

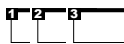
**Milwaukee**<sup>®</sup>

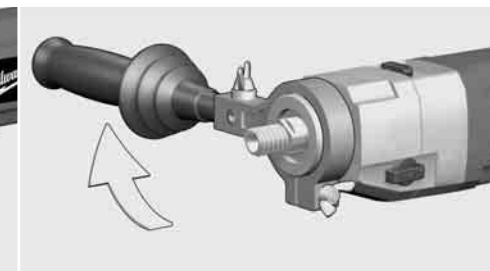
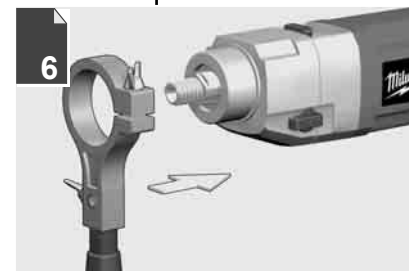
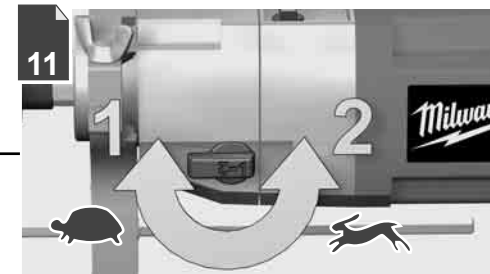
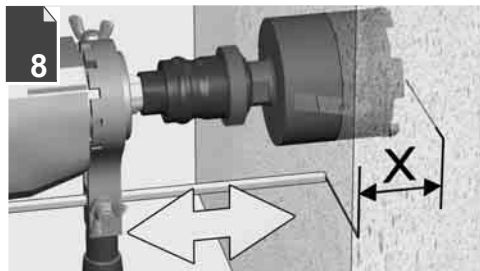
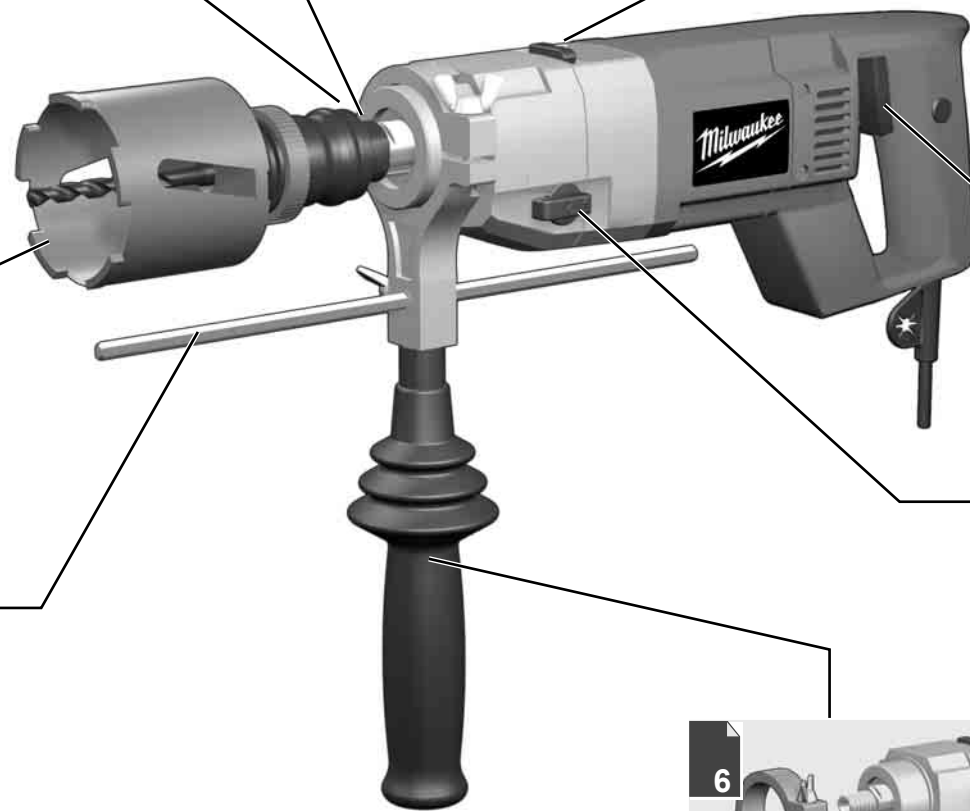
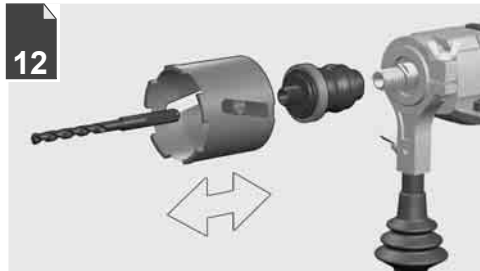
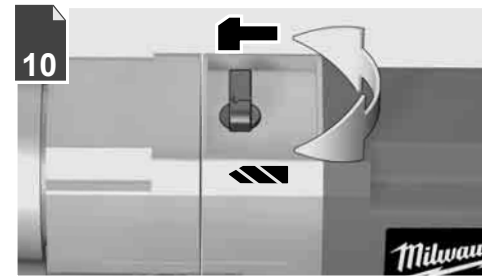
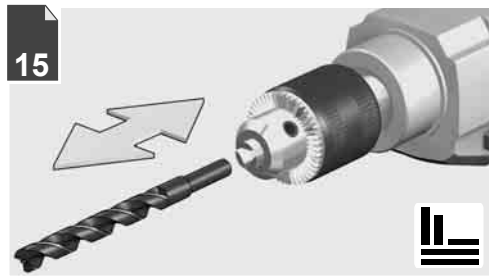
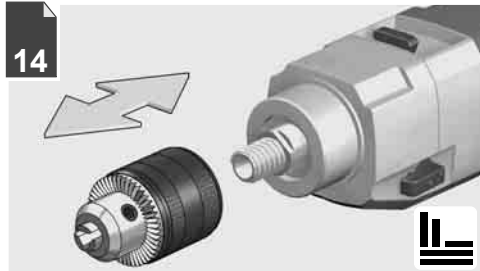
Nothing but **HEAVY DUTY**<sup>®</sup>.

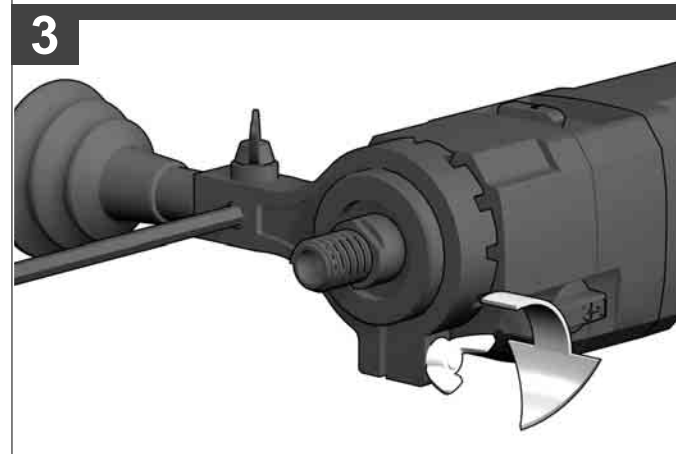
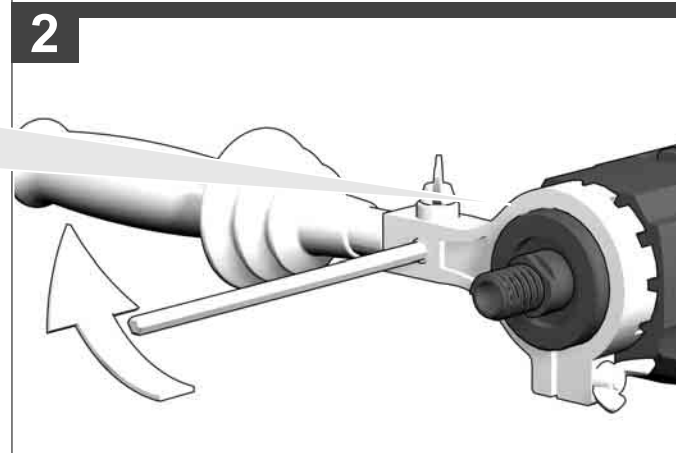
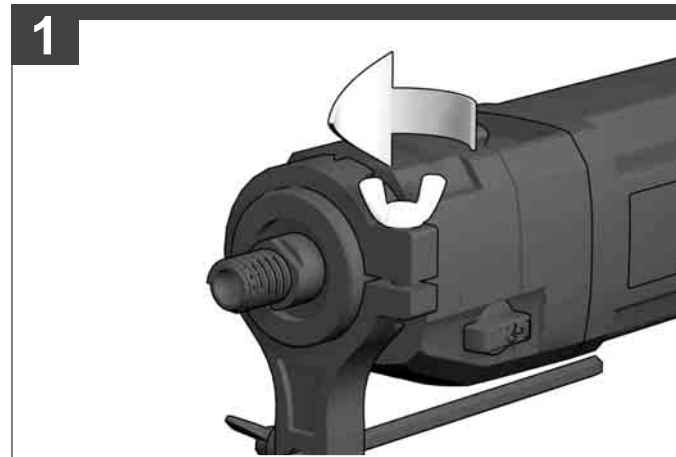
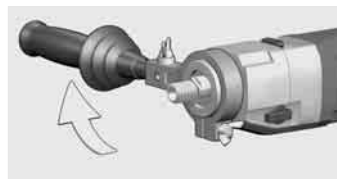
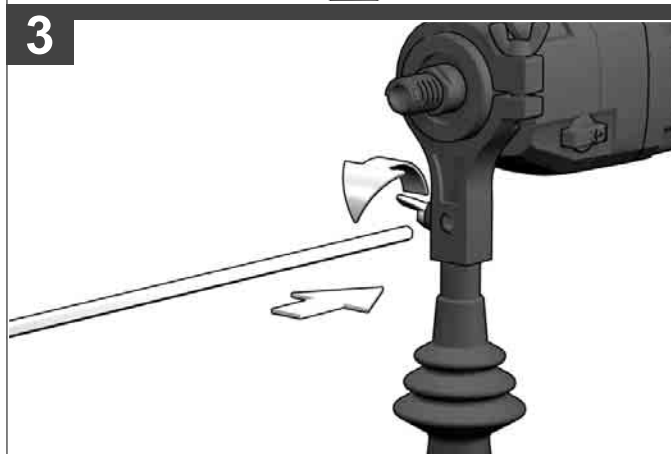
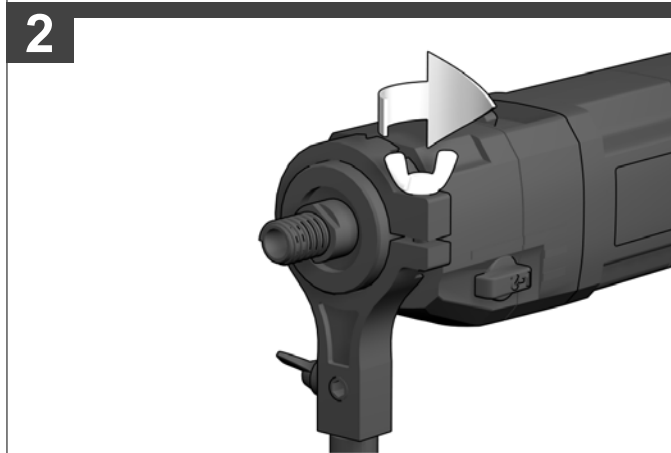
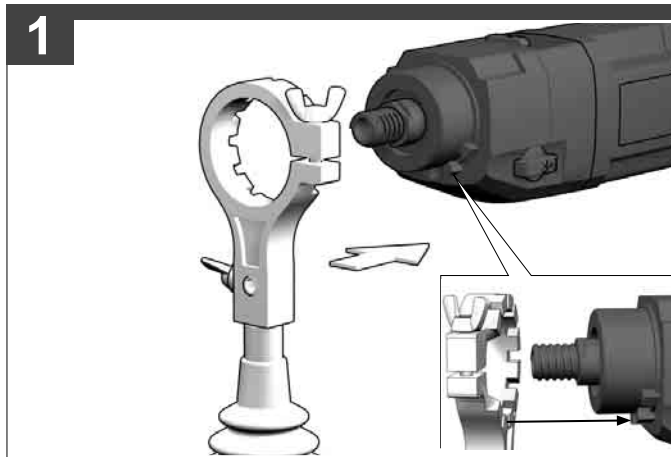


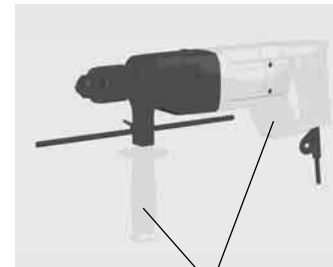
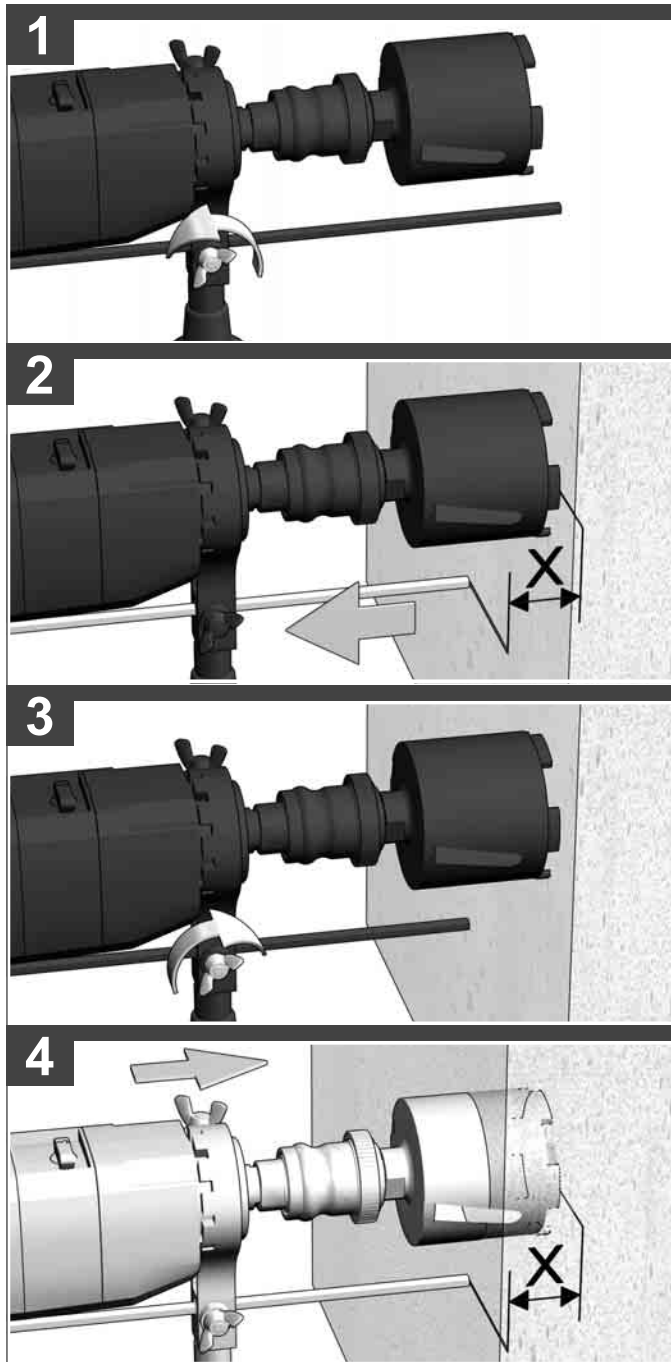
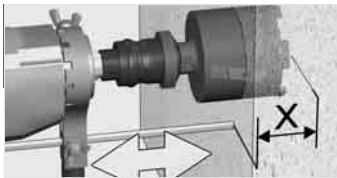
## **DD2-160 XE**

Original instructions

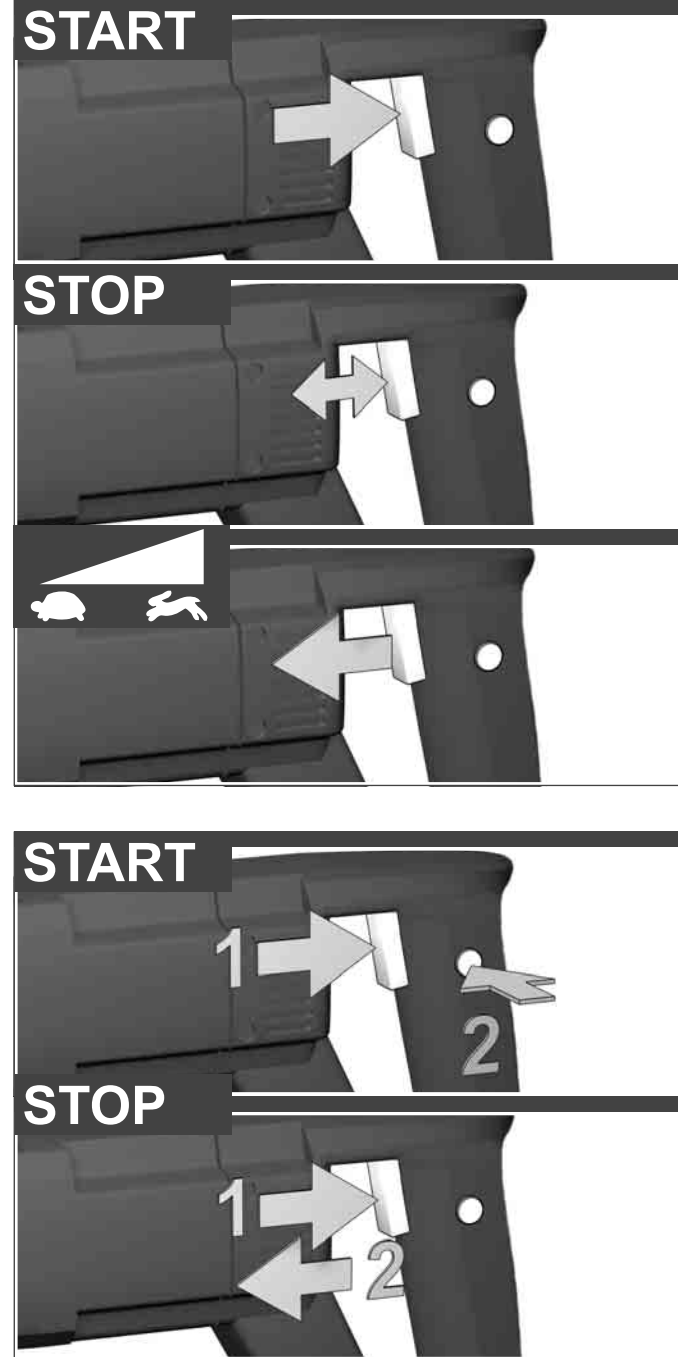


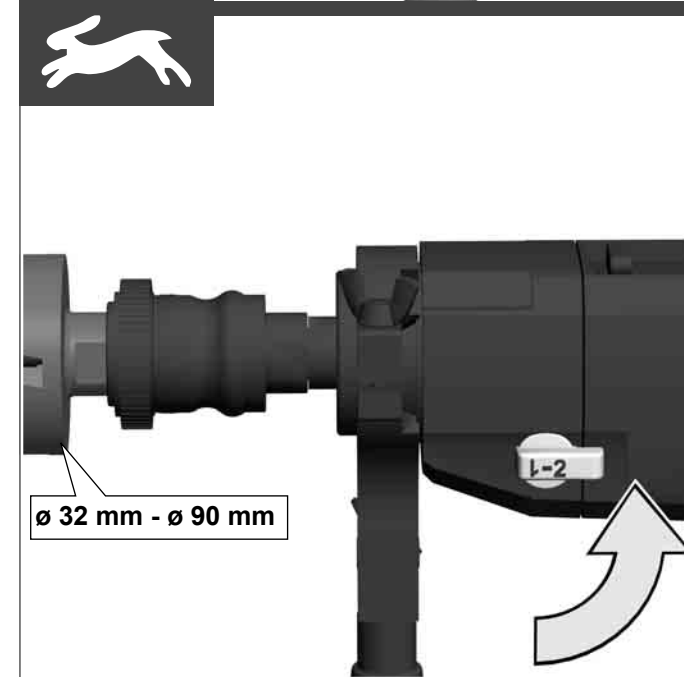
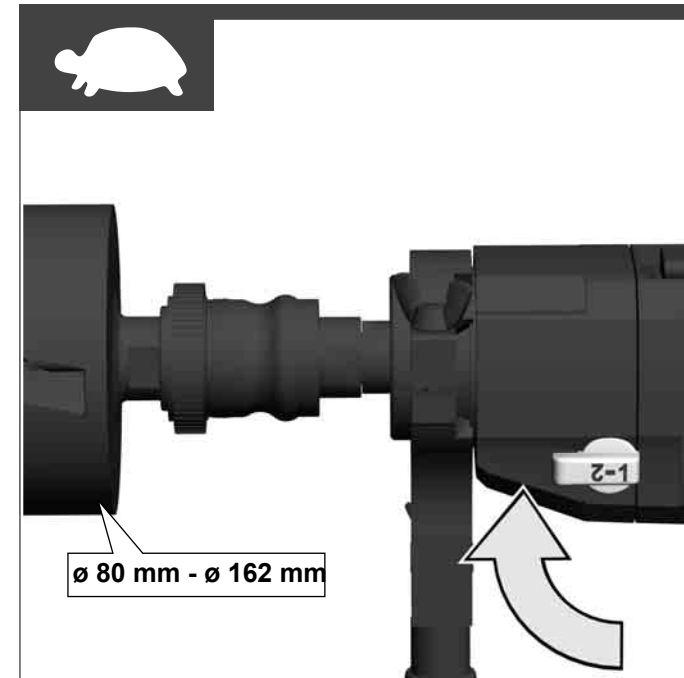
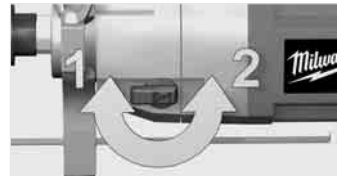
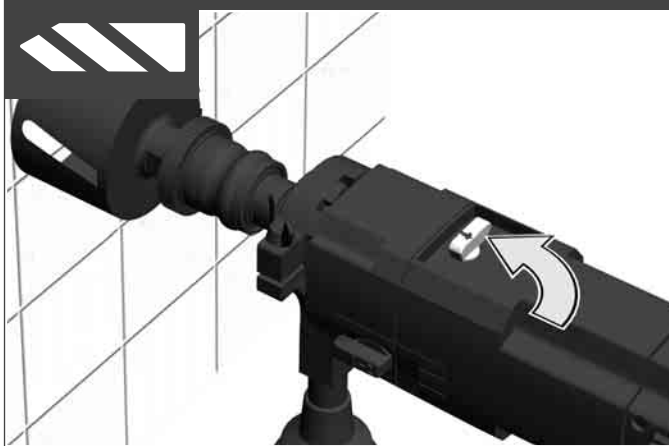
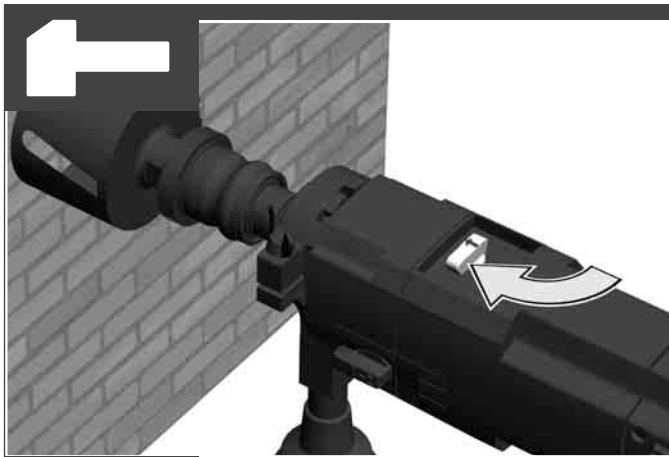
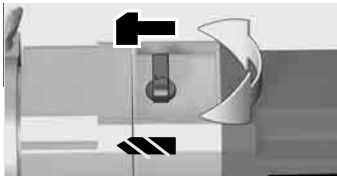


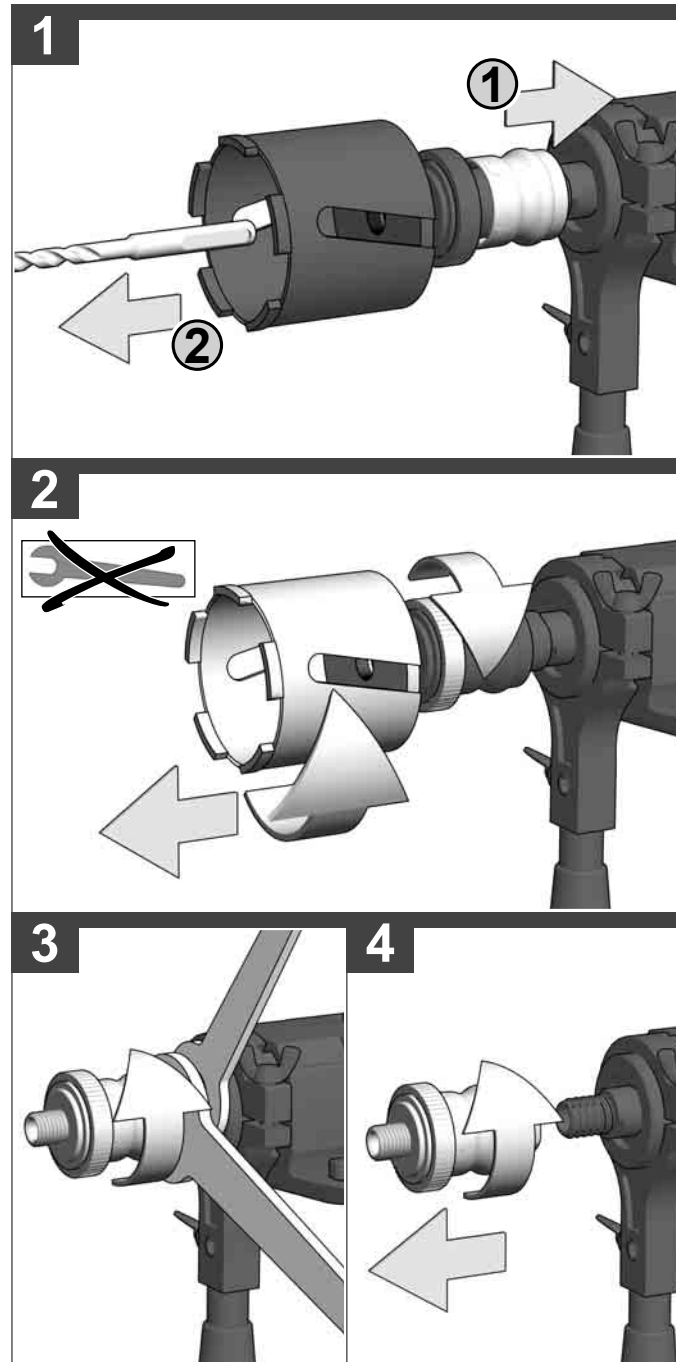
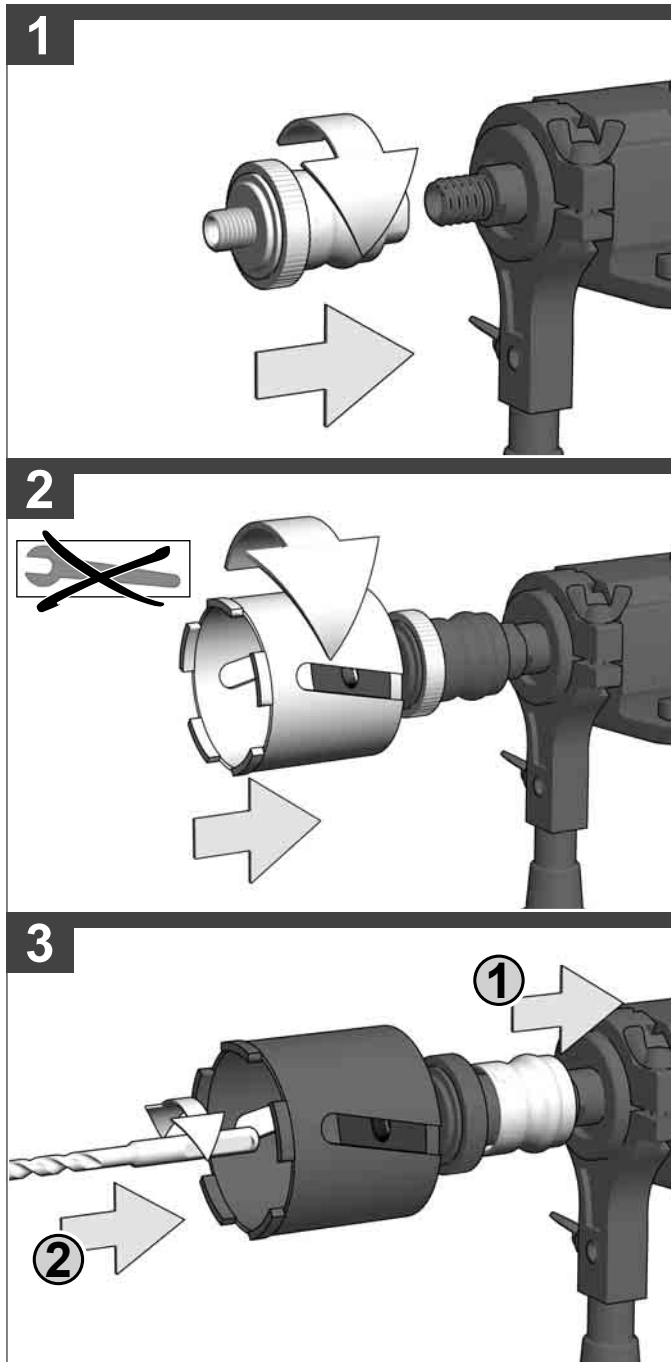


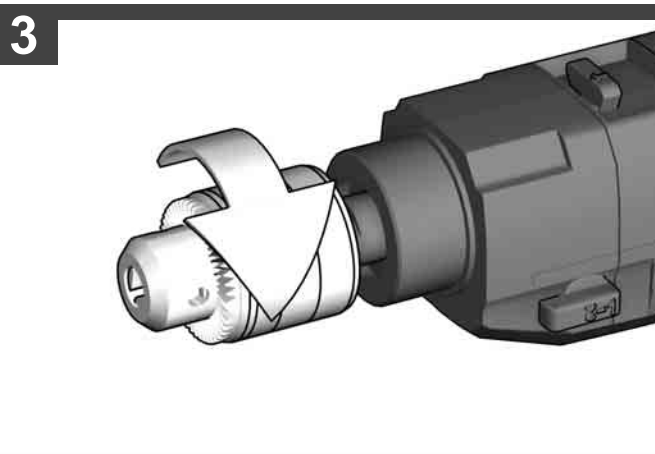
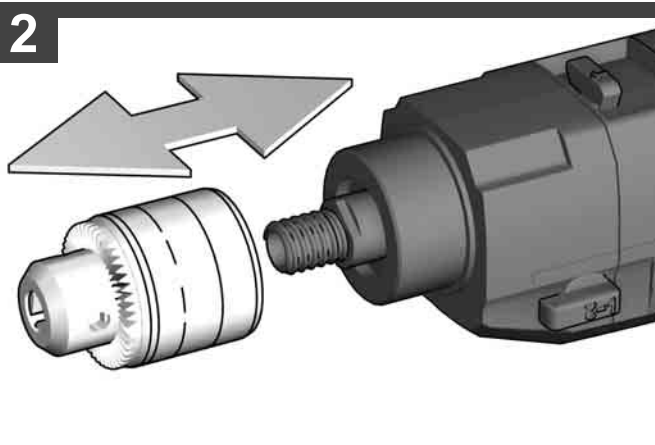
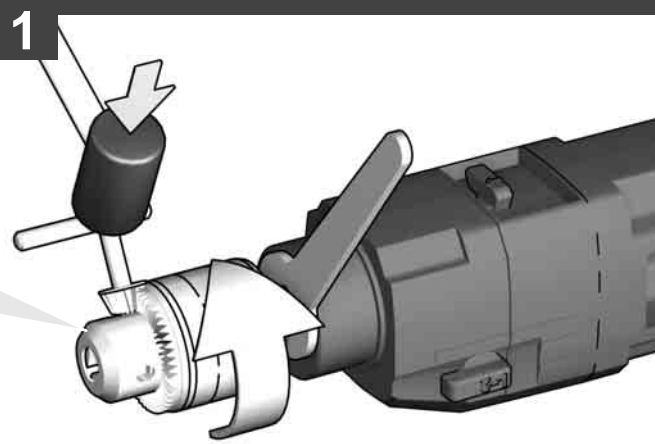
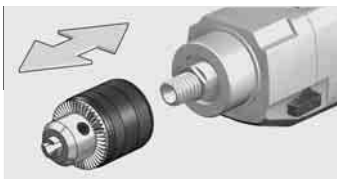


Handle (insulated gripping surface)

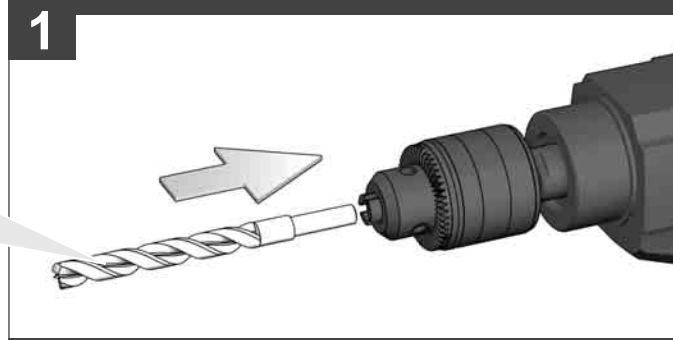




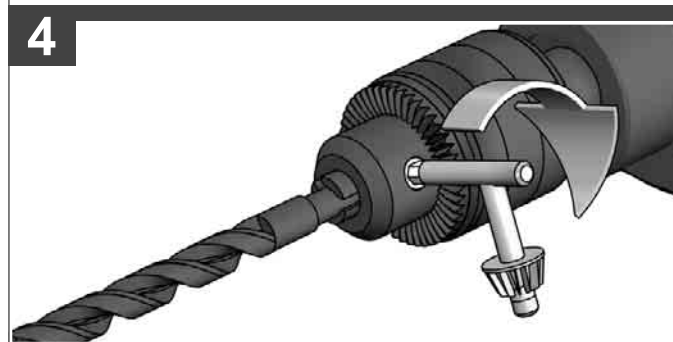
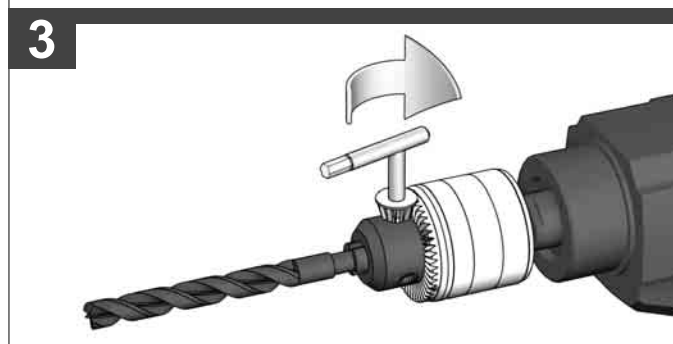
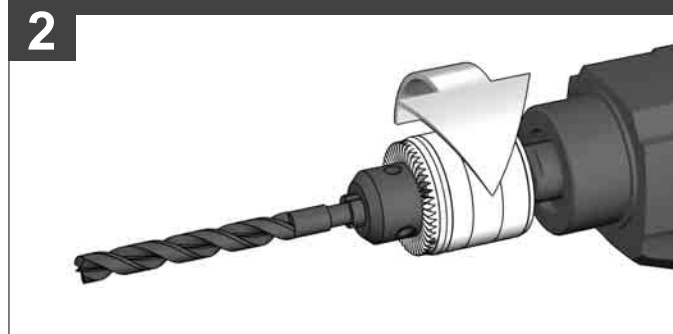




Accessory



Accessory





TECHNICAL DATA	DIAMOND DRILL	DD2-160 XE (240V)	DD2-160 XE (110V)
Production code.....	3687 06 06 .....	3687 01 06...	000001-999999 .....
Rated input .....	1500 W .....	1100 W .....	000001-999999 .....
Output .....	820 W .....	820 W .....	0-1500 min <sup>-1</sup> .....
No-load speed, 1st gear .....	0-1500 min <sup>-1</sup> .....	0-1500 min <sup>-1</sup> .....	0-3000 min <sup>-1</sup> .....
No-load speed, 2nd gear .....	0-3000 min <sup>-1</sup> .....	0-3000 min <sup>-1</sup> .....	890 min <sup>-1</sup> .....
Speed under load max., 1st gear .....	890 min <sup>-1</sup> .....	890 min <sup>-1</sup> .....	1770 min <sup>-1</sup> .....
Speed under load max., 2nd gear .....	1770 min <sup>-1</sup> .....	1770 min <sup>-1</sup> .....	48000 min <sup>-1</sup> .....
Percussion rate max .....	48000 min <sup>-1</sup> .....	48000 min <sup>-1</sup> .....	80-162 mm .....
Drilling capacity, 1st gear .....	80-162 mm .....	80-162 mm .....	32-90 mm .....
Drilling capacity, 2nd gear .....	32-90 mm .....	32-90 mm .....	M18 .....
Drive shank .....	M18 .....	M18 .....	57 mm .....
Chuck neck diameter .....	57 mm .....	57 mm .....	4,2 kg .....
Weight according EPTA-Procedure 01/2014 .....	4,2 kg .....	4,2 kg .....	

#### Noise information

Measured values determined according to EN 62841.

Typically, the A-weighted noise levels of the tool are:

Sound pressure level (Uncertainty K=3dB(A)) ..... 103 dB (A) ..... 103 dB (A)

Sound power level (Uncertainty K=3dB(A)) ..... 111 dB (A) ..... 111 dB (A)

#### Wear ear protectors!

#### Vibration information

Vibration total values (tri-axial vector sum) determined according to EN 62841

Vibration emission value a<sub>h</sub>

Drilling into metal ..... 2,3 m/s<sup>2</sup> ..... 2,3 m/s<sup>2</sup>

Uncertainty K= ..... 1,5 m/s<sup>2</sup> ..... 1,5 m/s<sup>2</sup>

Impact drilling into concrete ..... 18,3 m/s<sup>2</sup> ..... 18,3 m/s<sup>2</sup>

Uncertainty K= ..... 1,5 m/s<sup>2</sup> ..... 1,5 m/s<sup>2</sup>

Impact drilling into concrete with dry diamond core cutter .....

Uncertainty K= ..... 14,8 m/s<sup>2</sup> ..... 14,8 m/s<sup>2</sup>

Uncertainty K= ..... 1,5 m/s<sup>2</sup> ..... 1,5 m/s<sup>2</sup>

#### WARNING

The vibration and noise emission level given in this information sheet has been measured in accordance with a standardized test given in EN 62841 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

The declared vibration and noise 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 and noise emission may differ. This may significantly increase the exposure level over the total working period.

An estimation of the level of exposure to vibration and noise 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 and/or noise such as: maintain the tool and the accessories, keep the hands warm, organization of work patterns.

**WARNING** Read all safety warnings, 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.

#### DIAMOND DRILL SAFETY WARNINGS

##### Safety instructions for all operations

Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory or fasteners may contact hidden wiring or its own cord.

Cutting accessory or fasteners contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.

Brace the tool properly before use. This tool produces a high output torque and without properly bracing the tool during operation, loss of control may occur resulting in personal injury.

##### Safety instructions when using long drill bits

Never operate at higher speed than the maximum speed rated of the drill bit. At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting the personal injury.

Always start drilling at low speed and with the bit tip in contact with the workpiece. At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting the personal injury.

Apply pressure only in direct line with the bit and do not apply excessive pressure. Bits can bend causing breakage or loss of control, resulting in personal injury.

##### ADDITIONAL SAFETY AND WORKING INSTRUCTIONS

The built-in friction clutch only reacts to jerky locking, which is why you should always use the additional handle.

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.

The dust produced when using this tool may be harmful to health. Do not inhale the dust. Wear a suitable dust protection mask.

Do not machine any materials that present a danger to health (e.g. asbestos).

Switch the device off immediately if the insertion tool stalls! Do not switch the device on again while the insertion tool is stalled, as doing so could trigger a sudden recoil with a high reactive force. Determine why the insertion tool stalled and rectify this, paying heed to the safety instructions.

The possible causes may be:

- it is tilted in the workpiece to be machined
- it has pierced through the material to be machined
- the power tool is overloaded

Do not reach into the machine while it is running.

The insertion tool is sharp-edged and can become hot during use.

#### WARNING! Danger of cuts and burns

- when handling the insertion tools

- when setting the device down.

Wear protective gloves when handling insertion tools.

Chips and splinters must not be removed while the machine is running.

Keep mains lead clear from working range of the machine. Always lead the cable away behind you.

When working in walls ceiling, or floor, take care to avoid electric cables and gas or waterpipes.

Clamp your workpiece with a clamping device. Unclamped workpieces can cause severe injury and damage.

Always disconnect the plug from the socket before carrying out any work on the machine.

When working with large drill diameters, the auxiliary handle must be fastened in a right angle with the main handle (see illustrations, section "Twisting the handle").

#### SPECIFIED CONDITIONS OF USE

The diamond drill can be used to drill with diamond dry drill bits. With drill chuck mounted the machine is suitable for percussive drilling in rock and drilling holes in wood and steel. The machine is not suitable for wet drilling in concrete.

Do not use this product in any other way as stated for normal use.

#### EC-DECLARATION OF CONFORMITY

We declare as the manufacturer under our sole responsibility that the product described under "Technical Data" fulfills all the relevant regulations and the directives 2011/65/EU (RoHS), 2014/30/EU, 2006/42/EC, and the following harmonized standards have been used:

EN 62841-1:2015+A11:2022  
EN 62841-2-1:2018+A11:2019  
EN 55014-1:2017+A11:2020  
EN 55014-2:2015  
EN 61000-3-2:2014  
EN 61000-3-3:2013  
EN IEC 63000:2018

Winnenden, 2022-10-17



Alexander Krug  
Managing Director



Authorized to compile the technical file

Techtronic Industries GmbH  
Max-Eyth-Straße 10  
71364 Winnenden  
Germany

#### GB-DECLARATION OF CONFORMITY

We declare as the manufacturer under our sole responsibility that the product described under "Technical Data" fulfills all the relevant provisions of the following Regulations S.I. 2008/1597 (as amended), S.I. 2016/1091 (as amended), S.I. 2012/3032 (as amended) and that the following designated standards have been used:

BS EN 62841-1:2015+A11:2022  
BS EN 62841-2-1:2018+A11:2019  
BS EN 55014-1:2017+A11:2020  
BS EN 55014-2:2015  
BS EN 61000-3-2:2014  
BS EN 61000-3-3:2013  
BS EN IEC 63000:2018

Winnenden, 2022-10-17



Alexander Krug  
Managing Director

Authorized to compile the technical file.

Techtronic Industries GmbH  
Max-Eyth-Straße 10  
71364 Winnenden  
Germany

#### RESIDUAL RISK

Even when the product is used as prescribed, it is still impossible to completely eliminate certain residual risk factors. The following hazards may arise in use and the operator should pay special attention to avoid the following:

- Injury caused by vibration.  
Hold the product by designated handles and restrict working time and exposure.
- Exposure to noise can cause hearing injury.  
Wear ear protection and limit exposure.
- Injury due to flying debris  
Wear eye protection, heavy long trousers and substantial footwear at all times.
- Inhalation of toxic dusts.

#### MAINS CONNECTION

Appliances used at many different locations including wet room and open air must be connected via a residual current device (FI, RCD, PRCD) of 30mA or less.

Connect only to single-phase AC current and only to the system voltage indicated on the rating plate. It is also possible to connect to sockets without an earthing contact as the design conforms to safety class II.

Make sure the machine is switched off before plugging in.

#### STARTUP PROTECTION

A zero-voltage switch prevents the machine from restarting after a power failure. On resuming work, switch the machine off and then back on again.

#### PROTECTION OF MOTOR IN CASE OF OVERLOAD

Motor protection device controlled by motor load. The machine will slowly continue to run in order to cool the motor down. After sufficient cooling machine can be restarted by switching off and on again.

#### SOFT PERCUSSION

Depending on the material that is to be machined, soft percussion may result in a sharp reduction in drilling time or a longer tool life for the diamond segments.

## WORKING INSTRUCTIONS

To gain a better drill progress take out the centre bit after having reached a depth of about 10-15 mm. Insert core cutter into the existing groove and let machine run up smoothly.

Bore-holes which don't have to be applied exactly can be drilled without a centre bit. For that purpose apply the core cutter slantingly and put the machine slowly straight when a depth of about 5 mm has been reached. (This is only possible when using short core cutters!)

If drill cores should come loose, take core cutter from the material and remove drill cores.

For best performance the diamond segments should be "roughed-up" to expose the fragments of diamond: To expose the diamond fragments rub surface of segments with stone

## MAINTENANCE

The ventilation slots of the machine must be kept clear at all times.

If the machine is mainly used for percussion drilling, regularly remove collected dust from the chuck. To remove the dust hold the machine with the chuck facing down vertically, and completely open and close the chuck. The collected dust will fall from the chuck.






It is recommended to regularly use cleaner for the clamping jaws and the clamping jaw borings.


If the supply cord of this appliance is damaged, it must only be replaced by a repair shop appointed by the manufacturer, to avoid hazardous situations.


Use only Milwaukee accessories and spare parts. Should components need to be replaced which have not been described, please contact one of our Milwaukee service agents (see our list of guarantee/service addresses).

If needed, an exploded view of the tool can be ordered. Please state the Article No. as well as the machine type printed on the label and order the drawing at your local service agents or directly at: Techtronic Industries GmbH, Max-Eyth-Straße 10, 71364 Winnenden, Germany.

## SYMBOLS


	CAUTION! WARNING! DANGER!
	Always disconnect the plug from the socket before carrying out any work on the machine.
	Please read the instructions carefully before starting the machine.
	Wear gloves!
	Accessory - Not included in standard equipment, available as an accessory.


	Do not dispose of waste electrical and electronic equipment as unsorted municipal waste. Waste electrical and electronic equipment must be collected separately. Waste light sources have to be removed from equipment. Check with your local authority or retailer for recycling advice and collection point. According to local regulations retailers may have an obligation to take back waste electrical and electronic equipment free of charge. Your contribution to re-use and recycling of waste electrical and electronic equipment helps to reduce the demand of raw materials. Waste electrical and electronic equipment contain valuable, recyclable materials, which can adversely impact the environment and the human health, if not disposed of in an environmentally compatible manner. Delete personal data from waste equipment, if any.
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	Class II tool. Tool in which protection against electric shock does not rely on basic insulation only, but in which additional safety precautions, such as double insulation or reinforced insulation, are provided. There being no provision for protective earthing or reliance upon installation conditions.
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$n_0$	No-load speed
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$V$	Volts
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	AC Current
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	European Conformity Mark
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	British Conformity Mark
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	Regulatory Compliance Mark (RCM). Product meets applicable regulatory requirements.
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	Ukraine Conformity Mark
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	EurAsian Conformity Mark
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**4931 4707 89**