

Local add on manual

**New Rolling Curtain
Configuration and mounting instructions**

Code No. 87-19-9550 EN

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Table of contents

1	General View of new rolling curtain	1
2	Technical Parameters	1
3	Component Part.....	2
3.1	Installation Profile	2
3.2	Transparent Curtain.....	3
3.3	Rolling Bar	3
3.4	Adapter.....	3
3.5	Steel Pipe.....	4
3.6	Support.....	4
3.7	Creeper	4
3.8	Winch Motor	5
3.9	Counter Weight	5
3.10	Wind Protection Rope (option)	6
3.11	Plastic Fence (option)	6
4	New rolling curtain calculation example	8
5	Assembly process	9
6	Wiring diagram of motor	12
7	Motor stroke adjustment.....	12

1 General View of new rolling curtain

New rolling curtain is new developed by Big Dutchman and mainly using for big tunnel air intake opening for livestock house.

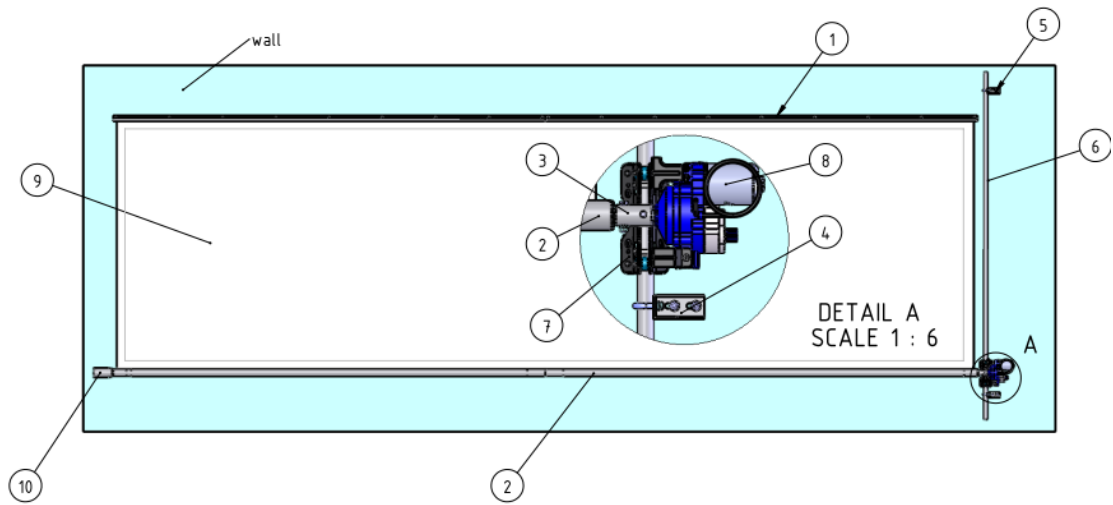


New rolling curtain is specially suitable for the livestock which has very limited space for installing the winch motor and transition equipment. Curtain is sewed on top and bottom edge with keder from factory, so it can be easily installed on site by sliding it into the groove of aluminum to profile and rolling profile. The new rolling curtain can be used on the concrete wall as well as the sandwich panel.

2 Technical Parameters

- Winch motor
Model: ERU-B2
Rated Voltage: DC 24V
Rated Power: 100W
Rated revolution: 3.6r/min
Rated torque: 100N.m

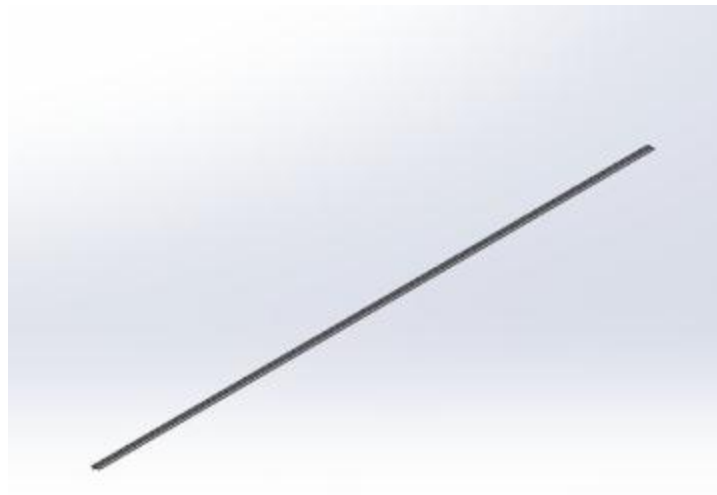
3 Component Part



Layout for rolling curtain

3.1 Installation Profile

Using for Curtain. Every piece is 3m long.



Pos.	Code No.	Description	Unit
1	87-01-0643	Fixed cadour bar for curtain 3mtr cpl.	pc

3.2 Transparent Curtain

Totally 5 size are available. 1,75m, 2,02m, 2,32m, 1,44m and 1,11m.

Pos.	Code No.	Description	Unit
9	87-01-1015	Curtain,clear 1.75m,w/keder 6.5mm both sides	mtr
	87-01-1066	Curtain,clear 2.02m,w/keder 6.5mm both sides	mtr
	87-01-1067	Curtain,clear 2.32m,w/keder 6.5mm both sides	mtr
	87-01-0998	Curtain,clear 1.44m,w/keder 6.5mm both sides	mtr
	87-01-1069	Curtain,clear 1.11m w/keder 6.5mm both sides	mtr

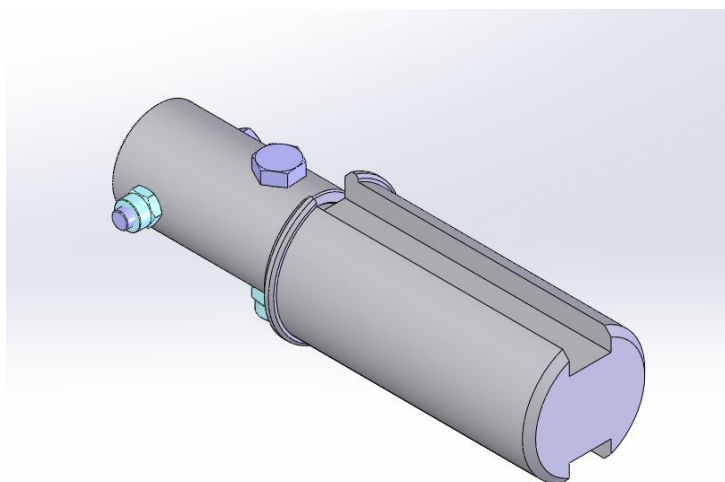
3.3 Rolling Bar

Using for Curtain. Every piece is 3 meter long.

Pos.	Code No.	Description	Unit
2	87-01-0644	Rolling bar for curtain 1-groove 3mtr cpl.	pc

3.4 Adapter

Each winch motor should be configured with one adapter.



Pos.	Code No.	Description	Unit
3	87-01-0646	Adapter for rolling curtain cpl.	pc

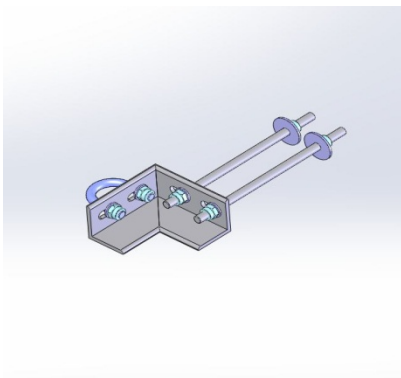
3.5 Steel Pipe

3/4", 2mm thick, 6 meter long, galvanized material. Cut on site, waste need to be kept in mind.

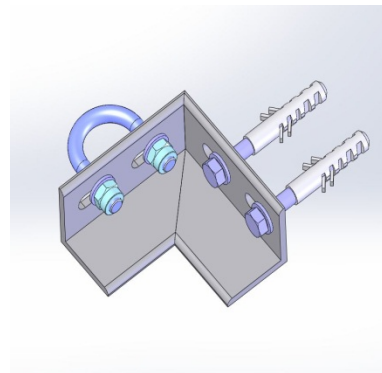
Pos.	Code No.	Description	Unit
6	87-19-1571	Steel pipe 3/4",2mm thick, L=6mtr galv.	pc

3.6 Support

Using for creeper. It can be fixed on concrete wall and sandwich panel wall. During quotation the correct wall type must be selected. Each winch motor needs to be configured 2 pieces supports.



for sandwich panel



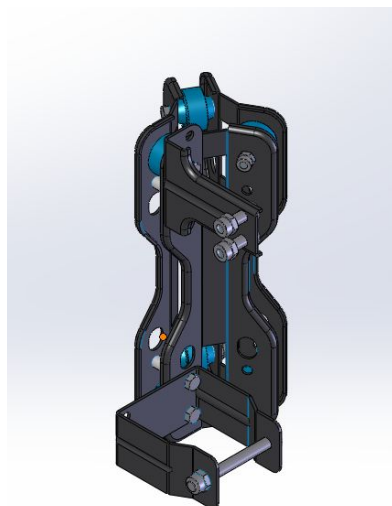
support for concrete wall

support

Pos.	Code No.	Description	Unit
4	87-01-0647	Support for 3/4" pipe for creeper cpl. fixed on concrete	pc
5	87-01-0648	Support for 3/4" pipe for creeper cpl. fixed on sandwich pan	pc

3.7 Creeper

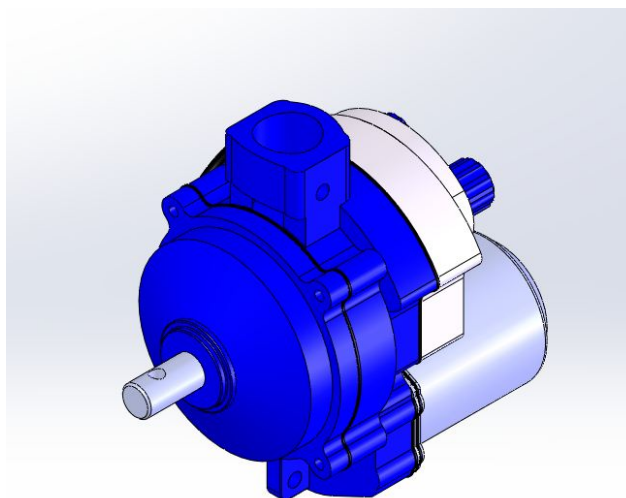
Using for ERU-B motor. Each winch motor needs to be configured one creeper.



Pos.	Code No.	Description	Unit
7	87-01-0645	Creeper for ERU-B motor, 3/4" pipe cpl.	pc

3.8 Winch Motor

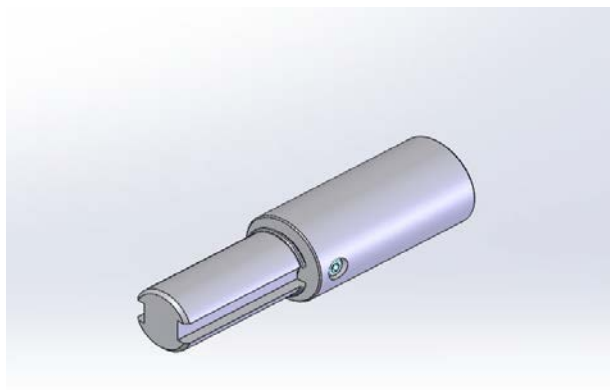
One Winch motor can only be used for one rolling curtain system.



Pos.	Code No.	Description	Unit
8	87-01-0416	Winch motor 1-axle 24V DC ERU-B2 100N.m 3.6r/min 100W	pc

3.9 Counter Weight

If the curtain is shorter than 15m, the counter weight is necessary to keep the rolling bar in level. Technician needs to adjust this counter weight on site.



Pos.	Code No.	Description	Unit
10	87-01-0651	Counter weight for rolling curtain cpl.	pc

3.10 Wind Protection Cord and hook (option)

- Expansion anchor hook

It should be configured double of curtain length roughly.

Code No.	Description	Unit
87-19-0806	Expansion anchor hook 6x80	pc

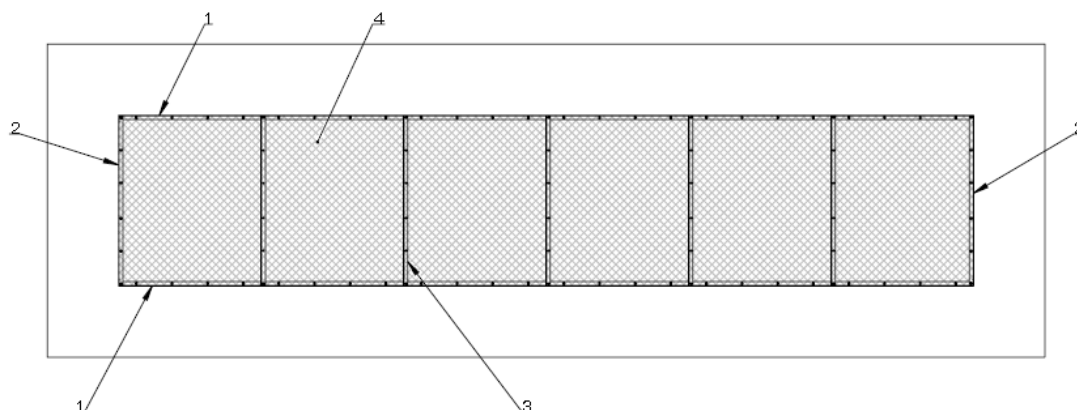
- Suspension cord

It should be configured triple of curtain length roughly.

Code No.	Description	Unit
87-19-0801	Suspension cord 5mm PES white	mtr

3.11 Plastic Fence (option)

We recommend installing plastic fence behind the rolling curtain to avoid curtain is sucked inside the house and increase resistance to the movement of curtain. It can also prevent birds enter the house.



- Frame of plastic fence(1)
Calculate according to the total length.

Pos.	Code No.	Description	Unit
1	87-00-9020	Frame for plastic mesh guard, L=3mtr cpl.	pc

- Frame of plastic fence(2)
Choose according to opening height.

Pos.	Code No.	Description	Unit
2	87-00-9022	Frame for plastic mesh guard L=1.2mtr cpl.	pc
	87-00-9030	Frame for plastic mesh guard L=1.5mtr cpl	pc
	87-00-9034	Frame for plastic mesh guard L=1.8mtr cpl.	pc
	87-00-9595	Frame for plastic mesh guard L=2mtr cpl	pc

- Reinforced support of plastic fence
Choose according to opening height. The max. span is 1mtr.

Pos.	Code No.	Description	Unit
3	87-00-9024	Reinforced support for plastic mesh guard L=1.2mtr cpl.	pc
	87-00-9032	Reinforced support for plastic mesh guard , L=1.5mtr cpl.	pc
	87-00-9036	Reinforced support for plastic mesh guard ,L=1.8mtr cpl.	pc
	87-00-9596	Reinforced support for plastic mesh gurad , L=2mtr cpl.	pc

- Black plastic net
Choose according to opening height.

Pos.	Code No.	Description	Unit
4	87-01-0922	Plastic net black H=1.2mtr hole 1.2 cm	mtr
	87-01-0923	Plastic net black H=1.5mtr hole 1.5cm	mtr
	87-01-0924	Plastic net black H=1.8mtr hole 1.8cm	mtr
	87-01-0925	Plastic net black H=2mtr hole 2cm	mtr

4 New rolling curtain calculation example

A house is designed with double tunnel openings by rolling curtain. Each wall opening is 2mtr high and 12mtr long. The lower wall is concrete and sandwich panel from concrete wall to the roof.

Calculation of installation profile

Each system is 12mtr long. There are two systems. $12\text{mtr} \times 2 = 24\text{mtr} \Rightarrow 8\text{pcs}$

Calculation of rolling bar

Each system is 12mtr long. There are two systems. $12\text{mtr} \times 2 = 24\text{mtr} \Rightarrow 8\text{pcs}$

Calculation of adapter

Each system should be configured one adapter. $1 \times 2 \Rightarrow 2\text{pcs}$

Calculation of support

Each system needs 2 supports. The lower wall is concrete. From concrete wall to the roof is sandwich panel.

Support for concrete wall: $1 \times 2 \Rightarrow 2\text{pcs}$

Support for sandwich panel wall: $1 \times 2 \Rightarrow 2\text{pcs}$

Calculation of steel pipe

Each system needs 2mtr (Waste needs to be considered). $2 \times 2\text{mtr} = 4\text{mtr} \Rightarrow 1\text{pc}$

Calculation of creeper

Each system needs one creeper. $1 \times 2 = 2\text{pcs}$

Calculation of winch motor

Each system should be configured one winch motor. $1 \times 2 \Rightarrow 2\text{pcs}$

Calculation of transparent curtain

Opening height is 1.5mtr. 1.75mtr size should be chosen.

$12 \times 2 = 24\text{mtr}$ 2mtr more should be configured $\Rightarrow 26\text{mtr}$

Calculation of counter weight

As the length of opening is less than 15mtr. Counter weight should be used for each system.

$1 \times 2 \Rightarrow 2\text{pcs}$

Calculation of wind protection

1) Expansion anchor hook

It should be configured double of curtain length roughly. $12 \times 2 \times 2 \Rightarrow 48\text{pcs}$

2) Suspension cord

It should be configured triple of curtain length roughly. $12 \times 3 \times 2 \Rightarrow 72\text{mtr}$

Calculation of plastic fence

1) Frame of plastic fence1:

Frame of plastic fence 1 needs to be calculated according to the length of opening. One piece of frame is 3mtr long. The opening length is 12mtr. There are 2 openings. Frames are 2 sets for top and bottom.

$$12*2*2=48\text{mtr } 48\text{mtr}/3\text{mtr}=>16\text{pcs}$$

2) Frame of plastic fence2:

Height of opening is 1.5mtr. 1.5mtr frame should be chosen. $1*2*2=>4\text{pcs}$

3) Reinforced support of plastic fence:

Choose according to opening height. The max. span is 1mtr. 1.5 reinforced support should be chosen. Each opening needs 11 pcs. $11*2=>22\text{pcs}$

4) Black plastic net

1.5mtr black plastic net should be chosen. Total 24mtr.

Code No	Description	Unit	Quantity
87-01-0643	Fixed cador bar for curtain 3mtr cpl.	pc	8
87-01-0644	Rolling bar for curtain 1-groove 3mtr cpl.	pc	8
87-01-0646	Adapter for rolling curtain cpl.	pc	2
87-01-0647	Support for 3/4" pipe for creeper cpl. fixed on concrete	pc	2
87-01-0648	Support for 3/4" pipe for creeper cpl. fixed on sandwich pan	pc	2
87-19-1571	Steel pipe 3/4", 2mm thick, L=6 mtr galv.	pc	1
87-01-0645	Creeper for ERU-B motor, 3/4" pipe cpl.	pc	2
87-01-0416	Winch motor 1-axle 24V DC ERU-B2 100N.m 3.6r/min 100W	pc	2
87-01-1015	Curtain, clear 1.5m, w/keder 6.5mm both sides	mtr	26
87-01-0651	Counter weight for rolling curtain cpl.	pc	2
87-19-0806	Expansion anchor hook 6x80	pc	48
87-19-0801	Suspension cord 5mm PES white	mtr	72
87-00-9020	Frame for plastic mesh guard, L=3mtr cpl.	pc	16
87-00-9030	Frame for plastic mesh guard L=1.5mtr cpl.	pc	4
87-00-9032	Reinforced support for plastic mesh guard L=1.5mtr cpl.	pc	22
87-01-0923	Plastic net black H=1.5 mtr hole 1.5 cm	mtr	24

5 Assembly process

- 1) Curtain installation: Fix the curtain on the corresponding position of the wall by the installation profile. And push the rolling bar into the curtain fix bar.



- 2) Position and install the support of steel pipe for creeper according to the position of curtain. Then install the steel pipe.
- 3) Install the creeper on the motor. And push the steel pipe into the motor with creeper.



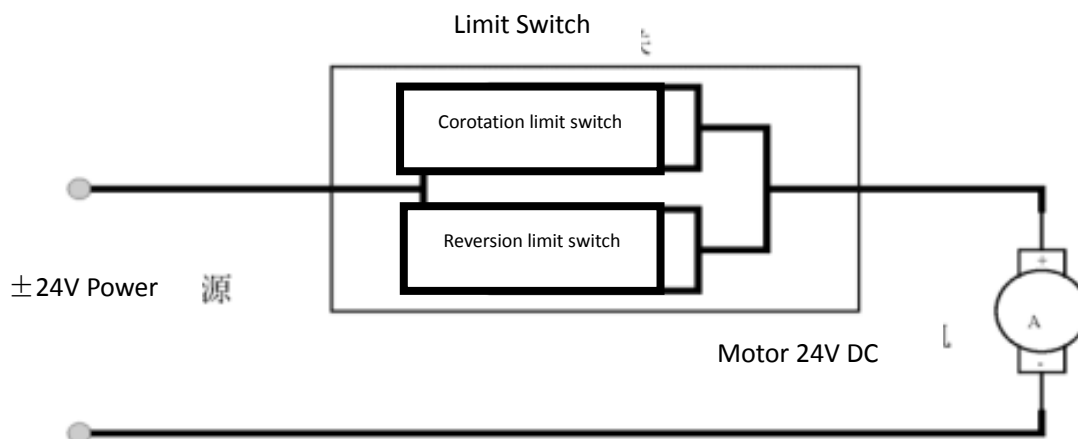
- 4) Preroll the curtain few circles in order to keep the rolling bar and the curtain rolling tightly and during the operation the curtain can be rolled horizontally.



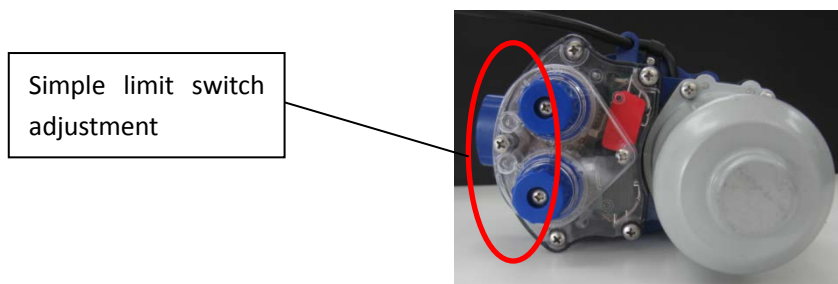
5) Connect motor and rolling bar with adapter.



6 Wiring diagram of motor



7 Motor stroke adjustment



Adjustment methode of ERU-B motor stroke:

- 1) Connect the red line of motor with red line of winch. Also blue line with blue line.
- 2) Set the power switch of DC motor to the "OFF". Turn on the power supply.
- 3) Set the power switch to the "FORWARD" and the output shaft will contrarotate (View from the front of output shaft). Adjust the left adjusting button (see picture below) on the back side of winch so that the bulge of left adjusting ring gear presses on the contact of microswitch (you can heard click). The motor stop running.
- 4) Set the power switch to the "BACKWARD" and the output shaft will rotate clockwise. Adjust the right adjusting button (see picture below) on the back side of winch so that the bulge of right adjusting ring gear presses on the contact of microswitch (you can heard click). The motor stop running.
- 5) Set the motor power switch to "STOP". Winch stops. Power shut off.
- 6) Set switch on "FORWARD" (or "BACKWORD") position and restart the motor. If the output shaft doesn't rotate, it means that the winch is in "process terminates". At this time turn the switch to "BACHWARD" (or "FORWARD") and the output shaft of motor will rotate clockwise (or contrarotate) or adjust left(or right) adjusting button slightly.
- 7) Repeat the method described above several times until motor stroke (top and bottom dead center) is suitable. Tighten the lock screw. The screw should be loosen firstly before adjusting next time.

