



**Electro-portable edge machine**

**AZZZ**

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**Maintenance manual (EN), page 2**

**Manuel de maintenance (FR), page 10**

**Onderhoudshandleiding (NL), blz. 19**

**Betriebsanleitung (DE), Seite 28**

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# Content

1. Introduction .....	2
2. Product description.....	3
2.1 Description .....	3
2.2. Pipe thickness limitation .....	3
3. Product delivery .....	3
4. Product Commissioning.....	4
4.1. Before commissioning.....	4
4.2. Machine assembly.....	4
4.3. Differentiating the wheels .....	5
5. Making edges on pipes .....	5
6. Maintenance and spare parts .....	6
6.1. Maintenance.....	6
6.2. Spare parts .....	6
7. Occupational Health and Safety .....	7
8. Transportation, storage & handling .....	7
8.1. Transportation .....	7
8.2. Storage .....	7
9. Terms of warranty.....	7
10. Troubleshooting Guide.....	7
11. Dismantling and recycling .....	8
12. Maintenance log .....	8

## 1. Introduction

This manual cannot be reproduced, even partially, without prior written consent by Formula Air Group. Every step of the portable edge machine along its life cycle has been deeply analyzed by Formula Air Group in the expected area during the design, construction, and maintenance manual creation. However, it is understood that nothing can replace the experience, training and good sense of the professionals who work with the device.

Ignoring the cautions and warning from the present manual, improper use of parts or the whole device supplied, using unauthorized spare parts, manipulating the device by non-qualified personnel, violation of any safety norm regarding design, construction and use expected by the supplier, exempt Formula Air Group from all responsibility in case of damages to people or properties.

Formula Air Group does not take any responsibility for the non-observance of the user about the preventive safety measures presented in this manual.

Failure to comply with the requirements of the operating manual or incorrect use of the portable edge machine during operation can lead to the damage of the portable edge machine and the loss of the function performed by the portable edge machine itself. This will result in termination of the warranty on the item and will release the manufacturer from any liability.

### **WARRANTY**

In regards to the device's warranty, see the sales general condition in the contractual center.



### **ATTENTION !**

Before proceeding with the use of the portable edge machine, ensure that the markings on the product are compatible with the site of use. Failure to comply with this prescription can cause serious injury to persons including death and/or serious damage to property.

**NOTE:** All drawings and references contained within this manual are non-contractual and are subject to change without prior notice at the discretion of the Formula Air Group and its partners.

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## **2. Product description**

### **2.1 Description**

The Formula Air portable edge machine is designed to make edges on different types of round ducting having different thicknesses when working on a construction site.



**NOTE :** read carefully the pipe thickness limitations which may affect the proper functioning of the machine and void the warranty.

### **2.2. Pipe thickness limitation**

The portable edge machine can handle stainless steel plate thicknesses up to 1 mm, and galvanized plate thicknesses up to 1.25 mm.



### **CAUTION !**

Improper use of the machine will damage part of the gears and will result in an automatic expiration of the warranty.

## **3. Product delivery**

The Formula Air portable edge machine is delivered in a transport case with the following components :

1. Tooling machine Bosch Professional with special geared head,
2. 2x batteries Li-ion 18V 2.6Ah for Bosch machine,
3. Battery charger Professional 18V,
4. Guide plate,
5. Set of wheels for galvanized ducting (Set #2),
6. Set of wheels for Stainless steel ducting (Set #1),
7. Pipe wrench 19 mm,
8. Portable edge machine user guide (not pictured),
9. Transport case (not pictured).



## 4. Product Commissioning

### 4.1. Before commissioning

1. Read the manual attentively and maintain the safety and the operating instructions at all times,
2. Check the machine for any damage. Should this be the case, immediately inform your supplier.

### 4.2. Machine assembly

Step 1 : Place the lower wheel on the non-adjustable spindle and tighten the nut with the wrench. It is the wheel with the thicker wide side :



Step 2 : Place the guide plate in its place sliding the two holding pins in the slots of the plate support :



Step 3 : Place the upper wheel on the adjustable spindle and tighten the nut with the wrench. It is the wheel with the thinner wide side :



Step 4 : Adjust the guide plate so that it is approximately 2 mm lower than the wheel on the non-adjustable spindle.



**Hint :** you can use a 5 cent coin on the LEFT side of the guide plate to determine the depth. The coin should be flush with the top of the wheel :



Step 5 : Tighten the two butterfly nuts to hold the guide plate in place :





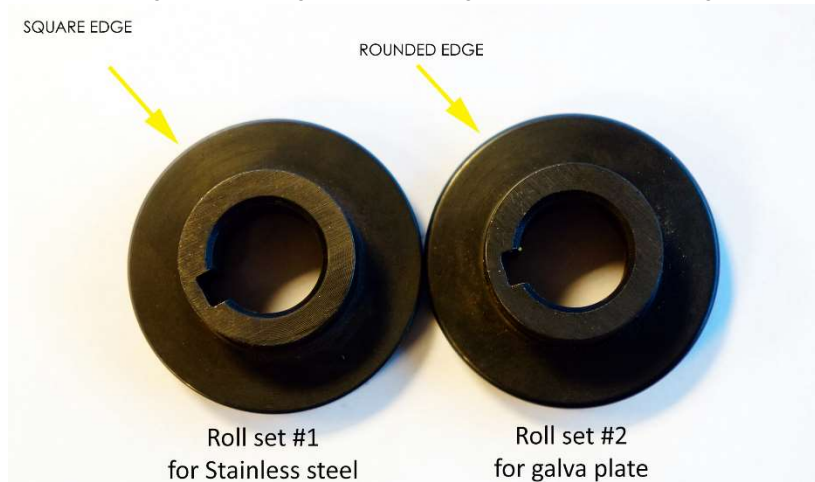
### CAUTION !

Make sure to install the appropriate wheels in function of the type of ducting material being used.

#### 4.3. Differentiating the wheels

The wheel sets are marked #1 and #2 :

The set #1 has a sharp square edge and is designed for use on Stainless steel ducting,  
The set #2 has a rounded edge and is designed for use on galvanized steel ducting,



## 5. Making edges on pipes



### CAUTION !

Always wear gloves while operating the machine. Make sure not to place fingers between the wheels while operating the machine.

Step 1 : Cut the pipe to the desired length,

**WARNING :** make sure to include the edge length in your measurement (6mm for edges for rings, 10mm for edges for flanges).



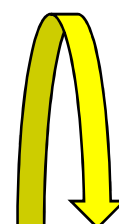
Step 2 : Make sure the pipe edge is even and remove all burrs with a file,

Step 3 : Put the tooling machine on the lowest speed and the direction of rotation of the upper wheel to the right (clockwise),

Step 4 : Unscrew the upper butterfly nut so that the wheels spread wider :

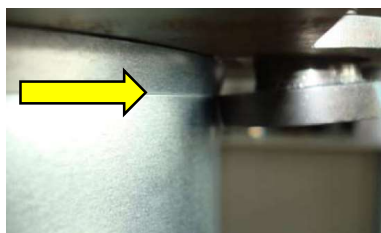


Step 5 : Slide the pipe edge between the two wheels, with the machine battery towards the inside of the pipe, and turn the upper butterfly nut to bring the adjustable wheel against the pipe :





Step 6 : Activate the portable edge machine and make a complete 360° turn on the pipe :



Step 7 : After every turn, tighten the upper butterfly nut by +/- 1/2 turn so it keeps pressing to the pipe with a little pressure. Repeat until there is a complete edge generated on the pipe :



## 6. Maintenance and spare parts

### 6.1. Maintenance

The installation, connection, start-up and maintenance of the edge machine has to be performed by qualified personnel only.

### 6.2. Spare parts



#	Description	Internal reference
1	Complete edge machine in transport case	AZZZ000001
2	Set of wheels for Stainless Steel (set #1)	AZZZ000005
3	Set of wheels for galvanized steel (set #2)	AZZZ000002
4	Guide plate	AZZZ000009
5	Individual battery for edge machine	AZZZ000011
6	Pipe wrench M19	AZZZ000012

## 7. Occupational Health and Safety

Prior to start and use, it is important to get acquainted with the present Use and Maintenance Manual.



**WARNING** : Unsure mounting could result in an uncontrolled detachment of the device and would cause serious hazard to personnel / people in the vicinity.

## 8. Transportation, storage & handling

### 8.1. Transportation

The portable edge machines are shipped secured, palletized, and properly packed to prevent shifting and damages during manipulation. The portable edge machines should always be transported covered and protected from atmospheric elements.



**CAUTION** : Do not stack during transport !

### 8.2. Storage

Store the portable edge machines assembled, palletized, and covered and protected from atmospheric elements.

## 9. Terms of warranty

The period of warranty for the purchased device is indicated in the general sales conditions.

The warranty does not comprise:

- Producer accepts no liability for any consequences following from the operational use that is in contradiction to the purpose of application,
- Defects and damages arising during the incorrect use and in application that is inconsistent with the present manual,
- Mechanical and electrical damages being caused during improper storage and transport or incorrect maintenance,
- Structural modifications, or changes / adaptations introduced by the user on one's own, are not permitted,
- Inefficiency following from the normal operational exhaustion.

Infringement of the section "Restrictions" of the Use and Maintenance Manual and especially modifications undertaken by User on one's own shall result in the loss of warranty validity.

## 10. Troubleshooting Guide

Problem	Possible cause	Possible solution
Machine runs off the pipe	Distance between guide plate and lower wheel is too small	Adjust the distance between guide plate and lower wheel according to the hint (see point 4.2.)
	Upper wheel is worn out or the upper wheel for galva material is used (on Stainless Steel plate)	Replace the upper wheel
	Machine wheels are turning the wrong way	Switch the rotation sense on the machine
Edge is too wide	Distance between guide plate and lower wheel is too big	Adjust the distance between guide plate and lower wheel according to the hint (see point 4.2.)
Edge is too small	Distance between guide plate and lower wheel is too small	Adjust the distance between guide plate and lower wheel according to the hint (see point 4.2.)

If the above does not help, please contact your supplier.

## 11. Dismantling and recycling

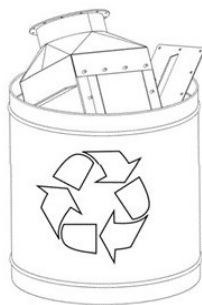
When dismantling a unit, be sure to keep in mind the following important information:

- As the unit is dismantled, set aside all still functioning parts to re-use them on another unit.
- You should always separate the different materials depending on their type: iron, rubber, oils, greases, etc...
- Recyclable parts must be disposed of in the appropriate containers or brought to a local recycling company.

The rubbish must be collected in special containers with appropriate labels and disposed of in compliance with the national laws and/or local legislations in force.

**CAUTION !**

It is strictly forbidden to dispose of toxic wastes in municipal sewerage and drain systems. This concerns all oils, greases, and other toxic materials in liquid or solid form.



## 12. Maintenance log

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