





## **Important Safety Instructions**

Important instructions and warning notices are allegorized on the machine by means of symbols:



**DANGER - EXPLOSION** 

Do not use electric motor if explosive or flammable fumes are present or are caused by mixing action. A compressed air powered motor should be used and adequate ventilation provided.



Some products may give off harmful fumes when being mixed. Ensure adequate ventilation is provided. Accurately follow the safety instructions of the material supplier.



Before you start working, read the operating instructions of the machine.



Work concentrated and carefully. Keep your workplace clean and avoid dangerous situations.



PortaMix® Hippo® motors are fitted with a RCD safety device for your protection.



The manufacturer shall not be in any way liable for any injury, damage or motor failure if the mixing unit is used for purposes or products for which is was not designed, or if safety and operational instructions have not been followed.



No liability for the operation or service life of motors not supplied by the manufacturer is accepted.



The use of the mixing unit does not guarantee the performance of materials mixed.



In order to protect the user, take the following precautions:



Wear ear protection



Wear goggles



Wear protective gloves



DO NOT operate the mixer on an unstable or insecure surface



DO NOT operate the mixer on a sloping surface or on scaffolding



The PortaMix® Hippo® is a rotary mixing device. Operators must ensure that any loose clothing and long hair is firmly tied back. Keep well clear of mixing shafts whilst in operation







## **Mixing Motor Specifications**

Model Number: EHR32/2.4P EHR32/2.4P-110V

Rated Voltage: 230V 110V Power Input: 1800W 1800W

Rated Current: 7.9A

Frequency: 50 – 60Hz

Spindle Connection: M16

Protection class: II

Degree of protection: IP20

Net weight: 6.9KG

Interference suppression: EN 55014 and EN 61000

Speed One 120rpm Speed Two 410rpm

The EHR 32/2.4P is made in protection class II. For FI-protection purposes the machine can only be run with a GFCI (PRCD). For this reason, the machine is standard equipped with a PRCD switch integrated in the cord which allows connecting the unit directly onto the main.

### **Safety Instructions**

- Safe work with the machine is only possible if you read this operating instruction completely and follow the instructions contained strictly.
- Additionally, the general safety instructions of the leaflet supplied with the tool must be observed. Prior to the first use, the user should familiarize themselves with the correct operating procedures.
- If the connecting cable is getting damaged or cut during the work, don't touch it, but instantly pull the plug out of the socket. Never use the machine with damaged connecting cable.
- Do not use the tool in an environment with danger of explosion.
- Do not carry the tool at its cable, and always check the tool, cable and plug before use. Have damages only repaired by specialists. Only insert the plug into the socket when the tool switch is off.
- Modifications of the tool are prohibited.
- Unplug and switch the machine off if it is not being used e.g.: when attaching or removing the motor or mixing paddle.
- Switch the machine off if it stops for whatever reason. This way, you avoid that it starts suddenly and not under supervision.
- Do not use the machine if one part of the housing is damaged or in case of damages on the switch, cable or plug.
- While working always lead the line cord and extension cord to the back away from the machine.
- Electric tools have to be inspected visually by a specialist in regular intervals.
- Do not touch rotating parts
- During use, the user must wear goggles, ear protectors and protective gloves.







### **Electrical Connection**

- Before starting the machine check the correspondence between voltage and frequency according to the data mentioned on the identification plate. Voltage differences from + 6 % and – 10 % are allowed.
- The motor is made in protection class II.
- Only use extension cables with a sufficient cross-section. A cross-section which is too small could lead to an excessive power loss and to an overheating of motor and cable.

Recommended minimum cross sections and maximum cable lengths

Mains voltage	Cross section in sq. mm	
	1.5mm	2.5mm
110V	10m	30m
230V	10m	30m

## **Switching On and Off**

#### Switching-on:

- Plug motor into the power source
- Set the inline circuit breaker
- Press the on/off switch on motor

#### Switching-off:

- Release the on/off switch
- This will trip the inline circuit breaker eliminating accidental start-up

### **Changing Gears**

The machine is equipped with a mechanical two-speed gearbox. Select the required speed by pressing-in, shifting and engaging. The position of the lower speed is in direction of the working spindle. Change the speed only when the machine is not running, and support the speed-changing by slightly rotating the work spindle.

Speed One		120rpm (Loaded Speed)
Speed Two		410rpm (Loaded Speed)

#### Attention!

- Never apply force when changing gear.
- Change the gear only when the motor is stopped.
- Never use tools, such as hammers or pliers to change the gear.







#### **Care and Maintenance**

Before the beginning of maintenance or repair works you have to disconnect the plug from the mains. Repairs may be executed only by appropriately qualified and experienced personnel. After every repair the machine has to be inspected by an electric specialist. Due to its design, the machine needs a minimum of care and maintenance. However, the following points always have to be observed:

- Always keep the power tool and the ventilation slots clean.
- During work, please pay attention that no particles get inside the machine.
- In case of failure, a repair has to be carried out by an authorised service workshop.

#### **Environmental Protection**



Raw material recycling instead of waste disposal

In order to avoid damages on transportation, the power tool has to be delivered in sturdy packing. The packing as well as the tool and its accessories are made of recyclable materials and can be disposed accordingly.

The tool's plastic components are marked according to their material, which makes it possible to remove environmental friendly and differentiated because of available collection facilities

### **Only for EU countries**



Do not dispose of electric tools together with household waste material! In observance of European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility

### **Noise Emission / Vibration**

The indication of noise emission is measured according to DIN 45 635, part 21. The level of acoustic pressure on the work place could exceed 85 dB (A); in this case protection measures must be taken



Wear ear protectors!

The typical hand-arm vibration is below 2.5 m/s<sup>2</sup>. Measured values determined according to EN 60 745

Vibration emission value ah 0,8 m/s2 Uncertainty K 0,1 m/s2

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.







#### **Dust Protection**

Dust from material such as paint containing lead, some wood species, minerals and metal may be harmful. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory diseases to the operator or bystanders.

Certain kinds of dust are classified as carcinogenic such as oak and beech dust especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos must only be treated by specialists.

- Where the use of a dust extraction device is possible it shall be used.
- To achieve a high level of dust collection, use an appropriate industrial vacuum cleaner together with this machine.
- The work place must be well ventilated.
- The use of a dust mask of filter class P2 is recommended

### Warranty

According to our general terms of delivery for business dealings, suppliers have to provide to companies a warranty period of 12 months for redhibitory defects (to be documented by invoice or delivery note).

Damages due to natural wear, overstressing or improper handling are excluded from this warranty.

Damages due to material defects or production faults shall be eliminated free of charge by either repair or replacement.

Complaints will be accepted only if the tool is returned in non-dismantled condition to the manufacturer or an authorized PortaMix® Hippo® service center

# **C** € Declaration of Conformity

EN 60 745

According to the regulations 2011/65/EU, 2004/108/EC, 2006/42/EC







## Mixer Operation – Model PMH80

#### Before starting work please ensure:



- The mixer is on a firm surface.
- The motor unit is firmly held in the clamp by tightening the clamp nut.
- The mixing shaft is firmly tightened onto the motor spindle.
- The mounting column is secured in position by the lock pin.

#### The motor unit must be turned off before:



- Changing Gear
- Making any adjustment to the machine
- Dispensing mixed material
- Manually cleaning canister or mixing shaft.



Keep hands and other objects well clear of mixing canister and helix whilst machine is operating.

### **Operating Hints**

Best results are achieved when:

- Dry ingredients are added gradually while the mixer is running.
- Mixing instructions are accurately followed.
- The mixing helix is **totally** immersed in the mix.

## **Mixing Methods**



Read material manufacturers mixing instructions before mixing.



DO NOT mix ignitable or toxic materials. Ensure adequate ventilation is provided.

#### For Dry Materials To Be Mixed With Liquids

- 1. Measure the correct amount of liquids into the mixing canister. Wet the sides of the canister.
- 2. Run the mixer on low speed.
- 3. Gradually add the dry ingredients to the liquid. A 20-25 kg bag of dry ingredients should take about 20-30 seconds to pour into the mixing canister in a consistent flow.
- 4. Do Not Dump Product In All At Once Or A Lumpy Mixture Will Result.
- 5. When three quarters of the dry ingredients have been added to the liquid, the mixer can then be run on high speed.
- 6. Add the rest of the ingredients. *Ensure That The Mixing Helix Is Totally Covered.* It may be necessary to select a mixing shaft with a shorter helix to mix a small batch, or a larger helix to mix a full batch. This will ensure thorough mixing.

### **For Wet Pre-Mixed Products**

- 1. Pour product to be mixed or blended into mixing canister
- 2. **Ensure That The Mixing Helix Is Totally Covered.** It may be necessary to select a mixing shaft with a shorter helix to mix a small batch, or a larger helix to mix a full batch. This will ensure thorough mixing.







- 3. Pour product to be mixed or blended into mixing canister
- 4. Select the best speed according to material being mixed. Turn mixer on.
- 5. When mixing is complete, unplug power supply from motor unit.
- 6. To dispense mixed material, release the tilt lock by pushing the tilt lock lever down, and tilt the canister cradle. Hold the cradle handle firmly to ensure a controlled pour.

## **Along Side Mixing**

Small quantities of material may be mixed "alongside" in an alternative container Remove mount column from carrier and reverse it to face the rear of the machine. Secure it in the column by inserting the lock pin at the appropriate height.

#### **Canister Removal**

The canister may be removed from the cradle by undoing the pin bolt and lifting the canister out.

### **Liner Option**

The Mega Hippo has a canister option, PH704, which allows the use of a liner. This liner can be used for mixing all the products that the Mega Hippo is designed to mix. The liner is particularly designed for mixing very abrasive materials or resins and epoxy materials that require solvent based cleaning products.

To fit or remove the liner, remove the motor mount from the mixer, complete with the motor and helix. Lift out or install the liner into the canister.

#### **Dust Extraction**

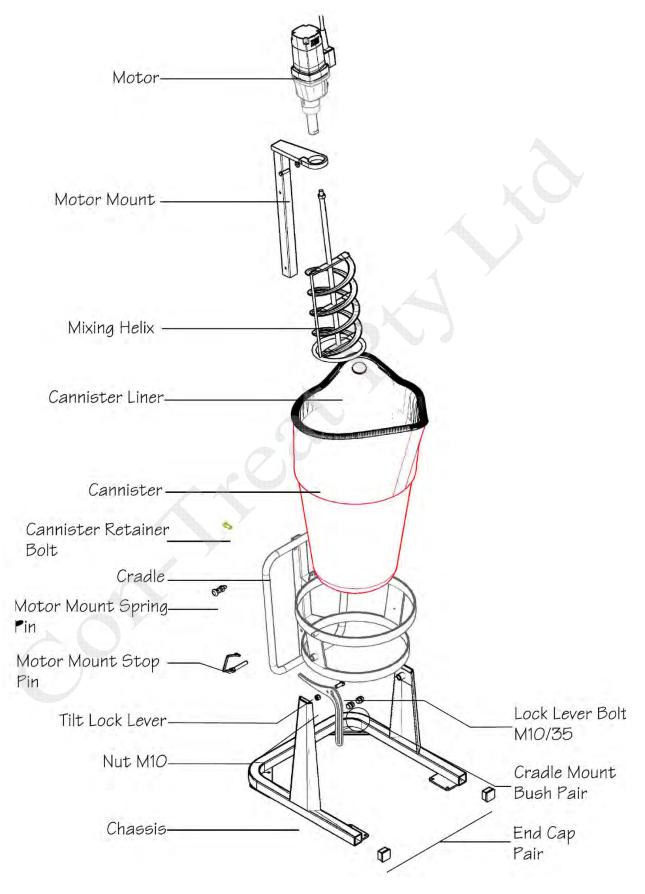
The Mega Hippo canisters and liners are supplied with a dust extraction port for attaching a dust extraction hose. The dust port will a standard 50mm diameter taper hose cuff.







## **PMH80 Exploded Diagram**

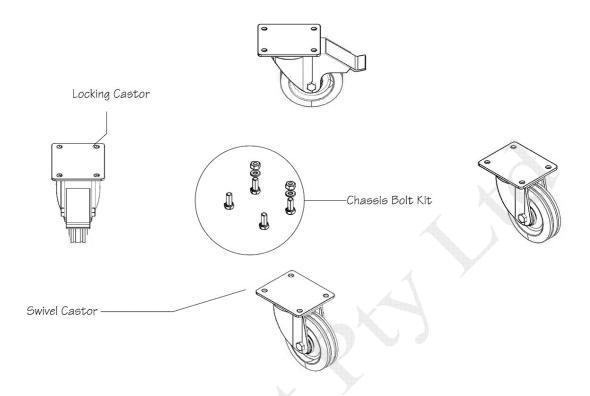




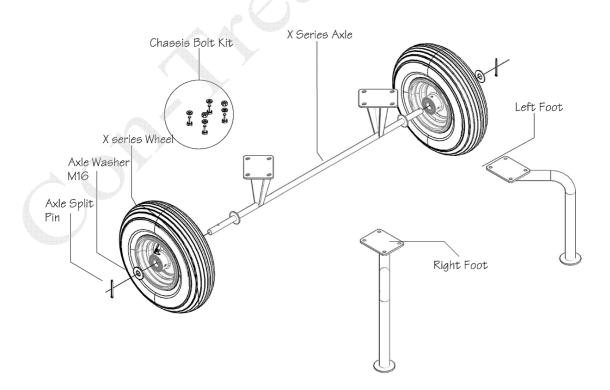




## **PH400 F Series Wheel Kit**



## **PH500 X Series Wheel Kit**









## Mega Hippo Mixing Station - Module A



PMH80

PMH80/RL

PORTAMIX Hippo Mega Module Including:

- Canister
- Motor
- TW225 Helix
- TW225D Helix



- Canister
- Liner
- Motor
- TW225 Helix
- TW225D Helix



Wheel Kit - Module B



PH400

F Series Castor Kit



PH500

X Series Pneumatic Wheels & Feet Kit

#### **Accessories**



EHR32/2.4P/M16

Motor M16 Short – 240V



EHR32/2.3P-110V

Motor M16 Short – 110V



PH703

Standard Mega Canister – with pour control



PH704

Rimless Mega Canister



PH705

Liner for Rimless Canister



TW225

Half Batch Helix



TW225D

Full Batch Helix



583723

2"Dust Connection Cuff



415758

5m 2"Dust Exhaust Hose with Cuffs

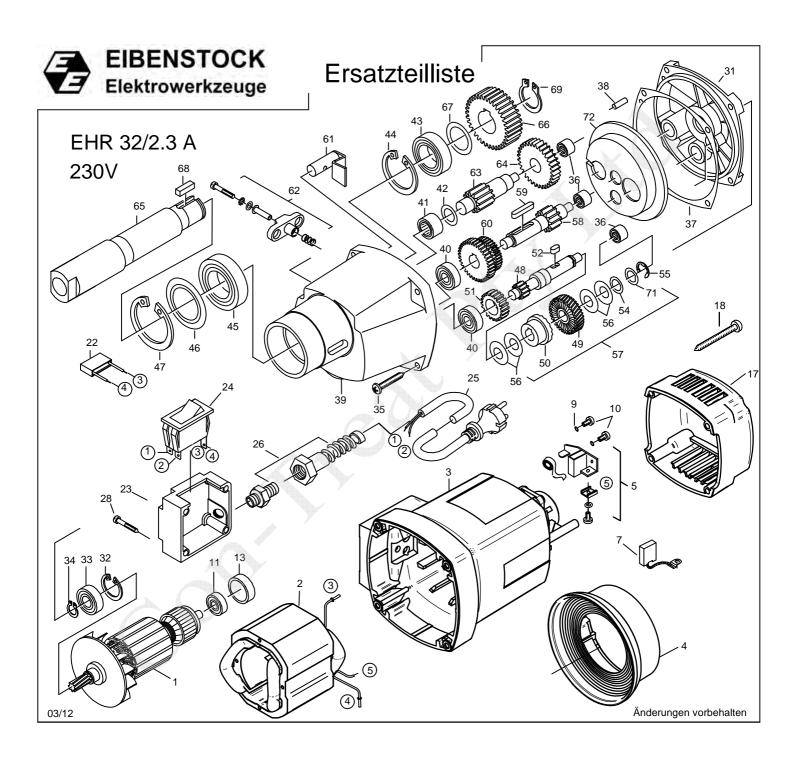












# EHR 32/2.3 P A - 230 V

No.	Description	RefNo.	рс.	Price	No.	Description	RefNo.	pc.	Price
				€/pc.					€/pc.
1	rotor complete	7154F100	1		37	gearbox seal	82000057	1	
2	stator complete	7154A150	1		38	notched pin plug 5x16	80200580	1	
3	motor housing	80900042	1		39	gearbox housing	74521400	1	
4	air guiding ring	71540140	1		40	grooved ball bearing 6000	80410020	2	
5	brush holder complete	80201199	2		41	needle bearing RNA 4900	80420001	1	
6					42	disc for needle bearing	85000017	1	
7	carbon brush	80700019	2		43	grooved ball bearing 6005 2RS	80410061	1	
8					44	locking ring 47/1,75	80201336	1	
9	corrugated spring washer B4	80201385	4		45	grooved ball bearing 6006 2RS	80410071	1	
10	self tapping screw ZM4x12	80201180	4		46	disc for ball bearing 6006	71540426	1	
11	grooved ball bearing 6000 2Z	80410021	1		47	locking ring 55/2	80201338	1	
12					48	intermediate shaft 1 13 Z.	71521490	1	
13	bearing cap	83000031	1		49	coupling wheel	7154F550	1	
14					50	coupling half	71540560	1	
15					51	intermediate wheel 1 28 Z.	71521470	1	
16					52	fitting key, hardened 5x5x10	71540495	1	
17	cap for motor housing	7742A240	1		53				
18	self tapping screw HC 4,8x45	80201267	4		54	pressure wahser 1	71540607	1	
19					55	lock washer 9	80201361	1	
20					56	spring washer 28x12,2x1	80200713	4	
21					57	coupling complete	77526493	1	
22	anti parasit condenser	80500010	1		58	intermediate shaft 2 12 Z.	71521500	1	
23	switch box	73420631	1		59	fitting key A5x5x28	80200602	1	
24	switch ETA	80600119	1		60	gear block 39/25 Z.	71521440	1	
25	connecting cable PRCD w. austr. plug	7333F262	1	• /	61	coupling bolt complete	71521520	1	
26	cable screwing	80600170	1		62	gear changer complete	71540545	1	
27			$\mathbb{Z}$		63	intermediate shaft 3 12 Z.	71521510	1	
28	self tapping screw HC 5,5x38	80201292	4		64	intermediate wheel 2 31 Z.	71521480	1	
29					65	work spindle	77523420	1	
30			Her		66	spindle wheel	71540430	1	
31	end shield of gearing	7152B610	1		67	fitting washer 25/35x0,1	80200512	1	
_	locking ring 28/1,2	80201333	1		68	fitting key B6x6x20	80200606	1	
33	grooved ball bearing 6001 2Z	80410031	1		69	locking ring 24/1,2	80201326	1	
34	locking ring 11/1	80201320	1		70				
35	self tapping screw HC 5,5x38	80201292	4		71	pressure washer 2	71540606	1	
36	needle sleeve HK 0810	80420110	3		72	grease compartment barrier	80900111	1	