



INSTRUCTIONS

AR-H 13.20

Before installing AssemblyReel please read the instruction manual supplied with the product.

The manufacturer is not responsible for physical injuries, material damage or loss of production due to incorrect installation or operation. Failure to adhere to these instruction may void the manufacturer's warranty.

In case of technical queries not addressed in this manual, please contact manufacturer or local distributor for more information.

1 | GENERAL INFORMATION

1.1 Manufacturer

ALPHA REEL bvba
Kieldrechtsebaan 51
9130 Verrebroek
Belgium

Phone : +32 (0)3 744 00 75
Fax : +32 (0)3 707 00 76
Email : info@alphareel.be
HTML : www.alphareel.be

1.2 Product

Name : AssemblyReel AR-H 13.20 230V
Description: Motorised Hose Reel for Air Applications
Series : 91214 ASB
Patent : BE 1.019.479, PCT/IB2011/053930, ... patent extension in progress
HTML : www.assemblyreel.com

1.3 Content

Please ensure sure that all parts are received in good condition. If not please contact manufacturer or local distributor.

Following parts should be included in the box:

- ✓ AssemblyReel
- ✓ EasyFix swing bracket (optional)
- ✓ RedFlex hose assembly
- ✓ RedFlex supply hose
- ✓ IEC power cord with CEE 7/7 plug
- ✓ Instruction manual in English

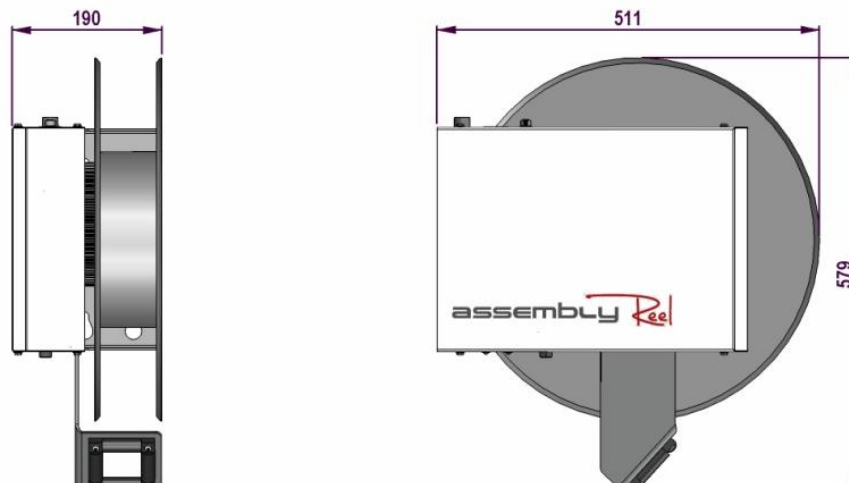
1.4 General Features

- Complies with all applicable CE and EMC regulations
- 100% maintenance free
- 100% silicone free
- Trouble-free installation (plug-n-play)
- Fingertip operation
- Suitable for heavy duty applications
- Equipped with fail-safe brake to hold air tool when not in use
- Very little force required to pull out hose manually
- Adjustable rewind speed
- Resistance detection system
- Ridged design for increased rigidity
- High gloss powder coated steel for easy cleaning
- Field-proven swivel assembly with high quality seal
- 2 years warranty

1.5 Technical Features

- Power : 115V or 230V
- Power connector : see table
- Min. working pressure : 1 bar/14 psi
- Max. working pressure : 10 bar/140 psi
- Temperature : 40°C
- Seal : polyurethane (other seals available on request)
- Force to pull out hose : ca. 4 Nf
- Static brake capacity : ca. 25 Nf
- Retraction speed : between 0.5 m/sec (1.5 ft/sec) and 1.5 m/sec (5.0 ft/sec)
- Noise level : < 75 bB
- Weight : 27 kg
- Protection : IP34

1.6 Dimensions



1.7 Models

Model	Power	Plug	Pressure	Diameter	Length	Min. Air Flow	Max. Air Flow *	Reel Inlet	Hose Outlet
91524 ASB 10015	115 V	Nema 5-15	140 psi	3/8"	50 ft	1.94 cfm	42.40 cfm	1/2" NPT/M	3/8" NPT/M
91524 ASB 10020	115 V	Nema 5-15	140 psi	3/8"	66 ft	2.12 cfm	38.85 cfm	1/2" NPT/M	3/8" NPT/M
91524 ASB 13015	115 V	Nema 5-15	140 psi	1/2"	50 ft	3.53 cfm	81.22 cfm	1/2" NPT/M	1/2" NPT/M
91534 ASB 10015	230 V	BS 1363	140 psi	3/8"	15 m	55 l/min	1200 l/min	1/2" BSPP/M	3/8" BSPT/M
91534 ASB 10020	230 V	BS 1363	140 psi	3/8"	20 m	60 l/min	1100 l/min	1/2" BSPP/M	3/8" BSPT/M
91534 ASB 13015	230 V	BS 1363	140 psi	1/2"	15 m	100 l/min	2300 l/min	1/2" BSPP/M	1/2" BSPT/M
91514 ASB 10015	230 V	CEE 7/7	10 bar	10 mm	15 m	55 l/min	1200 l/min	1/2" BSPP/M	3/8" BSPT/M
91514 ASB 10020	230 V	CEE 7/7	10 bar	10 mm	20 m	60 l/min	1100 l/min	1/2" BSPP/M	3/8" BSPT/M
91514 ASB 13015	230 V	CEE 7/7	10 bar	12.5 mm	15 m	100 l/min	2300 l/min	1/2" BSPP/M	1/2" BSPT/M

* max air flow measured at 6.2 bar (90 psi), pressure loss ca. 0.8 bar

The AssemblyReel is equipped with a universal IEC-C13 power connector, commonly used on computers, printers, monitors, ... and available in most countries. Each IEC power cord is furnished with one of following plugs:

NEMA 5-15 (USA)
CEE 7/7 (EUR)
BS 1363 (UK)



IEC power cord with CEE 7/7 plug

Other plugs are readily available on request

1.8 Restrictions

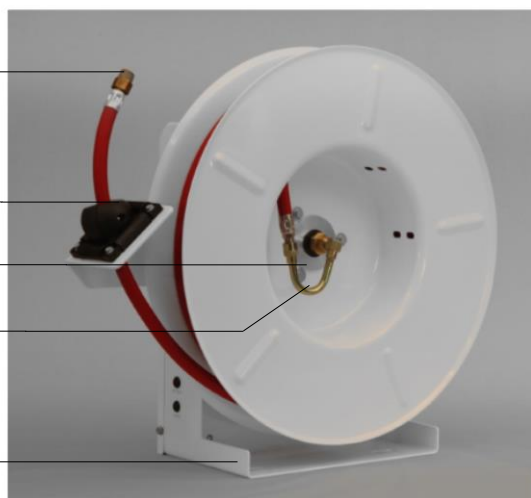
- AssemblyReel is a reeling device and cannot be used as a hoisting device. The air tool must be supported during motorized retraction of the hose.
- AssemblyReel works with any type of air tool except for tools working with short pulses such as nail guns or rivet machines.
- AssemblyReel is designed for air applications only. This product is not suitable for use with water, petrol or diesel fuels, oils etc.
- AssemblyReel is not suitable for outdoor usage nor humid environments

1.9 Description

- Drum _____
- Cover _____
- RedFlex hose _____
- Hose guide arm _____
- Speed controller _____
- over load indicator _____
- power on indicator _____



- Hose outlet fitting _____
- Adjustable hose stopper _____
- Bearing assembly _____
- Swivel assembly _____
- Housing _____



- M12 connector _____
- IEC power inlet with fuse _____
- Spare fuse _____
- Air inlet fitting _____



2 | INSTALLATION

The installation of AssemblyReel may only be performed by suitably skilled and qualified personnel in compliance with prescribed safety regulations. For the definition of skilled personnel consult directive IEC 364.

2.1 Opening Remarks

Before installing AssemblyReel, please note the following considerations:

- When selecting a convenient location do not compromise operator's space for manoeuvring
- 2.50 meter (7.5 ft) is the recommended installation height
- Prepare 1/2" air supply with valve and lubricator (if required by tool specifications)
- Make sure the air inlet pressure does not exceed 10 bar/140 psi
- Prepare 220-230V power supply with proper earth connection

2.2 Mounting Instructions

The design of AssemblyReel is such that the reel can be mounted on the floor, wall and ceiling or even at a 45° angle, whichever location is most convenient. Using AssemblyReel in combination with the optional 180° EasyFix swing bracket is for ergonomic reasons highly recommended. This is particularly useful where the air hose is used both sides of the reel's position.

1. Take the EasyFix pivoting wall bracket and remove the reel support from the wall support
2. Fix the wall support to the wall - or other solid structure - by using two appropriate anchor bolts M12. Ensure the two threaded rods are pointing upwards
3. Place one plastic washers on each threaded rod
4. Mount the reel support to the reel housing by using four M10 bolts already pre-mounted
5. Hook the reel support into the wall support
6. Put both washers and security nuts back on the threaded rods of the wall bracket. Leave enough room for the two parts to move easily in both directions
7. Mount RedFlex supply hose to the fixed air outlet
8. Mount other end of RedFlex supply hose to the hose reel inlet
9. Mount air tool to the RedFlex hose outlet
10. Connect reel to properly grounded 220-230V (50 Hz) power supply by using the EIC-cord
11. Switch on power, green LED indicator "Power On" will come on
12. Open air supply (max. 10 bar/140 psi) slowly and ensure there are no leakages

2.3 Operating Instructions

AssemblyReel comes with a fail-safe brake that keeps the air tool hanging under the reel when not utilised (see cover). A short pull on the hose is sufficient to disengage the brake. The adjustable hose stopper allows the tool hanging at the preferred grabbing height for the operator. In work situations where the air tool is supported, for example, by a tool holder, the brake is of little use and can easily be taken away. Contact manufacturer or local distributor for appropriate instructions.

Once the brake disengaged, pull out the desired length of hose manually. Unlike other hose reels, with AssemblyReel the force required to pull out the hose is minimal (4 N) and remains constant throughout the whole length of hose. This low counter force is necessary to avoid the drum from spinning and delivering more length of hose than needed due to its mass inertia.

An important advantage of AssemblyReel is that the operator does not have to lift the hose or push an additional switch to generate a retraction signal. Due to a patented flow detection module all it takes is one short pulse on the trigger of the air tool! When the reel receives a proper retraction signal the red LED indicator will come on for 1 second and the motorized retraction will start.

An integrated safety device based on current detection will avoid damage in case the hose gets stuck. This device interrupts the motorized retraction immediately when the reel detects excessive resistance on the hose during retraction. In that case the red LED indicator *Over Load* will start flashing several times. Another short pulse on the trigger of the air tool will resume the retraction.

To avoid tripping accidents, the speed of the retraction is adjustable to meet the operator's working pace. Hence, once the motorized retraction has started, the hose is cleared from the floor in front of his feet. The retraction speed is adjustable between 0.5 m/sec and 1.5 m/sec by using the speed controller on the front panel of the reel.

AssemblyReel comes with a M12 connector for extra I/O signals. On modern car assembly lines in particular, this feature is useful to connect the reel to an external tool holder or to send a JOB READY signal to control room. To learn more about the applications of this feature please contact manufacturer or local distributor.

2.4 Hose Replacement

AssemblyReel is furnished with a soft and durable air hose called RedFlex. Readymade hose assemblies, including fittings and adjustable hose bumper, are available in different lengths. See paragraph 7 for details.

1. Close air supply and start air tool to release air pressure
2. Pull out the whole length of hose
3. Switch off power supply
4. Disconnect hose from swivel outlet and air tool
5. Remove the old hose from drum
6. Insert new hose assembly through roller guides and drum entrance
7. Connect new hose to swivel outlet and air tool (no sealant needed)
8. Open slowly air supply and ensure there are no leaks
9. Connect power supply
10. Adjust hose bumper to obtain desired grabbing height

2.5 Maintenance

AssemblyReel is designed to operate in heavy duty applications without any need for lubrication nor any other form of preventive maintenance.

Swivel seals may require replacing depending on the degree of use.

3 | DECLARATION OF CONFORMITY

ALPHA REEL bvba, located Kieldrechtsebaan 51 at 9130 Verrebroek in Belgium, hereby confirms that AssemblyReel is designed and manufactured in Europe and in compliance with following European directives and harmonised norms:



Machinery Directive 2006/42/EC
Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EG
EN-ISO 12100
EN-ISO 13850

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Peter Van der Paal
Managing Director
Verrebroek, September 12th, 2012

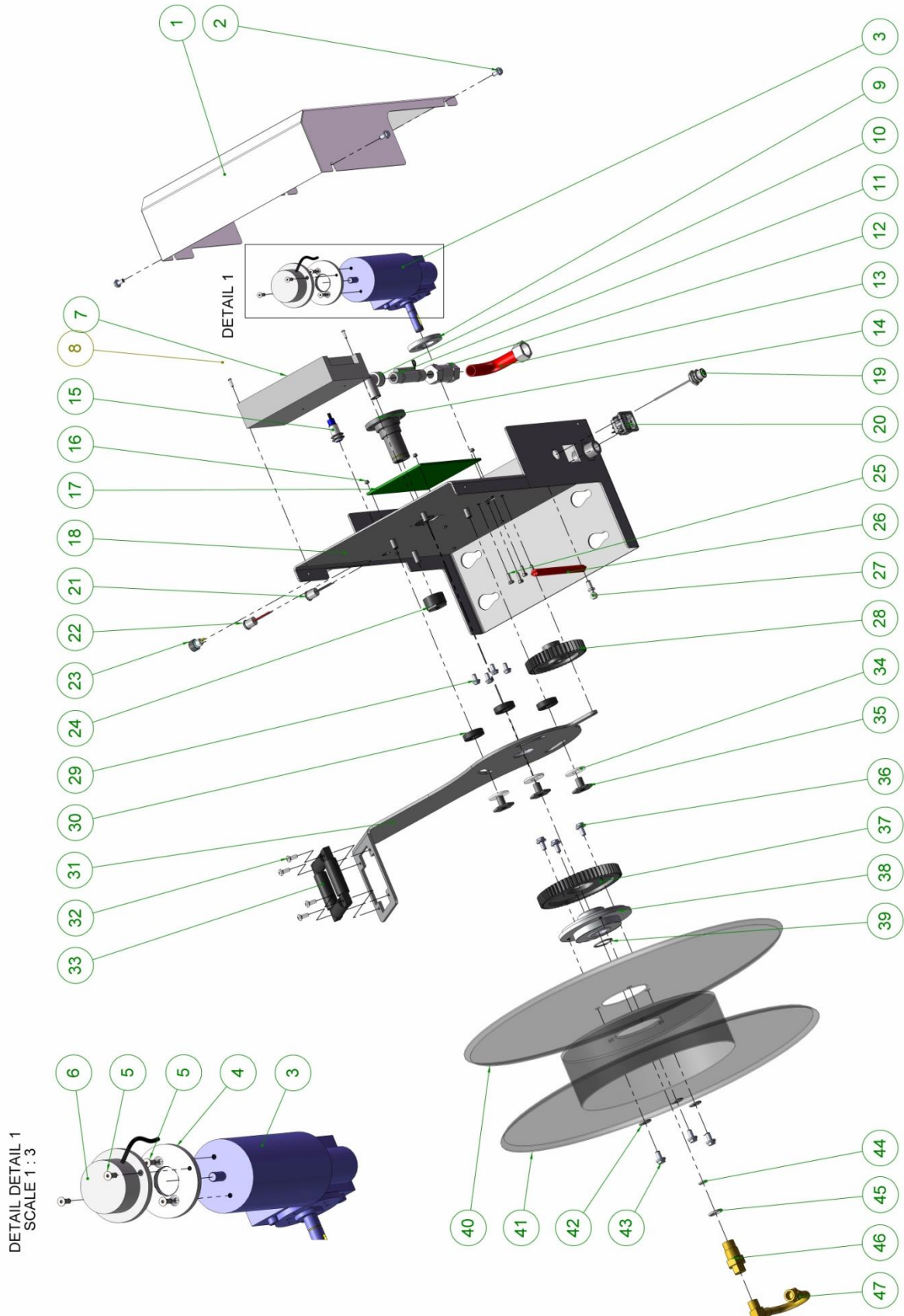
4 | GENERAL WARRANTY

ALPHA REEL bvba affirms its product confidence with the following warranty statement:

All component parts are to be free of defects in design, material and workmanship for 24 months from the date of shipment. This warranty does not include the hose and seals which are service items. During this warranty period ALPHA REEL bvba is liable to repair or replace the defective parts at its own expense.

The warranty does not cover damage caused by accident, abuse or faulty installation. Repairs or changes applied on ALPHA REEL products by third party without written authorization from ALPHA REEL bvba may render the warranty void.

5 | EXPLODED VIEW



6 | PARTS LIST

	#	reference	description
1	1	991.0105	AssemblyReel Cover
2	4	921.5027	Torx Bolt M5x8
3	1	965.0013	Motor Assembly
4	1	931.0633	Adaptor Disk Brake
5	4	921.5030	Torx Bolt M4x10
6	1	965.0159	Brake Assembly
7	1	977.0101	Power Module 220-230V
8	2	921.2022	Hex Socket Bolt M3x5
9	1	931.0634	Adaptor Disk Motor
10	1	944.0111	Elbow
11	1	974.0722	Flow Detection Module
12	1	943.0644	Non-return Valve
13	1	994.0241	Connection Hose Assembly
14	1	931.0454	Main Shaft
15	1	974.0012	Inductive Sensor
16	4	923.0114	Safety Nut M3
17	1	973.2012	Controller Board Assembly
18	1	991.0106	AssemblyReel Housing
19	1	997.0012	M12 Connector
20	1	997.0013	EIC-E14 Power Inlet incl. spare fuse
21	1	972.0812	Power On Indicator - Green
22	1	972.0813	Over Load Indicator - Red
23	1	972.0814	Speed Controller
24	1	992.0755	Impact Bumper
25	4	921.5026	Torx Bolt M4x16
26	1	937.0722	Impact Spring
27	1	921.9011	Ball Head Bolt M6
28	1	935.0016	Gear Wheel
29	1	921.5027	Torx Bolt M5x8
30	3	931.0584	Spacer
31	1	991.0107	AssemblyReel Guide Arm
32	4	921.5028	Torx Bolt M5x12
33	1	993.0331	Roller Guide Assembly
34	3	924.0014	Washer dia. 8x24
35	3	931.0583	Flat Head bolt M8x17
36	3	921.5029	Torx Bolt M6x12
37	1	935.0015	Gear Wheel
38	1	993.0333	Bearing
39	1	924.3014	Retainer Ring dia. 24

40	1	913.0017	AssemblyReel Drum Disk - Part A
41	1	913.0018	AssemblyReel Drum Disk - Part B
42	3	924.0013	Washer dia. 6x18
43	3	921.5029	Torx Bolt M6x12
44	1	948.0844	High Quality Seal – internal (PU)
45	1	948.0845	High Quality Seal - external
46	1	947.0373	Swivel Body Assembly
47	1	947.0375	Swivel Outlet Assembly, ½" BSPP/M

7 | ACCESSORIES

reference	description
64143 SRL 13001	RedFlex supply hose assembly, diameter 1/2" – 1 m (3 ft)
64231 SRL 10015	RedFlex hose assembly, diameter 3/8" – 15 m (50 ft)
64231 SRL 10020	RedFlex hose assembly, diameter 3/8" – 20 m (65 ft)
64231 SRL 13015	RedFlex hose assembly, diameter 1/2" – 15 m (50 ft)
55101 SAZ 00180	EasyFix pivoting wall bracket – 180°
55101 SAZ 00340	Pivoting ceiling bracket – 340°
55501 SAZ 00001	Compact work bench suitable for 1 AssemblyReel
55501 SAZ 00002	Compact work bench suitable for 2 AssemblyReels
55501 SAZ 00003	Compact work bench suitable for 3 AssemblyReels
55501 SAZ 00004	Compact work bench suitable for 4 AssemblyReels
55501 SAZ 00005	Compact work bench suitable for 5 AssemblyReels
55401 SAZ 00900	Column 900 mm height
55401 SAZ 02500	Column 2500 mm height
54204 KLL 31033	Ergonomic tool swivel 3/8" BSPT/M
54204 KLL 41043	Ergonomic tool swivel 1/2" BSPT/M
71201 CFC 03001	IEC power cord with CEE 7/7 plug – 1 m (3 ft)
71218 CFC 03001	IEC power cord with BS 1363 plug – 1 m (3 ft)
71211 CFC 03001	IEC power cord with NEMA 5-15 plug – 1 m (3 ft)
71200 CFC 03001	IEC power cord with free ends – 1 m (3 ft)

8 | TROUBLE SHOOTING GUIDE

problem	cause	solution
Power On LED does not come on	Malfunction power supply	Check power supply
		Check grounding
		Check fuse IEC connector
	Bad contact problem	Check all power wires between IEC connector and controller board
	Malfunction controller board	Check fuse on controller board
	Faulty controller board	Replace controller board
Brake does not let go	Bad contact problem	Check wires between brake and controller board
	Defective brake	Replace brake
	Malfunction controller board	Check fuse on controller board
	Faulty controller board	Replace controller board
Brake does not hold the tool	Bad contact problem	Check wires between brake and controller board
	Broken friction disk	Replace brake
Motor does not respond to short pulse on air tool	Length of start pulse too long	Try shorter pulse on air tool
	Length of start pulse too short	Adjust pulse length on controller board
	Malfunction controller board	Check fuse on controller board
	Faulty controller board	Replace controller board
Loss of air pressure on swivel assembly	Broken seal	Replace seal of swivel assembly
Procedures to replace components or to adjust parameters are available. Please contact manufacturer or local distributor for more information.		