

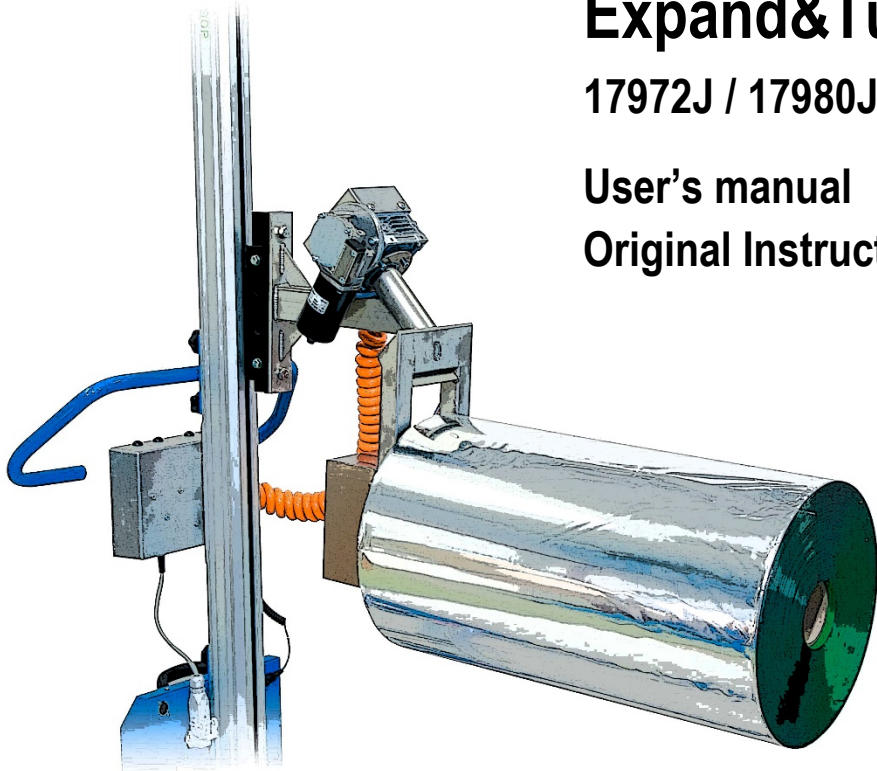


Expand&Turn

17972J / 17980J

User's manual

Original Instructions



It is important that you read and understand this manual before the attachment is used.
Questions? – Contact your supplier or the manufacturer.

Pronomic AB

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1 Description of the attachment Expand&Turn

The Expand&Turn is designed to lift rolls by the core and then turn them, for example to feed into machines. The roll is gripped in the core by an expander that is controlled electrically from the control box by the handle (Lift & Drive). Distinct light signals indicate whether the expander is activated or not. To prevent accidental unloading the roll is freed by a two hand grip. When the reel is gripped it is rotated steplessly by a joystick and can be positioned vertically or horizontally. The expander is equipped with small rollers on the top side to aid the unloading of heavier reels.

The attachment is available in two different versions:

17972-Expand&turn, 60kg, electrical turn

17980-Expand&turn, 110kg, electrical turn, only for Lift & Drive model 175P-225P

The attachments' max load is determined by the model of lift trolley (Lift & Drive) and the length of the roll. See section 8 "Technical data" for further information.

The attachments are only intended to be used with Pronomic AB's Lift & Drive lift trolleys.

They are only to be used indoors in well-lit environments on level floors.

Additional technical documentation can be ordered from Pronomic AB.

1.1 Warranty

The warranty applies for one (1) year from the date of delivery for material- and manufacturing errors. For the warranty to apply, maintenance should be carried out according to instructions. This warranty does not cover normal maintenance, settings or regular adjustments. Neither will labour costs from such measures be covered by the warranty. Damages caused by abuse or improper use of the equipment will also void the warranty.

2 Assembly

When mounting the attachment, protective shoes should be worn, as the parts can cause injury if dropped.

Attach the tool to the lift trolleys slide on the front of the column. Use the fasteners provided with the tool.

Mount the control box using the screw bars, nuts and washer. Slide the control box from the top into the tracks on the backside of the column. Tighten the nuts. If the control box is mounted beneath the lift trolley handle the handle needs to be removed before the control box can be mounted on the column.

Connect the control box to the “power out” socket on the lift trolley power pack.

2.1 Disassembly and scrapping

When scrapping the attachment and control box (17972 and 17980) should be sent to a recycling center or Pronomic to guarantee recycling and safe handling of all the consisting parts of the tool.

3 Use

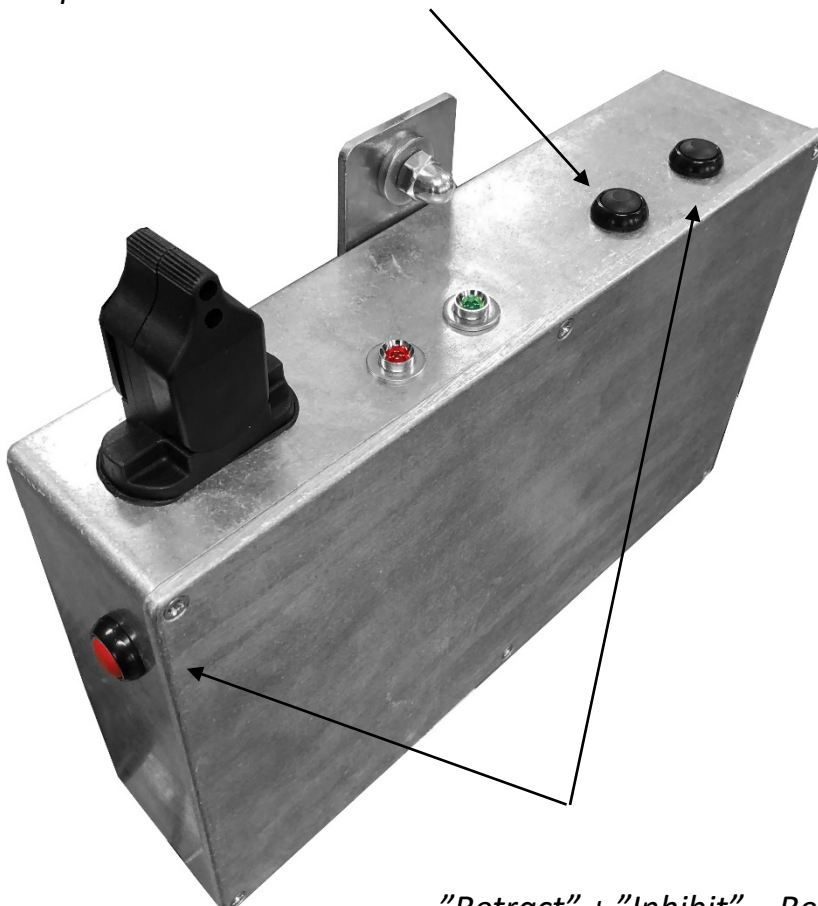
3.1 Lift and rotate rolls

If the tool is not activated (no light signals visible) activate by simultaneously press *“Retract”* and *“Inhibit”* positioned on the left side of the control box.

When lifting a roll the expander core is inserted as far into the roll as possible and then the roll is locked by pushing the *“Expand”* button. The core expands and the roll is locked, the green light comes on indicating that lifting is safe. The roll can now be lifted and turned 90 degrees to the front using the remote control and joystick. To release the roll simultaneously press the *“Retract”* and *“Inhibit”* button. The green light starts blinking and the expander can be removed from the roll center.

Always rotate the roll to a horizontal position when transporting the roll.

“Expand” – Lock the roll



“Retract” + “Inhibit” – Release the roll

“Retract” + “Inhibit” – Activate the tool

3.2 Timer functions

The compressor and the lift trolleys batteries are protected by the following timer functions:

- If the tool is left in expanded mode for more than 30 minutes a sound alarm will activate. Lower and release the roll to turn of the alarm.
- If the tool is left in retracted mode for more than 30 minutes the tool will enter sleep mode to save battery.
- If the compressor duty cycle is exceeded (20%, max 30 seconds) an alarm will activate. Turn of the sound alarm by simultaneously pressing “retract” and “inhibit. The flashing lights will continue until the compressor has cooled off. The green light blinking indicates that the tool is ready for use. This protect the compressor from overheating in case of air leakage.

For reoccurring faults, please see chapter 5.3.

4 Safety

The operator should use the personal safety equipment (e.g. protective shoes) that handling the specific goods requires.

Stated maximum load must not be exceeded.

Be aware of the risk of crushing present between the attachment and the trolleys legs or the floor when raising or lowering the load. Avoid putting hands or other parts of your body under the load.

4.1 Storage and transport

When storing or transporting the trolley the remote control, motor cable and power cable to the control box should be disconnected.

If the attachment is attached to a trolley when transported, the trolley should be carefully tied down to minimize the tipping risk.

If the attachment is transported separately it should be carefully packed to protect the expander and control box.

4.2 Moving

The attachment should always be lowered to the lowest possible position before moving the trolley to have the safest and most stable handling possible. Be cautious when passing thresholds, cables and other objects on the floor.

When moving heavy loads the handling can be easier if the directional lock is applied on the trolley (Lift & Drive).

4.3 Loading and unloading

The operator is responsible for the correct use of the attachment.

Do not place any parts of your body under the load when lowering the load.

5 Maintenance

5.1 Every day

Wipe the attachment clean if it is dirty. Do not use water or pressure washers.

5.2 Every month, or as needed

Check the screws on the rod holding the expander blocks in place. These need to be tightened if needed or if the machine has not been used for some time. Torque 12Nm.

Check that the attachment is not leaking. This is done by pressing the “Expand” button. It is normal that pressurized air is added to the expander with a few seconds interval to keep the pressure at the correct level. If the compressor is running continually you should contact your dealer or Pronomic AB.

Check the functions of the control box and that the indicator lights work properly (see Use)

Check that the bolts holding the attachment to the mast are correctly tightened.

Check all electrical connections and replace damaged or worn parts.

Check the rubber grips holding the roll. If the rubber surfaces are worn down replace the part. See chapter 7 – Spare parts.

5.3 Signs and decals

Check that the following signs and decals are attached and are fully legible.

Sign/decals	Description	Placement
Unit designation	Decal with serial number	One decal on the control box and one decal on the attachment
Instruction decal	Decal instructing the operator	Front of the control box
Max load	Max load of the attachment	Back of the attachment

5.4 Troubleshooting

5.4.1 Air leakage

The tool is equipped with a timer to prevent damage to the compressor. The compressor can only run for 30seconds before the timer shuts it down. If the alarm is activated the tool needs to cool off. It can take several minutes for the tool to reach the limit. The sound alarm can be turned off instantly by simultaneously pressing “retract” and “expand” buttons. The flashing light will continue until the compressor is cooled off.

A reason for leakage can be the air hoses inside the expander core. The crews keeping them and the expander blocks in place can if needed be tightened to 12Nm.

If the tool continues to leak air please contact your local dealer or PRONOMIC AB.

If the air hoses needs replacing please see chapter 7 – Spare parts.

5.4.2 Other faults

Symptoms		To do	
1	The turn function does not work.	A	Check the battery voltage which should be 24 volt.
		B	Make sure the connections with motor are intact.
		C	Make sure the connections from the power pack to the motor control box are intact.
2	The turn plate does not turn, but the motor works.	A	See above under heading Symptom, section 1.
		B	Make sure nothing is stuck.
3	The turn function is slow.	A	See above, 1A
4	Unnatural noise while turning	A	See above, 2B
5	The compressor does not start.	A	Check the 10A fuse between circuit board and compressor. The fuse is located inside the control box.
		B	See above 1A and 1C
		C	Make sure the connections from the control box to the compressor are intact.

Other troubles – see the manual for your Lift & Drive trolley.

If the problem persists after this, contact your local dealer or Pronomic AB.

6 Technical data

Model designation	17972 electrical turn	17980 electrical turn
Max load	60 kg	110 kg

For larger rolls the max load is also influenced by the length of the roll. See diagram for allowed max load for different roll lengths.

For additional technical data see the manual for your Lift & Drive trolley.

Nominal battery voltage	24 V DC
Noise level	Noise level not exceeding 70 dB(A)
Vibrations	Vibrations level not exceeding 2,5 m/s ²
Duty cycle (compressor)	20%, max 30 seconds.

7 Spare parts

7.1 *Relevant spare parts*

17970A-03-02	Rubber Expander block
17970B-03-01	Air hose

For other spare parts please contact your supplier or Pronomic AB.

7.2 *Replacing 17970A-03-02 or/and 17970B-03-01*

When replacing 17970A-03-02 position the rod horizontally and unplug the chord running from the expander control box to the power pack.

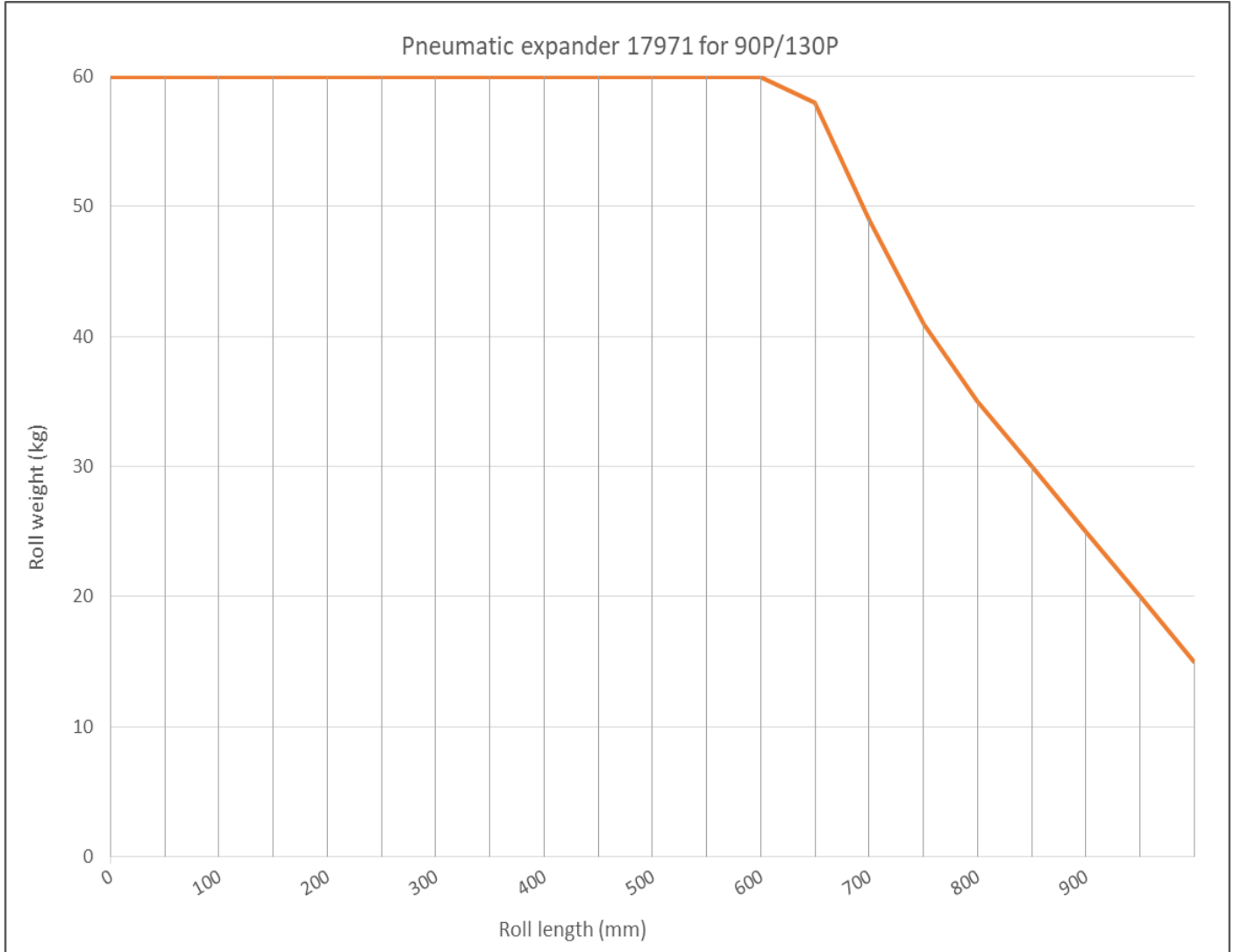
1. Remove the bolt at end of the expander block.
2. Slide out the block keeping the expander block in place.
3. Slide out and replace the expander block. Be sure the air hose runs flat inside of the track when replacing the parts. Replace hose if damaged.
4. Slide in the block keeping the expander block in place. Make sure the screw can run through the hole in the block and in the hose.
5. Fastened the screw (12Nm) and reconnect the expander control box to the power pack.
6. Test run and confirm that the expander blocks are expanding and no air leaks uncontrolled.

8 Roll dimensions

8.1 Pneumatic expander model 17971

Roll weight (kg)

Roll length (mm)



8.2 Pneumatisk expander modell 17980

Weight roll = Roll weight in kg

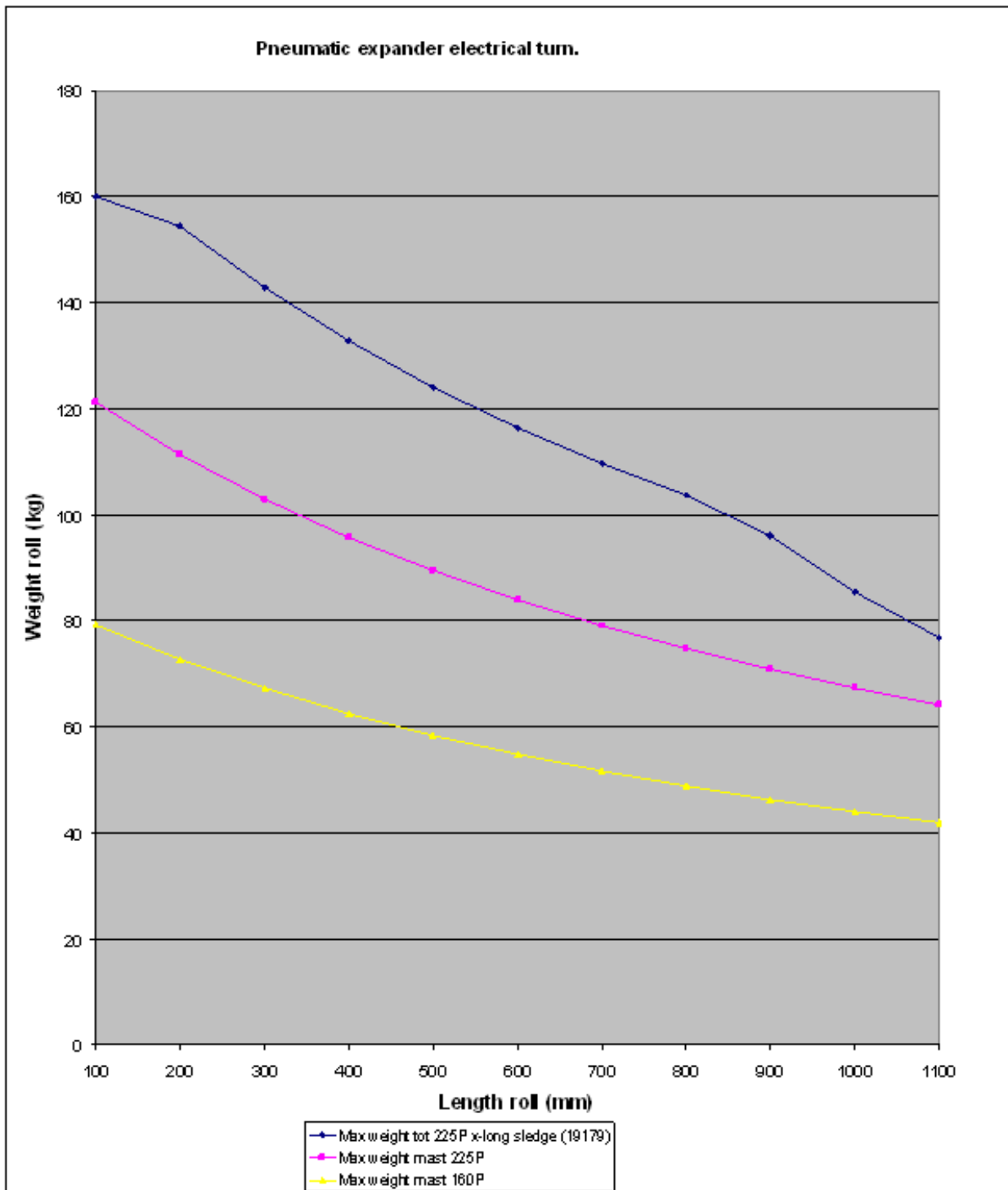
Length roll = Roll length in mm

Blue graph: Lift & Drive 225P with extra long slide.

Pink graph: Lift & Drive 225P

Yellow graph: Lift & Drive 175P

Contact your dealer or Pronomic AB if you have questions.



9 Approved attachments for Lift & Drive trolleys

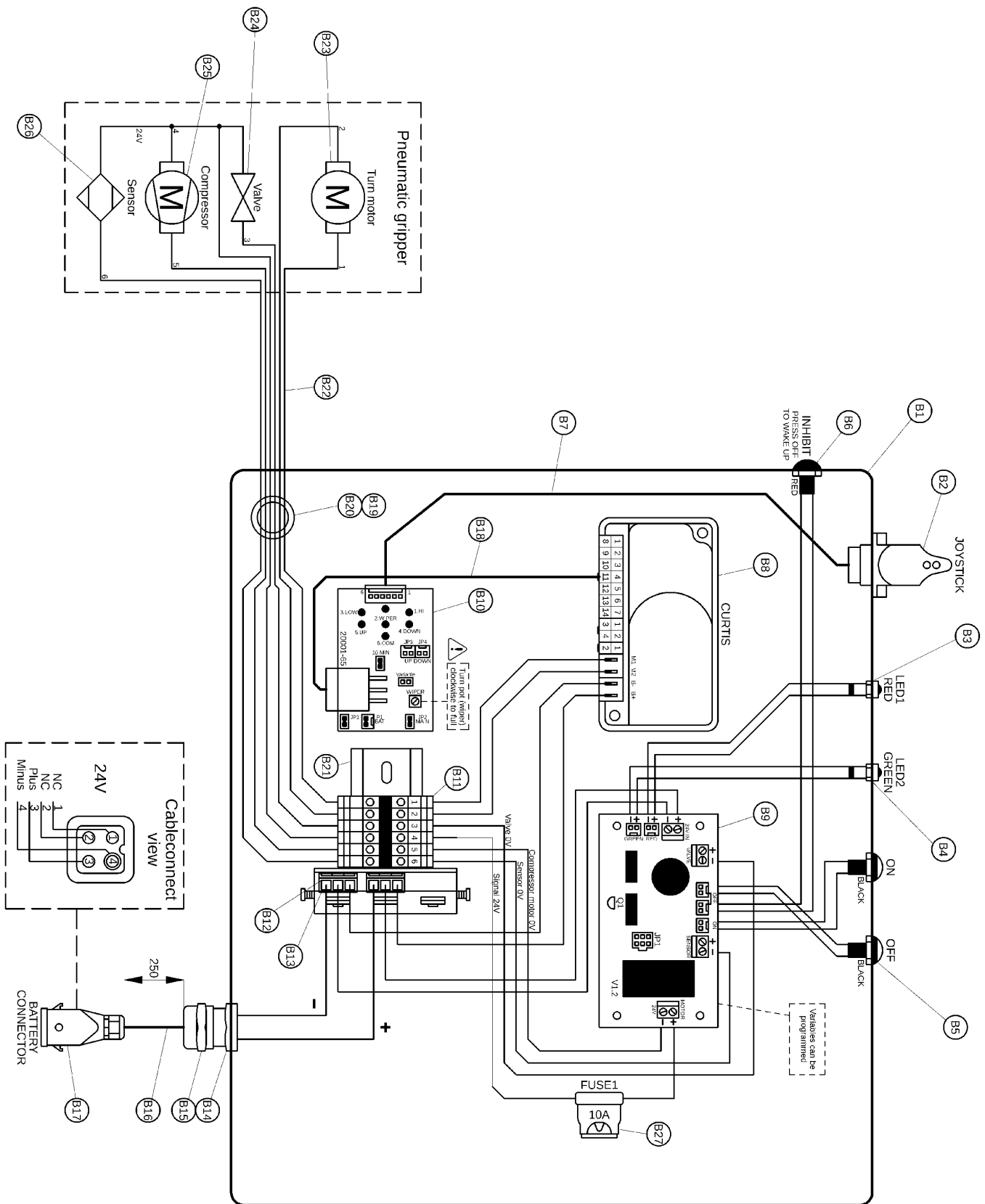
17972- Expand&Turn, 60kg, Electric turn

17980- Expand&Turn, 110kg, Electric turn

	70E	90E	90E	90E	90P	130P	175P	225P
15012	x	x	x	x	x	x		
15013	x	x	x	x	x	x	x	x
15014	x	x	x	x	x	x	x	x
15015	x	x	x	x	x	x	x	x
15016	x	x	x	x	x	x	x	x
15017	x	x	x	x	x	x	x	x
15018			x	x				
15019	x	x	x	x	x	x		
15024	x	x						
15080	x	x						
15322			x	x				
15324			x	x				
15338			x	x				
15339			x	x				
15370-15372			x					
16020			x	x				
16038			x	x				
16338			x	x				
17182A					x	x		
17229	x	x	x	x	x	x		
17230	x	x	x	x	x	x		
17230A	x	x	x	x	x	x		
17233	x	x	x	x	x	x		
17241	x	x	x	x	x	x		
17710	x	x	x	x	x	x		
17720	x	x	x	x	x	x		
17730	x	x	x	x	x	x		
17740	x	x	x	x	x	x		
17940			x		x	x		
17950					x	x		
17971					x	x		
17972					x	x		
17980							x	x
19174							x	x
19201							x	x
19271							x	
19285							x	x
19470			x	x	x	x		
19471			x	x	x	x		
19472					x	x	x	x
19473			x	x	x	x		
19474					x	x	x	x
19475							x	x
19476							x	x
19477							x	x
19478							x	x
19480							x	x
19510							x	x
19980							x	x
20022			x	x	x	x		
20205A-10			x	x	x	x		
20080A	x	x	x	x	x	x		
21851-21854	x	x	x	x	x	x		

10 Electrical and pneumatic schematics

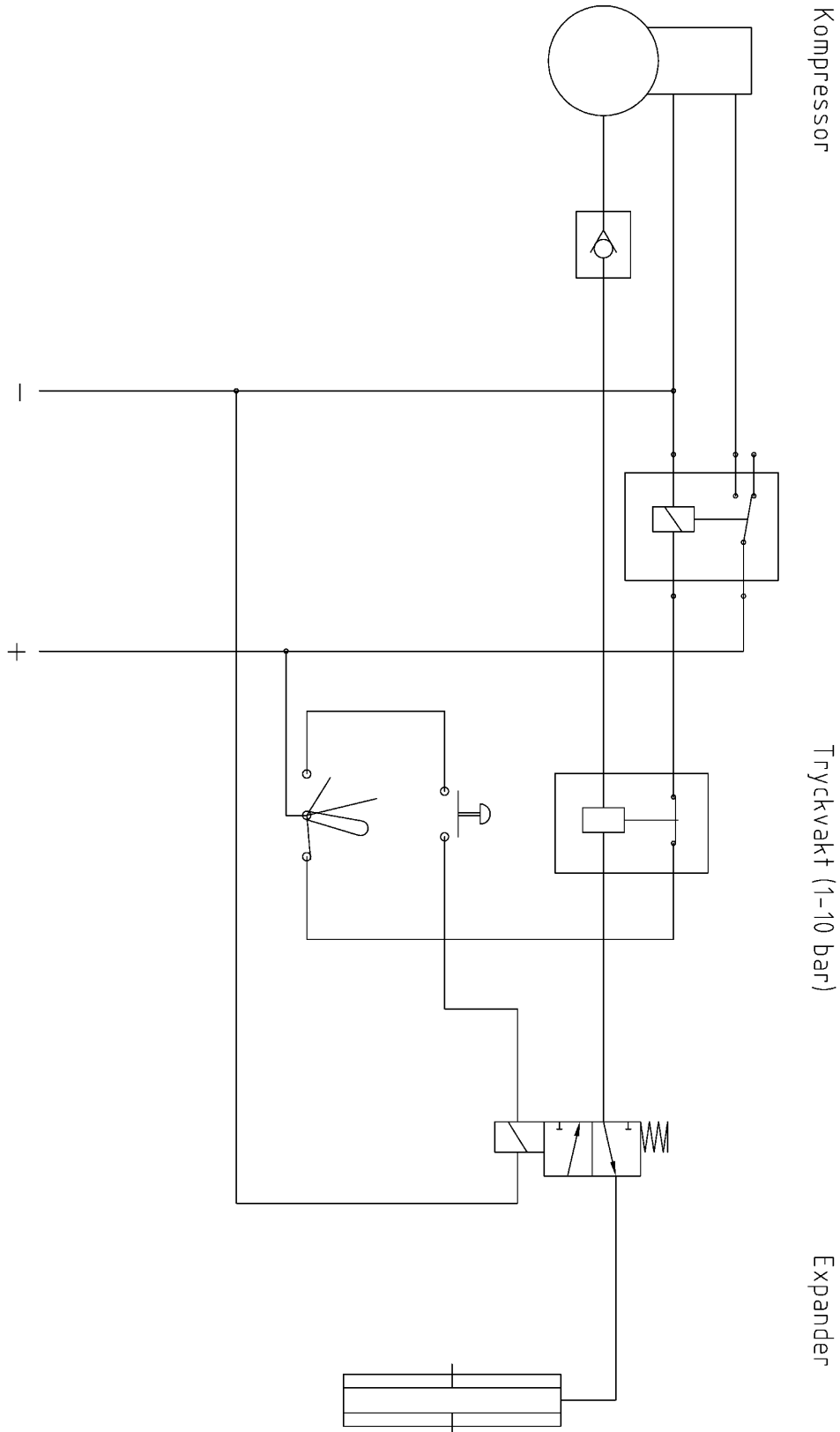
10.1 Electrical schematics



10.2 Electrical schematics parts

B	Qty	Pronomic artnr	ELFA artnr	Description
1	1	17717		Aluminiumbox 275x175x65
2	1	20001-29		Joystick JC120-0002
3	1	17950-106		LED red
4	1	17950-107		LED green
5	2	17145A		Pushbutton black, with cables
6	1	17120A		Pushbutton red, with cables
7	1	20001-30		Joystick cable set JC120-0002
8	1	220007		Curtis 1212
9	1	17970-41PROG		Pneumatic Exp&Turn PCB V1.2
10	1	20001-65		PCB stepless 20001-65
11	6	19297-16	148-28-307	Weidmüller plints
12	1	220028	300-93-166	WAGO 221-500 mounting holder
13	2	220030	300-01-962	Wago 221-413 - 3-pol
14	1	20016		Cable gland, PG11
15	1	20017		Cable gland nut, PG11
16	1	20055		Battery cable 4x1,5 round shielded
17	1	17270-10		Connector CKM-03
18	1	220008		Curtis cable set
19	1	19165		Cable gland, PG13,5
20	1	19165-01		Cable gland nut, PG13,5
21	0,17	19293-01		DIN rail 35mm for Weidmüller
22	1	17970-36		Spiral cable 6-pol
23	1			Turn motor
24	1	17970-11		Valve
25	1	17970-21		Compressor
26	1	17970-23		Sensor
27	1			Fuse 10A

10.3 Pneumatic schematics for all models



Declaration of incorporation of partly completed machine

ORIGINAL

(in accordance with 2006/42/EC, Annex II 1B)

Manufacturer	PRONOMIC AB Box 5504 192 05 Sollentuna
Model designation	Pneumatic expander <input type="checkbox"/> 17972J <input type="checkbox"/> 17974J <input type="checkbox"/> 17980J
Serial number	

Authorized to compile the technical file	Samuel Pierre, Pronomic AB, BOX 5504, 192 05 Sollentuna
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Applied EC directives:


2006/42/EC	Machinery Directive
2014/30/EU	EMC Directive

Applied standards:

SS-EN ISO 12100: 2010	Safety of machinery - General principles for design – Risk assessment and risk reduction (ISO 12100:2010)
SS-EN 349+A1: 2008	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body

We hereby declare that the above-referenced machine, built and equipped with attachments included in this manual, is in conformity with the applicable conditions stated in the directives and standards.

Sollentuna, 2019-04-16


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Joakim Stannow, PRONOMIC AB

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