

# Instructions SharpX Dual S 2300

Patent

Keep for future use!



SharpX Dual S 2300

Manufacturer:

**SHARPX<sup>®</sup> AB**

SHARPX AB  
Varv Skrikstad 103  
59123 Motala SWEDEN  
Phone: + 46 70 538 53 17  
Email: info@sharpx.se  
www.sharpx.se

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Attachment:

Electrical circuit Diagrams

# 1 General

Notes regarding warranty and damage prevention



**Warning! Risk of bodily injuries and death**



**Warning! High electrical voltage**



**General rules!**



**Additional notes**

Notes with these symbols serve as additional information

## 8. Action

Tasks are numbered in the order in which they are to be executed.



**Result of action**

This symbol stands for a requirement or result of an action.

- Setup and instructions performed by your local dealer.
- Carefully read operating instructions before start-up of machine. These instructions are intended for correct setup, use and maintenance of the **SharpX** and should guarantee trouble-free operation.
- We are not liable for unauthorized setup and electrical installation, incorrect operation, non-intended use, structural changes, removal of protective devices or use of non-original **SharpX** parts, replacement parts and accessories. In these cases, the user acts at his/her own risk! Damage resulting from the above mentioned cases is entirely the responsibility of the user.
- We recommend the exclusive use of **SharpX** original and replacement parts and accessories!
- Defects and damage caused due to normal wear and tear may not be construed as a basis for any claims against **SharpX**.
- Operating staff is to be thoroughly trained according to these operating instructions regarding operation and maintenance of the **SharpX**.



**Warnings to be adhered to and memorized!**

**SharpX** machines meet the accident prevention regulations. However, there remains a risk of injury in case of incorrect or inattentive operation or maintenance. These operating instructions particularly highlight specific risks of injury.

Within our warranty terms and conditions the **SharpX** carries a warranty of 12 months (see warranty card).



**Read operating instructions before start-up and keep handy! Follow instructions!**

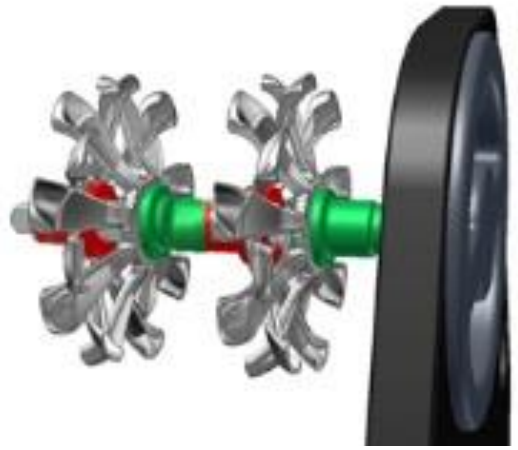
## Intended use

This machine is solely intended for sharpening of clean knives. Any other use of the **SharpX** could constitute a hazard and is prohibited.

## Description and characteristics

### Device description

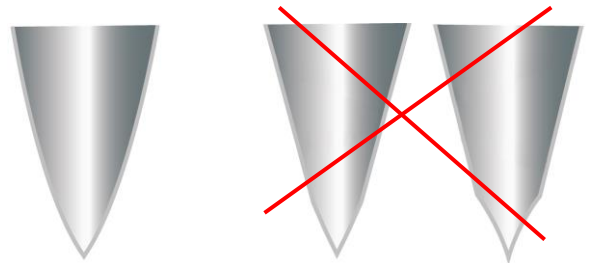
- Table version according to the latest findings in modern and efficient sharpening of tools.
- Design based on international accident prevention regulations.
- High-performance drive with optimal speed for grinding.
- Grinding wheels quick and easy to replace.
- Great stability due to non-slip feet.



### Features

- Modern, space saving and closed design.
- Long service life due to well-engineered technology and high quality material.
- Time saving due to quick and easy handling as well as easy cleaning.
- Little risk of injury due to highly effective accident prevention.
- Winged wheels for optimal convex edge preventing wedge formation at the blade. High resilience and edge retention of the blade can only be obtained by a convex edge.
- No dirt accumulation of the work environment since dust is collected by magnets.

Winged wheels with diamond coating



Convex edge correct! Flat/concave edge **incorr.**

## **Safety guidelines**

Safety guidelines according to EN 61029-1:2010

### **1. Keep your work area in good order**

- Cluttered work areas may cause accidents.

### **2. Pay attention to environmental influences**

- Do not expose electric tools to rain.
- Do not use electric tools in humid or wet environment.
- Make sure work area is well lit.
- Do not use electric tools in areas with fire or explosion hazard.

### **3. Protect yourself from electric shock**

- Avoid physical contact with grounded parts (e.g. pipes, radiators, electric stoves, cooling units).

### **4. Keep other people away**

- Prevent other persons, in particular children, from touching electrical tools or cables. Keep them away from your work area.

### **5. Safeguard unused electric tools**

- Unused electric tools should be kept in a dry, elevated or locked place outside the reach of children.

### **6. Prevent overloading of your electric tool**

- You work better and safer within the indicated power range.

### **7. Use correct electric tool**

- Do not use inefficient machines for heavy-duty work.
- Do not use electric tools for other than their intended use.

### **8. Wear appropriate clothing**

- Do not wear loose fitting clothes or jewelry which may get caught by moving parts.
- Do not use gloves.
- Wear a hairnet for long hair.

### **9. Use protective equipment**

- Wear safety goggles and ear protection.

### **10. Do not use cable for other than its intended use**

- Do not use cable to unplug connector from outlet. Protect cable from heat, oil and sharp edges.

### **11. Avoid abnormal posture**

- Ensure a firm footing while maintaining balance at all times.

### **12. Keep your tools in good order**

- Do not work with worn grinding wheel or polishing wheel.
- Follow directions for change of grinding wheel and polishing wheel.
- Check power cord of electric tool on a regular basis and have it replaced by an authorized specialist in case of damage.
- Check extension cords on a regular basis and replace if damaged.
- Keep machine clean and free of oil and grease.

### **13. Unplug connector from outlet**

- If electric tool is not in use, before maintenance and exchange of tools.

### **14. After cleaning inside the grinding housing**

- Make sure the gable is properly secured.

### **15. Avoid accidental start-up**

- Make sure that the machine is switched off before connecting plug to power outlet.

### **16. Pay attention**

- Pay attention to what you are doing. Work intelligently. Do not use electric tool if you are not concentrated.

### **17. Check electrical tool for possible damage**

- Before further use of the electric tool, protective equipment or slightly damaged parts must be carefully examined if they function properly and in accordance with their intended use.
- Check if movable parts function properly without jamming and check if any parts are damaged. All parts must be correctly installed and meet all requirements in order to guarantee perfect operation of the electric tool.
- Do not use damaged grinding wheels.
- Unless otherwise specified in the operating instructions, damaged protective equipment and parts must be repaired or replaced according to their intended use by an authorized service center.
- Damaged switches must be replaced by an authorized service center.
- If an electric tool cannot be turned on/off via its on/off switch, it should not be used.

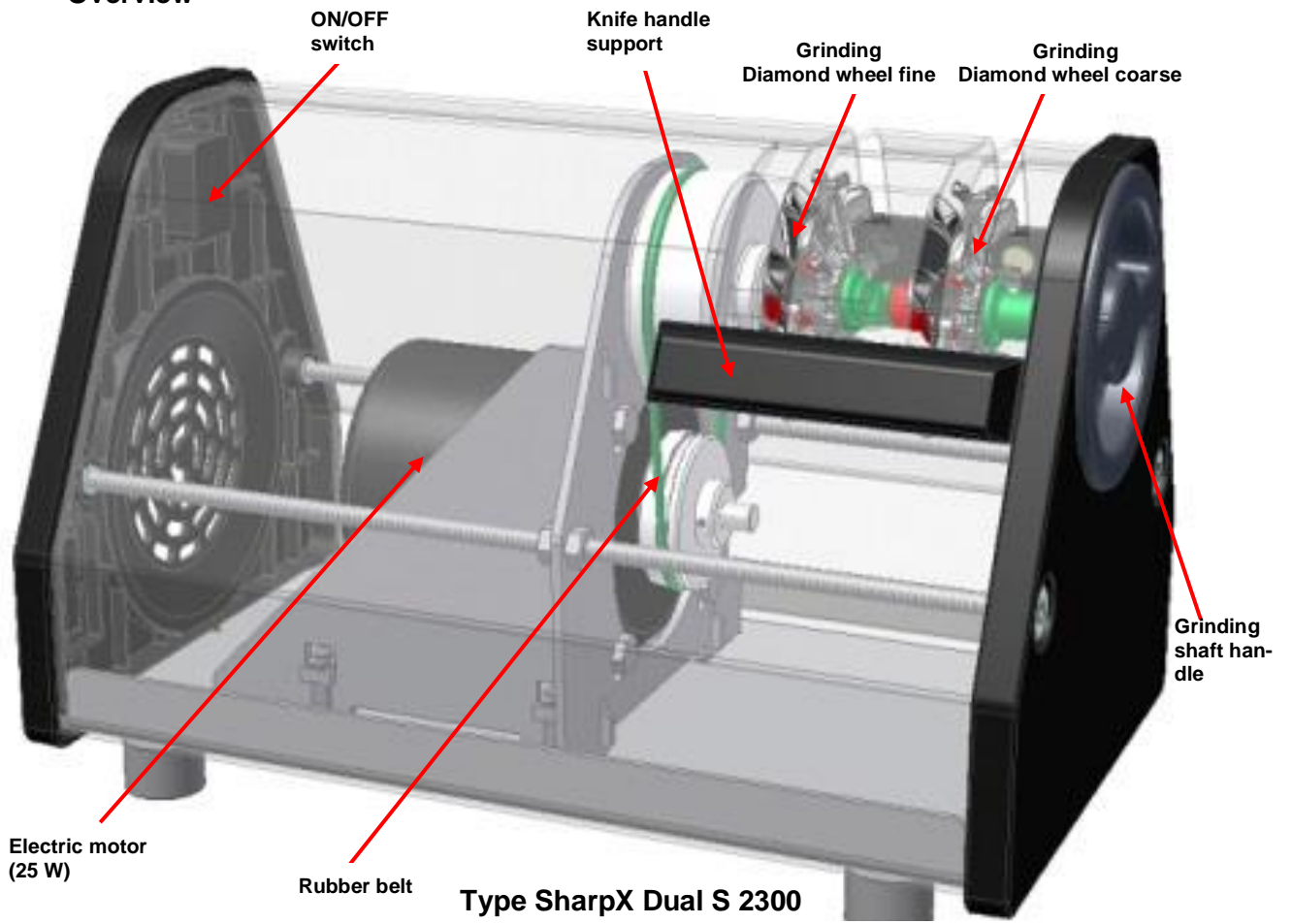
### **18. Attention**

- Only use replacement parts recommended by the manufacturer.
- The use of other inserts and accessories may cause risk of injury and warranty loss.

### **19. Have your electric tools repaired by a certified electrician**

- This electric tool is in conformance with relevant safety regulations. Repairs may only be carried out by a certified electrician by using original spare parts; otherwise there is a risk of accidents for the user (loss of warranty).

# Overview



## Technical data and dimensions

<b>Type SharpX DUAL S 2300</b>	
<b>Power supply</b>	
	230 V, 50 Hz AC
<b>Special voltage</b>	110 V, 60 Hz, 25 W
<b>Rated power</b>	
	25 W
<b>Current</b>	
	0,45A
<b>Fuse</b>	
	max.10 A delay fuse
<b>Protection class</b>	
	IP 55
<b>Rpm drive</b>	
	1550 r/min
<b>Rpm grinding wheel No.1</b>	
	2300 r/min
<b>Rpm grinding wheel No.2</b>	
	2300 r/min
<b>Dimensions grinding wheel</b>	
	Ø 70 mm
<b>Honing tool</b>	
	--
<b>Content water container</b>	
	--
<b>Weight</b>	
	Approx. 6,2kg
<b>Machine height</b>	
	190 mm
<b>Machine width</b>	
	180 mm
<b>Machine length</b>	
	315 mm
<b>Sound power levels</b>	
Determination of sound power levels of noise sources according to EN ISO 11202 Sound power level in decibel Uncertainty $K_{pA}$ in decibel: 3 Uncertainty $K_{WA}$ in decibel: 3 Above example: sharpening of a boning knife	Idle: > 40 dB Grinding: > 40 dB



## 2 Getting started.

### Unpacking and checking of package contents

The **SharpX** is shipped in a folding carton.

#### Package content:

- SharpX machine
- Allen key
- Operating instructions
- Warranty card
- Declaration of conformity

#### Installation

The **SharpX** may only be operated in a dry working area separated from food. Please make sure that:

- there is sufficient working area for operation and cleaning
- there is a slip-proof floor for the operating personnel and
- there is a flat and even surface supporting the machines feet.

#### Electrical connection

- Compare mains voltage with information on type plate
- Wiring and grounding of outlet as per VDE regulations (German Association for Electrical, Electronic & Information Technologies).



**Only switch machine on when ready for operation!**

## 3 Cleaning



**For cleaning, separate SharpX from mains power supply (pull out the power plug)!**



**The SharpX must not be cleaned with a pressure washer or placed in water!**

### See info 5.1 Changing of diamond and wheels.

Color spots may appear on the grinding parts. Remove and clean the grinding parts.

Remove the gable with use of the supplied Allen key and clean the grinding space. After cleaning inside the grinding house mount the gable back in place.

Note that the gable is properly secured.



#### **Prepare sharpening machine for operation.**

Install the cleaned parts in reversed order (chapter 5 maintenance).

## 4 Operation



**Observe accident prevention regulations currently in force!**



**Wear protective goggles and ear protection!**



**Machine changes, machine additions or conversions are not allowed without prior approval by SHARPX AB.**



**Stop machine immediately in case of malfunction! Turn off main switch and unplug machine. All malfunctions must be fixed before further use.**



**Grinding wheels and other tools not specified by us for this machine must not be used.**

- Never touch the grinding wheels or other movable parts as long as the machine is connected to the power supply system.
- During maintenance and cleaning, the machine must be separated from the power supply system (pull out the power plug).



**Sharpen *clean* knives only**

### Safety guidelines

Before using the **SharpX**, please follow the following safety guidelines:

- Concentrate on your work
- Do not talk to other persons
- Do not reach into grinding area
- Keep your work station clean and dry. Make sure machine is on firm basis.
- Use only for knife sharpening.
- Always hold knife blade in wheel direction.
- Never insert blade with tip downward or in a position other than intended.
- Make sure that the grinding wheels rotate freely before start-up of the machine and are not blocked by other objects.
- Do not wear gloves or items of clothing which could get caught in the machine during operation.
- Wear protective goggles and ear protection at all times while using the machine.

## Tips for sharpening and polishing



**Sharpen only clean knives!  
Cutting tools must be cleaned after sharpening!**

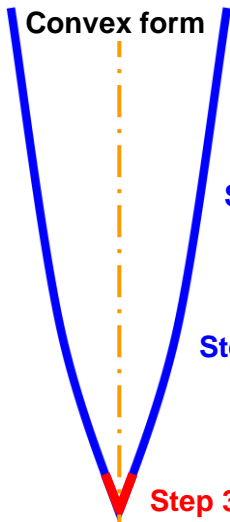
### Information on Sharpening Technique Including Sharpening Instructions

Grinding knives is one of man's oldest skills and has contributed to the development of mankind.

#### KNIFE SHARPENING TECHNIQUE

In order to make a knife sharp and to keep it sharp for as long as possible, the edge must be sharpened to a convex form and to the correct angle.

When you sharpen with the SharpX Dual sharpener equipped with one coarse sharpening station (**step 1**) and one fine sharpening station (**step 2**). The result is an ultimately convex, **centered edge** that is sharpened to a **correct angle**.



**Convex form**

**Step 1** Sharpening in a rotating sharpening wheel 35° with coarse diamonds 54 µ.

**Step 2** Sharpening in a rotating sharpening wheel 35° with fine diamonds 36 µ.

**Step 3 EXTRA:** For optimal result. Finish the process by polishing in the EDGE FIX 40° ultrafine ceramic.

**Correct angle**



**Recommendation:** choose newer knives when sharpening with the diamond sharpening wheel. When a knife is sharpened for the first time it needs to be sharpened repetitiously until the edge obtains the correct form.

Knives which have often been sharpened with other systems usually have non-centred edges with varying sharpening angles. Several sharpening procedures with the SharpX technique are needed before such edges have obtained the correct convex angle and form. This is not recommended. When the knife needs to be re-sharpened, fewer strokes are needed.

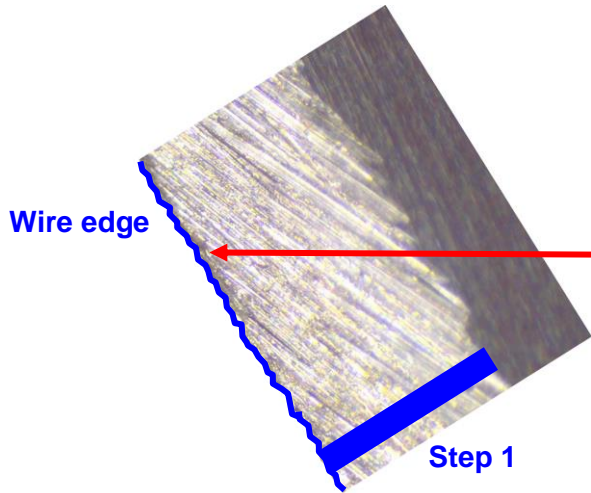
### 4.2.1 SHARPENING COARSE

The knife must be clean before sharpening.

Sharpening is easier if you hold the knife with one hand and help steer the blade with the other hand. It is important that the knife is not held at an angle, but is steered vertically into the slot.

Sharpen the knife until there is a wire edge. This is proof that the edge has been sharpened to a point.

**Test 1.** Ascertain that you have a wire edge by carefully pulling the knife, by its own weight and at an angle of approximately 30 degrees, over the edge of a plastic card for example: ( MasterCard / VISA ). When the blade jumps against the card, making it vibrate, you have achieved a wire edge.



#### Step 1

Start the machine.

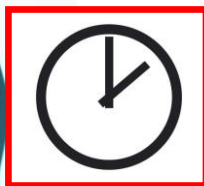
Press the knife blade into the slot with a pressure of about 0,1 - 0,6 kg. Start at the handle.

Simultaneously pull the knife steadily towards you through the wheel, with a speed of about 4 sec. for a regular-length knife. Vary the grinding pressure at different times so that the whole diamond surface is used. This extends the life of the diamond wheel.

At the end, lift the handle in order to sharpen the tip of the knife.

Repeat until a wire edge is obtained.

If the pressure on the knife is too high, the wheel stops.



4 sec.

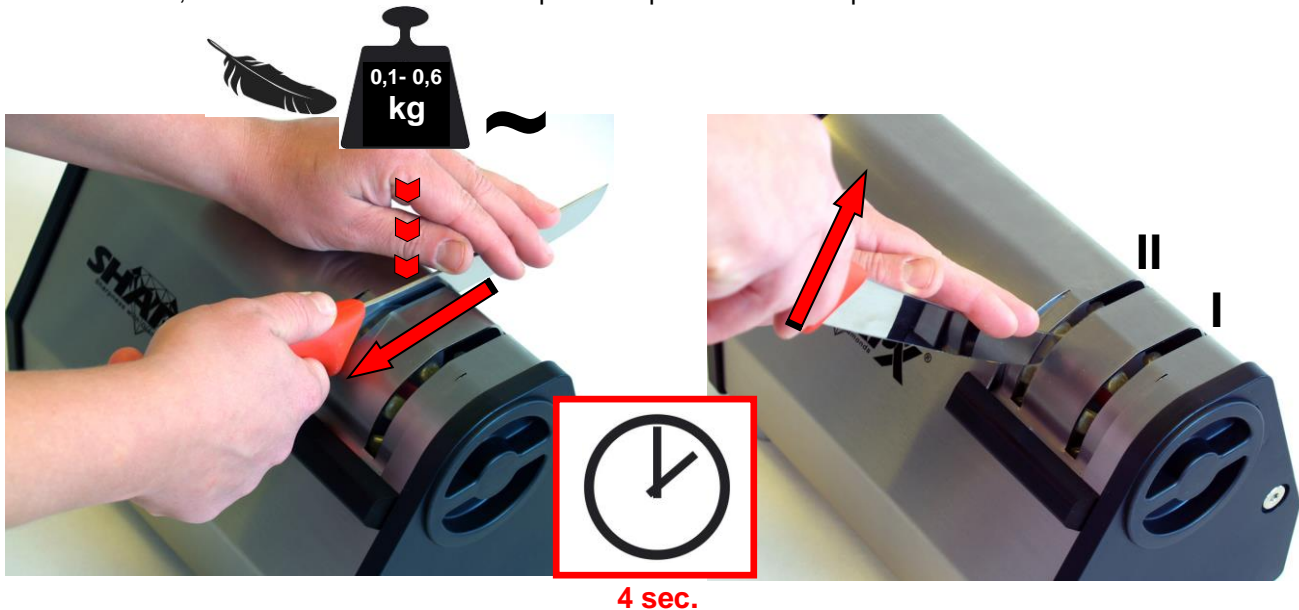


## 4.2.2 SHARPENING FINE

### Step 2

Press the knife blade into the slot with a pressure of about 0,1 - 0,6 kg. Start at the handle. Simultaneously pull the knife steadily towards you through the wheel, with a speed of about 4 sec. for a regular-length knife. Vary the sharpening pressure at different times so that the whole diamond surface is used. This extends the life of the diamond wheel.

At the end, lift the handle in order to sharpen the tip of the knife. Repeat about 2-4 times.



The knife edge now has a centred, ultimate, convex form and the knife is ready to use.

### RE-SHARPENING

When the SharpX system is used regularly on a knife, sharpening will be easier as it will take shorter time to achieve the wired edge, mentioned above.



### Important information

When you notice that the result after grinding is not satisfactory it is time to change the diamond grinding wheels

Contact your retailer to order replacement diamond wheel.

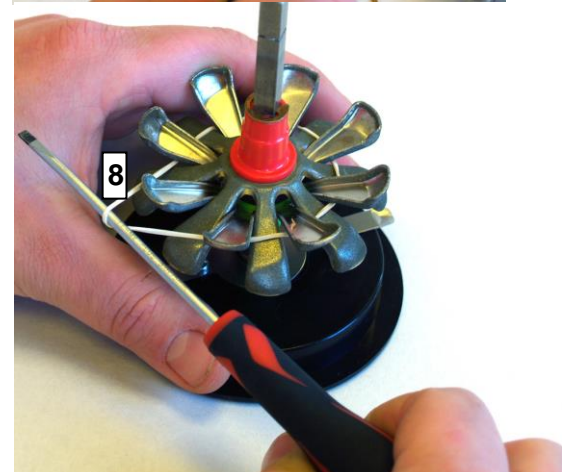
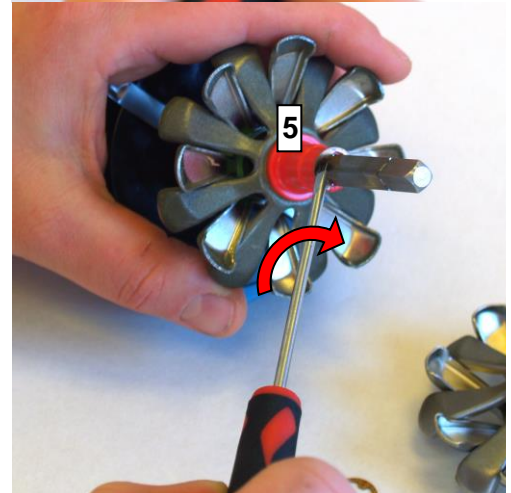
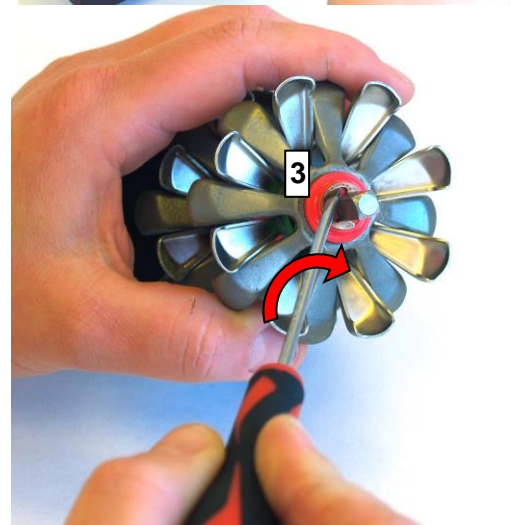
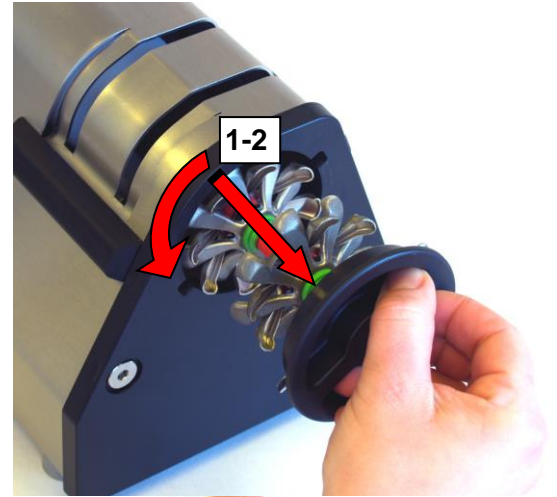
Maintenance / replacement of wear & tear parts. Page 14.

## 5 Maintenance / replacement of diamond grinding wheels.

 **Separate SharpX from electrical power supply system before starting any maintenance work!**

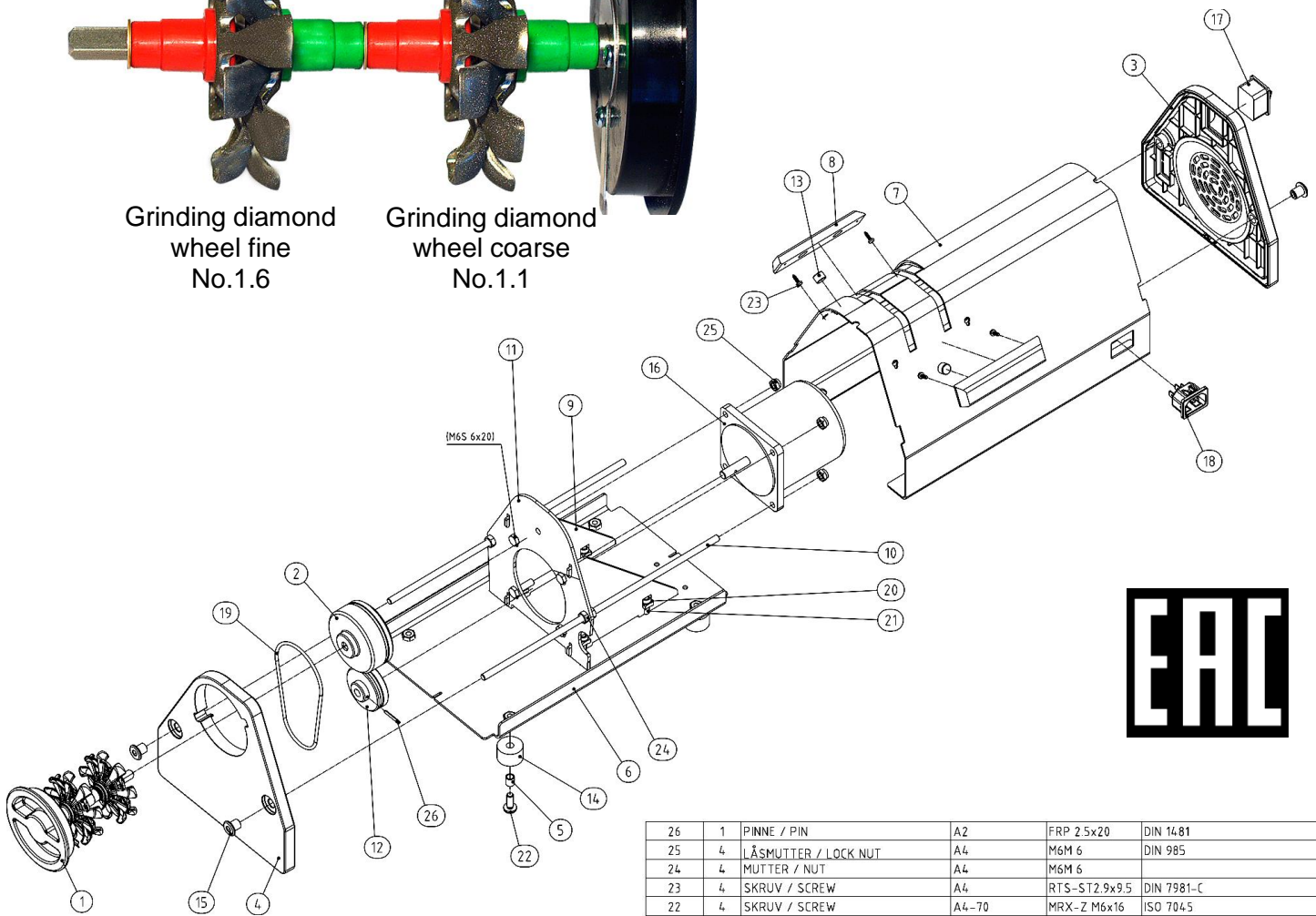
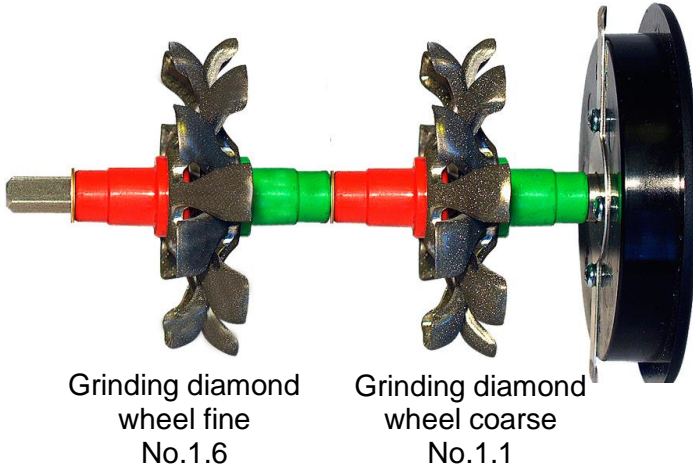
### 5.1 Changing of diamond wheels.

1. Turn the handle anti-clockwise until it stops.
2. Carefully remove complete wheels with handle.
3. Remove lock washer on grinding wheel. Caution: it may jump out.
4. Remove interlocking grinding wheel without using force.
5. Remove lock washer on grinding wheel. Caution: it may jump out.
6. Remove interlocking grinding wheel without using force.
7. Slide new grinding wheel with rubber ring on to the shaft. Green side of the grinding wheel must point in direction of handle.
8. Use the lock washer to lock the diamond wheel back into position. Remove the rubber ring.
9. Carefully re-install complete shaft with wheels and handle.
10. Pay attention to position of square shaft in the coupling. Turn the handle clockwise until stops.
11. Do not stand directly in front of grinding wheels during first start-up of machine. Small parts can swirl around.



## 6 Wear parts

Description	Art.-No.	Granulation
Grinding diamond wheel	1.1	Medium
Polishing diamond wheel	1.6	Fine



26	1	PINNE / PIN	A2	FRP 2.5x20	DIN 1481
25	4	LÅSMUTTER / LOCK NUT	A4	M6M 6	DIN 985
24	4	MUTTER / NUT	A4	M6M 6	
23	4	SKRUV / SCREW	A4	RTS-ST2.9x9.5	DIN 7981-C
22	4	SKRUV / SCREW	A4-70	MRX-Z M6x16	ISO 7045
21	8	SKRUV / SCREW	A4-70	M6S 6x20	
20	4	SVETSMUTTER/WELD NUT	A4	TK4 M6	
19	1	RUNDREM / ROUND BELT	OEM	Ø3x285	30025
18	1	NÄTANSL.HANE/CONNECTION,MALE	OEM	Ø711-1-PE	30008
17	1	BRYTARE / SWITCH	OEM	1550-XB	30006
16	1	MOTOR/MOTOR 220V/50Hz			30021
15	4	FLÄNSMUTTER/FLANGE NUT		M6	30020
14	4	FOT / FOOT	GUMMI/RUBBER		30014
13	2	MAGNET / MAGNET		Ø10x7	30012
12	1	REMHJUL/PULLEY, 50Hz			2300-67
11	1	PLÅT / PLATE			20137
10	2	GÅNGSTÅNG/THREADED BAR			20126
9	2	PLÅT / PLATE			20125
8	2	LIST / LIST			20115
7	1	KÅPA / COVER			20186
6	1	BOTTENPL./BOTTOM PLATE			20113
5	4	DISTANS / SPACER			20101
4	1	GAVEL / GABLE			20001
3	1	GAVEL / GABLE			20000-2
2	1	REMHJULSENH./PULLEY UNIT			2300-40
1	1	SLIPHJULSENH./GRIND.WHEEL UNIT			11045



Used machines, replacement parts and packaging are made of valuable materials which are suitable for recycling. The owner has the obligation to dispose of these in accordance with the legal regulations in a proper and environmentally friendly manner at his own cost.

Item	Qty	Description	Material	Dimension	Article no
Designed by	Checked by	Belong to assembly	Date	General Ed.	Gen. surt. R
TE			2016-04-01	SS-ISO 2768-1	Gen. surt. R
Title			Surface treatment		Views
DUAL S 2300. 50Hz					1:2
Owner	Art.no.	File name	Edition	Sheet	
SHARPX AB Motala, Sweden	10 010	10010	2	1/1	

Manufacturer:



SHARPX AB  
Varv Skrikstad 103  
59123 Motala SWEDEN  
Phone: + 46 70 538 53 17  
Email: info@sharp.se  
www.sharp.se

## EC declaration of conformity

in accordance with EC Machinery Directive 2006/42/EC, attachment II A

We hereby declare that, due to its design and type as well as the version placed on the market by us, the machine described below is conform with corresponding essential safety and health requirements of the relevant EC directives.

In case of changes performed on the machine/equipment without our prior approval this declaration becomes invalid.

Type: **SharpX DUAL S 2300**  
Description of machine/equipment: **Diamond-Sharpener**  
Machine No.:

Relevant EC directives: EC Machinery Directive 2006/42/EC  
EC EMC 2004/108/EC

Applied harmonized standards  
in particular:

DIN EN ISO 12100:2010; Safety of machinery (March 2011)

DIN EN 60204-1:2007 Electrical equipment of machines  
Part 1: General requirements

Applied national standards  
and technical  
specifications:

GS type examination certificate No.: MO 113101 until 19.05.2016  
Inspection and certification authority: Fachausschuss Metall und Oberflächenbehandlung (MO), Hannover  
European notified body identification-no.: 0741

The following person / department is authorized to establish the documents:

Tore Eklund SHARPX AB Motala Sweden

The operator receives operating instructions in the language of operation.

Date/manufacturer signature: Motala, dated 1th April, 2016  
SHARPX AB Motala Sweden

Information regarding  
signatory:

Karin Eklund  
Managing Director

A handwritten signature in black ink, appearing to read 'Karin Eklund', is written over the printed name and title.