

IMPORTANT INFORMATION: Product must be installed and used in strict conformance with NFPA Pamphlet 58 and/or NFPA Pamphlet 54 and all other codes, regulations and manufacturer recommendations.

Failure to follow these codes, regulations and recommendations could result in hazardous installation, bodily injury and/or death.

PRODUCT TRAINING SCHOOLS AVAILABLE. Contact a GEC customer service representative for more information.

WARNING: LP Gas is extremely flammable and explosive. Devices used for handling LP Gas and Anhydrous Ammonia must be installed and used in strict conformance with NFPA Pamphlet 58 and 54 and all other codes, regulations and manufacturer recommendations.

HOSE – SAFETY AND TECHNICAL INFORMATION

WARNING – SAFETY NOTE

Failure to follow recommended application information and recommended procedures for selection, installation, care, maintenance and storage of hose, couplings or hose assemblies may result in failure to perform properly and may result in damage to property and serious bodily injury. Make sure that hose selected for any application is recommended for that service. Application information is given with each hose or coupling listing in the Dayco catalog. Refer to the Safety and Technical Data section of this catalog for information regarding safety, care, maintenance and storage. Contact your local Distributor for assistance.

In any application, there may be inherent risk of bodily injury or property damage and the user is responsible for implementation of adequate safety precautions.

LP Gas Hose: This discussion again emphasizes the importance of hose selection. LP Gas has volatile characteristics that require special hose construction. The rubber compounds must be designed to handle LP Gas, and the cover must be perforated to prevent gas build-up among the various layers of the hose. Use of the wrong hose may lead to early and sudden failure. In particular, anhydrous ammonia hose is not recommended for LP Gas service. This is important to emphasize because both types of hose are often used in the same area and care must be taken they do not become accidentally switched. DO NOT USE LP GAS HOSE FOR ANHYDROUS AMMONIA. Couplings are also a concern in this service; permanent crimp steel couplings are recommended, as well as high-pressure steel inserts attached with interlocking, bolt-on clamps.

Couplings with male swivel end styles are not recommended. DO NOT USE WITH SCREW-TOGETHER REATTACHABLE COUPLINGS. (Refer to RMA Publication IP-10 "Liquid Petroleum Gas, Specifications for").

WARNING: For LP Gas use ONLY. Do not use for anhydrous ammonia. Do not use with any fluid or vapor other than the intended use for which the hose was designed. Do not use with male swivel couplings. Do not use with screw-together reattachable couplings.

SAFETY

General: Safety in the application and use of industrial hose is a major concern because of the many potentially dangerous products conveyed, and because so many people are involved. Handling these products can be accomplished safely if a few simple precautions are strictly observed. Some of the most important of these are:

- All operators must be thoroughly trained.
- The correct hose must be selected to handle the application.
- The couplings must be correct for the application and also must be securely attached.
- Both hose and couplings should be well maintained and inspected regularly.

Safety, Care, Maintenance and Storage (REPRINTED FROM RMA HOSE HANDBOOK IP-2 SIXTH EDITION 1996)

Hose has a limited life and the user must be alert to signs of impending failure, particularly when the conditions of service include high working pressures and/or the conveyance or containment of hazardous materials.

SAFETY WARNING: Failure to properly follow the manufacturer's recommended procedures for the care, maintenance and storage of a particular hose might result in its failure to perform in the manner intended and might result in damage to property and serious bodily injury.

Please refer to RMA (Rubber Manufacturer's Association) HOSE HANDBOOK IP-2 SIXTH EDITION 1996, or later for the proper use, care and maintenance of hose.

General Test and Inspection Procedures for Hose
***REFERENCE NPGA TECHNICAL BULLETIN T145 AND T114**
T145 "Hoses and Flexible Connectors used in Plants and Cargo Vehicles"
T114 "Guide to Hose Inspection"

An inspection and hydrostatic test should be made at periodic intervals to determine if a hose is suitable for continued service.

A visual inspection of the hose should be made for loose covers, kinks, bulges or soft spots which might indicate broken or displaced reinforcement. The couplings or fittings should be closely examined and, if there is any sign of movement of the hose from the couplings, the hose should be removed from service. The periodic inspection should include a hydrostatic test for one minute at 150% of the recommended working pressure of the hose. During the hydrostatic test, the hose should be straight, not coiled or in a kinked position. Water is the usual test medium and, following the test, the hose may be flushed with alcohol to remove traces of moisture. A regular schedule for testing should be followed and inspection records maintained.

SAFETY WARNING – Before conducting any pressure tests on hose, provisions must be made to ensure the safety of the personnel performing the tests and to prevent any possible damage to property. Only trained personnel using proper tools and procedures should conduct any pressure tests.

PLEASE REFER TO NPGA TECHNICAL BULLETIN T145 ON "HOSES AND FLEXIBLE CONNECTORS USED IN PLANTS AND CARGO VEHICLES" and T114 "GUIDE TO HOSE INSPECTION".

HOSE – TECHNICAL UPDATE

Subject: LP Gas Hose/Assemblies Permeation Concerns

Date: March 30, 2004

In recent years there have been concerns about the permeation of LP Gas through LP Gas hose. While wet or sitting in water, bubbling has been observed from the pinprick holes in the cover. Others have observed gas slowly escaping from the area where the ferrule attaches to the coupling insert. Some users have wrongly assumed this to be excessive permeation or leakage.

One source of perceived leakage is the escape of air that is trapped in the reinforcement of the hose. This type of perceived leakage is most commonly noticed during the pressure testing of a hose assembly. When LP Gas hose is pressurized, air that has been trapped in the reinforcement of the hose can be squeezed out through the venting/pinprick holes in the cover, or out the cut end of the hose. In the presence of moisture, this may be apparent as bubbling at the pinprick holes in the cover or as air escaping out the area where the ferrule is attached to the insert. This escape of trapped air through the pinholes and the coupling should diminish over time and should disappear after 1-4 hours of pressurization. Generally, the air escaping from the pinprick holes will dissipate at a much more rapid rate than the air escaping at the coupling.

The most common perceived leakage is the "normal" escape of permeating gas through the hose wall. The pinprick holes concentrate the permeation to specific areas of the cover. Due to the presence of moisture, this concentration of permeation can be observed as bubbling. In some instances this permeating gas may travel down the reinforcement of the hose and escape out the end of the hose. This gas may then escape out the area where the ferrule is attached to the insert. Both of these phenomena may be wrongly assumed to be leakage of LP gas.

It is important to note that pinpricking of hoses that are exposed to high-pressure gas is a common practice (i.e., Steam, Anhydrous Ammonia, LP Gas). The purpose of the pinprick holes in the cover is to allow the normal permeation of gas to escape from the hose cover. Without the pinpricking of the cover, gas can become trapped between the reinforcement and the cover, creating blistering and premature failure.

The question that remains is how to determine whether a hose is leaking, or if the suspect leak is permeating LP gas or trapped air?

When testing a new assembly there is only the potential for escaping trapped air to be mistaken for leakage. Two methods for assuring that the escaping air is not from a leak are 1) Use water as the test media. If there is a "true" leak it will be a water leak and not an air leak, and 2) Increase the test time to a length that will allow the escaping air to be purged. Additionally, the use of a rubber cement or epoxy to seal the hose end may eliminate any escaping air from the coupling lock-on area. (Note: The LAR coupling in the 1" size is designed to prevent gas from escaping in the lock-on area)

It is much more difficult to determine if escaping gas from a hose in service is permeation or leakage. Generally, leaking propane will create a frosting or icing on the surface of the hose or coupling. Permeation is generally at such a low rate that it can only be detected by the slow escape of bubbles. It is important to note that the rate of permeation is dependent on temperature. As the temperature goes up so does the rate at which the gas permeates through the hose. Therefore, on hot, rainy, summer days, the likelihood of observing permeation is much higher. If the rate of escaping gas is high enough to cause concern, the only sure way of determining whether a hose is leaking or not is to remove it from service and perform a hydrostatic pressure test.

Permeation of high-pressure gas (such as propane) through a rubber hose is a common but often unknown phenomenon. However, in the transfer of LP Gas the allowable permeation rate is controlled by the Underwriters Laboratory Standard for LP Gas Hose (UL 21). Per UL 21, the "Maximum Allowable Permeation Rate" for LP Gas hose is 171cm³/ft/hr. Testing has shown that the standard Parker LP Gas hose has permeation rates which are 5 times better than the maximum allowable.

Parker Hannifin Corporation

Hoses

Liquid Transfer

LPGas Liquid Transfer Hose Assemblies

For convenience of LPGas products, liquid or vapor. Complete range of sizes for all stages of LPG production and delivery. The "E" Series assemblies are hydraulically pre-coupled with male pipe threads on each end and available in various lengths.

WARNING!!!: For LPGas use only. Do not use in anhydrous ammonia or refrigeration applications. Do not use male swivel couplings or screw-together reattachable fittings. Can be used for natural gas service with application specific criteria. **IMPORTANT:** REFER TO THE SAFETY AND TECHNICAL DATA INFORMATION SECTION FOR THE PROPER USE OF THIS HOSE.



"E" Series (350 PSI working pressure)

1/2" Hose I.D.

Length	Part Number
6'	E8LP2X6FT
8'	E8LP2X8FT
10'	E8LP2X10FT
12'	E8LP2X12FT
15'	E8LP2X15FT
18'	E8LP2X18FT
20'	E8LP2X20FT
25'	E8LP2X25FT
50'	E8LP2X50FT
100'	E8LP2X100FT

3/4" Hose I.D.

Length	Part Number
1'	E12LP2X1FT
3'	E12LP2X3FT
10'	E12LP2X10FT
12'	E12LP2X12FT
15'	E12LP2X15FT
18'	E12LP2X18FT
20'	E12LP2X20FT
25'	E12LP2X25FT
100'	E12LP2X100FT
125'	E12LP2X125FT
150'	E12LP2X150FT
175'	E12LP2X175FT

1" Hose I.D.

Length	Part Number
10'	E16LP2X10FT
15'	E16LP2X15FT
19'	E16LP2X19FT
20'	E16LP2X20FT
100'	E16LP2X100FT
125'	E16LP2X125FT
150'	E16LP2X150FT
175'	E16LP2X175FT

1 1/4" Hose I.D.

Length	Part Number
6'	E20LP2X6FT
10'	E20LP2X10FT
15'	E20LP2X15FT
25'	E20LP2X25FT

2" Hose I.D.

Length	Part Number
6'	E32LP3X6FT
10'	E32LP3X10FT
15'	E32LP3X15FT
19'	E32LP3X19FT

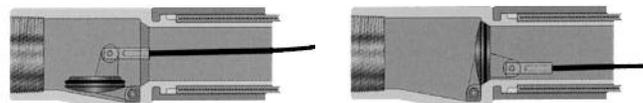
Additional or unique lengths can be special-ordered upon request.

Smart-Hose for Truck and Bulk Plant

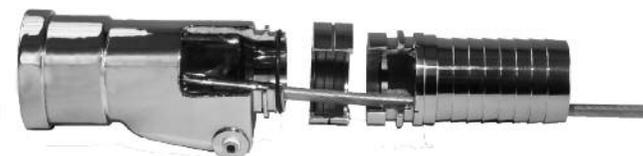
Smart-Hose™ Technologies has engineered LPG & industrial hose assemblies designed with an internal valving system. The integrated valving system is designed to eliminate hazardous spills created by catastrophic hose failures. The Smart-Hose™ system utilizes a unique and patented design that uses internal valves located in each end fitting. The valves are designed to stay open during normal operating conditions. However, if a catastrophic hose failure event occurs (the end fitting blows-off, the hose gets cut in half or the hose is stretched to an unsafe condition) then the system is designed to shut down the flow in both directions. **Meets DOT Rule as a Passive shut down device.**

Part Number	Description
L16LP2X15FT	1"FNPT SmartHose for Bulk Storage 15 FT
L16LP2X19FT	1"FNPT SmartHose for Transport 19 FT OAL
L20LP2X15FT	1-1/4" SmartHose15' Assmy. w/FNPT Ends
L3-32LP3X10FT	2" MNPT Lifeline 3 LPG SmartHose 10 FT
L3-32LP3X15FT*	2" MNPT Lifeline 3 LPG SmartHose 15 FT
L3-32LP3X19FT	2" MNPT Lifeline 3 LPG SmartHose 19 FT
L3-32NH3X19FT	2" MNPT Lifeline NH3 SmartHose 19 FT Textile
L3-32LP3X15FT-FBA	2" FNPT Lifeline 3 LPG SmartHose 15 FT with Breakaway Fitting - Not DOT Certified
L3-32LP3X19FT-BA	2" FNPT Lifeline 3 LPG SmartHose 19 FT with Breakaway Fitting - DOT Certified
32PHG	Hose Guard for 10 FT SmartHose

*Available without DOT Certification for Bulk Plant applications.



Smart-Hose™ Lifeline 3 Open Position Smart-Hose™ Lifeline 3 Closed Position



Smart-Hose™ Lifeline 3 Breakaway Fitting



32PHG

Pig's Tail Hose Guard

- **100% Virgin Polyethylene** - Strong, flexible and durable with excellent memory and abrasion resistance
- **Beveled Edges** - Smooth edges won't cut user during installation
- **Multiple Sizes** - Broad size range to wrap any hose or use it for bundling
- **UV Resistant** - Black pig's tail protects against UV rays

Part Number	Hose Size	O.D. (Inches)
R16SSG-(1FT, BOX)	1/4"	0.61
R20SSG-(1FT, BOX)	3/8"	0.76
R25SSG-(1FT, BOX)	1/2"	0.94
R32SSG-(1FT, BOX)	3/4"	1.25
R40SSG-(1FT, BOX)	1"	1.50
R50SSG-(11FT, 1FT, BOX)*	1-1/4"	1.82
R63SSG-(1FT, BOX)	1-1/2"	2.16
R75SSG-(11FT, 1FT, BOX)*	2"	2.75

* In Stock



Stainless Steel Wire Braid Hose and Fittings

Developed for applications wherever a strong, corrosion resistant LPGas hose is desired. The special low extract tube handles propane or butane in liquid and gas form. Ideal for construction heater hoses.

WARNING!!: For LP and Natural Gas use only! Do not use in anhydrous ammonia or refrigeration applications! Do NOT use male swivel couplings or any type of couplings that use O-Ring sealing surfaces!

U.L. 21 Dayco. Series 7243 w/cloth cover

Size I.D.	Part Number
1/4"	SS25UL-4
5/16"	SS6-UL
13/32"	SS25UL-8
1/2"	SS25UL-10

Use only with Parker/Dayco series BN hose end fittings.



Hose Ends for Parker/Dayco (Series 7243) wire braid hose.

Hose I.D.	Flare Size	Description	Coupling P/N	Use with Hose
1/4"	1/4"	Straight	6FS-4	SS25UL-4
5/16"	3/8"	Straight	6FS	SS6-UL
5/16"	3/8"	90 degree	6FS-90	SS6-UL
5/16"	3/8"	45 degree	6FS-45	SS6-UL
5/16"	1/4" MNPT	Straight	6-4MP	SS6-UL
13/32"	1/2"	Straight	6FS-8	SS25UL-8
1/2"	1/2"	Straight	6FS-8-10	SS25UL-10
1/2"	5/8"	Straight	6FS-10	SS25UL-10



Swivel Adapter

Part Number	Description
8M-8UFS	1/2" FNPT X 1/2" MNPT
12M-12UFS	3/4" FNPT X 3/4" MNPT
16M-16UFS	1" FNPT X 1" MNPT
20M-20UFS	1-1/4" FNPT X 1-1/4" MNPT
24M-24UFS	1-1/2" FNPT X 1-1/2" MNPT
32M-32UFS	2" FNPT X 2" MNPT



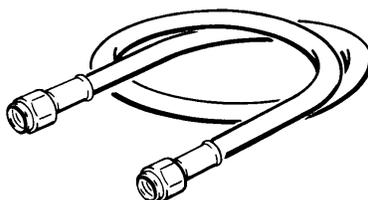
'VHA' Series

LPGas Vapor Hose Assemblies are factory assembled in 3/8" Hose I.D. and 1/4" Hose I.D. in various lengths and end fitting configuration. These hose assemblies are rated for 350 PSI Working Pressure for vapor service only.

For low pressure appliances to be connected to low pressure regulators.

1/4" Hose I.D. with 3/8" Female Swivel Flares Each End

Length	Part Number
2'	VHA402FF
4'	VHA404FF
6'	VHA406FF
8'	VHA408FF
10'	VHA410FF
12'	VHA412FF
15'	VHA415FF
20'	VHA420FF
25'	VHA425FF
50'	VHA450FF
100'	VHA4100FF



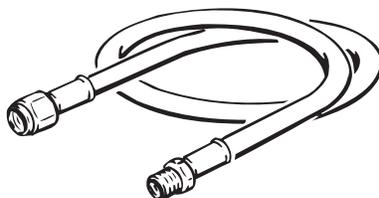
3/8" Hose I.D. with 3/8" Female Swivel Flares Each End

Length	Part Number
2'	VHA602FF
4'	VHA604FF
6'	VHA606FF
8'	VHA608FF
10'	VHA610FF
12'	VHA612FF
15'	VHA615FF
20'	VHA620FF
25'	VHA625FF
50'	VHA650FF
100'	VHA6100FF

Commonly used on most weed burners, torches and fish cookers.

1/4" Hose I.D. with 1/4" MNPT x 1/4" FNPT

Length	Part Number
5'	VHA405MXF 1/4



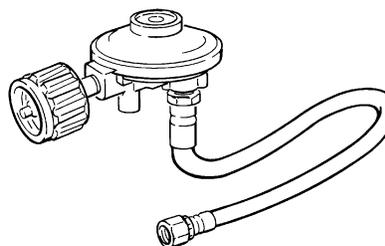
1/4" Hose I.D. with 3/8" MNPT x 3/8" FNPT

Length	Part Number
2'	VHA402MXF 3/8
5'	VHA405MXF 3/8

Low Pressure appliance hose assembly with regulator and Type 1 connection
Ideal for use with LP Gas Grills.

1/4" Hose I.D.

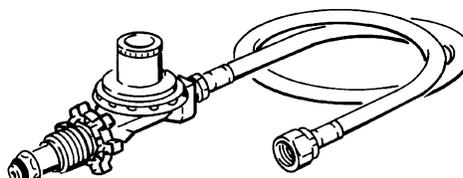
Length	Part Number
2'	VHA402FFREGT1



Connects low pressure propane appliances to a 20 lb. cylinder using a 3/8" female swivel flare.
Low Pressure appliance hose assembly with regulator and POL connection

1/4" Hose I.D.

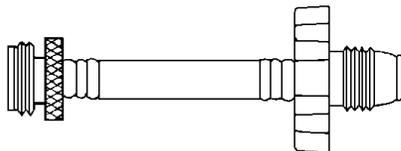
Length	Part Number
5'	VHA405FFREGP



Designed for use with 20 lb. cylinder in place of a disposable cylinder on High Pressure Appliances. Also has Soft Nose POL with excess flow.

**1/4" Hose I.D. with
POL handwheel x 1"-20 male thread**

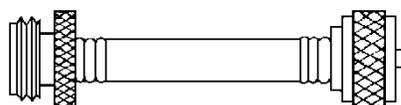
Length	Part Number
5'	VHA405P 1/20
12'	VHA412P 1/20



Used with most distribution posts or "T" and "Y" connectors as well as 1 lb. disposable cylinders. Hand tighten.

**1/4" Hose I.D. with 1"-20 male
thread x 1"-20 female thread**

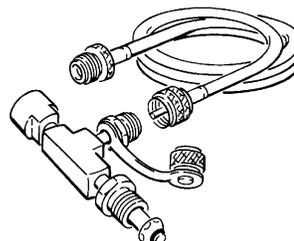
Length	Part Number
5'	VHA405MXF 1/20
12'	VHA412MXF 1/20



Hose Tee Assembly used for R.V. applications to provide additional fuel source to high pressure appliances. May also be used as a dual source off a 20 lb. cylinder.

**1/4" Hose I.D. with 1"-20 male x
female and POL Tee assembly**

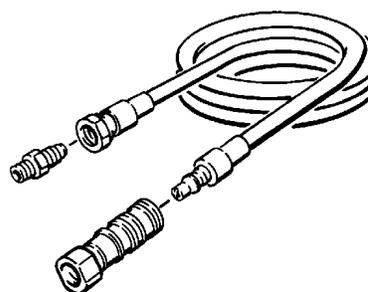
Length	Part Number
12'	VHA412T 1/20



Quick Disconnect Hose Assembly for propane or natural gas grill.
FOR OUTDOOR USE ONLY.

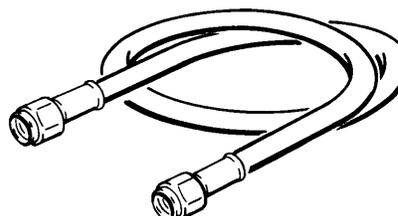
3/8" Hose I.D. with 3/8" FPT x Quickconnect

Length	Part Number
12'	VHA612QD



**Various Hose I.D. with 9/16"
left hand thread**

Hose I.D.	Length	Part Number
1/4"	5'	VHA405F 9/16
	15'	VHA615F 9/16
3/8"	25'	VHA625F 9/16
	50'	VHA650F 9/16
	75'	VHA675F 9/16
	100'	VHA6100F 9/16



Thermoplastic Pigtails U.L. and C.G.A. Listed

The flexible thermoplastic hose material used on pigtails and high pressure hoses is rated at 350 lbs. working pressure and has a burst rating of 1750 PSI. end fittings are crimped in place. Together they offer an assembly that meets all applicable U.L. and C.G.A. tests and requirements. All assemblies up to 60 inches in length are dual (U.L. and C.G.A. Listed).

1/4" Inverted Flare x POL

Length	Part Number
15"	FP40403-15
20"	FP40403-20
24"	FP40403-24
30"	FP40403-30
48"	FP40403-48
72"	FP40403-72



1/4" Inverted Flare x Type 1 Back Check Connector

Length	Part Number
15"	FP40410-15
20"	FP40410-20
24"	FP40410-24
30"	FP40410-30



1/4" Male NPT x Type 1 Back Check Connector

Length	Part Number
15"	FP40411-15
20"	FP40411-20



Low Pressure

For 1 PSI or less in vapor service ONLY.

CAUTION!: This hose was designed for LPGas - VAPOR ONLY type service. Not to be used for LPGas liquid or barbecue grills - NOT UL listed.

To be used with low pressure hose fittings.

Parker Hose Series 7122

Part Number	Description
6HH-R	Red nitrile hose

Cut lengths or reel.



Band-It Steel Hose Nipples

Part Number	Hose I.D.	MNPT
E006	1/4"	1/4"
E010	3/8"	1/4"
E012	3/8"	3/8"



Brass Female Flare Swivel x Hose Barb

Part Number	Hose I.D.	Internal Thread	Description
4119	1/4"	3/8" Flare	Swivel & Hose Barb
4115	3/8"	3/8" Flare	Swivel & Hose Barb



Brass Hose Coupler

Part Number	External Thread
C51LH	9/16" 18LH x 9/16" 18LH
B29LH	1/4" NPT x 9/16" 18LH



Brass Replacement Inlet Fitting

Part Number	External Thread
240-36	1/4" F. Inverted Flare x 1/4" M. NPT



Band-It Preformed Clamps - Stainless Steel

Part Number	Hose O.D.	Band Width
J201	15/16"	3/8"
J240	3/4"	1/4"



Band-It Tool for Preformed Clamps

Part Number	Description
C001	Band-It tool
J001	Jr. adapter for preformed clamps - use with C001



Tool



Jr. Adapter

Pull-Away Valves for Transfer Operations

Designed especially to provide pull-away protection for LP-Gas and anhydrous ammonia transfer operations including transport and delivery truck loading and unloading, engine fuel container filling and miscellaneous cylinder filling operations. When properly fastened to the inlet end of the discharge hose, the valve is designed to stop gas escape from both upstream and downstream lines in the event of a pull-away. An excessive tension pull causes the valve to automatically separate, closing two internal back pressure checks. Only a few cubic centimeters of gas escape at the instant of separation.

It is recommended that a convenient means be provided to safely remove the pressure from the line upstream of each coupling half to enable reassembly of the valve. To reassemble, simply push the male half firmly into the female half until the retaining balls slip into the retaining groove. Check for leaks after reassembly.

NOTE: It is recommended that pull-away valves be safety-tested at least monthly to confirm that they will separate properly in the event of a pull-away. Dry nitrogen or other inert gas is suggested for a source of pressure during such tests.



Part #	Inlet/Outlet Connections F. NPT	Disconnect Force Approx-lbs	Reconnect Force Approx-lbs	Length Of Valve	LP-Gas Liquid Flow Capacity at Various Differential Pressures (GPM)*			
					5 PSIG	10 PSIG	25 PSIG	50 PSIG
A2141A6	3/4"	130	80	3 7/8"	11	16	25	36
A2141A6L								
A2141A8	1"	75	50	4 9/16"	21	30	47	67
A2141A8L								
A2141A10	1 1/4"	160	25	5 5/8"	52	75	120	170
A2141A16	2"	300	50	14 5/16"	250	350	550	750

* To determine NH₃ liquid flow capacity, multiply by .90.

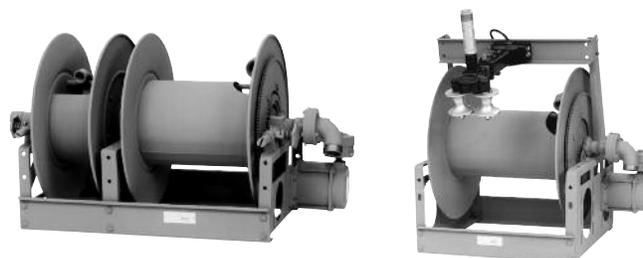
Hannay Hose Reels

Explosion-Proof Electric Rewind Reel

Electric rewind reel available for 6, 12 or 24 Volt-DC service. A vapor-proof junction box, a stationary explosion-proof, box-mounted switch and a remote solenoid are supplied with this series.

* See Below for Ordering Instructions

Part #	Hose Capacity of Reel (Ft.)			
	I.D.	3/4"	1"	1 1/2"
EPB 24-23-24	175	125	50	
EPB 30-23-24	250	225		75
EPB 24-25-26	200	150		
EPB 28-25-26	300	200		110
EPB 22-30-31	325	250		100
EPB 18-33-34	275	200		75



Series PBM
Liquid & Vapor Power
Rewind Reel

Series PBGM
Power Rewind
w/Guidemaster

Hoses