

OPERATION AND INSTRUCTION MANUAL

ROTOPOKA INTERNAL PENDULUM FLEXIBLE DRIVE VIBRATOR



BTHPU/H Power unit
BTHPU/YD Power unit
BTHPU/BTP
BTEPU230 Electric Power unit
BTEPU110 Electric Power unit

BTRP/25 BTRP/35 BTRP/50 BTRP/60 Rotapoka

Use this guide along with the parts lists attached to locate and identify components of your shaft. When ordering replacement parts, be sure to provide the model number and serial number from the shaft.

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General Power Tool Safety Warnings

WARNING All safety warnings in instructions , illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool

1) Work area safety

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed Or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) If operating a power tool in damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

NOTE The term “residual current device (RCD)” may be replaced by the term “ground fault circuit interrupter (GFCL)” or “earth leakage circuit breaker (ELCB)”.

3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use personal protective equipment. Always wear eye protection. Protective equipment such as a dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Prevent accident starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

4) Power tool use and care

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other that may affect the power tools operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

g) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

5) Service

a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

1. APPLICATION

The BTEPU concrete vibrator with flexible shaft driven by single phase electric motor is an important instrument for concrete construction. It is widely used in construction industry to consolidate and compact various plastic, semi-plastic or nearly dry concrete.

2. SPECIFICATIONS

MODEL	VIBRATOR HEAD								ELECTRIC MOTOR			
	DIMENSIONS OF VIBRATING BODY		FLEXIBLE SHAFT Dia. mm	FLEXIBLE PIPE Dia. mm	FLEXIBLE PIPE LENGTH m	VIBRATING FREQUENCY Hz	VIBRATING AMPLITUDE mm	WEIGHT (WITH 4-12m PIPE) kg	POWER kW	SPEED rpm	POWER SUPPLY	WEIGHT kg
	Dia. mm	LENGTH mm										
BTRP/25	Φ 25	350	Φ 8	Φ 24	4—12	260	1.40	7—20	1.45	2850	220V ~ 50/60Hz	14
BTRP/35	Φ 35	370	Φ 10	Φ 30	4—12	220	1.64	10—28				
BTRP/50	Φ 50	452	Φ 13	Φ 36	4—12	200	2.30	16—42				
BTRP/60	Φ 60	406	Φ 13	Φ 36	4—12	200	2.40	17—43				

3. GENERAL STRUCTURE

The vibrator mainly consists of two components: a driving single phase electric motor and a vibrator head which includes a vibrating body and a set of flexible pipe and shaft. The vibrator is of simple structure; easy operation and less maintenance.

Notes:

1. Left-hand threads are applied at the ends of the casing.
2. The connection thread between flexible shaft and rolling body is right-handed.
3. The kind of coupling method between flexible shaft and rotating shaft of motor is Dynapac.
4. The driving electric motor is a Dynapac asynchronous motor and the red arrow mark on the coupler of the motor indicates its right rotating direction.

4. OPERATION

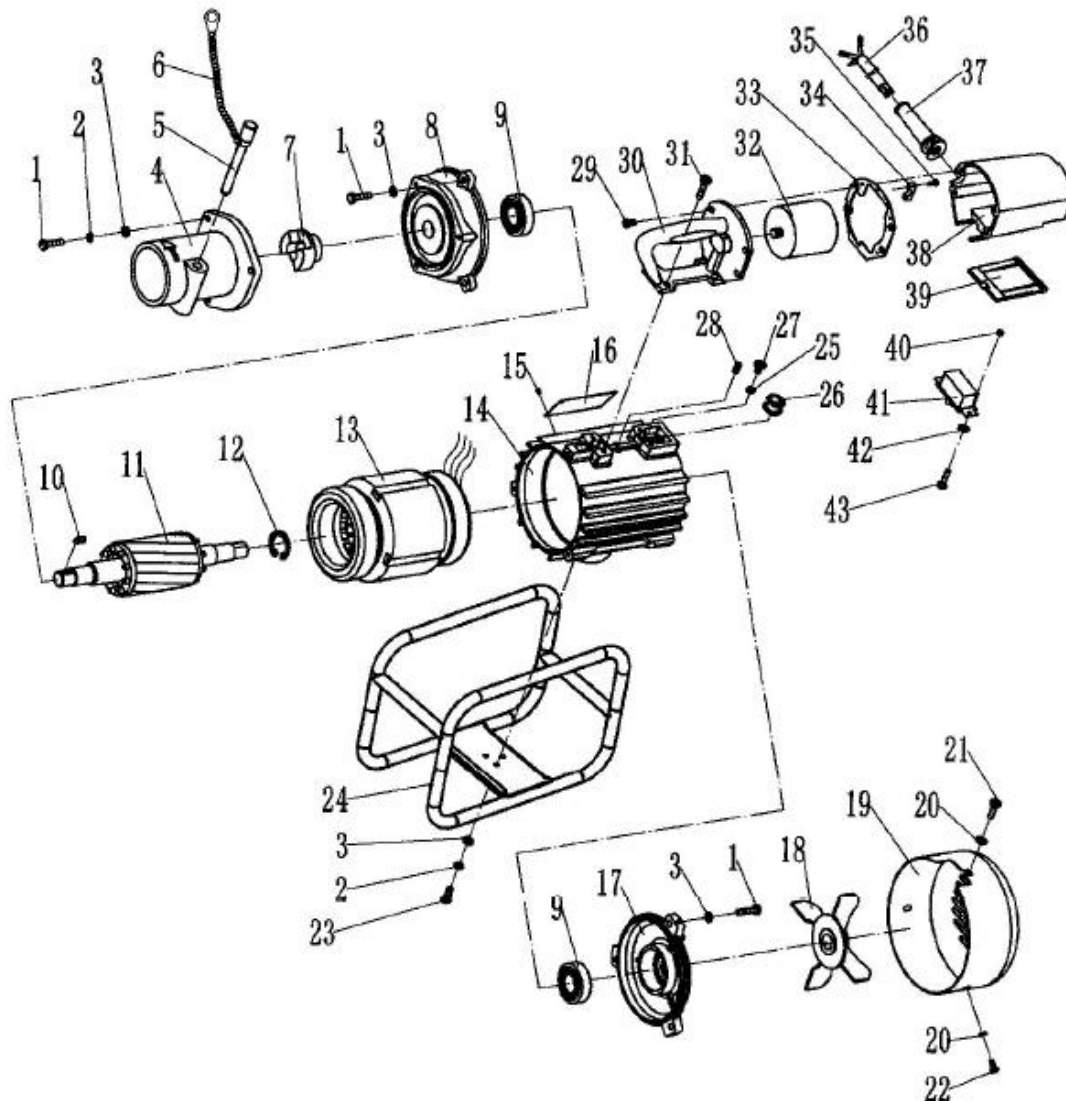
1. Check the insulation resistance of the motor before you put it into use. Its value must be not below 2 MΩ. A residual current protective switch should be included in the power supply circuit in the light of safe.
2. Check the rotating direction of the motor before you put it into use. Otherwise, the flexible shaft does not rotate when the motor is operating.
3. Insert the pipe connector and the shaft plug into the motor coupler. Then tighten them by the connecting spanner.
4. Shake the vibrating body against the ground to begin vibrating until you hear a sound as “WU” when the motor is normally operating. Then you can put the vibrating body into concrete to operate.
5. Let the vibrating body go down into the concrete by its gravity, not by external force during operation. What's more, one can't weld a steel bar at the front of the vibrating body and let it vibrate in concrete while the vibrating body is vibrating in the air, that will seriously damage the vibrating body. The bending radius of the flexible pipe should not be less than 500mm, otherwise its service life will be shortened.

5. MAINTENANCE AND REPAIRING

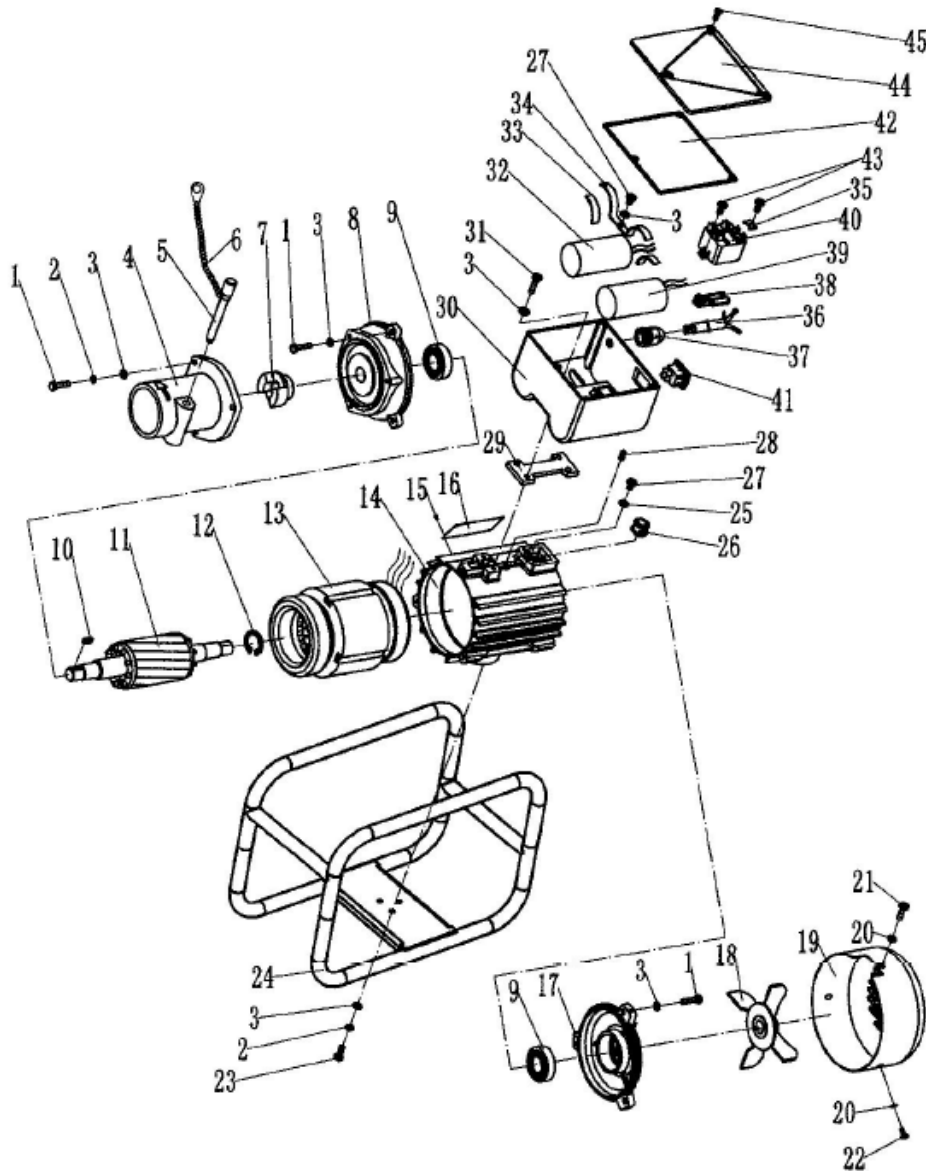
1. After every operation, the whole vibrator should be cleaned thoroughly to keep it in good state, and place the driving electric motor in a dry place.
2. After a certain period of using, one should disassemble, clean and add some high-melting grease into the bearing in the vibrating body to extend the vibrator head's service life. When reassembling, keep the space from the bearing to the cone inside the vibrating body free of dust, oil and water.
3. There must be some water or/and oil on the raceway if you find, during operation, that the flexible shaft is operating while the vibrating body is not vibrating or vibrating weakly (which is often called “slippery state”). In this case, one should disassemble the vibrating body to clean its inside with petrol thoroughly.

4. After a certain period of using, the flexible pipe may be worn out or lengthened. That at last results in difficult connection between flexible shaft plug and rotating shaft. In such case, you should disassemble the conical sleeve, cut off the over-length pipe and reassemble them. Then, the vibrator head can be put into use again.
5. If the fuse is burnt out when the motor is operating, careful check must be executed to see whether it is overloaded or there are some circuit-troubles. Then try to correct them and replace the fuse according to its capacity as stipulated. Now, you can switch on the motor again.

PARTS DIAGRAM ROTAPOKA ELECTRIC POWER UNIT BTEPU230



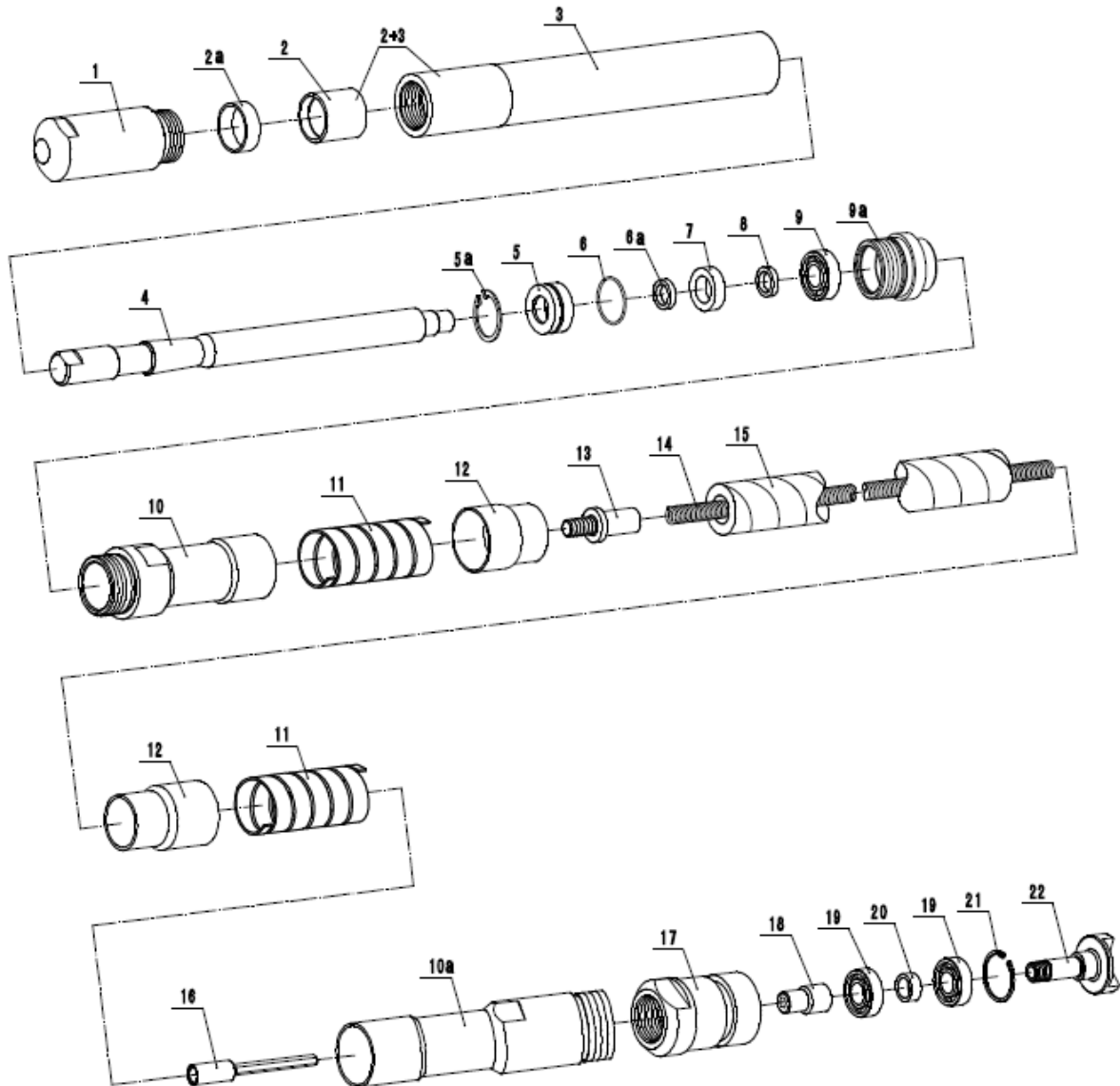
PARTS DIAGRAM ROTAPOKA ELECTRIC POWER UNIT BTEPU110



PARTS LIST FOR ROTAPOKA ELECTRIC POWER UNIT				
NO.	DESCRIPTION	QTY	BTEPU110	BTEPU230
			Part N°	Part N°
1	BOLT	9	590303	590303
2	ELASTIC WASHER	7	650603	650603
3	PLAIN WASHER	9	650103	650103
4	CLAW COUPLER	1	112010	112010
5	PLUG PIN	1	102011	102011
6	CHAIN COMP.	1	102015	102015
7	MOTOR CLUTCH	1	102012	102012
8	FRONT COVER	1	103011	103011
9	BEARING	2	550501	550501
10	FLAT KEY	1	672001	672001
11	ROTATOR	1	112080	112080
12	CIRCLIP FOR SHAFT	1	670211	670211
13	STATOR	1	112071	112070
14	HOUSING	1	100080	100080
15	REVIT	1	632002	632002
16	NAME PLATE	1	711173	711127
17	REAR COVER	1	100061	100061
18	PLASTIC FAN	1	752002	752002
19	FAN CASING	1	100100	100100
20	PLAIN WASHER	3	650102	650102
21	SLOTTED SCREW	1	630713	630713
22	SLOTTED SCREW	2	630702	630702
23	BOLT	3	590315	590315
24	FRAME	1	112060	112060
25	LEAD PROTECTOR	1	750101	750101
26	SLOTTED SCREW	2/1	630704	630704
27	SLOTTED SET SCREW	1	630501	630501
28	SLOTTED SCREW	4	---	630703
	BOX SUPPORTER	1	100121	---
29	HAND GRIP	1	---	112020
	SWITCH BOX	1	111080	---

NO.	DESCRIPTION	QTY	BTEPU110	BTEPU230
			Part N°	Part N°
30	SLOTTED SCREW	4	630709	630708
31	CAPACITOR	1	570340	570331
	(150μ F 300V/30μ 450V)			
32	RUBBER SHEET	1	---	100052
	SUPPORT RUBBER	2	111030	---
33	CABLE CLAMP	1		100092
	CAPACITOR SPLINT	1	111040	---
34	SELF-DRIVE SCREW	2	---	630806
	PLATE	1	111050	---
35	CABLE	1	112090	112090
36	CABLE PROTECTOR	1	---	750118
	CABLE GLAND	1	570230	---
37	SWITCH COVER	1	---	112030
	TERNINAL	13	712101	---
38	BOTTOM COVER	1	---	112050
	CAPACITOR (25μ F 450V)	1	570332	---
39	SWITCH	1	---	570302
	RELAY	1	570359	---
40	FLAT WASHER	2		650106
	SWITCH	1	756020	
41	NUT	2	---	650506
	ISOLATED RUBBER	1	111060	---
42	SCREW	2	630712	630734
43	COVER PLATE	1	111070	---
44	SCREW	3	633508	---

EXPLOSION DRAWING FOR ROTAPOKA C/W HOSE PROTECTOR AT BOTH ENDS



PARTS LIST FOR ROTAPOKA C/W HOSE PROTECTOR AT BOTH ENDS						
NO.	DESCRIPTION	QTY	Ø 25	Ø 35	Ø 50	Ø 60
			Part N°	Part N°	Part N°	Part N°
1	CONE	1	001310	013310	044310	380101
2a	SPACER	1	----	013320	----	----
2	RACE WAY	1	----	713001	713004	----
3	CASING	1	001330	013340	044320	380103
2+3	CASING + RACE WAY	1	----	013300D	038300D	----
4	PENDULUM ROTOR (60Hz)	1	001322	013332	038322	380122
5	OIL-SEAL HOUSING	1	----	013350	038340	----
5a	CIRCLIP	1	----	----	----	----
6	O RING	1	----	510101	510202	----
6a	WASHER	1	001340	----	----	----
7	OIL SEAL	1	530101	530101	530105	530405
8	WASHER	1	----	----	038350	----
9	BEARING	1	550201	550202	550103	550208
9a	BEARING HOUSING	1	001350	----	----	380104
10	PIPE ADAPTOR	1	001111	013111	038111	052111
10a	PIPE COUPLING	1	001191	013191	038111	038111
11	SPIRAL PROTECTOR	2	001170	013170	038170	038170
12	STOP RING	2	001180	013180	038180	038180
13	END TANG	1	001210	013210	038210	052210
14	INNER CORE 6M	1	810103	810113	810124	810124
	INNER CORE 12M	1	810102	810112	810123	810123
15	OUTER CORE 6M	1	830103	830113	830124	830124
	OUTER CORE 12M	1	830102	830112	830123	830123
16	HEX. TANG	1	009210	022210	049210	049210
17	COUPLING HEAD	1	046320	046320	046320	046320
18	HEX. TANG CONNECTOR	1	046310	046310	046310	046310
19	BEARING	2	550102	550102	550102	550102

NO.	DESCRIPTION	QTY	Ø 25	Ø 35	Ø 50	Ø 60
			Part N°	Part N°	Part N°	Part N°
20	SPACER	1	046330	046330	046330	046330
21	CIRCLIP	1	670105	670105	670105	670105
22	POKER CLUTCH	1	046350	046350	046350	046350
23	POKER SERVICE KIT*	1	BTRP25SK	BTRP35SK	BTRP50SK	BTRP60SK

*POKER SERVICE KIT (001300SK) COMPRISES OF:

BEARING

OIL SEAL

O-RING

Declaration of Conformity / Certificat de conformite / Gelijkvormigheidscertificaat / Declaracion de Conformidad / Declaracao de Concormidade / Dichiarazione Di Conformita

Model : BTHPU - BTEPU - BTRP

We Beton Trowel NV

Declare under our sole responsibility that the product to which this declaration relates is in conformity with the following standards or other normative documents.

Declarons sous notre responsabilite que le produit cette declaration est conforme aux norms suivantes ou d'autres documents habituels.
Verklaren onder onze verantwoordelijkheid dat het product naar welke de verklaring verwijst conform de volgende standards of anders gebruikelijke documenten is.

Declaramos bajo nuestra unica responsabilidad que el producto en lo que esta declaracion concierne, es conforme con la siguiente normative u otros documentos.

Declara sob sua responsabilidade que o produto a quem esta declaracao interessar, esta em conformidade com os seguintes documentos legais ou normas directivas.

Dichiariamo sotto la ns. Unica responsibilita che il prodotto al quale questa dichiarazione si riferisce, e fabbricato in conformita ai seguenti standard e documenti di normative.

EN 349:2008+A1:2008 EN 12100:2010 EN12649:2008+A1:2011 EN ISO 5349-2:2001 +A1:2015

Following the provisions of Directives:

Suivant les directives determinees:

Volgens de vastgestelde richtlijnen:

Siguiendo las directivas:

No seguimento das clausulas da Directivas

Seguendo quanto indicato dalla Direttivas:

2006/42/EC Machinery Directive

2000/14/EC Noise Directive

2001/95/EC General Product Safety Directive

2002/95/EC Reduction of Hazardous Waste Directive

LVD2014/35/EU Low Voltage Directive

2004/30/EU Electromagnetic Compatibility



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