FUELLING SOLUTIONS

SPARE PARTS CATALOGUE

www.liquip.com



ELAFLEX AVIATION HOSE

Yellow band aircraft refuelling hoses, suitable for all aviation gasoline and jet fuels (JET A1), anti-icings fluids and motor oils.

Elaflex standard type "HD-C" with two textile braids. Light weight, flexible hose for all pressure purposes.

NOTE: <u>Not for suction.</u> Burst pressure > 80 bar / 1200psi. The hose does not kink with a permanent pressure of at least 0.5 bar

Temperature range:	-30° up to +70° Celsius
Electrical resistance:	Between 103 and 106 Ohm
Lining:	Nitrile rubber (NBR) seamless tube, antistatic,
	no fuel solubility.
Reinforcement:	Textile braids without metallic strands.
Cover:	Chloroprene (CR), electrically conductive,
	ozone and flame resistant, highly abrasion
	resistant

Approved to EN1361 (European), AS2683 (Australian) and API1529 (American) Standards.

Specified by almost all major oil companies.



Type HD-C EN 1361 - type C



Part No:	Size ID		OD	Working Pressure	Max. Vacuum	Min reel diameter	Approx. Weight
	inches	mm	mm	bar	bar	mm	kg / m
3343	1	25	37		0.5	200	0.8
3344	1 1/4	32	44		0.4	225	1.0
3345	1 1/2	38	51		0.3	270	1.2
3346	2	50	66	20	0.2	400	1.9
3347	2 1/2	63	79		0.15	600	2.4
3348	3	75	91		-	600	2.8
3349	4	100	117		-	900	3.7



HOSEREELS & FITTINGS

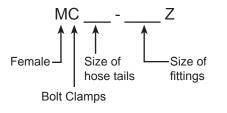
ELAFLEX HOSE FITTINGS

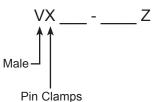
Male & female threaded couplings in brass nickel plated with Quick Clamp Type in either pin or bolt style to international standards. Working pressure up to 25 bar.

Supplied separately or part of complete tested hose assembly.

These hose clamps and hose tails are used on most if not all LIQUIP aviation fuelling vehicles and other special fuel handling equipment or vehicles.

Ordering Information:





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Example: MC 25 - 1 Z VX 25 - 1.25Z 1" hosetail x 1" female BSPP with bolt clamp 1" hosetail x 1 1/4" Male BSPP with pin clamp

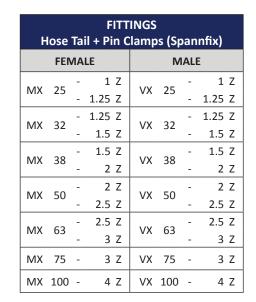


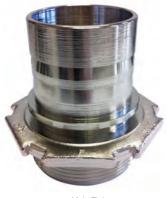
Spannloc Hose Clamp (Bolt type)

Hos	FITTINGS Hose Tail + Bolt Clamps (Spannloc)							
	FEN	ΛA	LE			M	AL	E
мс	25	-	1	Ζ	VC	25	-	1 Z
IVIC	25	-	1.25	Ζ	VC	25	-	1.25 Z
мс	22	-	1.25	Ζ	VC	32	-	1.25 Z
IVIC	52	-	1.5	Ζ	VC	32	-	1.5 Z
мс	20	-	1.5	Ζ	VC	38	-	1.5 Z
IVIC	50	-	2	Ζ	VC	50	-	2 Z
мс	50	-	2	Ζ	vc	50	-	2 Z
IVIC	30	-	2.5	Ζ		30	-	2.5 Z
мс	63	-	2.5	Ζ	vc	63	-	2.5 Z
IVIC	03	-	3	Ζ		05	-	3 Z
МС	75	-	3	Ζ	VC	75	-	3 Z
МС	100	-	4	Z	VC	100	-	4 Z



Spannfix Hose Clamp (Pin type)









Female Fitting



HOSE SWIVEL

These Liquip Hose Swivels are typically used on overwing nozzles (i.e. the Liquip AVN040 / 042 overwing nozzles).

These swivels are nickel-plated brass. All threads are BSPP. A stainless steel version is available upon special request.

Part No	Size
TS57-0026	1" M x 1" F
TS57-0058	1 1/2" M x 1 1/2" F
TS57-0054	2" M x 2" F
TS57-0059	1 1/4" M x 1 1/4" F
TS57-0005	2 1/2" M x 2 1/2" F







GAMMON HOSE QUICK DISCONNECT

fast change from Overwing to Underwing nozzle with no spill

FAST OPERATION Connect or disconnect in seconds, without tools. To connect, pull back sleeve, push connector into coupler and release sleeve. To disconnect, pull back coupler sleeve and connector halves separate. Valve opens automatically when halves are connected.

DEPENDABLE OPERATION The ball-lock mechanism is the simplest, most reliable type in use, providing positive connection under constant or surge flow - even excessive shock. Ball bearing sleeve lock permits 360 swivel action, preventing build-up of hose torque. Hardened stainless steel balls give extra long service. Stainless steel ball race resists wear for longer life.

Molded U-Packer seal provides contact over several times the normal O-ring sealing area. Its design embodies a self-energising feature that gives a positive seal at all pressures. This seal is capable of sealing under side loads and will tolerate small scratches and some dirt without leakage.

TIGHT SEAL DISCONNECT The poppet has a metal-to-metal stop to control compression on the valve o-ring seal. Seal is recessed and wedged in coupler body to keep it in place. The stop also prevents poppet blow-out.

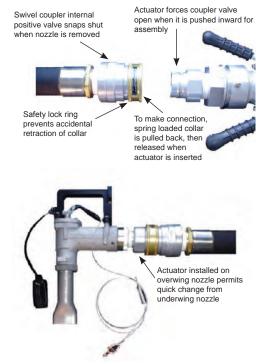
LOW PRESSURE DROP DESIGN

1 1/2" size: 2.6 psi @ 189.3 lpm 2" size: 2.9 psi @ 379.5 lpm

Ordering Information:

Part No	Size
8732	Coupler 1 1/2" BSP Female
8733	Actuator 1 1/2" BSP Male
8734	Dust Cap to suit Actuator
GTP-1506-40	Seal Kit suit 8732 Coupler

N.B. For all other sizes, please contact our sales department



All couplers and actuators are made of aluminium, unless stated otherwise. **NOT** designed for suction service.





HOSE BEADS

increase the life of your aviation hose

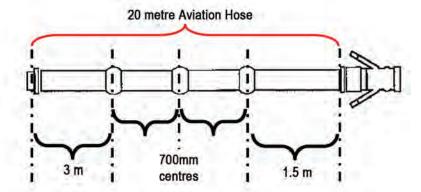
Replacing aviation hose can be costly. Fitting hose beads saves the hose from rubbing along the tarmac, minimising wear and abrasion damage. The bead allows for relatively effortless manoeuvring of the hose and also acts as a hose marker at night.

The 2-piece yellow plastic beads bolt together around the hose and Liquip suggest a bead is fitted every 700 mm run of hose.

Spacings:

20 metre Hose	Reel gooseneck to first bead centre	Hose bead spacing (centre-centre)	Last bead centre to nozzle	Qty of beads / 20m
Recommended	3m	700 mm	1.5 m	32







Part No	Size
HB1.25Z	suit 32mm ID hose
9054	suit 38mm ID hose
HB50Z	suit 50mm ID hose
HB2.5Z	suit 63mm ID hose
CHA100-1Z	suit 4" code hose



HOSE REFLECTIVE COVER

Be Seen! Be Safe!

Liquip Input Hose Covers help prevent incidents occurring around dispenser inlet hoses, particularly during night refuelling. The "Flame Orange" reflective material with two yellow stripes ensure increased visibility. Installation and removal is easy as the covers are fastened using Velcro.

Ordering Information:

Part No	Size
9485	Suit 4" ID hose
ZZ0408	Suit 3" ID house





HOSE TROLLEYS

Situated at regular intervals along the input coupler hose, Liquip input trolley enables the operator to easily wheel around the input coupler and hose assembly with minimal effort.

A key feature of the input trolley is the ease in which the hose can be released from the trolley by means of a single bolt release system as shown below.

Features

This assembly is designed against corrosion and is built to last. It consists of a stainless steel upper, supported by a 10mm aluminium base. The urethane castor wheels are proven to be longer lasting and more resilient than standard castor wheels.

Item	Part No	Description
	6000-13-01	4" Standard Input Hose Trolley
1	6000-13-03	Base Plate
2	L65723	Castor Wheel Swivel
3	6000-13-02	S/S Hose Trolley Support Top
4	6000-13-04	Dolly Lock Bar











AVIATION HOSEREEL DRUM STYLE - HPNP Series

High pressure hose reel suitable for petroleum products

The HP series of hose reels are a generation of reels for high pressure use and available with hand or hydraulic rewind and in different sizes. Sealing is by lip seal and all models incorporate a lock assembly. Ball bearings look after rotation, with end thrust being taken care of by heavy-duty circlips and thrust washers. All components are easily replaced and all wetted surfaces are nickel plated for longer life.

Stainless steel inlet flange, nickel plated gooseneck with 1 1/4" MBSPP.

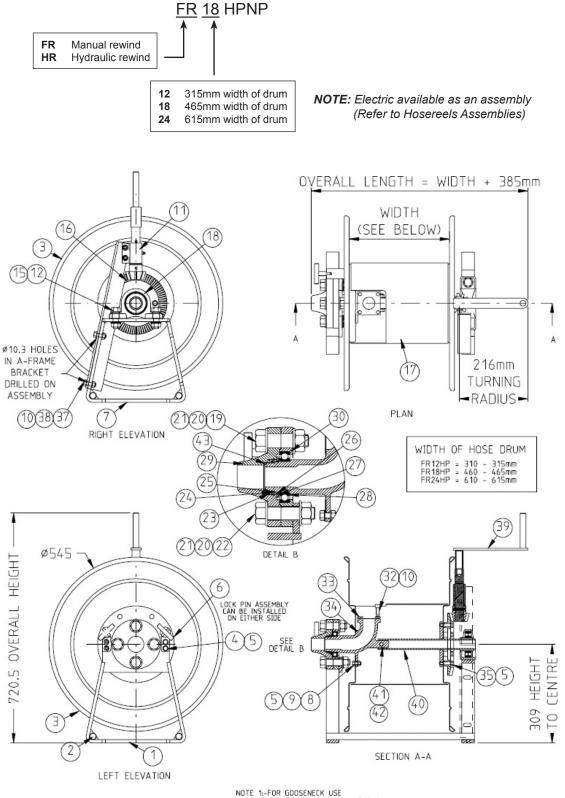
Technical Specifications

Sizes	Hose size - 25mm, 32mm and 38mm diameter Rewind type - Manual or hydraulic Drum width - 300mm, 450mm or 600mm Anti-rotation lock to prevent hose unravelling
Pressure:	Rated to 2100 kPa
Servicing:	Quarterly grease plumber block bearing Annually remove and repack bearing on the inlet side of the reel
Mounting:	4 x M10 bolts
Materials:	Stiffened steel cheek plates, extremely sturdy thick wall manifold with added strength from steel inner drum, steel base frame and self aligning bearing. Polyurethane seals.
Options:	Hot dip galvanised version 1 1/2" N/P FBSP gooseneck Rollers and guides

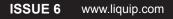


AVIATION HOSEREEL DRUM STYLE - HPNP Series

Ordering Information:



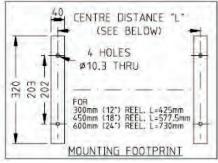
NOTE 1:-FOR GOOSENECK USE STANDARD R12-11 HIGH PRESSURE 1' R12-11-LPG HIGH PRESSURE 1 1/4' R12-11-LPG32



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AVIATION HOSEREEL DRUM STYLE - HPNP Series

HPNP Hosereel Parts List:



		Parts that diff	er only shown	1 1	MOUNTING FOOTPI	RINT
	FR12HP	FR18HP	FR24HP			
Item	Part No	Part No	Part No	Description	Material	Qty
1	R12HP-7	-	-	A Frame and Bearing Mounting Bracket Assembly	Mild Steel	1
2	R12HP-33	R18HP-33	R24HP-33	A Frame Spacer Bar	Mild Steel	2
3	R12HP-8	-	-	Hosereel End Spinning	Mild Steel	2
4	0011	-	-	Bolt Hex Head	M/Steel Z/P	3
5	0108	-	-	Washer Spring	M/Steel Z/P	11
6	R12HP-10	-	-	Lock Pin Assembly	Mild Steel	1
7	R12HP-6	-	-	A Frame Bearing Side	Mild Steel	1
8	0012	-	-	Bolt Hex Head	M/Steel Z/P	3
9	0149	-	-	Nut Nyloc	M/Steel Z/P	3
10	0109	-	-	Washer Spring	M/Steel Z/P	6
11	FR12HP-23	-	-	Front Rewind Bracket Assembly	M/Steel Z/P	1
12	4803	-	-	Bolt Hex Head	M/Steel Z/P	2
13						
14	R12-11	-	-	Gooseneck Assembly 1 1/2" BSPT Male	M/Steel	1
15	0154	-	-	Nut Nyloc	M/Steel Z/P	2
16	FR12-5	-	-	Crown Gear	Aluminium	1
17	R12-32	R18-32	R24-32	Hose Drum	M/Steel	1
18	4523	-	-	Bearing Pillow Block	HT/Steel	1
19	4810	-	-	Bolt Hex Head	M/Steel Z/P	1
20	4345	-	-	Washer Spring	M/Steel Z/P	4
21	0799	-	-	Nut	M/Steel Z/P	4
22	0876	-	-	Bolt Hex Head	M/Steel Z/P	3
23	4516	-	-	Seal U Style	Polyurethane	1
24	R12HP-9	-	-	Ring Backing Seal	M/Steel Z/P	1
25	4339	-	-	Circlip Internal	HT/Steel	1
26	4338	-	-	Circlip External	HT/Steel	1
27	R12HP-22	-	-	Ring Backing Bearing	M/Steel Z/P	1
28	4515	-	-	Bearing Deep Groove Ball	HT/Steel	1
29	R12HP-13	-	-	Retainer Seal	M/Steel Z/P	1
30	R12HP-12	-	-	Retainer Bearing	M/Steel Z/P	1
31						
32	0719	-	-	Capscrew	M/Steel Z/P	4
33	0664	-	-	Gasket	Neo-Cork	1
34	R12-36	-	-	Manifold	SG Iron	1
35	0015	-	-	Setscrew Hex Head	M/Steel Z/P	6
36	0715	-	-	Capscrew	M/Steel Z/P	2
37	0022	-	-	Setscrew Hex Head	M/Steel Z/P	2
38	0130	-	-	Nut	M/Steel Z/P	2
39	R12-26	-	-	Rewind Handle Assembly	Mild Steel	1
40	R12HP-11	R18HP-11	R24HP-11	Bearing Support Pipe	Mild Steel	1
41	4879	-	-	Bolt Hex Head	M/Steel Z/P	1
42	4981	-	-	Nut Nyloc	M/Steel Z/P	1
43	4547	-	-	O-Ring	Viton	1
44	4549	-	-	Seal U Style	Nitrile	Optiona

GET THE LIQUIP ADVANTAGE

AVIATION HOSEREEL DRUM STYLE - AHR250D Series

Drum style hose reel suitable for aviation fuels

A convenient method of storing a quantity of fuel delivery hose. When the fill point is located at varying location the required length of hose can be dispensed and rewound by electric, hydraulic or manual means.

Liquip's sturdy aluminium AHR250D Drum style hose reel range adapts to a variety of drive mechanisms.

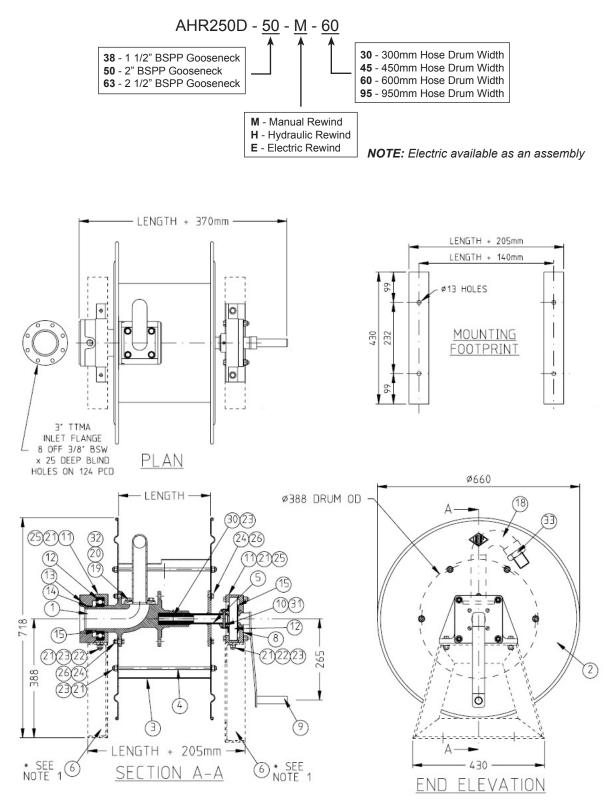
EASY OPERATION Just unhook nozzle and dispense hose to the required location. To rewind hose a manual handle, electric motor or hydraulic motor is used. The hose nozzle storage can be fitted with interlocks to help prevent drive away accidents and product spills.

Technical Specifications

Sizes	Hose size - 1", 1 1/4", 1 1/2", 2" & 2 1/2" Rewind type - Manual, electric or hydraulic Drum width - 300mm, 450mm, 600m or 950mm An optional A-Frame is available.
Pressure:	Rated to 2100 kPa
Servicing:	Annually remove and repack bearings on each side of the reel
Mounting:	4 x M12 bolts Inlet flange is to suit 75mm (3") TTMA - 8 off 3/8" BSW x 25mm deep blind threads on a 124mm PCD



AVIATION HOSEREEL DRUM STYLE - AHR250D Series





AVIATION HOSEREEL DRUM STYLE - AHR250D Series

AHR250D Hosereel Parts List:

ltem	Part No	Description	Material	Qty	
1	1 AHR250-1 Manifold Hosereel		Aluminium	1	
2	AHR250D-2	Cheekplate	Aluminium	2	
3a	AHR250D-3-30	Drum (300mm wide)	Aluminium	Table	
3b	AHR250D-3-45	Drum (450mm wide)	Aluminium	Table	
3c	AHR250D-3-60	Drum (600mm wide)	Aluminium	Table	
3d	AHR250D-3-95	Drum (950mm wide)	Aluminium	Table	
4a	AHR250D-4-30	Tie Rod (340mm long)	Steel	Table	
4b	AHR250D-4-45	Tie Rod (490mm long)	Steel	Table	
4c	AHR250D-4-60	Tie Rod (640mm long)	Steel	Table	
4d	AHR250D-4-95	Tie Rod (990mm long)	Steel	Table	
5a	AHR250D-5-30	Shaft Extension (262mm long)	Steel	Table	
5b	AHR250D-5-45	Shaft Extension (412mm long)	Steel	Table	
5c	AHR250D-5-60	Shaft Extension (562mm long)	Steel	Table	
5d	AHR250D-5-95	Shaft Extension (912mm long)	Steel	Table	
6	AHR250D-6	A-Frame (Inlet Side)	Steel	Optior	
8	AHR250-13	Mounting Plate	Aluminium	1	
9	AHR250D-9	Rewind Handle	Steel	Table	
10	AHR250-19	Adaptor Bearing	Aluminium	1	
11	AHR250-2	Bearing Housing	Aluminium	2	
12	5715	Ball Bearing	Steel	2	
13	AHR250-3	Seal Housing	Aluminium	1	
14	0127	O-Ring	Viton	2	
15	4585	Circlip	Steel	2	
18a	AHR250D-6-38	Gooseneck 38mm	Steel	Table	
18b	AHR250D-6-50	Gooseneck 50mm	Steel	Table	
18c	AHR250D-6-53	Gooseneck 63mm	Steel	Table	
19	0022	Setscrew	Steel	4	
20	0109	Washer Spring	Steel	4	
21	0102	Flat Washer	Steel	36	
22	0062	Bolt	Steel	4	
23	0150	Nut Nyloc	Steel	25	
24	0011	Setscrew	Steel	12	
25	0031	Bolt	Steel	8	
26	0101	Washer Flat	Steel	12	
30	0066	Bolt	Steel	1	
31	6676	Spring Pin	Steel	1	
32	4281	Gasket Gooseneck 1.6mm Thick	Klingerite	1	
33a	AHR250D-15	Nipple Reducing 1 1/2" BSP to 1" BSP	Steel	-	
33b	AHR250D-16	Nipple Reducing 1 1/2" BSP to 1 1/4" BSP	Steel	Table	
33c	AHR250D-17	Nipple Straight 1 1/2" BSP	Steel	Table	



AVIATION HOSEREEL CARTWHEEL STYLE - AHR250 Series

Cartwheel style hosereel suitable for aviation fuels

The AHR250 series covers a large number of sizes, variations and options.

Generally the reel is available in either open frame design or with side infill panels. The reels are available in various diameters and widths to accommodate a large range of hose diameters and lengths, with or without hose beads / protection rings.

A typical complete assembly also incorporates a hose guide or "chute" and nozzle stowage, to which interlocks are usually added to help prevent drive away accidents and product spills. Rewind options are hydraulic motor, electric motor or hand / manual rewind.

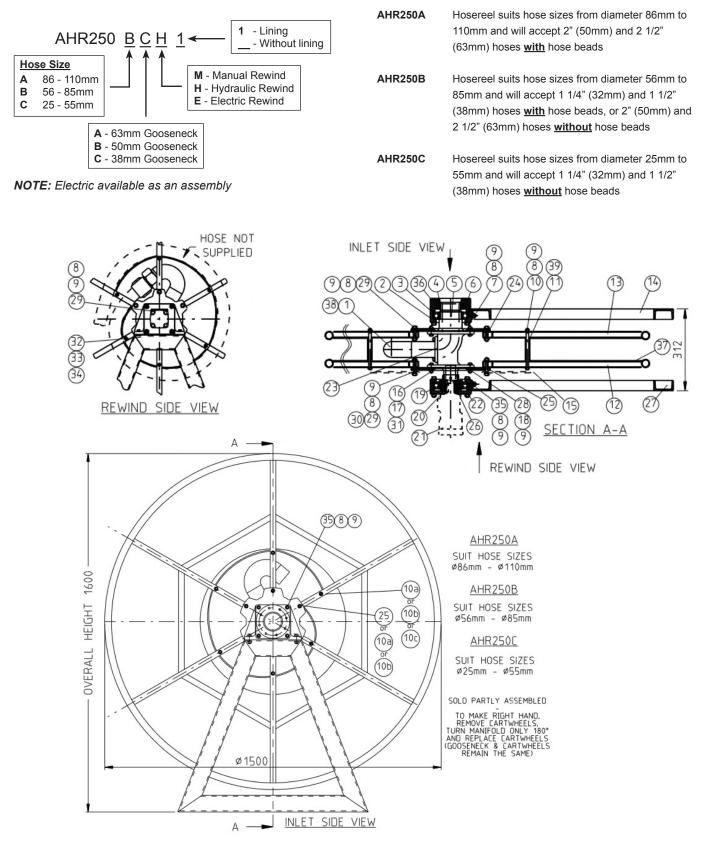
EASY OPERATION Just unhook nozzle and dispense hose to the required location. To rewind hose a manual handle, electric motor or hydraulic motor is used. The hose nozzle storage can be fitted with interlocks to help prevent drive away accidents and product spills.

Technical Specifications

Sizes	Hose size - 1", 1 1/4", 1 1/2", 2" & 2 1/2" nominal bore Rewind type - Manual, electric or hydraulic Cartwheel lining for hoses with wear beads. Please refer to ordering information for more options. Custom design is available.
Pressure:	Rated to 2100 kPa
Servicing:	Annually remove and repack bearings on the inlet side of the reel
Mounting:	Support frame not supplied. Inlet flange is to suit 75mm (3") TTMA - 8 off 3/8" BSW x 25mm deep blind threads on a 124mm PCD
Weight:	37kg
Materials:	Aluminium cart wheels and drum, nickel plated steel gooseneck and viton seals



AVIATION HOSEREEL CARTWHEEL STYLE - AHR250 Series





AVIATION HOSEREEL CARTWHEEL STYLE - AHR250 Series

AHR250D Hosereel Parts List:

ltem	Part No	Description	Material	Qty AHR250A	Qty AHR250B	Qty AHR250C
1a	AHR250-6	Gooseneck 2 1/2" BSPP (63mm dia hose)	Steel	1	-	-
1b	AHR250-6-50	Gooseneck 2" BSPP (50mm dia hose)	Steel	-	1	-
1c	AHR250-6-38	Gooseneck 1 1/2" BSPP (25-38mm dia hose)	Steel	-	-	1
2	AHR250-2	Bearing Housing	Aluminium	2	2	2
3	5715	Ball Bearing	-	2	2	2
4	0127	O-Ring	Viton	2	2	2
5	AHR250-1	Manifold	Aluminium	1	1	1
6	AHR250-3	Seal Housing	Aluminium	1	1	1
7	0062	Bolt Hex Head	Steel	4	4	4
8	4392	Nut Half Nyloc	Steel	30	30	30
9	0102	Flat Washer	Steel	64	64	64
10a	AHR250-35	Bolt Special 195mm long	Steel	6	1	-
10b	4907	Bolt Hex Head	Steel	-	6	1
10c	0059	Bolt Hex Head	Steel	-	-	6
11a	AHR250-39A	Snail Drum 110mm wide	Aluminium	1	-	-
11b	AHR250-39B	Snail Drum 80mm wide	Aluminium	-	1	-
11c	AHR250-39C	Snail Drum 55mm wide	Aluminium	-	-	1
12	AHR250-9	Cartwheel Assembly (Right Hand)	Aluminium	1	1	1
13	AHR250-9	Cartwheel Assembly (Left Hand)	Aluminium	1	1	1
14	-	Right Side Support	Steel	1	1	1
15	1261	Sprocket	Steel	Not Supported		
16	0056	Setscrew Hex Head	Steel	12	12	12
17	0149	Nut Nyloc	Steel	12	12	12
18	0022	Setscrew	Steel	4	4	4
19	AHR250-19	Adaptor Bearing - Hyd Drive	Aluminium	1	1	1
20	AHR250-11	Adapting Bush Steel 1		1	1	
21*	1295	Hydraulic Motor Danfoss Hosereel	-	Not Supported		
22	AHR250-13	Hydraulic Motor Mounting Plate	Aluminium	1 1 1		1
23	4281	Gasket Klingerite		1	1	1
24a	AHR250-5	Cast Aluminium Cheek Plate	Aluminium	-	2	-
24b	AHR250-8	Cast Aluminium Cheek Plate - Offset	Aluminium	2	-	2
25	AHR250-36	Bolt Special 225mm long	Steel	1	-	-
26	6676	Pin Selox	Steel	1	1	1
27	-	Left Side Support	Steel	1	1	1
28	0109	Washer Spring	Steel	4	4	4
29	0025	Setscrew Hex Head	Steel	12	12	12
30	4995	Setscrew Hex Head	Steel		Not Supported	
31	0101	Washer Flat	Steel	24	24	24
35	0031	Bolt Hex Head	Steel	8	8	8
36	4585	Circlip External	-	2	2	2
37	AHR250-34			4	4	
38a	0439	Nipple Reducing 1 1/2" BSP x 1 1/4" BSP Hexagon	Steel	-	-	As Req'd
38b	0445	Nipple Reducing 1 1/2" BSP x 1" BSP Hexagon	Steel	-	-	As Req'd
38c	0472	Nipple 1 1/2" BSP Hexagon	Steel	-	-	As Req'd

* For Hydraulic Rewind Only. Must be ordered separately

GET THE LIQUIP ADVANTAGE

HOSEREEL ASSEMBLIES - ELECTRIC REWIND

designed for ease of operation in a dangerous environment

Designed to electrically rewind aviation hose safely in a dangerous environment. This unit will require the operator to provide significantly less force in unwinding the hose than any of it's chain driven predecessors, thus significantly reducing the potential for back injury to the operator.

Operation of the unit is simply a matter of pushing the start/stop switch to rewind the hose. The ramp up feature on the inverter allows the motor some time to go from rest to full speed, so fine control is available over the final portion of the hoses journey by toggling the switch to "inch" the hose in.

Features

- The frame is fabricated from steel, is hot dip galvanised and designed to accommodate all components.
- Drive is provided by a 3 Phase, 1.1Kw, Class 1, Zone 1 explosion proof ex-d electric motor and runs through a single-to-three phase variable speed inverter. This provides greater flexibility in speed control. The unit is preset by Liquip. It is capable of "ramping up" to operating frequency, and "ramping down" from operating frequency. These parameters are completely controllable via the keypad located on the front of the inverter.
- Power is transmitted to the reel by an anti-static timing belt. This eliminates the need for a chain drive; therefore no metal-to-metal contact is present. This eliminates the possibility of a spark caused by chain lash etc.
- The anti-static belt eliminates the potential for static caused by belt slippage or sideways float. The belt is tensioned automatically by a spring-loaded tensioner, eliminating the need for constant adjustments.
- To minimise the possibility of catching fingers in the belt drive, the unit may be purchased specifying either a hinged full cover or a belt guard. The hinged cover features a polycarbonate window in the top, and hose roller guides in the front. It covers the entire unit when lowered. The belt guard is a removable profiled guard designed to sit over the driven sprockets and the timing belt. The rest of the unit remains uncovered.





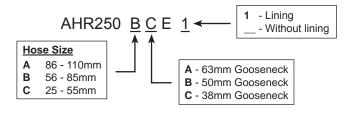




HOSEREEL ASSEMBLIES - ELECTRIC REWIND

Ordering Information:

CATHERINE STYLE



DRUM STYLE

AER<u>18</u>-HPNP

•		
	12 18 24	315mm width of drum 465mm width of drum 615mm width of drum

Large diameter cartwheel hosereels for single wrap hoses with or without hose beads. 38mm or 50mm male BSP thread for hose connection. Check plate diameter made to order, customer to specify required hose size and length and our Engineering Department will specify the right size reel to suit.

Note: The drive for these units will be a 3 phase 1.1kW, Class 1, Zone 1 explosion proof ex-d electric motor driving a hydraulic pump with its own hydraulic reservoir and check valve. This will in turn drive a hydraulic motor via a pressure and return line to the pump.









LIQUIP SALES QLD

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