

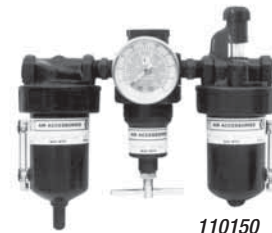
Accessories

Hoses and Fittings

FRL Combination Units

Each includes filter, regulator, pressure gauge, lubricator and connection fittings

110149	1/4 npt (fbe)
110150	3/8 npt (fbe)
217072	1/2 npt (fbe)
217073	3/4 npt (fbe)



110150

Bleed-type Air Shut-off Valves

Closes air inlet to pump and relieves trapped air pressure down line from valve. Recommended for each pump drop line. Note: Be certain to install correctly: if installed backwards air will constantly escape from the valve

110223	1/4 npt(fbe)
110224	3/8 npt(fbe)
110225	1/2 npt(fbe)
110226	3/4 npt(fbe)
107142	1/2 npt(mxf)
107141	3/4 npt(mxf)



106151



110223



107142

Air Line Shut-off Valves Ball valve-type air line shut-off valve; non-pressure relieving

208390	1/4 npt(mbe)
208393	3/8 npt(mbe)
208630	1/2 npt(m) x 3/8 npt(f)
109077	3/4 npt(fbe)
118464	1 npt(fbe)

Quick-Connect Coupler

Permits quick, convenient attachment of air supply hoses

208536	1/4 npt(fbe)
110198	3/8 npt(f)
110199	1/2 npt(f)
110200	3/4 npt(f)



208536

Quick-Connect Nipple

Allows quick attachment of air supply hoses to pump motor

169970	1/4 npt(m)
169967	1/4 npt(f)
169971	3/8 npt(m)
110196	1/2 npt(m)
110197	3/4 npt(m)



169970

Air Needle Valve

Controls pump speed by restricting air flow to pump or other air-operated equipment

205090	1/4 npt(f) outlet port; 1/4 npt(m) inlet port
206264	1/8 npt(f) outlet port; 1/4 npt(m) inlet port



205090

Air Pressure Relief Valve

Prevents pump from operating beyond recommended working pressure by opening at a pre-set maximum air pressure

103347	90 psi (6 bar)
110065	60 psi (4 bar)



110065

Accessories

Hoses and Fittings

Air Pressure Gauge	
Allows visual check of air pressure being supplied to the pump. Rated to 200 psi (14 bar)	
110319	1/8 npt(m) bottom inlet; black
100960	1/4 npt(m) bottom inlet; black
101180	1/4 npt(m) bottom inlet; chrome
Air manifold	
Supply several pumps from one supply line. Larger port delivery ensures adequate air flow to all pumps	
158990	Four outlet ports; 3/8 npt(f)
601950	Three outlet ports; 1/2 npt(f)
Runaway Valve	
Prevents pump damage by automatically closing the air line to stop the pump when a runaway pump condition occurs due to an empty barrel or hose leak	
224040	3/4 npt(fbe)
Blow Guns	
208627	Air Blow Gun, 1/4 npt(f), use with coupler 208536
236211	Safety Blow Gun tip swivels freely and cannot be removed. Tip pressure will not exceed 30 psi (2 bar), adequate for cleaning. Maximum working pressure 150 psi (10 bar). Use with coupler 208536
Tire Inflators	
236205	Heavy-duty Tire Inflator includes 12 in (30 cm) hose with swivel dual-foot chuck and pop-out gauge. Tapered chuck nut fits wheel-cover holes on cars and light trucks. Gauge ranges from 0-120 psi in 2 psi increments. Maximum working pressure 250 psi (18 bar), 1/4 npt(f) inlet
236206	Passenger Car Tire Inflator includes 12 in (30 cm) hose with straight-on chuck and pop-out gauge. Tapered chuck nut fits wheel cover holes on cars and light trucks. Ideal for use on reels. Gauge ranges from 0-90 psi in 2 psi increments. Maximum working pressure 250 psi (18 bar), 1/4 npt(f) inlet
218545	1/4 npt(f) Tire Chuck, durable, full-volume tool for adding/relieving air pressure
Water Valve	
180685	Water/Anti-Freeze Bib is a durable, full-volume dispense nozzle for water, anti-freeze and windshield washer fluid. Nitrile rubber seals with 1/4 npt(f) inlet. Maximum pressure is 100 psi (7 bar).
180685	Water/Anti-Freeze Bib is a durable, full-volume dispense nozzle for water, anti-freeze and windshield washer fluid. Nitrile rubber seals with 1/4 npt (f) inlet. Maximum pressure is 100 psi (7 bar)



Heavy-Duty Reinforced Hoses

Heavy-duty reinforced hose for use with grease, oil and undercoating material. Hoses are black, male at both ends. Lubrication hoses listed are grounded for static electrical discharge.

1/4 in ID hoses with maximum pressure rating of 5000 psi (345 bar)		
Part No.	Length	Fittings
109145	12 in (0.3 m)	1/8 in x 1/8 in (4.8 mm x 4.8 mm) with bend restrictor
109146	15 in (0.4 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109147	24 in (0.6 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109148	30 in (0.8 m)	1/8 in x 1/8 in (4.8 mm x 4.8 mm) with bend restrictor
109149	48 in (1.2 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109150	72 in (1.8 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109151	12 ft (3.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109152	15 ft (4.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109153	20 ft (6.1 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109154	25 ft (7.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109156	35 ft (10.6 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109157	40 ft (12.2 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109158	50 ft (15.3 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)

Lubrication Hoses

Hoses and Fittings

3/8 in ID hoses with maximum pressure rating of 4000 psi (276 bar)

Part No.	Length	Fittings
109160	12 in (0.3 m)	1/4 in x 1/2 in (6.4 mm x 12.7 mm)
109161	24 in (.62 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109162	48 in (1.2 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109163	72 in (1.8 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109165	15 ft (4.6 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109170	50 ft (15.3 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109169	40 ft (12.2 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109170	50 ft (15.3 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)

Lubrication Hoses (Oil)

1/2 in ID hoses with maximum pressure rating of 3000 psi (207 bar)

Part No.	Length	Fittings
110069	15 in (0.4 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220598	18 in (0.5 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220600	54 in (1.4 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220591	72 in (1.8 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220590	10 ft (3.1 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220592	16 ft (4.9 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220593	20 ft (6.1 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
220608	25 ft (7.6 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
221092	40 ft (12.2 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
221093	50 ft (15.3 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
237861	75 ft (22.9 m)	1/2 in x 3/4 in (12.7 mm x 19.1 mm)
109108	18 in (0.4 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
109105	72 in (1.8 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
111010	10 ft (3.0 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
237865	75 ft (22.9 m)	1/2 in x 1 in (12.7 mm x 25.4 mm)
237866	50 ft (15.2 m)	1/2 in x 1 in (12.7 mm x 25.4 mm)

1 in ID hose rated to maximum pressure of 125 psi (8.7 bar)

Part No.	Length	Fittings
249058	50 ft (15.2)	1 in x 1 in (25.4 mm x 25.4 mm)

1 in ID hose rated to maximum pressure of 212 psi (14.6 bar)

Part No.	Length	Fittings
241908	50 ft (15.2)	1 in x 1 in (25.4 mm x 25.4 mm)
241907	30 ft (9.1 m)	1 in x 1 in (25.4 mm x 25.4 mm)

Air/Water Hoses

Hoses for air, water, anti-freeze and windshield washer fluid. Hoses are red with male fittings at both ends.

Coiled 1/4 in ID hose with maximum pressure rating of 180 psi (12 bar)

Part No.	Length	Fittings
205600	50 ft (15.3 m)	1/4 in x 50 ft (6.4 mm x 15.3 m)

Air/Water Hoses

Hoses and Fittings

Fabric-Reinforced 1/4 in ID hoses with maximum pressure rating of 180 psi (12 bar)

Part No.	Length	Fittings
109123	18 in (0.5 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109124	4 ft (1.2 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109125	6 ft (1.8 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109126	10 ft (3.1 m)	1/4 in x 1/4 in (6.4 mm x 6.4 mm)
109127	25 ft (7.6 m)	1/4 in x 1/2 in (6.4 mm x 12.7 mm)
109128	40 ft (12.2 m)	1/4 in x 1/2 in (6.4 mm x 12.7 mm)
218491	40 ft (12.2 m)	3/8 in x 1/4 in (9.5 mm x 6.4 mm)

3/8 in ID hoses with maximum pressure rating of 180 psi (12 bar)

Part No.	Length	Fittings
204560	18 in (0.5 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109130	4 ft (1.2 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
203320	6 ft (1.8 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
109131	10 ft (3.1 m)	3/8 in x 3/8 in (9.5 mm x 9.5 mm)
110326	16 ft (4.9 m)	1/4 in x 3/8 in (6.4 mm x 9.5 mm)
109132	25 ft (7.6 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)
109133	30 ft (9.2 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)
109134	40 ft (12.2 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)
109135	60 ft (18.3 m)	3/8 in x 1/2 in (9.5 mm x 12.7 mm)

1/2 in ID hose with maximum pressure rating of 180 psi (12 bar)

Part No.	Length	Fittings
218093	22 in (0.56 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
110046	4 ft (1.2 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
205418	6 ft (1.8 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
214656	10 ft (3.1 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
248312	25 ft (7.6 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)
248313	50 ft (15.2 m)	1/2 in x 1/2 in (12.7 mm x 12.7 mm)

3/4 in ID hoses with maximum pressure rating of 180 psi (12 bar)

Part No.	Length	Fittings
110047	18 in (0.5 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
110048	4 ft (1.2 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
208610	6 ft (1.8 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
214955	10 ft (3.1 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)
208611	25 ft (7.6 m)	3/4 in x 3/4 in (19.1 mm x 19.1 mm)

Pipe Fittings and Swivels

Hoses and Fittings

Bushing – reducing, standard and expanding

Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)
100030	1/4 in x 1/8 in	159841	3/8 in x 1/4 in	100206	1/2 in x 1/4 in
100081	1/2 in x 3/4 in	100615	3/4 in x 1/4 in	100505	3/4 in x 3/8 in
100896	3/4 in x 1/2 in	100380	1 in x 1/2 in	158586	1 in x 3/4 in

Pipe Adapters

Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)
150171	1/8 in x 1/8 in	159840	1/8 in x 1/4 in	156580	1/8 in x 3/8 in
150287	1/4 in x 3/8 in	159842	1/4 in x 1/2 in	150286	3/8 in x 3/8 in
156022	3/8 in x 1/2 in	168595	1/2 in x 3/4 in		

Street Elbows

Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)	Part No.	Thread Size (m x f)
100840	1/4 in x 1/4 in	155699	3/8 in x 3/8 in	158683	1/2 in x 1/2 in
176393	3/4 in x 3/4 in				

Coupling (standard)

Part No.	Thread Size	Part No.	Thread Size	Part No.	Thread Size
100451	1/8 in	113093	1/4 in	162024	3/8 in
158581	1/2 in	100385	3/4 in	100474	1 in

Hex Nipple (standard and reducing)

Part No.	Thread Size	Part No.	Thread Size	Part No.	Thread Size
151519	1/4 in x 1/8 in	156971	1/4 in x 1/4 in	156296	3/8 in x 1/8 in
165198	3/8 in x 1/4 in	156849	3/8 in x 3/8 in	162449	1/2 in x 1/4 in
159239	1/2 in x 3/8 in	158491	1/2 in x 1/2 in	194048	3/4 in x 3/8 in
157191	3/4 in x 1/2 in	175013	3/4 in x 3/4 in	158555	1 in x 3/4 in

Square-Head Plug

Part No.	Thread Size	Part No.	Thread Size	Part No.	Thread Size
111697	1/4 in	100040	3/8 in	100737	1/2 in
104663	3/4 in				

Straight Swivel Adapter*

Part No.	Rigid (m) x Swivel (f)	Part No.	Rigid (m) x Swivel (f)	Part No.	Rigid (m) x Swivel (f)
208434	1/8 in x 1/4 in	156823	1/4 in x 1/4 in	157705	1/4 in x 3/8 in
155665	3/8 in x 3/8 in	162505	3/8 in x 1/2 in	156684	1/2 in x 1/2 in
158256	1/2 in x 3/8 in	157785	3/4 in x 3/4 in	202965	1 in x 3/4 in
160022	1 in x 1 in				

90° Swivel Adapter*

Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)
157676	1/4 in x 1/4 in	155677	3/8 in x 3/8 in	159801	3/8 in x 1/2 in
157416	1/2 in x 1/2 in	156589	3/4 in x 3/4 in		

Straight Swivel Adapter*

Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)	Part No.	Rigid (f) x Swivel (f)
155570	1/4 in x 1/4 in	159153	3/8 in x 1/4 in	156173	3/8 in x 3/8 in
155653	1/2 in x 1/4 in	161077	1/2 in x 3/8 in	155865	1/2 in x 1/2 in
156172	3/5 in x 3/4 in	158383	1 in x 1 in		

90° Swivel*

Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)
155541	1/4 in x 1/4 in	155495	3/8 in x 1/4 in	155494	3/8 in x 3/8 in
217430	3/8 in x 1/2 in	161037	1/2 in x 3/8 in	155470	1/2 in x 1/2 in
160327	3/4 in x 3/4 in				

45° Swivel Adapter*

Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)	Part No.	Rigid (M) x Swivel (F)
161889	3/8 in x 3/8 in	105281	3/4 in x 3/4 in		

*Not a "live" swivel, position is stationary after tightened



Tube and Fittings

Hoses and Fittings

Tube Fittings			
Maximum pressure rating of 3000 psi (207 bar) with appropriate tubing wall thickness			
Tube Union Flow 90° Elbow			
Part No.	Tube OD		-
101012	5/8 in		-
101376	7/8 in		-
Tube Union – Straight			
Part No.	Tube OD		-
101009	5/8 in		-
101340	7/8 in		-
Male Connector			
Part No.	Tube OD		Thread
101339	7/8 in		3/4 npt
Female Connector – Straight			
Part No.	Tube OD		Thread
101008	5/8 in		1/2 npt
Tube Tee with Female Branch			
Part No.	Tube OD		Thread
101013	5/8 in		5/8 npt

NOTE: Consult your local distributor for additional tube-fitting requirements (ie: high-pressure, low-pressure, etc.) and fitting recommendations: Parker; AeroQuip; Weatherhead; Lenz; Crawford; or Imperial Eastmand.



Technical Information

Always use a qualified installer and ensure the installer follows the detailed instructions included with every Graco product.

1. Always use new pipe. Make certain that pipes are clean and free of rust and scale.
2. When cutting pipe remove burrs and chips that may damage dispense valves and meters.
3. Always flush the system with oil before attaching dispense valves and meters.

Air Lines

Main Line	Branch Line	Pump Model
3/4 in or 1 in ID pipe	3/8 in or 1/2 in ID pipe	Fast-Ball; Mini Fire-Ball 225
3/4 in or 1 in ID pipe	1/2 in ID pipe	Fire-Ball

Fluid Lines

This information applies to typical automotive flow rate service requirements

Chassis Grease Lubricant Supply Lines (based upon 5000 psi (345 bar) maximum working pressure)		
Supply Line Length	Supply Pump	Hydraulic Supply Line Tubing
Up to 50 feet	50:1 Fire-Ball 300, 425	5/8" OD x .109" Wall Tube
50 to 100 feet	50:1 Fire-Ball 300, 425	5/8" OD x .109" Wall Tube
100 to 200 feet	50:1 Fire-Ball 300	N/A
100 to 200 feet	50:1 Fire-Ball 425	N/A
200 feet and up	50:1 Fire-Ball 300, 425	N/A
Motor Oil, Gear Lube, or ATF Lubricant Supply Lines (based upon 1000 psi maximum working pressure)		
Supply Line Length	Supply Pump	Hydraulic Supply Line Tubing
Up to 50 feet	5:1 Fire-Ball 300	5/8" OD x .049" Wall Tube
Up to 50 feet	10:1 Fire-Ball 425	3/4" OD x .049" Wall Tube
50 to 100 feet	5:1 Fire-Ball 300	3/4" OD x .049" Wall Tube
50 to 100 feet	10:1 Fire-Ball 425	1" OD x .049" Wall Tube
100 to 200 feet	5:1 Fire-Ball 300	1" OD x .049" Wall Tube
100 to 200 feet	10:1 Fire-Ball 425	1-1/2" OD x .095" Wall Tube
200 feet and up	5:1 Fire-Ball 300	1-1/2" OD x .095" Wall Tube
200 feet and up	10:1 Fire-Ball 425	1-1/2" OD x .095" Wall Tube