



Reactor® IP

In-Plant Polyurethane Foam Processing Systems



PROVEN QUALITY. LEADING TECHNOLOGY.

Reactor IP Series

Entry-level unit designed for rigid and flexible in-plant foam applications

Depend on the Reactor IP for outstanding performance, accuracy and repeatability

Take total control of your in-plant foam applications with the new Reactor IP proportioner from Graco. The Reactor IP is engineered for accuracy in pouring – with advanced controls and technologies for unparalleled performance.

- Lets you program up to 25 different shot settings and five shot sequences
- Accurately measures volume of the material poured, providing repeatable shot sizes, part after part
- Available in two models, the Reactor IP offers flow rates of 11.3 and 22.6 kg/min
- Easy clean-up – no gun purging, no solvent flush
- Easy start-up and shutdown

Remote Mountable Controls

- For total control over temperature and pressure
- Allows you to control material temperature in three heating zones (ISO, resin, hose) for improved yield

User-Defined Controls

- Pressure imbalance control prevents off-ratio conditions – offers imbalance detection between 7 to 69 bar (100 to 999 psi) in 7 bar (100 psi) increments
- Programmable standby mode shuts the motor and hydraulic pump down after a period of inactivity – reducing system wear and protecting the unit from overheating

Hybrid Heater Design

Heats material quickly and maintains temperature set points – even when pouring at maximum flow rates

Electrical Control Box

Provides an easy connection between the local control module, pour gun and Reactor IP

New Local Control Module

Allows up to 25 different pre-programmed volume settings and five shot sequences

Digital User Interface

Separate temperature and motor controls allow you to quickly set, maintain and monitor machine performance

- Temperature settings
- Cycle counter
- Pressure readout
- ISO rod park feature lengthens pump seal life by preventing ISO reaction

Circulation Valves

Designed to reduce isocyanate crystallization

Horizontal Pumpline

Robust pump design provides extended seal life. Different ratios can be achieved by combining different rod pump sizes. Ratio range is from 4.6:1 to 1:4.6. 81 pump combinations are available.

New Linear Transducer

Provides accurate volume repeatability from part to part

Optional Data Recorder

Records and compares material temperatures and pressures for critical applications



Advanced controls

Local control module for precise dispensing

Local Control Module

- Accurately controls the amount of material you want to dispense
- Lets you program up to 25 different shot sizes and five sequences
- Precision dispensing means no wasted material
- Results in consistent parts production



Arrow Keys

For easy screen navigation and numerical entry

Soft Keys

For setup and programming

Dispense Button

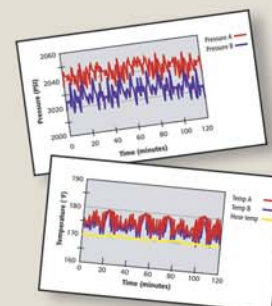
For remote dispensing capabilities

Mode Button

Choose between three modes: shot size, sequence or manual mode

Optional Data Recorder

- Records actual temperatures and pressures
- Tracks material usage for accurate job tracking and record keeping
- Records diagnostic codes to simplify troubleshooting
- User can output data in spreadsheet format to quickly graph application temperatures and pressures
- Provides data to validate job accuracy



Typical Applications

Insulation for coolers and containers
 Pre-formed foam block for housing
 Picture frames
 Cabinets
 Solar panels
 Insulation for doors and windows
 Refrigerator panels
 Shutters
 Wall and floor panels
 Heater tanks
 Surf boards
 Pipe insulation

Reactor System Components

How to select system components for your Reactor IP

Use this selection tool in conjunction with the part numbers listed on pages 5-7.

1 Select a Reactor IP

Choose from the Reactor IPH-40, or the Reactor IPH-25 (both hydraulic motors).

KEY FEATURES:

- Quick knock down fluid sections
- Optional data reporting capabilities
- Foam models rated at 138 bar (2000 psi, 13.8 MPa)
- Optional pump sizes available for different ratios

2 Select heated hose

Pressure rating of 138 bar (2000 psi, 13.8 MPa).
Choose 6.4 mm (1/4 in), 9.5 mm (3/8 in) ID, or 12.7 mm (1/2 in).

3 Select heated whip hose

Pressure rating of 138 bar (2000 psi, 13.8 MPa).
Choose 6.4 mm (1/4 in), 9.5 mm (3/8 in) ID, or 12.7 mm (1/2 in).

4 Select a pour gun

AR-C Gun:

- Good for mid- to high-flow rate applications
- 6.4 mm (0.25 in) diameter rod
- Optional AR-D conversion kit available – 9.5 mm (0.375 in) diameter rod

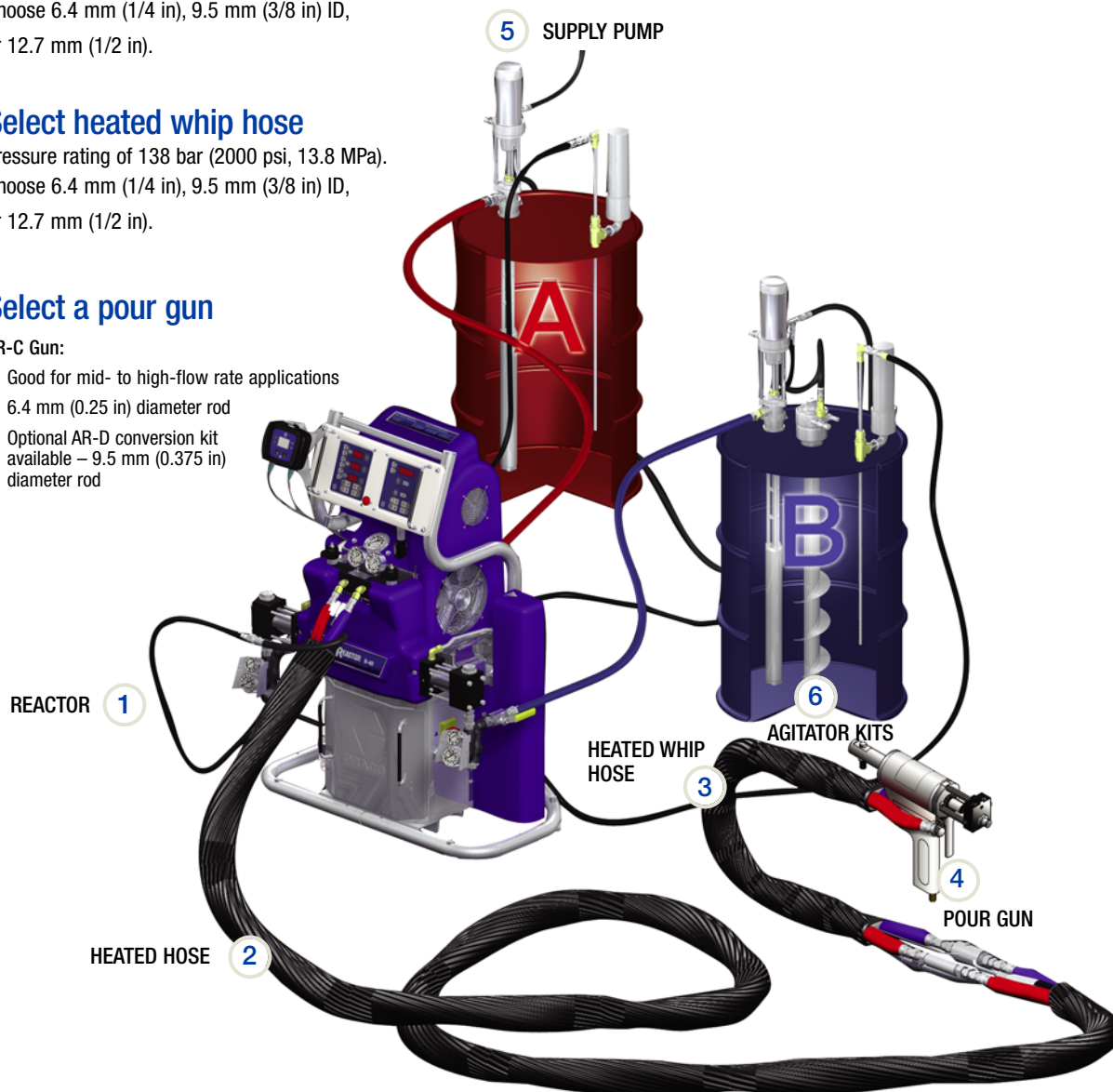
Select supply processing equipment

5 SUPPLY PUMP

Choose from diaphragm or piston pumps for standard materials in drum-mount or wall-mount. Select a 2:1 piston pump for materials with higher viscosities.

6 AGITATOR KITS

Choose a kit to agitate your resin for a consistent viscosity. Graco's patented Twistork® agitators are very low shear to minimize material frothing.



Technical Specifications

Ordering Information



REACTOR IP FOR IN-PLANT FOAM APPLICATIONS		
	Hydraulic (H-Series)	
Model	REACTOR IPH-25	REACTOR IPH-40
Max Working Pressure	140 bar (2000 psi, 14 MPa)	140 bar (2000 psi, 14 MPa)
Max Hose Length	94 m (310 ft)	125 m (410 ft)
Output	11.3 kg/min (25 lb/min)* 9,5 kg/min (21lbs/min) +	22.6 kg/min (50 lb/min)* 19,2 kg/min (43lbs/min) +
Heater Wattage	8000 watts	12,000 or 15,300 watts
Max Ambient Temperature	49°C (120°F)	49°C (120°F)
Max Fluid Temperature	88°C (120°F)	88°C (190°F)
Weight	243 kg	272 kg
Dimensions (H x W x D)	140 x 101 x 56 cm	(140 x 101 x 56 cm)
1 Ordering Information	<u>With 8.0 kW heater:</u> 69A–230V, 1-ph 255824 (Package* w/ AR Gun) 255814 (Bare) 46A–230V, 3-ph 255825 (Package* w/ AR Gun) 255815 (Bare) 35A–400V, 3-ph 255826 (Package* w/ AR Gun) 255816 (Bare)	<u>With 12.0 kW heater:</u> 100A–230V, 1-ph 255821 (Package* w/ AR Gun) 255811 (Bare) <u>With 15.3 kW heater:</u> 71A–230V, 3-ph 255822 (Package* w/ AR Gun) 255812 (Bare) 41A–400V, 3-ph 255823 (Package* w/ AR Gun) 255813 (Bare)
Operation manual	312062/312878	312062/312878
Repair manual	312063	312063

* Package includes 7.6 m (25 ft) heated hose, 3 m (10 ft) heated whip hose and AR Gun. ac

* Measured at 60 Hz

+ Measured at 50 Hz

Ordering Information

To get genuine Graco accessories, see your nearest Graco Distributor, or call Graco at +32 (89) 770 700

Reactor IP Accessories

247827	Heater control module
247828	A, B, hose heater power module
247838	Modular heater control to retrofit electric/hydraulic units
255149	Circulation valve – ISO only
255150	Circulation valve – resin only
255148	Circulation valve kit – includes ISO and resin circulation valves, Fusion® grease and grease gun
24A024	Conversion kit, local control module for Reactor H-40 and H-25 <i>Includes local control module, linear transducer, electrical control box, brackets, data cable, power cable, gun cable and miscellaneous hardware</i>
24A025	Conversion kit, local control module for Reactor H-20/35 <i>Includes local control module, linear transducer, electrical control box, brackets, and miscellaneous hardware</i>
15T859	Data cable, 3 m (10 ft) <i>Connects local control module to the Reactor IP's electrical control box</i>
15T961	Data cable extension, 7.5 m (25 ft) <i>Can be combined with 15T859. Connects local control module to the Reactor IP's electrical control box</i>
121002	Power cable, 1.5 m (5 ft) <i>Connects local control module to the Reactor IP's electrical control box</i>
15T960	Power cable, 10 m (35 ft) <i>Connects local control module to the Reactor IP's electrical control box</i>
15T602	Gun cable, 3 m (10 ft) <i>Connects the gun to the Reactor IP's electrical control box</i>
15T852	Gun cable extension, 7.5 m (25 ft) <i>Can be combined with 15T602. Connects the gun to the Reactor IP's electrical control box</i>
255817	Local control module

Pumps

Reactor IPH-40 has #140 as standard pumps. Reactor IPH-25 has #120 as standard pumps. Order a different pump size for different flow rates or different ratios. Pumps must be purchased and installed separately.

247371	Proportioner pump kit, size 30
247372	Proportioner pump kit, size 40
247373	Proportioner pump kit, size 48
247374	Proportioner pump kit, size 60
247375	Proportioner pump kit, size 80
247577	Proportioner pump kit, size 88
247376	Proportioner pump kit, size 96
247377	Proportioner pump kit, size 120
247576	Proportioner pump kit, size 140

2 Heated Hoses



Hoses, 2000 psi (138 bar, 13.8 MPa)

246051	9.5 mm x 3 m (3/8 in x 10 ft)
246049	9.5 mm x 7.6 m (3/8 in x 25 ft), with scuffguard
246046	9.5 mm x 15 m (3/8 in x 50 ft), with scuffguard
246075	9.5 mm x 15 m (3/8 in x 50 ft), no thermocouple wire
246678	9.5 mm x 15 m (3/8 in x 50 ft), with scuffguard
246047	12.7 mm x 15 m (1/2 in x 50 ft)
246076	12.7 mm x 15 m (1/2 in x 50 ft), no thermocouple wire

Hose Accessories

246077	3 m (10 ft) braided polyester mesh scuffguard
246078	15 m (50 ft) braided polyester mesh scuffguard
246456	15 m (50 ft) polyethylene scuffguard
246805	7.6 m (25 ft) braided polyester mesh scuffguard
248921	Heated hose controller, 2700 watt. Allows Reactor heated hose extended past 91 m (300 ft). Requires 200-230 volts at 15 amps
15B296	FTS cable 15 m (50 ft)
261821	Heated hose jumper <i>(required when not using heated whip)</i>
15C626	Fluid temperature sensor (FTS) cable 7.6 m (25 ft)
261669	Fluid temperature sensor
15F028	Band heater, 1000 watt, for 208 l (55 gal) drum, 230 volt
261821	Power-lock™ splice kit
15M312	Power-lock splice kit (20-pk) <i>(enough for 10 hoses)</i>



3 Heated Whip Hoses

246050	6.3 mm x 3 m (1/4 in x 10 ft)
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Ratio Possibilities

	30	40	48	60	80	88	96	120	140
30	1.000	1.333	1.600	2.000	2.667	2.933	3.200	4.000	4.667
40	0.750	1.000	1.200	1.500	2.000	2.200	2.400	3.000	3.500
48	0.625	0.833	1.000	1.250	1.667	1.833	2.000	2.500	2.917
60	0.500	0.667	0.800	1.000	1.333	1.467	1.600	2.000	2.333
80	0.375	0.500	0.600	0.750	1.000	1.100	1.200	1.500	1.750
88	0.341	0.455	0.545	0.682	0.909	1.000	1.091	1.364	1.591
96	0.313	0.417	0.500	0.625	0.833	0.917	1.000	1.250	1.458
120	0.250	0.333	0.400	0.500	0.667	0.733	0.800	1.000	1.167
140	0.214	0.286	0.343	0.429	0.571	0.629	0.686	0.857	1.000

Ratios are approximate.

4 Pour Guns

AR Pour Guns

- 255828 AR-C (250) pour gun
Includes gun, toolkit, impingers, tip and coupling block
- 255827 AR-C (250) pour gun
Does not include coupling block, tip or impingers
- 24A023 Conversion kit
Converts AR-C (250) to AR-D (375)
- 312888 AR pour gun manual

AR Pour Gun Accessories

- 253728 AR Gun toolkit
- 299973 Tip, AR-C
- 299972 Tip, AR-D
- 285771 Coupling block, AR-C and AR-D

AR Gun Impinger Options

- 299974 Front impinger C size, 23-B-1 style, orifice area factor 900
- 299975 Front impinger C size, 33-B-1 style, orifice area factor 1200
- 299976 Front impinger C size, 33-C-1 style, orifice area factor 1800
- 299977 Front impinger C size, 34-C-1 style, orifice area factor 2400
- 299980 Front impinger C size, 46-B-1 style, orifice area factor 3000
- 299978 Front impinger C size, 36-C-1 style, orifice area factor 3600
- 299982 Front impinger C size, 48-C-1 style, orifice area factor 6000
- 299983 Front impinger C size, 58-C-1 style, orifice area factor 7200
- 299990 Rear impinger C size, 23-B-1 style, orifice area factor 900
- 299991 Rear impinger C size, 33-C-1 style, orifice area factor 1800
- 299992 Rear impinger C size, 34-C-1 style, orifice area factor 2400
- 299995 Rear impinger C size, 46-B-1 style, orifice area factor 3000
- 299993 Rear impinger C size, 36-C-1 style, orifice area factor 3600
- 299996 Rear impinger C size, 46-C-1 style, orifice area factor 4500
- 299997 Rear impinger C size, 48-C-1 style, orifice area factor 6000
- 299999 Rear impinger C size, 58-C-1 style, orifice area factor 7200
- 299979 Front impinger D size, 33-C-1 style, orifice area factor 1800
- 299984 Front impinger D size, 59-D-1 style, orifice area factor 10800
- 299985 Front impinger D size, 66-D-1 style, orifice area factor 8400
- 261790 Front impinger D size, 79-D-1 style, orifice area factor 14400
- 299987 Front impinger D size, 90-D-1 style, orifice area factor 18000
- 299988 Front impinger D size, 94-D-1 style, orifice area factor 25200
- 299994 Rear impinger D size, 36-C-1 style, orifice area factor 3600
- 299998 Rear impinger D size, 48-C-1 style, orifice area factor 6000
- 261789 Rear impinger D size, 58-C-1 style, orifice area factor 7200
- 285750 Rear impinger D size, 66-D-1 style, orifice area factor 8400
- 285751 Rear impinger D size, 78-D-1 style, orifice area factor 12800
- 285752 Rear impinger D size, 90-D-1 style, orifice area factor 18000

5 Supply Pumps

Complete Supply Pump Systems

Includes all air and fluid fittings, and hoses for two pumps.

- 246369 Complete Husky 515 (246481) supply pump system
- 246375 Complete Husky 716 (246482) supply pump system
- 246376 Complete Husky 1040 (246676) supply pump system
- 247955 Complete T1 (247956) supply pump system
- 246081 Complete T2 (246898) supply pump system

5 Supply Pumps - continued

Supply Pumps with Drum Riser Tube

- 246366 Husky™ 515 diaphragm pump, acetal bolted design, 7 bar (100 psi, 0.7 MPa) max air inlet, 7.5 gpm @ 60 cpm, 3 cfm per gpm
- 246367 Husky 716 diaphragm pump, aluminum clamped design, 7 bar (100 psi, 0.7 MPa) max air inlet, 7.5 gpm @ 60 cpm, 3 cfm per gpm
- 246368 Husky 1040 diaphragm pump for trailer mounts - aluminum, bolted, wall mount, 8 bar (120 psi, 0.8 MPa) max air inlet, 7.5 gpm @ 60cpm, 1 cfm per gpm
- 256200 T1 2:1 ratio piston pump for higher viscosity materials, 25 bar fluid pressure (360 psi), 9.5 l/min (2.5 gpm) @ 100 cpm,
- 295616 T2 2:1 ratio piston pump for higher viscosity materials - 28 bar (405 psi, 2.8 MPa) 19 l/min (5.0 gpm) @ 100 cpm
- 248825 5:1 Monark drum pump, for high viscosity materials, 62 bar (900 psi, 6.2 MPa) max fluid psi, 10 ft (3 m) hose, 3/4 npt (m), air regulator, manual 310863

Double Supply Pumps with Fluid Plumbing

- 246481 Husky 515 (246366), 3 m x 19 mm (10 ft x 3/4 in) supply hose
- 246482 Husky 716 (246367), 3 m x 19 mm (10 ft x 3/4 in)
- 246676 Husky 1040 (246368), 3 m x 19 mm (10 ft x 3/4 in) supply hose, 1.8 m x 19 mm (6 ft x 3/4 in) suction hose
- 247956 T1 2:1 ratio piston pump (256200), 3 m x 19 mm (10 ft x 3/4 in) supply hose
- 246898 T2 2:1 ratio piston pump (295616), 3 m x 19 mm (10 ft x 3/4 in) supply hose

Supply Pump Accessories

- 246419 208 l (55 gal) feed pump tube with inlet ball check
- 246477 19 mm (3/4 in) bung return tube with air dryer port
- 246483 Air distribution kit, 8 bar (120 psi, 0.8 MPa) for two feed pumps and a Fusion gun
- 247616 Desiccant dryer kit
- 246978 Reactor manifold circulation kit with return tubes, return fluid lines and dryers
- 15C381 Desiccant replacement

Manuals

- 309815 Supply pump
- 309827 Air supply kit
- 309852 Circulation and return tube

6 Agitators

Agitator

- 224854 Twistork® CS, air-operated, 1.5 HP, 0.9 m length
- 235534 Twistork SST, air-operated, 1.5 HP, 0.9 m length
- 236629 Twistork SST, air-operated with built-in return tube, 0.75 HP, 1.2 m in length
- 248824 Twistork CS, air-operated (224854), 1.5 HP, 0.9 m length with air connection, hose



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

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