

Safety by Engineering
Supply+

Hose Reel Brochure

Introduction

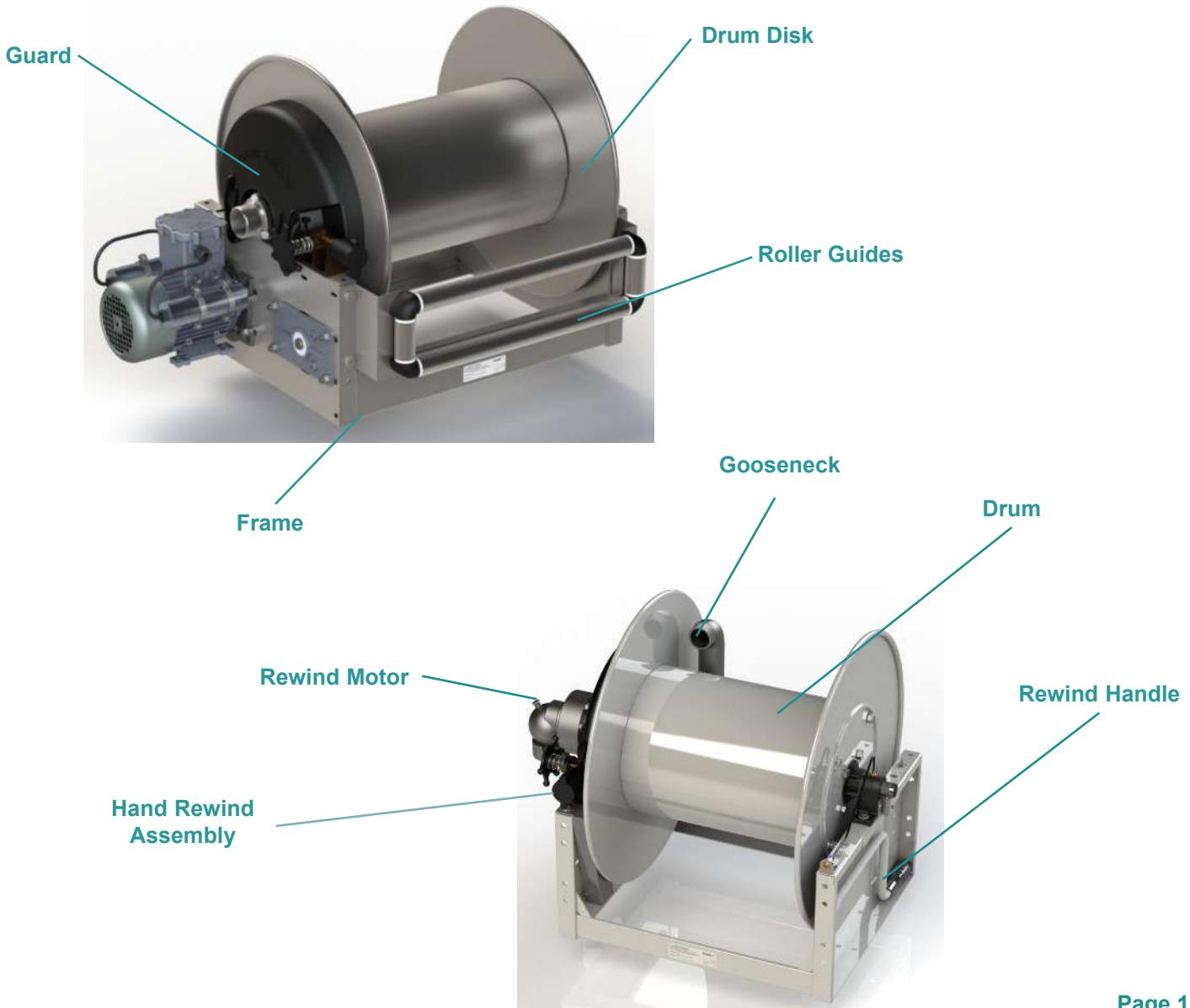
Collins Youldon have been designing, engineering and manufacturing hosereels since 1976 and is a leading supplier of high-quality, bespoke hosereels in both the UK and international markets. We have developed a comprehensive range of models covering a wide variety of applications, to include fire-fighting, aviation, marine, offshore, and distribution of fuel oil, gas, chemicals and solvents. All of our products are made entirely at our facility based in Cambridgeshire.

The brand delivers innovation with proven reliability. Our hosereels are easy to fit and maintain. Through in-depth research and long-term product development, with a diverse range of equipment which is specially designed for industrial and commercial markets.

We offer five base hosereel models: Lowline, Fire, Compact, Standard and High Capacity. These models have different dimensions to suit specific operational duties and can be supplied with fluid paths ranging from an internal diameter of 19mm up to 50mm.

We offer manual, electric, pneumatic and hydraulic rewind options as well as a unique range of additional features, specialised mounting kits and accessories to ensure our products perform at the highest possible standard.

Please contact our sales department to discuss the best model for your application



Hose Reels Types and Capacities

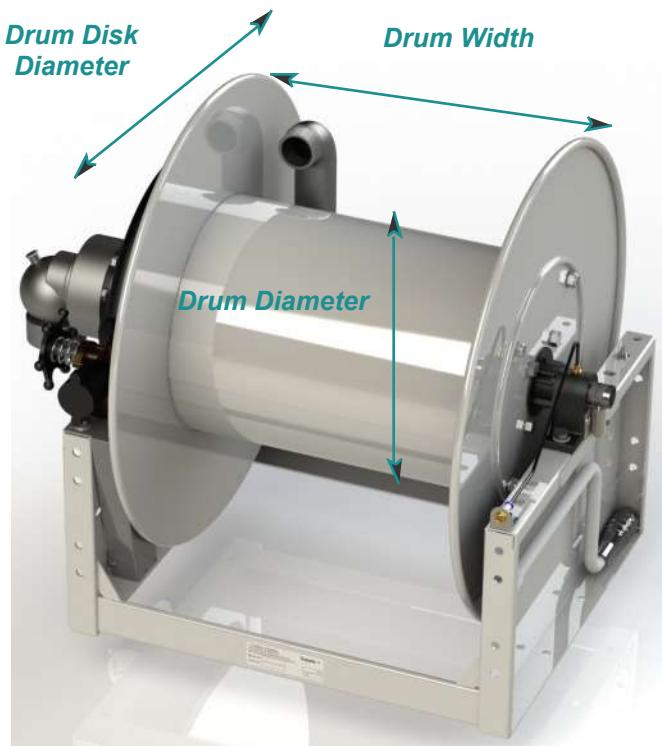
There are five base models with different dimensions.

Each type can be supplied with a range of fluid path sizes from 19mm up to 51mm.

Dimensions and typical capacities are shown in the table below.

Hose Reel Drum Disk Smallest Drum Maximum Drum - Available fluid bores and typical maximum hose capacity

Type	Drum Disk	Smallest Drum	Width	19mm	25mm	32mm	38mm	50mm
Lowline:	432mm	254mm	914mm	72m	37m	33m	Not Suitable	Not suitable
Fire:	483mm	286mm	813mm	73m	36m	32m	29m	Not Suitable
Compact:	508mm	254mm	813mm	89m	54m	48m	Not Suitable	Not Suitable
Standard:	584mm	286mm	813mm	102m	92m	53m	49m	24m
High Capacity:	737mm	286mm	813mm	224m	160m	110m	73m	42m



Hosereels with drum diameters of 394mm and 495mm are also available

Fluid Path Materials

The fluid paths, inlets and swivel joints for our reels are offered in a range of materials.

Please advise the product to be used and our sales department can offer the best option for your application.

Inlets & Swivel Joints

A range of special swivel joints is available to suit particular applications.

These include in-line swivel joints for use with powders (or to simplify feed pipe work), special thread forms and non-standard seal materials.

Manual Rewind Options

The most commonly used version is the 90° manual rewind. However, when space permits, the 65° angled manual rewind is recommended.

This makes rewinding easier because the rewind handle is offset to the line of the hose that is being rewound onto the drum. Axial rewind (direct or geared) is also available.

Direct axial rewind requires a greater effort to rewind the hose, and should be used only on small reels that are not in frequent use.

The sloping frame option provides a comfortable operating height when the hose reel is mounted in either a low or high position, e.g. the top cabinet of a vehicle.

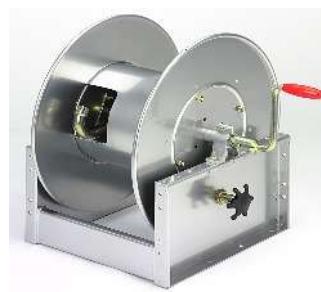
Geared 90°



Geared 65°



Direct Axial



Geared Axial



Sloping Frame



Powered Rewind Options

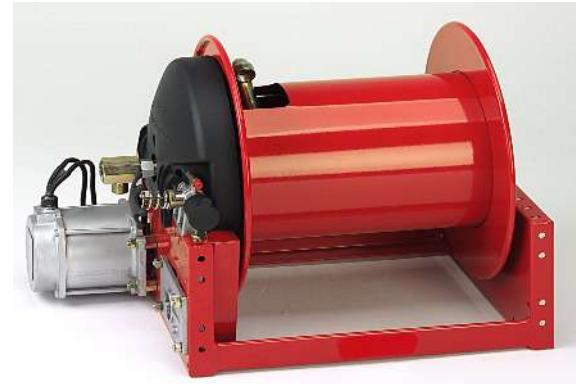
The Collins Youldon hose reel range is available with **pneumatic, hydraulic, or electric** rewind motors

Electric

Electric rewind hose reels are suitable for road vehicles and other applications where a DC electrical supply is available. These are fitted with a durable motor, which provides great resistance against stalling and consequent burn-out. For protection of both the motor and the operator a centrifugal clutch is fitted.

When the hose is deployed the clutch does not engage, and the motor remains stationary. This minimises the effort required by the operator to unwind the hose. A speed reduction/idler assembly is also fitted, thereby ensuring that rewind speeds are safe and the hose can be wound neatly onto the drum.

Motors suitable for single or three-phase mains supply are also available. These can be supplied with flameproof protection if required.



Pneumatic

Two sizes of air motor are used to provide a comparatively lightweight and controllable rewind solution.

Pneumatic rewind hose reels are ideally suited to vehicles with an air brake system. An air supply kit is available. This consists of a control valve, filter/regulator and lubricator to ensure that the motor has a long, trouble-free life.



Hydraulic

For applications where there is an existing hydraulic supply system, a hydraulic rewind hose reel should be considered.

Hydraulic motors are powerful and quiet in operation, and are available on all models and sizes of hose reel. Hydraulic control valves are available for use with these hose reels.

They facilitate the setting of the rewind speed and the maximum rewind torque as well as operating the hose reel.



Hose Reel Drum

A drum braking system is fitted to minimise over-run when hose is being deployed, and to secure the drum when not in use. Three different systems are available.

Handwheel Brake

Most manual and powered rewind hose reels are fitted with a hand adjustable brake that is part of the handwind assembly.



Pinch bearing and Pin-lock Brakes

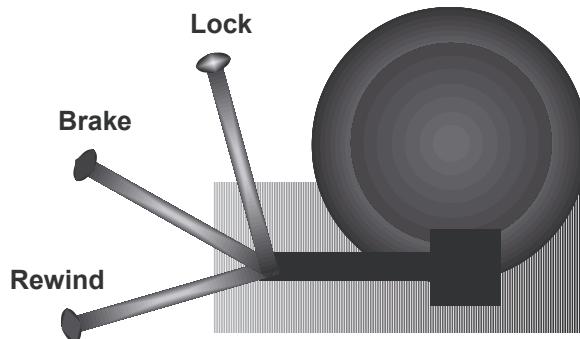
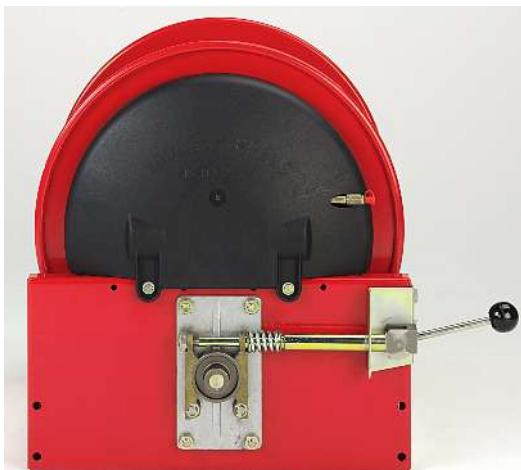
On direct axial rewind hose reels an adjustable pinch bearing acts on the centre shaft of the hose reel drum to reduce overrun. To lock the drum a pin-lock is provided to engage with holes in the end disc.



3-Way Brake

The 3-way brake minimises the risk of the hose reel drums moving with the pulses, and shaking the hose loose on the drum.

It provides three pre-set levels of friction: off, braked and locked, which can be instantly selected as required. This braking option can be incorporated into reels, provided that it is specified at the time of ordering.



Hose Roller Guides

Two types of hose roller guides are available, designed to allow the operator to pull the hose off the hose reel at an angle without fouling the drum and frame.

4-Way Bottom Mounted Roller Guides

These are the most commonly used, and are available in either standard or marine specifications. They are bolted to the front of the frame of bottom-wound hose reels.

They can normally be fitted to all hose reels during production assembly.



4-Way Top Mounted Roller Guides

Available for reels where a bottom-wound configuration is not suitable. The extra space required for these rollers is minimised by tilting the rollers backwards over the drum.



Our hose roller guides are fitted with plastic corner blocks and inserts as standard but aluminium and stainless steel versions are also available.

Finish

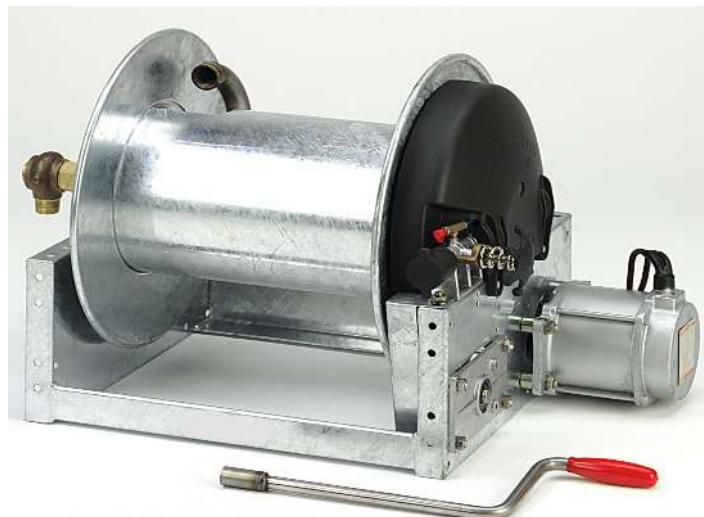
The materials and coating systems used on the Collins Youldon range of hose reels have undergone continuous development. This ensures optimum durability for both firefighting and commercial applications. The materials and finishes used in most cases are as follows:

Zinc-phosphated and polyester powder-coated mild steel drum, frame and end-disks. Wide range of standard colours available including silver grey RAL9006. Non-standard colours available with a small uplift. Zinc-plated mild steel fasteners and rewind handle. This is our standard finish, suitable for a wide range of applications (fuel oil delivery, wash-down etc).

Zinc-phosphated and polyester powder-coated mild steel frame with unpainted 304 stainless steel drum and end-disks (popular for truck mounting and providing more corrosion resistance).

Unpainted 316 stainless steel drum, frame and end disks (suitable for marine, aviation and chemical applications or for use in harsh environments).

Shot-blasted and painted 316 stainless steel drum, frame and end disks with either a standard polyester powder coating or 3 part epoxy coating (suitable for marine, offshore and naval applications where painting is necessary)



ATEX Hose Reel

Manual and pneumatic rewind ATEX certified reels are available for applications requiring explosion protection. Typical capacities are 30m and 40m of 38mm bore hose.

CE Ex II 2 GD Exc IIA T5 Gb

Legend:

-  Complies with European Directive
-  Specific marking for explosion protection
- **II** Equipment Group – all areas except mining
- **2** Equipment Category – (Gas, Vapour, Mist, Dust)
- **GD** Environment – Gas and Dust
- **Exc** Protection Concept – Construction
- **IIA** Gas Group – Propane
- **T5** Temperature Classification – Max surface temperature 100°C
- **Gb** Equipment Protection Level – Suitable for zones 1&2



Safety Features

Collins Youldon have developed a unique range of guarding to protect hose reel users from hazardous components including chains, sprockets, gearwheels and other rotating parts. In addition, the DC drive motors supplied with the hose reels have been independently tested, and comply with the electromagnetic compatibility requirements of the European Directive.

Special Options

Several special options are available to enable hose reels to be used in unusual applications.

Stainless Steel Reels

We can offer 304 and 316 stainless steel construction reels for more specialist applications and harsh environments, ie, marine/offshore refuelling and chemical delivery.



Inverted Mounting Kits

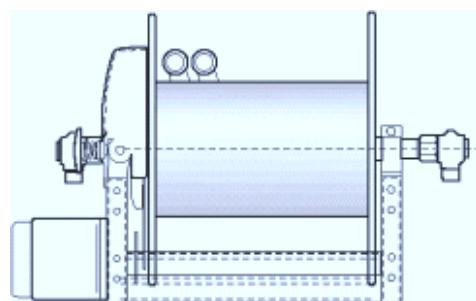
These are fitted to reels which are designed to be mounted upside down, ie in a high position in a locker.

Vacuum Inlets

Our 1.5" and 2" reels are available with aluminium or 316 stainless steel vacuum inlets and Viton quad seals for uplift applications.

Twin Fluid Paths

Dual agent fluid path reels are available, typically for hydraulic, firefighting and crop spraying applications. The fluid paths can be manufactured in different sizes and materials, details available on request.



Typical Applications

Fuel, AdBlue and lubricant delivery and uplift – reels specifically designed for vehicle mounting with models specifically designed for under chassis fitting, for bowsers, plant refuelling and for static dispensing systems. Wide range of paint colours available to match branding or livery.

LPG Delivery

Reels are available with NPT threads, reinforced frames and Full Circle inlet swivel joints. Pressure and continuity test certificates supplied with each LPG reel. 25mm, 32mm and 38mm bore fluid paths available.



Marine Hose Reels

316 stainless steel construction reels for harbour and jetty refuelling and for ship and yacht mounting. We can offer more compact models for under deck mounting in confined spaces and stainless steel reels can be shot-blasted and painted to match the boat livery.

Aviation refuelling and helifuel applications

reels designed for harsh environments such as airfields, oil rigs and drill ships

Chemical delivery and uplift

316 stainless steel construction and fluid paths for more corrosive applications

Waste Management and portable toilet servicing

horizontally mounted and large spoked Catherine reel configurations are available with stainless steel fluid paths

Washdown

various fluid path sizes available in mild steel and stainless, high pressure models available for smaller centreshafts

Fire-fighting in hazardous environments

reels offered in stainless steel can be painted if required

Catherine Reels

The HR30 series with 24V dc motor rewind is the most widely used model on fuel oil delivery vehicles in the UK.

Two versions are available, a Standard which is routinely used for up to 200ft of 35mm bore hose and a Slimline which was developed for use on vehicles where the space between the tank and cab is restricted.

Short drip trays are available for narrower vehicles. Electric and hydraulic versions currently available. These models are also offered with 316 stainless steel fluid paths and vacuum inlets.

