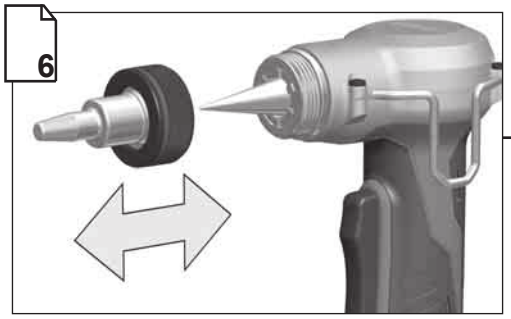
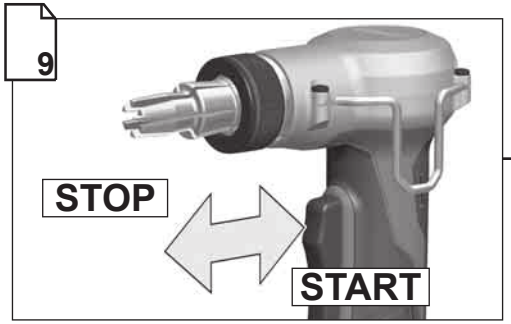
Nothing but **HEAVY DUTY.®**

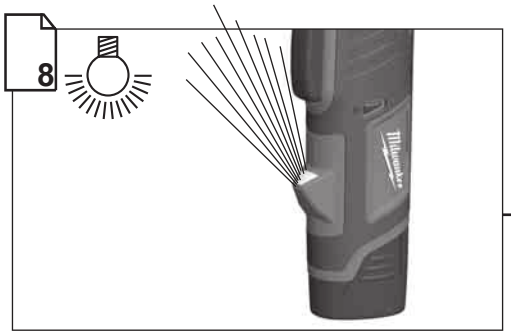


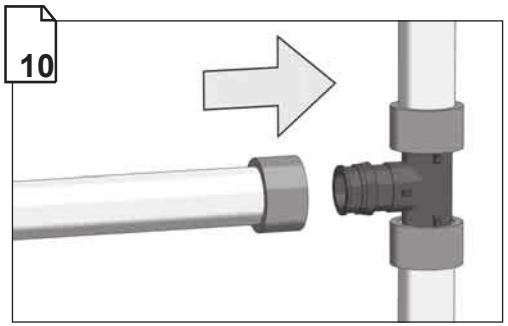
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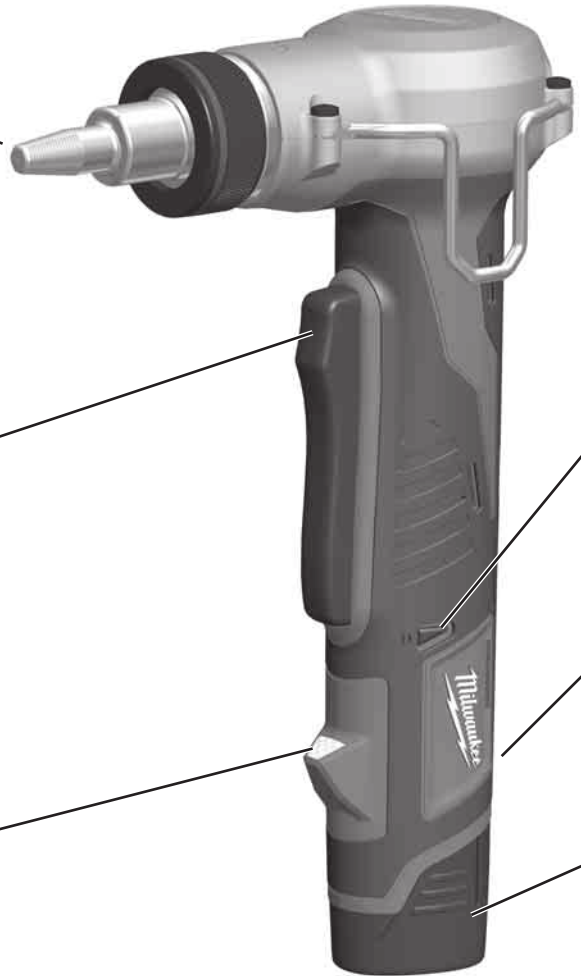
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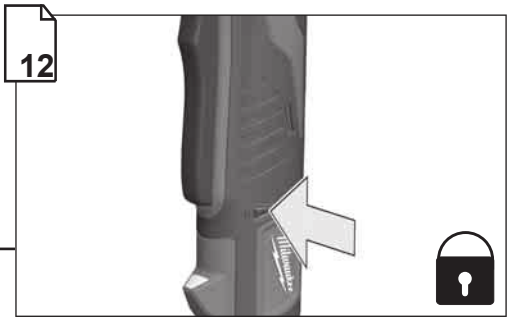


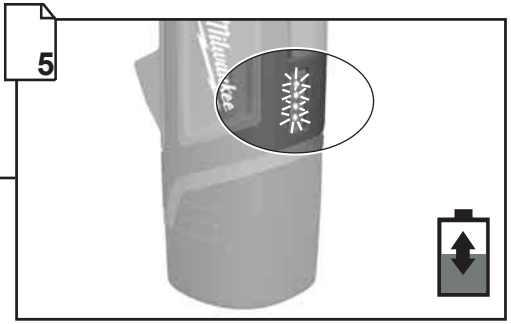












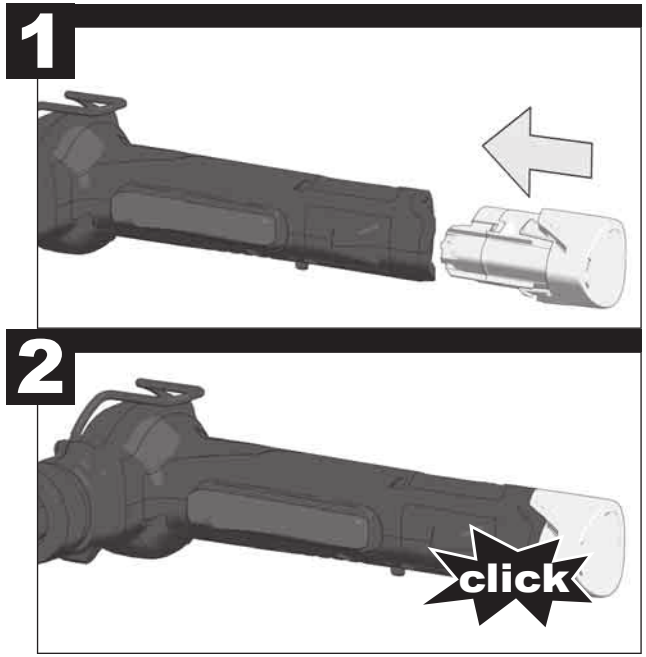


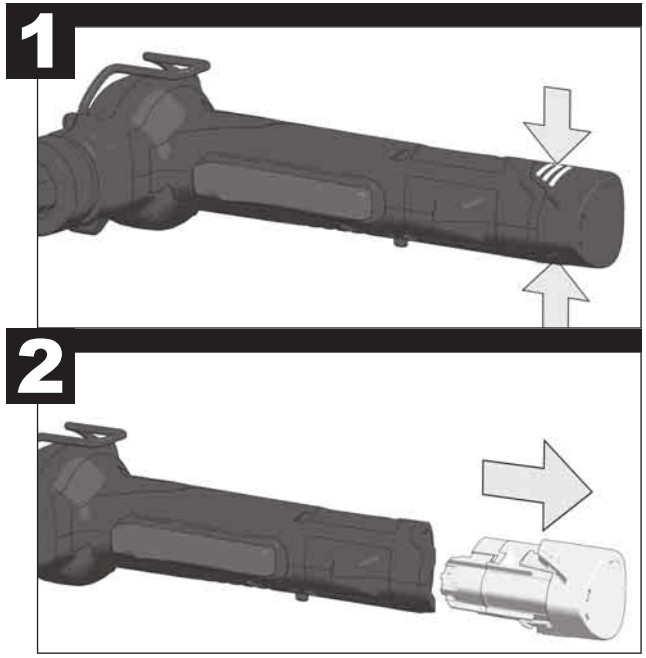
14 Text section with Technical Data, important Safety and Working Hints and description of Symbols

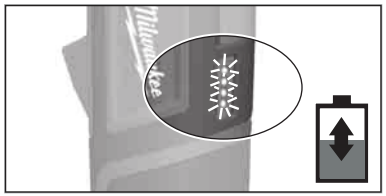


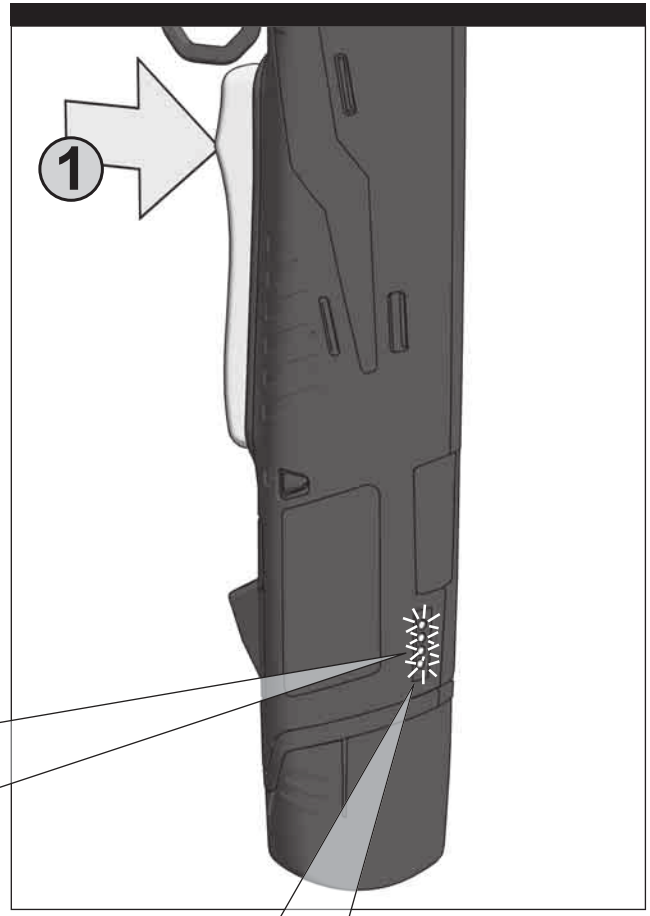


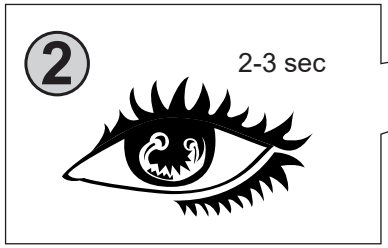
Remove the battery pack before starting any work on the machine.

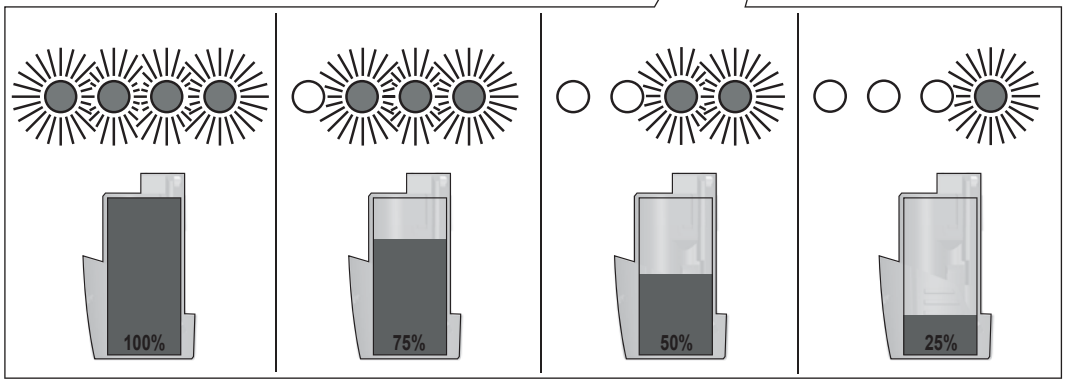


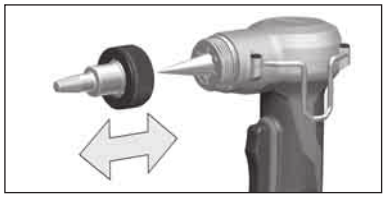












Milwaukee Id-No.
4932 3527 26

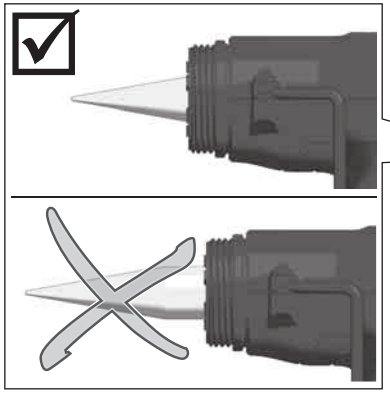


When using Uponor Standard expander heads extra grease needs to be applied in the interface between the tool and the expander head.

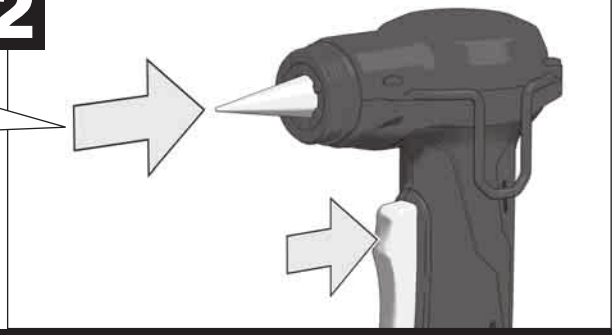
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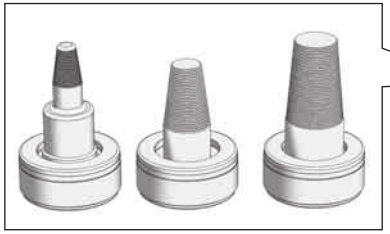
Clean the expander cone with a clean, lint-free cloth and then apply a thin coat of lubricant to the expander cone.

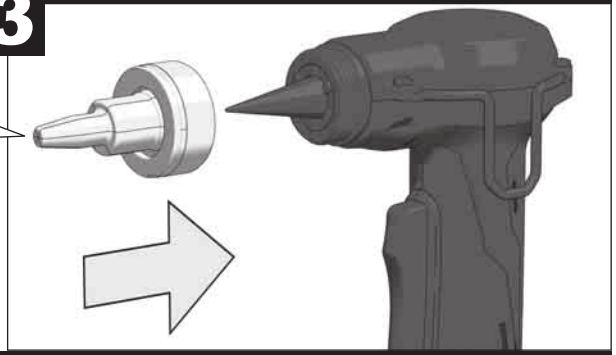


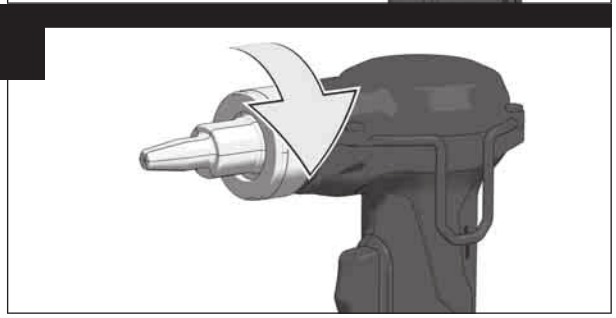
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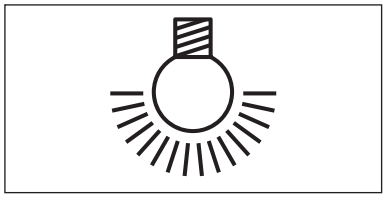


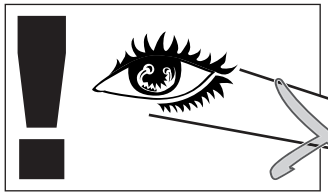
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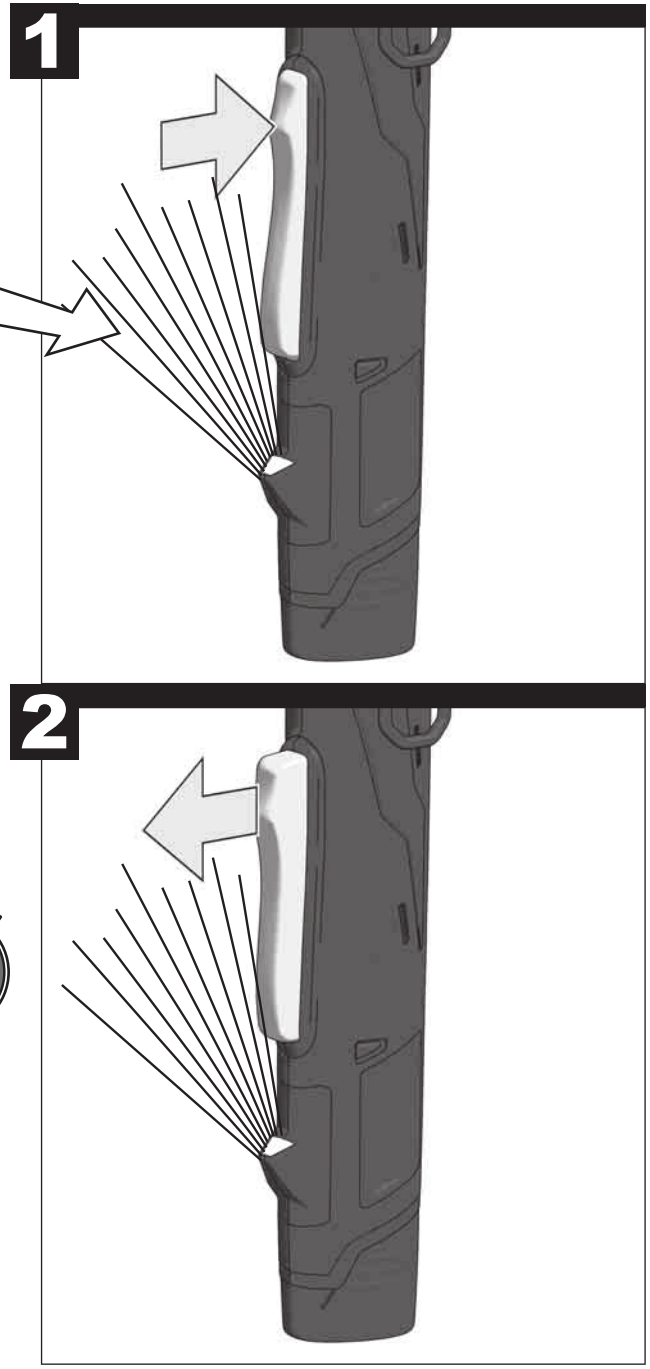


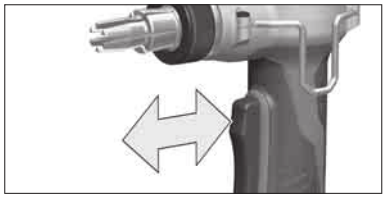


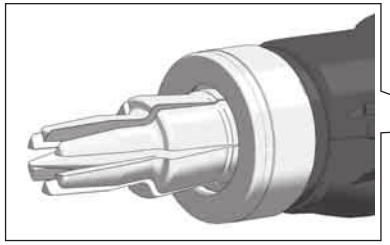


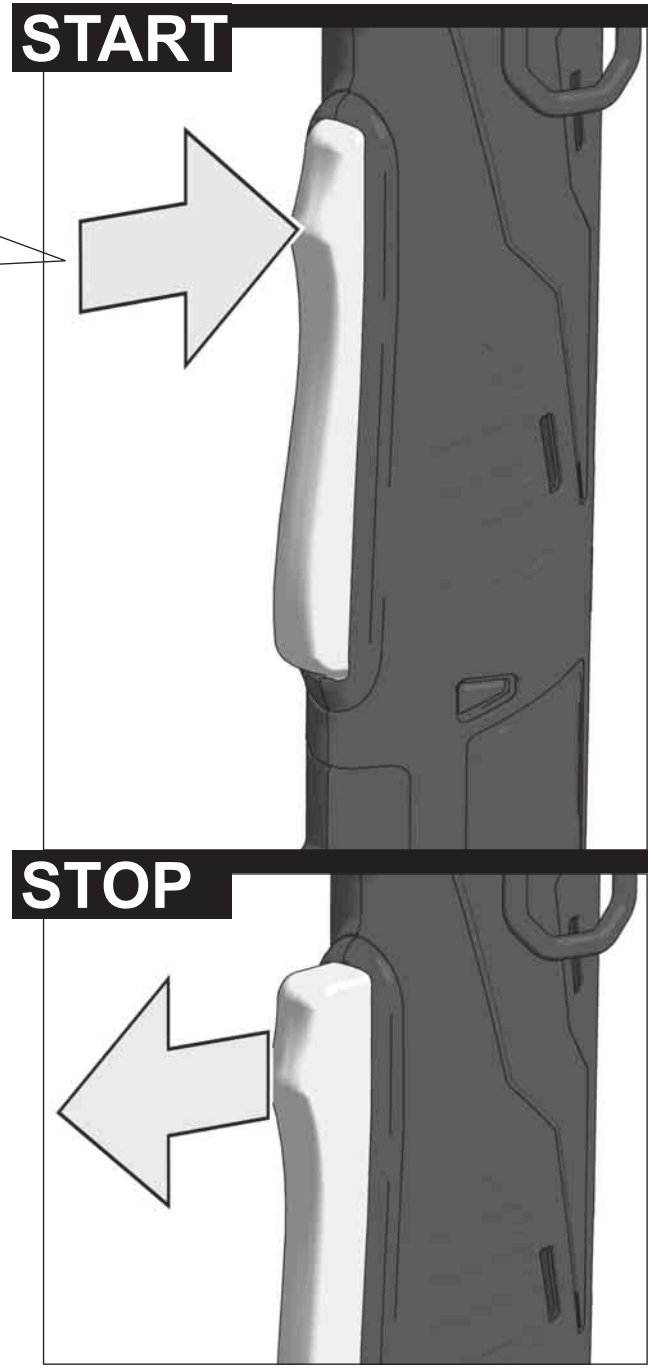


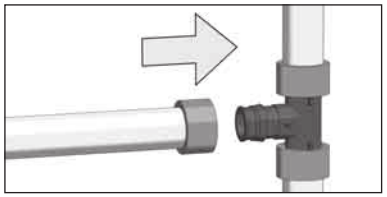


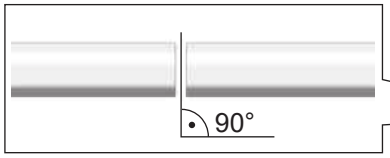

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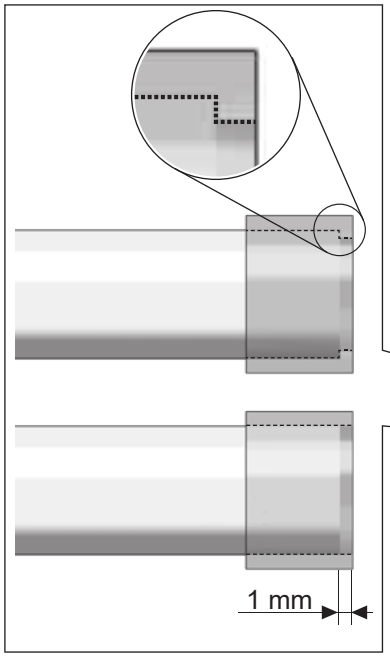





START
STOP

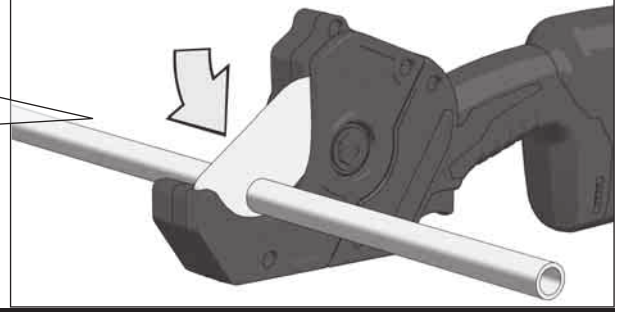




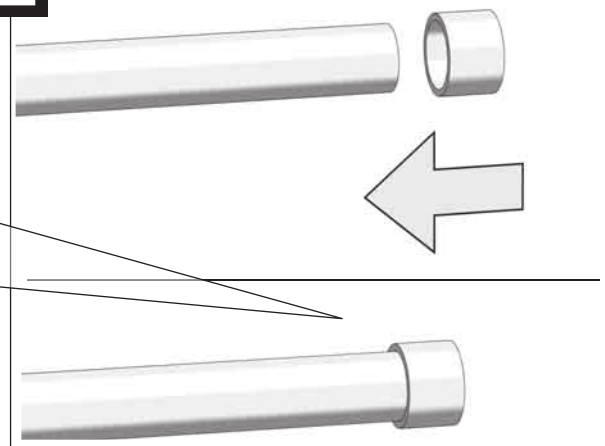


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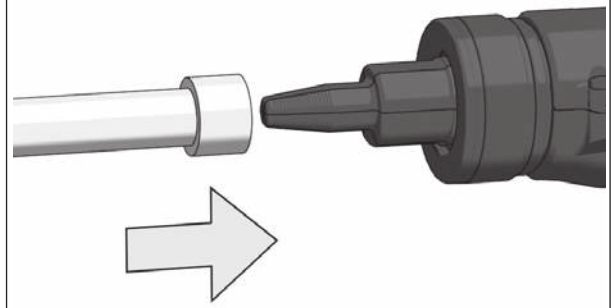
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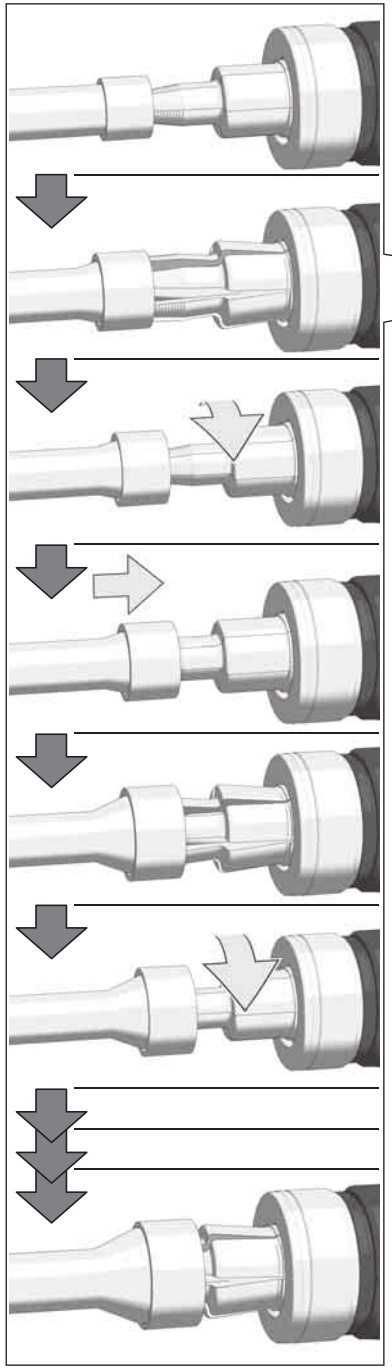


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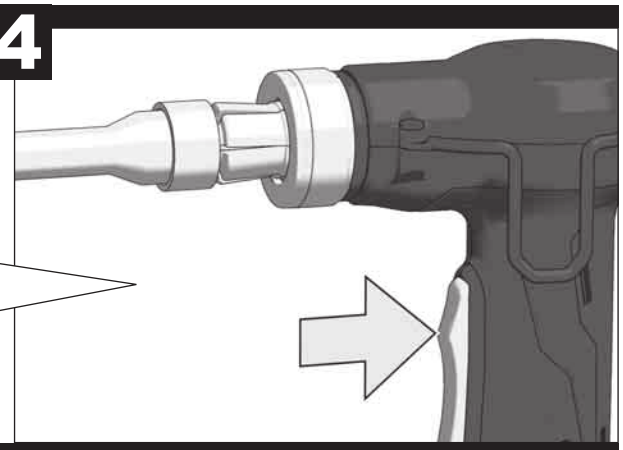


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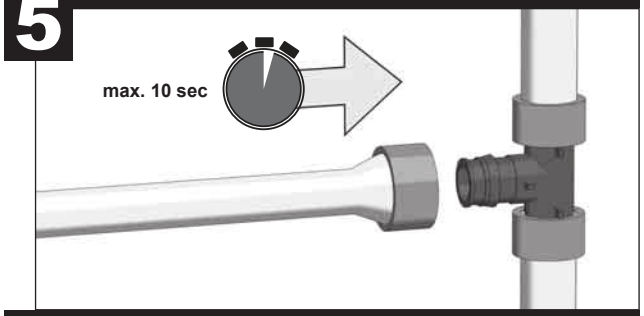




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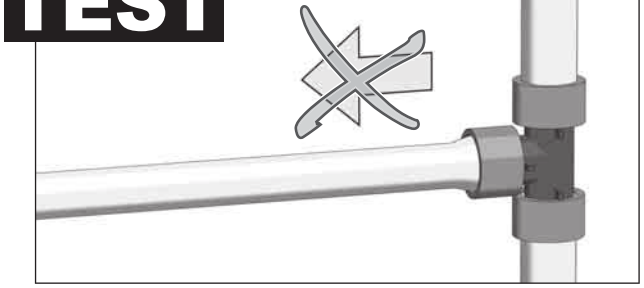
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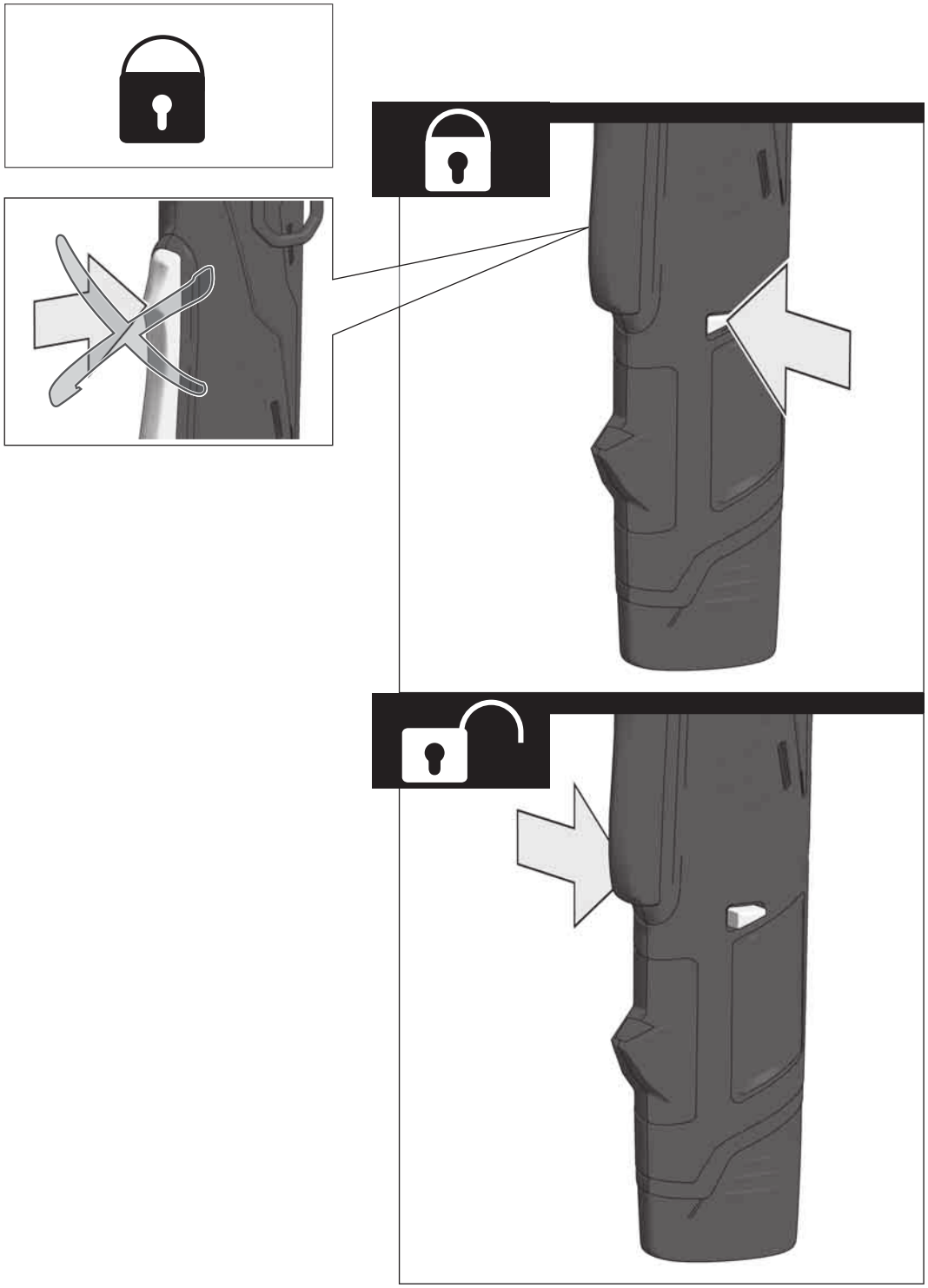


6



TEST





TECHNICAL DATA CORDLESS EXPANDER C 12 PXP

Production code	4489 86 04...
	4274 75 04...
	...000001-999999
Stroke	14 mm
Pipe diameter	≤ ø 32 x 2,9, ≤ ø 25 x 3,5 mm
Battery voltage	12 V
Weight according EPTA-Procedure 01/2014	1,88 kg

Noise/vibration information
Measured values determined according to EN 60 745.
Typically, the A-weighted noise levels of the tool are:

Sound pressure level (Uncertainty K=3dB(A))	61 dB (A)
Sound power level (Uncertainty K=3dB(A))	72 dB (A)

Wear ear protectors!

Total vibration values (vector sum in the three axes) determined according to EN 60745.

Vibration emission value a_h	< 2,5 m/s^2
Uncertainty K=	1,5 m/s^2

WARNING

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

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.

⚠ **WARNING! Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.
Save all warnings and instructions for future reference.

SAFETY INSTRUCTIONS

Do not change the properties or shape of the tool. It is particulary important not to change the shape or size of the cone by machining it or by altering its original properties, hardness, strenght, etc. by heating the tool or keeping it in the vicinity of high temperature heat sources

Use the tool correctly. Take particular care to tighten the expander head onto the tool in order to achieve full expansion. Make sure the segments of the expander head are not bend or damaged otherwise.

Never use, carry or put away the tool without a expander head on it.

Keep fingers and hands away from the expander head moving area.

Do not dispose of used battery packs in the household refuse or by burning them. Milwaukee Distributors offer to retrieve old batteries to protect our environment.

Do not store the battery pack together with metal objects (short circuit risk).

No metal parts must be allowed to enter the battery section of the charger (short circuit risk).

Use only C12 chargers for charging C12 battery packs. Do not use battery packs from other systems.

Never break open battery packs and chargers and store only in dry rooms. Keep dry at all times.

Battery acid may leak from damaged batteries under extreme load or extreme temperatures. In case of contact with battery acid wash it off immediately with soap and water. In case of eye contact rinse thoroughly for at least 10 minutes and immediately seek medical attention.

Warning! To reduce the risk of fire, personal injury, and product damage due to a short circuit, never immerse your tool, battery pack or charger in fluid or allow a fluid to flow inside them. Corrosive or conductive fluids, such as seawater, certain industrial chemicals, and bleach or bleach containing products, etc., can cause a short circuit.

SPECIFIED CONDITIONS OF USE

The cordless expander is intended to be used to expand plastic pipes for installation of Q&E fittings.

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

EC-DECLARATION OF CONFORMITY

We declare 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 60745-1:2009 + A11:2010
EN 55014-1:2017+A11:2020
EN 55014-2:2015
EN IEC 63000:2018

Winnenden, 2020-11-04



Alexander Krug
Managing Director

CE

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 60745-1:2009 + A11:2010
BS EN 55014-1:2017+A11:2020
BS EN 55014-2:2015
BS EN IEC 63000:2018

Winnenden, 2020-11-04



Alexander Krug
Managing Director

Authorized to compile the technical file.

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

BATTERIES

Battery packs which have not been used for some time should be recharged before use.

Temperatures in excess of 50°C (122°F) reduce the performance of the battery pack. Avoid extended exposure to heat or sunshine (risk of overheating).

The contacts of chargers and battery packs must be kept clean.

For an optimum life-time, the battery packs have to be fully charged, after used.

To obtain the longest possible battery life remove the battery pack from the charger once it is fully charged.

For battery pack storage longer than 30 days:
Store the battery pack where the temperature is below 27°C and away from moisture
Store the battery packs in a 30% - 50% charged condition
Every six months of storage, charge the pack as normal.

BATTERY PACK PROTECTION LI-ION BATTERY

The battery pack has overload protection that protects it from being overloaded and helps to ensure long life. Under extreme stress the battery electronics switch off the machine automatically. To restart, switch the machine off and then on again. If the machine does not start up again, the battery pack may have discharged completely. In this case it must be recharged in the battery charger.

TRANSPORTING LITHIUM BATTERIES

Lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.

Transportation of those batteries has to be done in accordance with local, national and international provisions and regulations.

- The user can transport the batteries by road without further requirements.
- Commercial transport of Lithium-Ion batteries by third parties is subject to Dangerous Goods regulations. Transport preparation and transport are exclusively to be carried out by appropriately trained persons and the process has to be accompanied by corresponding experts.

When transporting batteries:

- Ensure that battery contact terminals are protected and insulated to prevent short circuit.
- Ensure that battery pack is secured against movement within packaging.
- Do not transport batteries that are cracked or leak.

Check with forwarding company for further advice

ADVICE FOR OPERATION

Quick and Easy (Q&E) is a fitting concept for Uponor-PEX pipes and systems. The joint is made gradually expanding the pipe with a Q&E Ring fitted to its outside, and then allowing it to shrink over the fitting nipple. Only genuine Q&E fittings, rings and expander tools may be used.

After expanding push immediately the expanded pipe and ring over the nipple. If the pipe already be shrunk back, do not expand again, but cut the expanded part.

The expansion is done in several stages. This is clearly audible the "click" upon contraction of the expander head. The number of expansions is depend by the pipe diameter.
Typically:
16 x 1.8 mm - 4 expandings
20 x 1.9 mm - 6 expandings
25 x 2.3 mm - 8 expandings
16 x 2.2 mm - 6 expandings
20 x 2.8 mm - 12 expandings
25 x 3.5 mm - 20 expandings
Do not expand more times than necessary.

Each time the segments contract the expander head has to rotate 1/8 turn.

This rotation prevents a too deep incision of the expander into the inner side of the pipe.
If the expander not rotating the piping may cause deep grooves and faulty connections, which could result in leaking and property damage.

Milwaukee expander heads will rotate automatically at each expansion. This is checked from time to time without pipe.

Uponor Standard expander heads will **not** rotate automatically. It is necessary to rotate the pipe 1/8 turn by hand.

COLD WEATHER INSTALLATION

At low temperatures it takes longer for the pipe to shrink onto the nippel and seal proberly.

Depending on pipe size, fewer expansions are necessary in cold temperatures.

The tool with battery must be warmed up before operating in temperatures below 5°C by doing some cycles without pipe.

TIGHTNESS TESTING

The fitting joint can be pressurized after 30 minutes at temperatures down to +5°C.
At lower temperature increases the waiting time as follows:
+ 5°C... 0°C: 1,5 h
0°C...- 5°C: 3 h
- 5°C...-10°C: 4 h
-10°C...-15°C: 10 h
At room temperature, the joint will be as strong as the pipe itself after, within 6 and 24 hours.

Tightness testing in accordance with the relevant standards (ANV 12108) shall be carried out before the system is taken into operation.

MAINTENANCE

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

Use the supplied grease tube to lubricant the Q&E expander heads.

Daily or at least every 100 connections, clean the cone of the tool and lubricate the cone. Use a clean, lint-free cloth to apply a thin coat of lubricant (Molycote G-n plus) to the expander cone. Keep all other parts of the tool free from lubricant.

When using Uponor Standard expander heads extra grease needs to be applied in interface between the tool and the expander head.

Regularly clean the inside of the expander heads using a dry cloth. Avoid any build-up grease in between the segments. It is essential to keep the outside of the segments free from grease and dry.

Improper lubrication (too much, or too little) may result in faulty connections, which could result in property damage.

Use only Uponor approved expander heads.

Use only Milwaukee accessories and Milwaukee 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 machine type printed as well as the six-digit No. 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!



Remove the battery pack before starting any work on the machine.



Please read the instructions carefully before starting the machine.



Do not dispose electric tools, batteries/ rechargeable batteries together with household waste material.
Electric tools and batteries that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.
Check with your local authority or retailer for recycling advice and collection point.



European Conformity Mark



British Confomity Mark



Ukraine Conformity Mark



EurAsian Conformity Mark

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