome)

High Performance

No metal-to-metal contact means longer pump life and ensures pump will withstand harsh environments

Reliable

Double-acting pump provides reliable fluid flow

Ease

Few moving parts translates into low maintenance and low cost of ownership

Constant

Open exhaust port provides continuous operation without icing

IMPA REFERENCE	61 74 64	61 74 65	61 74 66	
GRACO PART NUMBER	246775	225931/225642	237526	
Graco Model	Mini Fire-Ball 225, Oil Pump, Universal Pump Only	Fire-Ball 300, Oil Pump, 200 litre Bung or Cover Mounted Package	Fire-Ball 425, Oil Pump, Universal Pump Only	
Application	Low to medium volume	Medium volume	High volume	
Pump Ratio	3:1	5:1	3:1	
Max. Fluid Output Pressure	37 bar (0.37 MPa, 540 psi)	62 bar (0.62 MPa, 900 psi)	37 bar (0.37 MPa, 540 psi)	
Fluid Flow at 80 cpm	7.0 lpm (1.84 gpm)	9.3 lpm (2.8 gpm)	50.6 lpm (13.4 gpm)	
Cycles per Litre (gallon)	11.4 cycles per litre (43.5 cycles per gallon)	11.4 cycles per litre (43.5 cycles per gallon)	11.4 cycles per litre (43.5 cycles per gallon)	
Air Use and Flow at 7 bar (100 psi) and 80 cpm	0.241 m <sup>3</sup> /min at 7.9 l/min (8.5 scfm at 2.1 gpm	0.765 m³ /min at 11.5 l/min (27 scfm at 3 gpm)	1.64 m³ /min at 50.6 l/min (58 scfm at 13.4 gpm)	
Wetted Materials	<ul> <li>Steel</li> <li>Buna-N</li> <li>Polyurethane</li> <li>Aluminium</li> <li>Rulon®</li> </ul>	<ul><li>Steel</li><li>Polyurethane</li><li>Aluminium</li><li>Buna-N</li></ul>	<ul><li>Steel</li><li>Polyurethane</li><li>Aluminium</li><li>Nitrile</li></ul>	
Air Inlet	3/8" npt(f)	3/8" npt(f)	1/2" npt(f)	
Fluid Inlet	1-1/2" npt(f)	1-1/2" npt(f)	1-1/2" npt(f)	
Fluid Outlet	1/2" npt(f)	1/2" npt(f)	3/4" npt(f)	
Line Length	Up to 76.2 m (250 ft)	Up to 152.5 m (500 ft)	Up to 76.2 m (250 ft)	
Manual	309868	306518	308485	



IMPA	61 74 69	61 74 80	61 74 88	
GRACO PART NUMBER	246909	239877/239888	205395	
Graco Model	Mini Fire-Ball 225, Grease Pump, 16 kg Drum-Pump Only	Fire-Ball 300, Grease Pump, 16/180 kg, Drum-Pump Only	Fire-Ball 425, Grease Pump, 180 kg, Drum-Pump Only	
Application	Low to medium volume	Medium volume	High volume	
Max. Fluid Output Pressure	580 bar (58 MPa, 8400 psi)	580 bar (58 MPa, 8400 psi)	517 bar (51.7 MPa, 7500 psi)	
Pump Ratio	50:1	50:1	50:1	
Continuous-Duty Flow Rate kg/min. (lb/min.)	0.15 kg/min (0.32 lb/min)	0.54 kg/min (1.19 lb/min)	1.5 kg/min (3.35 lb/min)	
Air Use	0.2 m³ /min (7.3 scfm) at 18 kg/min (0.41 lb/min.) at 7 bar (100 psi) at 80 cpm	0.645 m³ /min (22.8 cfm) at 7 bar (100 psi)	0.54m <sup>3</sup> /min (19 cfm) at 4.8 bar (70 psi)	
Wetted Materials	<ul> <li>Steel</li> <li>Urethane</li> <li>Aluminium</li> <li>Buna-N</li> <li>Brass</li> <li>Ethylene</li> <li>Delrin</li> </ul>	<ul> <li>CS</li> <li>Delrin®</li> <li>Buna-N</li> <li>Polyurethane</li> </ul>	• CS • Leather	
Air Inlet	3/8" npt(f)	3/8" npt(f)	1-1/2" npt(f)	
Fluid Inlet	Slotted	Slotted	Slotted	
Fluid Outlet	1/4" npt(f)	1/4" npt (f)	3/8" in npt(f)	
Line Length	Up to 30.5 m (100 ft)	Up to 76.2 m (250 ft)	Up to 76.2 m (250 ft)	
Manual	309966	308883	306674	

# **HOSE REELS**

Graco's family of heavy-duty hose reels are designed for different types of applications. We also engineer our retractable hose reels to handle common fluids: lubricating grease, petroleum- and synthetic-based oils, hydraulic fluids, transmission fluids, gear oils, air, water, windshield wash fluid and diesel exhaust fluids.

### **Ordering Information**

Part Number Example: HPH55B

Graco's smart part system makes choosing and ordering easy.

The example shows a reel with the following specifications:

An SD Series hose reel for high-pressure applications with a 3/8" hose diameter, 15 m hose length, with a metallic blue single pedestal frame.

PEDESTAL	REEL SERIES	OPERATING PRESSURE	HOSE DIAMETER		HOSE LENGTH	COLOUR
H = Hose Reel	$\mathbf{R} = LD$	<b>L</b> = Low	SIZE 10	1 = 1/4"	<b>3</b> = 11 m (35 ft)	A = White
	P = SD	<b>M</b> = Medium		2 = 3/8"	<b>5</b> = 15 m (50 ft)	B = Metallic Blue
	<b>S</b> = XD	<b>H</b> = High		3 = 1/2"	<b>6</b> = 20 m (65 ft)	C = Red
			SIZE 20	4 = 1/4"		<b>D</b> = Black
				5 = 3/8"		E = Dark Blue
				6 = 1/2"		<b>B</b> and <b>D</b> = shipped with no hose
						F = Yellow

Metallic Blue reels are standard.

Consult customer service for lead times for other colours.

	Typical Application	Typical Fluid	Hose/Cord Length Options	Enclosed
LD™ Series	<ul> <li>Small maintenance shops</li> <li>Tyre maintenance shops</li> <li>Small fast lubes</li> <li>Independent repair facilities</li> <li>Industrial manufacturing facilities</li> </ul>	<ul> <li>Petroleum- and synthetic-based oils</li> <li>Air</li> <li>Water</li> <li>Grease</li> <li>Anti-freeze</li> <li>Windshield washer fluid</li> </ul>	• 11 m (35 ft) • 14 m (45 ft) • 15 m (50 ft)	Yes
SD™ 10 / 20 Series	Car dealerships     Light-/medium-duty truck dealers     Fleet maintenance     Public works garages     Construction vehicle maintenance     Light-utility service trucks	<ul> <li>Petroleum- and synthetic-based oils</li> <li>Air</li> <li>Water</li> <li>Grease</li> <li>Anti-freeze</li> <li>Windshield washer fluid</li> </ul>	• 11 m (35 ft) • 15 m (50 ft) • 20 m (65 ft)	Optional
SD™ Series Cord Reels	<ul> <li>Automotive dealerships</li> <li>Fast lube centres</li> <li>Service shops</li> <li>Heavy-duty dealerships</li> <li>Fleet services facilities</li> <li>In-plant</li> <li>Lube trucks</li> <li>Mining</li> </ul>		• 11 m (35 ft) • 15 m (50 ft) • 29 m (95 ft)	Optional
XD™ 10 / 20 Series	<ul> <li>Heavy-duty truck dealers</li> <li>Fleet maintenance</li> <li>Mining maintenance</li> <li>Public works garage</li> <li>Construction vehicle maintenance</li> <li>Heavy-duty mobile service trucks</li> <li>Mining</li> <li>Lube trucks</li> </ul>	<ul> <li>Petroleum- and synthetic-based oils</li> <li>Air</li> <li>Water</li> <li>Grease</li> <li>Anti-freeze</li> <li>Windshield washer fluid</li> </ul>	• 11 m (35 ft) • 15 m (50 ft) • 20 m (65 ft)	Optional
XD™ 30 Series	Heavy-duty truck dealers     Fleet maintenance     Mining maintenance     Public works garage     Construction vehicle maintenance     Heavy-duty mobile service trucks     Mining     Lube trucks	Petroleum- and synthetic-based oils Diesel fuel Air Water Grease Anti-freeze Windshield washer fluid Pressure wash Waste oil evacuation Diesel exhaust fluid (DEF)	• 11 m (35 ft) • 15 m (50 ft) • 20 m (65 ft) • 23 m (75 ft)	No
XD™ 40 / 50 Series	<ul> <li>Heavy-duty truck dealers</li> <li>Fleet maintenance</li> <li>Mining maintenance</li> <li>Public works garages</li> <li>Construction vehicle maintenance</li> <li>Heavy-duty mobile service trucks</li> <li>Agriculture</li> <li>Lube trucks</li> </ul>	<ul> <li>Petroleum- and synthetic-based oils</li> <li>Diesel fuel</li> <li>Air</li> <li>Water</li> <li>Anti-freeze</li> <li>Waste oil evacuation</li> </ul>	• 11 m (35 ft) • 15 m (50 ft) • 23 m (75 ft) • 30 m (100 ft)	No
XD™ 60 / 70 / 80 Series	Heavy-duty truck dealers     Fleet maintenance     Mining maintenance     Public works garages     Construction vehicle maintenance     Heavy-duty mobile service trucks     Agriculture     Lube trucks	<ul> <li>Petroleum- and synthetic-based oils</li> <li>Diesel fuel</li> <li>Air</li> <li>Water</li> <li>Grease</li> <li>Waste oil evacuation</li> </ul>	• 15 m (50 ft) • 23 m (75 ft) • 30 m (100 ft) • 46 m (150 ft)	No

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