Reactor® IP
In-Plant Polyurethane Foam Processing Systems
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

**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 lengths 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

Reactor Data Reporting Kit

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

5 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.
## REACTOR IP FOR IN-PLANT FOAM APPLICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>REACTOR IPH-25</th>
<th>REACTOR IPH-40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Working Pressure</td>
<td>140 bar (2000 psi, 14 MPa)</td>
<td>140 bar (2000 psi, 14 MPa)</td>
</tr>
<tr>
<td>Max Hose Length</td>
<td>94 m (310 ft)</td>
<td>125 m (410 ft)</td>
</tr>
<tr>
<td>Output</td>
<td>11.3 kg/min (25 lb/min)*</td>
<td>22.6 kg/min (50 lb/min)*</td>
</tr>
<tr>
<td></td>
<td>9.5 kg/min (21 lbs/min) +</td>
<td>19.2 kg/min (43 lbs/min) +</td>
</tr>
<tr>
<td>Heater Wattage</td>
<td>8000 watts</td>
<td>12,000 or 15,300 watts</td>
</tr>
<tr>
<td>Max Ambient Temperature</td>
<td>49°C (120°F)</td>
<td>49°C (120°F)</td>
</tr>
<tr>
<td>Max Fluid Temperature</td>
<td>88°C (120°F)</td>
<td>88°C (190°F)</td>
</tr>
<tr>
<td>Weight</td>
<td>243 kg</td>
<td>272 kg</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>140 x 101 x 56 cm</td>
<td>(140 x 101 x 56 cm)</td>
</tr>
</tbody>
</table>

### Ordering Information

**Hydraulic (H-Series)**

<table>
<thead>
<tr>
<th>Model</th>
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</tr>
</tbody>
</table>

### Ordering Information

- **With 8.0 kW heater:**
  - 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)

- **With 12.0 kW heater:**
  - 100A–230V, 1-ph
  - 255821 (Package w/ AR Gun)
  - 255811 (Bare)
  - 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

**Repair manual**

- 312063

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* 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

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

### Pumps

- Reactor IP-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

### Heated Hoses

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>246051</td>
<td>Hoses, 2000 psi (138 bar, 13.8 MPa)</td>
</tr>
<tr>
<td></td>
<td>9.5 mm x 3 m (3/8 in x 10 ft)</td>
</tr>
<tr>
<td>246049</td>
<td>9.5 mm x 7.6 m (3/8 in x 25 ft), with scuffguard</td>
</tr>
<tr>
<td>246046</td>
<td>9.5 mm x 15 m (3/8 in x 50 ft), with scuffguard</td>
</tr>
<tr>
<td>246075</td>
<td>9.5 mm x 15 m (3/8 in x 50 ft), no thermocouple wire</td>
</tr>
<tr>
<td>246678</td>
<td>9.5 mm x 15 m (3/8 in x 50 ft), with scuffguard</td>
</tr>
<tr>
<td>246047</td>
<td>12.7 mm x 15 m (1/2 in x 50 ft), with scuffguard</td>
</tr>
<tr>
<td>246076</td>
<td>12.7 mm x 15 m (1/2 in x 50 ft), no thermocouple wire</td>
</tr>
</tbody>
</table>

### 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. Requires 200-230 volts at 15 amps
- 15B296 FTS cable 15 m (50 ft)
- 261821 Heated hose jumper (required when not using heated whip)
- 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)

### Hose Accessories

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

### Heated Whip Hoses

- Heated Whip Hoses

### Ratio Possibilities

<table>
<thead>
<tr>
<th>Ratio</th>
<th>30</th>
<th>40</th>
<th>48</th>
<th>60</th>
<th>80</th>
<th>88</th>
<th>96</th>
<th>120</th>
<th>140</th>
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<tbody>
<tr>
<td>30</td>
<td>1.000</td>
<td>1.333</td>
<td>1.600</td>
<td>2.000</td>
<td>2.667</td>
<td>2.933</td>
<td>3.200</td>
<td>4.000</td>
<td>4.667</td>
</tr>
<tr>
<td>40</td>
<td>0.750</td>
<td>1.000</td>
<td>1.200</td>
<td>1.500</td>
<td>2.000</td>
<td>2.200</td>
<td>2.400</td>
<td>3.000</td>
<td>3.500</td>
</tr>
<tr>
<td>48</td>
<td>0.625</td>
<td>0.833</td>
<td>1.000</td>
<td>1.250</td>
<td>1.667</td>
<td>1.833</td>
<td>2.000</td>
<td>2.500</td>
<td>2.917</td>
</tr>
<tr>
<td>60</td>
<td>0.500</td>
<td>0.667</td>
<td>0.800</td>
<td>1.000</td>
<td>1.333</td>
<td>1.467</td>
<td>1.600</td>
<td>2.000</td>
<td>2.333</td>
</tr>
<tr>
<td>80</td>
<td>0.375</td>
<td>0.500</td>
<td>0.600</td>
<td>0.750</td>
<td>1.000</td>
<td>1.100</td>
<td>1.200</td>
<td>1.500</td>
<td>1.750</td>
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<tr>
<td>88</td>
<td>0.341</td>
<td>0.455</td>
<td>0.545</td>
<td>0.682</td>
<td>0.908</td>
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<td>1.591</td>
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<tr>
<td>96</td>
<td>0.313</td>
<td>0.417</td>
<td>0.500</td>
<td>0.625</td>
<td>0.833</td>
<td>0.917</td>
<td>1.000</td>
<td>1.250</td>
<td>1.458</td>
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<tr>
<td>120</td>
<td>0.250</td>
<td>0.333</td>
<td>0.400</td>
<td>0.500</td>
<td>0.667</td>
<td>0.733</td>
<td>0.800</td>
<td>1.000</td>
<td>1.167</td>
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<tr>
<td>140</td>
<td>0.214</td>
<td>0.286</td>
<td>0.343</td>
<td>0.429</td>
<td>0.571</td>
<td>0.629</td>
<td>0.686</td>
<td>0.857</td>
<td>1.000</td>
</tr>
</tbody>
</table>

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, 59-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

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, 1 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 @ 60 cpm, 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) 19 l/min (5.0 gpm) 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
150381 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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Graco is certified ISO 9001.