

# PULL LINE BLOWER



# EZ.100

*by zeitler.swiss*

## OPERATING INSTRUCTIONS



## Production and Distribution

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Dear Customer

Thank you for choosing a quality engineered ZEITLER product.

Our machines are built using modern production techniques and comprehensive quality assurance. Every effort has been made to ensure your satisfaction and trouble-free use of the machine.

Please contact either your dealer or us for any queries concerning your EZ100.

ZEITLER AG  
Markus Zeitler



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## 1. Important Instructions

Congratulations on your purchase of an EZ100 Pull Line Blower which is a product of the highest quality. The following instructions must be observed without fail and relevant regulations complied with, in order to guarantee the product remains functionally efficient and has a long service life.

As with all electrical equipment, when using this Pull Line Blower, particular care must be taken to avoid personal injury and damage to equipment.

## 2. Safety Precautions and Working Techniques



Special safety precautions must be observed when working with an electrical tool.



It is important you read and understand the operating instructions before using your machine for the first time. Always keep the Operating Instructions with the EZ100 for future reference. Non-observance of the safety precautions may result in serious or even fatal injury.

Observe all application such as local safety regulations, standards and ordinances of for example Government, Insurances, Associations etc.

If you have not used this type of power tool before: Have your dealer or other experienced user show you how to operate your power tool properly.

Minors should never be allowed to use this machine except for minors of more than 16 years and being trained under supervision during their apprentice.

Bystanders, especially children, and animals should not be allowed in the area where this machine is in use.

Inform all people present on possible dangers.

When the machine is not in use, disconnect the mains plug and place it so that it does not endanger others. Secure it against unauthorized use.

The user of the unit is responsible for avoiding injury to third parties or damage to their property.

Do not lend or rent your machine without the operating instructions. Be sure that anyone using the EZ100 understands the information contained in the operating instructions.

In some countries the operation of noise emitting electrical tools is restricted by local regulations. Observe country specific requirements and regulations.

## Special Safety Regulations

The Pull Line Blower requires electricity for it to operate, which is supplied via the mains plug. The device must never be used with an extension cable. The required power supply depends on the country of operation – please check the type plate on the unit for the minimum prescribed fuse value in the socket. Use socket with an earth leakage circuit breaker!

Arrange the mains cable in such a way that it does not create a tripping hazard.

## Safety equipment

The **EZ-100** Pull Line Blower is equipped with an integrated thermal safety switch.

## Accessories and Spare Parts

Only use genuine replacement parts and accessories that are explicitly approved for the EZ100 by ZEITLER AG. These parts are specifically designed to match your machine model and meet your performance requirements and also to avoid the risk of accidents and damage to the machine. If you have any question in this respect, consult an authorized servicing dealer.

Never attempt to modify your tool in any way since this will increase the risk of personal injury.

ZEITLER AG excludes all liability for personal injury and damage to property caused while using unauthorized attachments.

## Engineering improvement

ZEITLER's philosophy is to continually improve all of their products. For this reason, we may modify the design, engineering and appearance of our products periodically.

Therefore, some changes, modifications and improvements may not be covered in the operating instructions.

## Physical Condition

To operate this unit you must be rested, in good physical condition and mental health. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating this electrical tool.

Do not operate this machine if you are under the influence of any substance (alcohol, drugs) which might impair visions, dexterity of judgement.

## Applications

The EZ100 Pull Line Blower is intended exclusively for blowing in or sucking out special pull lines in pipe work that has already been laid. Then, cables or extra strong pull lines can be fixed to the pull line in order to pull them through the pipe work.

It must not be used for any other purpose because of the increased risk of accidents and damage to the machine. Never attempt to modify your electrical tool in any way since this may result in accidents or damage to the machine.

## Disposal of lines

Used lines can also be used for other purposes or must be properly disposed of. All relevant regulations and laws of the particular country must be complied with when disposing of old lines.

## Personal protective equipment

Wear proper protective clothing and equipment



Clothing must be sturdy but allow complete freedom of movement. Wear snug-fitting clothing, an overall and jacket combination, do not wear a work coat.



Avoid any clothing, scarves, neckties, jewellery or anything that could get into the air intake.



Tie up and confine long hair (e.g. with a hair net, cap, hard hat, etc.)



Wear sturdy shoes with non-slip soles



Wear safety glasses and 'personal' hearing protection, e.g. earplugs or ear muffs.

### 3. Scope of supply EZ100



Standard equipment in original plastic carrying case:

- 1 x EZ100 Pull Line Blower  
 (Art. 100045 for 230 V / 50 Hz)  
 (Art. 100046 for 115 V / 60 Hz)



- 5 x Shuttle sets dimensions free of choice (ø 20-200 mm)  
 (Art. 112000 – 112065)



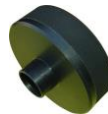
- 1 x box with assembly material for shuttles (Art. 100056): content
  - 40 Washers
  - 20 screws
  - 10 rings
  - 2 wrench 7 mm
  - 1 sissors



- 2 x Special pull line, ø 1 mm, 24 kg tensile strength, approx. 900 m  
 (Art. 100132)



- 1 x suction unit (Art. 100059)



- 1 x carrying belt (Art. 100015)



#### 4. Scope of supply EZ100 + Plus



PLUS equipment in original plastic carrying case.

- 1 x EZ.100 Pull Line Blower with change-over front  
(Art. 100544 for 230 V / 50 Hz)  
(Art. 100545 for 115 V / 60 Hz)



- 5 x Shuttle sets dimensions free of choice (ø 20-150 mm)  
(Art. 112000 – 112065)



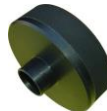
- 1 x box with assembly material for shuttles (Art. 100056): content:
  - 40 Washers
  - 20 screws
  - 10 rings
  - 2 wrench 7 mm
  - 1 sissors



- 2 x Special pull line, ø 1 mm, 24 kg tensile strength, approx. 900 m  
(Art. 100132)



- 1 x suction unit (Art. 100059)



- 1 x carrying belt (Art. 100015)





**Extra + Plus:**

1 x Special equipment for small tube diameters 25-50 mm (Art. 100073)



1 x Foam adapter (ø 170 mm) (Art. 100076)



1 x parachute 30-600mm (Art. 100309)

1 x parachute 60-100 mm (Art. 100152)

1 x parachute 100-150 mm (Art. 100153)



1 x cone (Art. 100075)



## 5. Accessories, Consumables, Spare Parts

Art. 100132 Pull line roll Ø 1 mm, tensile strength approx. 24 kg  
approx. 900 m / roll, box of 10 rolls



Art. 100716 Toneable pull line roll Ø 1 mm, with copper wire  
tensile strength approx. 24 kg, approx. 820 m / roll,  
box of 10 rolls



Art.100136 Pull line roll Ø 4 mm, tensile strength approx. 210 kg  
approx. 1100 m / roll, box of 3 rolls



Art.100717 Toneable pull line roll Ø 4 mm, with copper wire  
tensile strength approx. 210 kg, approx. 1100 m / roll,  
box of 3 rolls



Art.100522 Pull line roll Ø 4 mm, tensile strength 210 kg  
with meter marks, approx. 1100 m / roll  
box of 3 rolls



Art.100140 Pull line roll Ø 4 mm, tensile strength 300 kg,  
approx. 750 m / roll, box of 3 rolls



Art.100309 Parachute yellow for ducts (inner)  
Ø of 30 to 60 mm



Art.100152 Parachute green for ducts (inner)  
Ø of 60 to 100 mm



Art.100153 Parachute blue for ducts (inner)  
Ø of 100 to 150 mm



Art. 100278 EZ100 change-over front



Art. 100341 EZ100 hose flange



Art. 100120 air hose complete 1.8 m

Art. 100125 air hose complete 4 m



Art. 100105 Front piece Ø 140 mm with pull line supply



Art. 100099 Front piece Ø 200 mm with pull line supply



Art. 100073 Special equipment for small Ø of 25 to 50 mm



Art. 100075 Cone orange with metallic head



Art. 100076 Adapter black ø 170mm  
for Ø int. of approx. 120mm to 150mm

Art. 100077 Adapter black d 200mm  
for Ø int. of approx. 140mm to 180mm



Art. 100048 EZ100 Front plate complete



Art.100049 Foam collar 140mm

exchange :

- tear off the used foam collar
- take off as much of the remaining adhesive as possible
- now clean the surface with some denatured alcohol
- short drying period
- fix the new foam collar and press it on tightly



Art.100279 Foam ring with support disc



Art.100749 Clamp ring to fix foam ring of change over front



Art. 100059 suction unit



Art.100003 Motor 230 V / 50 Hz

Art.100004 Motor 115 V / 60 Hz

Art. 100006 Handle Switch



Art. 100021 Electronic plate



Art. 100010 O-Ring



Art. 100015 carrying belt



Art. 100017 TORX screw K 30 X 12



Art. 100018 TORX screw

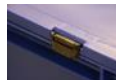


Art. 101344 EZ100 Original Case with foam inlet



Art. 101340 Swivel lock to Original Case

Art. 101341 Hinge to Original Case



Art. 100146 Screw with hole 20 pieces



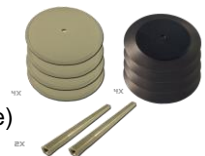
Art. 100150 Ring 20 pieces



Art. 100148 Washer 20 pieces



Please find details to shuttle discs and sets in our online shop.  
(<https://zeitler.swiss/en/shop/1-schnureinblasen/30-ez100/shuttle>)



Please find current spare part and accessory list in our online shop  
([www.zeitler.swiss/en/shop](http://www.zeitler.swiss/en/shop))

## 6. Putting into operation

1. Before any unit is put into operation, firstly ensure that the device is in perfect and clean condition.
2. Do not work in the vicinity of flammable or explosive materials, fluids, gases or open flames
3. In the event of any faults or the suspicion of a fault, disconnect the mains plug immediately and have the device checked over by the importer or the manufacturer
4. Do not blow towards people, animals or objects
5. If working on a platform or ladder, always carry the unit with the shoulder strap
6. Firstly blow through the conduit without any line (to clear any water, impurities or the like in the conduit)
7. Use protective eyewear (beware of dust, water etc.)
8. If any residual water is actually left in the ducting, never work in suction mode (damage to the motor)
9. Always keep the air intake opening/screen free (danger of overheating/fire). If any impurities are found in the screen, remove them immediately
10. Never use the device if the mains cable is damaged. Have faulty cables or plugs replaced immediately (by the manufacturer or the importer). Never pull the plug out of the mains socket by the cable if your hands are wet. Do not drag the cable across sharp edges or corners. Never place the cable on hot objects.
11. Caution: some of the plastic parts have limited impact resistance!

### Warning!

**Improper application, use, modification, operation or maintenance can lead to serious personal injury or damage to property!**



**To reduce the risk of personal injury from fire**, never attempt to suck on hot or burning substances (e.g. smoldering ashes, glowing cigarettes).



**To reduce the risk of fatal injury from fire or explosion**, never attempt to suck on combustible fluids (e.g. gasoline) or materials soaked in combustible fluids.

## 7. How to use accessories

### Shuttle

#### Black disc:

- Corresponds to 70% inner duct diameter
- To be used for standard application in electrical ducts and flex ducts
- To be used also in deformed, soiled and dusty ducts

#### White disc:

- Corresponds to 90% inner duct diameter
- To be used to eject water (condensation or meteoric water)
- Might be used to calibrate ducts

**! First step: Check permeability!  
! Blow air through the duct without using a shuttle !**

#### Parachute (optional, included in EZ100 + Plus)

- used for heavy soiled conduits and in pipe constructions with variations of Ø up to 50mm
- might be used to blow pull line in occupied ducts

Parachute yellow for int. duct Ø of 30mm to 60mm

Parachute green for int. duct Ø of 60mm to 100mm

Parachute blue for int. duct Ø of 100mm to 150mm

#### Cone orange with metallic head (optional, included in EZ100 + Plus)

- For duct Ø from 50mm to 120mm
- To be used if end of duct isn't cut straight or difficult to access

#### Special equipment for small tube diameters (optional, included in EZ100 + Plus)

- To be used for ducts inner ø 25-50 mm

#### Adapter black ø 170mm (optional, included in EZ100 + Plus)

- Fix on the front plate for ducts Ø from approx. 120mm to 150mm

#### Adapter black ø 200mm (optional)

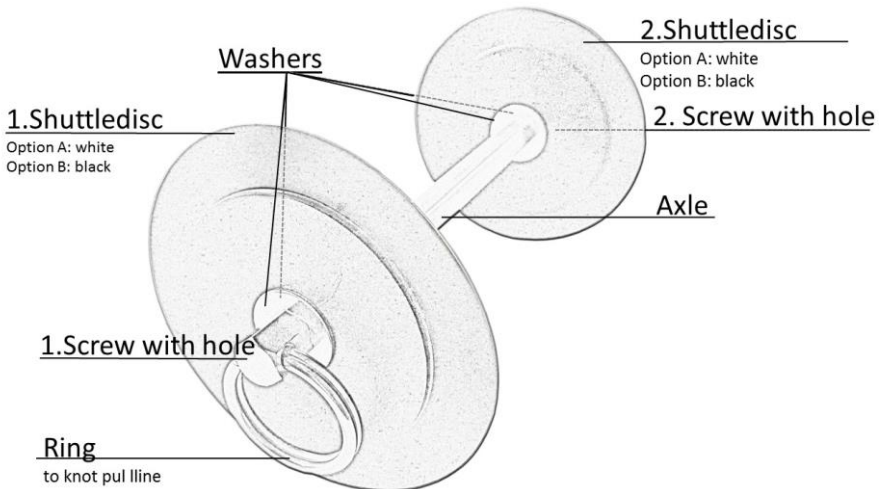
- Fix on the front plate for duct Ø from approx. 140mm to 180mm

## 8. Assemble the Shuttles

Assemble **each** end of axle:

- 2 washers
- 1 disk (black or white)
- 1 screw with hole

Tighten with the two small wrenches



## 9. Blowing mode with EZ100

1. Duct ends must be clean and cut off evenly (if not possible → please use orange cone)
2. Choose the duct end at higher level to blow in pull line
3. Position control person near the duct end / exit (protect your eyes, wear safety goggles!)
4. First blow air through duct during 30 sec at max. (water, dirt, dust), hold device tight to the duct end.
5. Control person: Check volume of air flow leaving the duct (eye protection, safety glasses/goggles)
6. Prepare shuttle corresponding to the internal duct diameter (ID) (TOLERANCE to ID +0/-2 mm) or use respective parachute
7. Insert the pull line through the pull line supply and ring / screw or thimble of parachute, knot tightly (shorten line end if too long)
8. Place shuttle / parachute in the duct
9. Press EZ100 closely to the duct
10. Do NOT block the air inlet / grid on the rear of the device with clothing or body!!
11. Blow pull line continuously without interruption (thermal circuit breaker)
12. When working with parachutes make sure to keep pull line tense, to keep parachute open.
13. As soon as the shuttle leaves the end of the duct, the pull line stops uncoiling. If shuttle gets stuck inside the duct, pull it back and try to blow from the opposite side or with an alternative accessory.
14. Stop blowing and place device in a save place
15. Air inlet duct end: Cut off the pull line and secure it
16. Air outlet duct end: Cut off the pull line and secure it
17. After completing the work, clean and stow the equipment and accessories properly in the provided transport case.



**How to couple two pull lines rolls:**

If the existing line length of one roll is not sufficient, you may add another line roll:

1. You are working with a started roll of pull line, make sure to secure the end of the line so that it cannot slip into the duct (large knot / tie object)
2. Stop the blowing process on time before the end of the line
3. Release the knot / object and carefully pull the remaining line completely through the line supply
4. Thread the line start of the second roll through the line supply
5. Tie the end of the first roll firmly and strongly to the start of the second roll (for example, with a Figure Eight (Flemish) knot)
6. Place the EZ100 tight to the duct and continue blowing
7. When working with a parachute make sure to keep pull line tense, to keep parachute open.

**ATTENTION:** connecting two roll ends automatically reduces the tensile strength

**NEVER BLOW IN SHUTTLE WITHOUT PULL LINE –**  
**MAY GET STUCK OR LOST IN THE DUCT AND CAN'T GET PULLED**  
**BACK.**

## 10. Suction mode with EZ100

**Only change to suction mode if blowing mode does not work  
(never with water in the conduits!)**

1. Conduit ends must be clean and cut off evenly
2. Choose the duct end at higher level to vacuum the pull line
3. Position control person near the duct end / exit  
(protect your eyes, wear safety goggles!)
4. Prepare shuttle corresponding to the internal duct diameter (ID)  
(TOLERANCE to ID +0/-2 mm)
5. Thread the pull line start through the screw hole, knot tightly (shorten line end if too long)
6. Fix the end of the roll to an object that cannot slip into the conduit (especially when the roll is not of full length!)
7. Place shuttle in the conduit
8. Fix suction unit to the rear of the Pull Line Blower
9. Press tool tightly to the other end of the duct
10. Start sucking the shuttle without interruption (beware of dust)
11. As soon as the shuttle meets the EZ100, stop sucking mode
12. Side of sucking in: Cut off the pull line and secure it
13. Opposite side: Cut off the pull line and secure it
14. **Suction mode completed: immediately clean both screens / grids and remove suction unit !**
15. After completing the work, stow the equipment and accessories properly in the provided transport case.

**NEVER START SUCKING THE SHUTTLE WITHOUT PULL LINE -  
MAY GET STUCK OR LOST IN THE DUCT AND CAN'T GET PULLED BACK.**

## 11. Cleaning

- Disconnect the main plug
- Clean the unit with a damp cloth
- Do not use solvents
- Never immerse in water
- Never poke objects of any kind into the device
- Do not open the housing
- Remove any residues from the screen

## 12. Storage

- If the device is not in use, disconnect the main plug
- Store the unit in its original case to protect it from damage (with the Operating Instructions)
- Protect the unit from moisture and dust
- Temperature range: 0 to 40°C, relative air humidity 40 to 90 %

## 13. Transport

- Transport the unit in its original carrying case, making sure it is correctly closed
- If the unit is dispatched by any mode of transport, it must be in original carrying case, correctly closed and secured (closures secured with cable ties)

## 14. Trouble Shooting

Motor does not work

- Check cable and / or power source
- Thermo Circuit breaker activated? (wait 30 min. for cool down)

Insufficient air leaving the duct?

- Protector on duct end? → Remove it
- Duct kinked or blocked? → Try to suck from other side
- Grid blocked? → Clean it

Pull line is not uncoiling

- Air inlet / Grid blocked with body or clothing?
- Air inlet / grid dirty?
- Protector on duct end? → Remove it

### 15. Support

First Name: \_\_\_\_\_ Company: \_\_\_\_\_

Last Name: \_\_\_\_\_ Phone: \_\_\_\_\_

e-mail: \_\_\_\_\_ Website: \_\_\_\_\_

Duct outside Ø: \_\_\_\_\_ mm      Duct length: \_\_\_\_\_ m

Duct inside Ø: \_\_\_\_\_ mm

Does air go through the duct?  yes  no

Is there water in the duct?  yes  no  don't know

Have you tried to blow from opposite?  yes  no

Duct occupied?  yes  no

How far did you blow the pull line? \_\_\_\_\_ m

Is the duct diameter identical along the way?  yes  no

More useful information

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## 16. Service and Maintenance

ZEITLER AG recommends that you have servicing and repair work carried out exclusively by an authorized servicing dealer for EZ100. Service dealers are regularly given the opportunity to attend training courses and are supplied with the necessary technical information.

Only use genuine replacement parts and accessories that are explicitly approved for the EZ100 by ZEITLER AG. These parts are specifically designed to match your machine model and meet your performance requirements and also to avoid the risk of accidents and damage to the machine. If you have any question in this respect, consult an authorized servicing dealer.

In the absence of alternative arrangements, the manufacturer's or importer's service will include

- restoration to the original as-delivered condition
- restoration to the original equipment included in the scope of supply

The user is responsible for all damage caused by non-observance of the safety precautions and operating and maintenance details in the Operating Instructions. Given the situation, all warranty rights are nil. This includes in particular:

- Alterations or modifications to the product not approved by ZEITLER AG
- Using tools or accessories which are neither approved or suitable for the product or are of a poor quality
- Using the product for purposes for which it was not designed.
- Using the product for sports or competitive events.
- Consequential damage caused by continuing to use the product with defective components.

## 17. Main Parts of EZ100

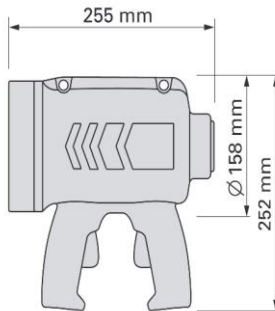


## 18. Technical Data EZ100

Standard version for internal conduit diameters of 50 to 120 mm

<b>Electrical Data</b>	as per country see type place minimum output of power unit 2000 W
<b>Weight</b>	3,1 kg
<b>Starting power</b>	2000 watts
<b>Pull line</b>	approx. 900 m/roll

### Dimensions



### Thermal circuit breaker

### Maximum air flow rate

Blowing mode	4 m <sup>3</sup> /min
Suction mode	4 m <sup>3</sup> /min

**Find the serial number on the type plate of the Pull Line Blower.**

We reserve the right to make technical modifications without notice.



## 19. Guarantee / Legal Details

1. We guarantee to rectify free-of-charge any defects or shortages affecting the device within the guarantee period that are due to material or manufacturing faults
2. The guarantee period is 24 months and starts with the purchase by the first ultimate buyer. The date on the original sales voucher shall apply here.
3. The following are excluded from the guarantee:
  - Parts that are subject to wear and tear due to normal use or other natural causes, as well as defects in the device, which are also due to wear and tear due to normal use or other natural causes
  - Defects affecting the device which are due to the non-observance of the Operating Instructions, improper use, anomalous environmental conditions, incorrect operating conditions, overloading or a lack of proper maintenance and care
  - Device defects caused by the use of accessories and/or spare parts that do not originate from the manufacturer of the Pull Line Blower.
  - Devices that have been subjected to modifications or additions.
  - Minor deviations from reference properties which are immaterial as regards the value and suitability for use of the device.
4. The rectification of faults we recognise as being under guarantee will take place in such a way that we will repair the faulty device without charge or replace it with a device in perfect condition (if necessary, a subsequent model), according to our choice. Any devices or parts that have been replaced automatically become our property.
5. Any claims under guarantee must be made within the guarantee period. The device affected is to be delivered to the seller or manufacturer in its original carrying case (if despatched by some means of transport, the closures must be secured additionally). The device must always be accompanied by the original sales voucher, as well as details of the date and purchase and product. Devices that have been opened up are no longer covered by the guarantee. All transport costs and risks will be to the account of the buyer.
6. Any claims other than the right to rectification of device faults nominated in these guarantee conditions are not covered by this guarantee.
7. Any services carried out under guarantee do not extend or renew the guarantee period for the device.

Swiss law shall apply.

The legal domicile is the location of the manufacturer's head office.

## 20. EC Declaration of Conformity

ZEITLER AG  
Sonnhalde 7  
CH-6206 Neuenkirch  
SWITZERLAND

Certifies that the new machine described below

Category:	Tool to blow in or vacuum special pull line in Cable conduits
Type:	Pull Line Blower
Model:	EZ100

Is conform to the specification of Directives

SECURITY	EN 60745-1 : 2009
EMV	EN 55014-1 : 2006 + A1 : 2009 EN 55014-2 : 1997 + A1 : 2001 + A2 : 2008 EN 61000-3-2 : 2006 + A1 : 2009, AN 61000-3-3 : 2008
EMF	EN 50366 : 2003 + A1 : 2006

and follows the provisions of directives

2006/95/EC + 2004/108/EC + 2002/95/EC + 2002/96/EC

Year of definition 2009

Serial number and year of manufacture printed on type plate of the Pull Line Blower.