fortum 4770667 Rivet Drill Adapter for Blind Rivets and Rivet Nuts 2 in 1 User Manual

Contents

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Introduction

Dear customer,
Thank you for the confidence you have shown in the Fortum® brand by purchasing this product. This product has been tested for reliability, safety and quality according to the prescribed norms and regulations of the European Union. Contact our customer and consulting centre for any questions at: **www.extol.euservice@madalbal.cz**

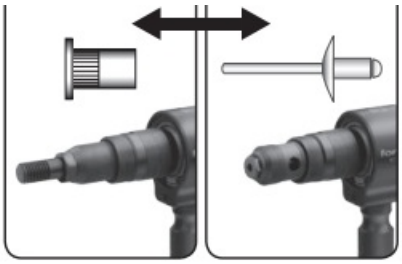
Manufacturer: Madal Bal a. s., Průmyslová zóna Příluky 244, 76001 Zlín, Czech Republic Date of issue: 7. 1. 2020

Stainless Steel


1
CrMoV
M3•M4•M5•M6
M8•M10•M12
8 mm
5/16"
Max.
20 min-1
Al • Steel
Stainless Steel
IMPACT FUNCTION
IMPACT TOOLS

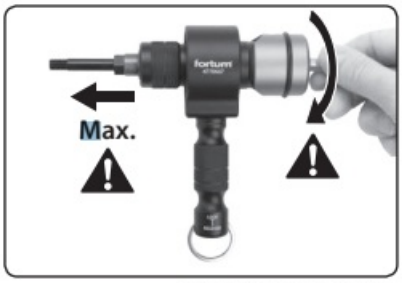
Aluminium

IMPACT TOOL AND FUNCTION



Obr. 1 • 1. ábra • Abb. 1 • Fig. 1 • Rys. 1

Obr. 2 • 2. ábra • Abb. 2 • Fig. 2 • Rys. 2



Obr. 3 • 3. ábra • Abb. 3 • Fig. 3 • Rys. 3

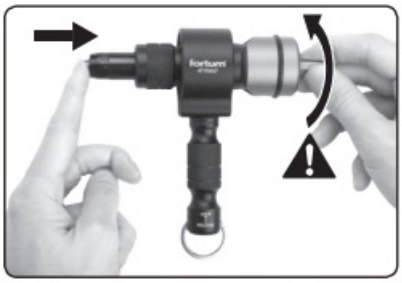
Obr. 4 • 4. ábra • Abb. 4 • Fig. 4 • Rys. 4

Obr. 5 • 5. ábra • Abb. 5 • Fig. 5 • Rys. 5

Obr. 6 • 6. ábra • Abb. 6 • Fig. 6 • Rys. 6

Obr. 7 • 7. ábra • Abb. 7 • Fig. 7 • Rys. 7

Obr. 8 • 8. ábra • Abb. 8 • Fig. 8 • Rys. 8



Obr. 9 • 9. ábra • Abb. 9 • Fig. 9 • Rys. 9

Obr. 10 • 10. ábra • Abb. 10 • Fig. 10 • Rys. 10

Obr. 11 • 11. ábra • Abb. 11 • Fig. 11 • Rys. 11

Obr. 12 • 12. ábra • Abb. 12 • Fig. 12 • Rys. 12

Obr. 13 • 13. ábra • Abb. 13 • Fig. 13 • Rys. 13

Obr. 14 • 14. ábra • Abb. 14 • Fig. 14 • Rys. 14

Obr. 15 • 15. ábra • Abb. 15 • Fig. 15 • Rys. 15

CLEARANCE

Description – purpose of use

- Professional 2-in-1 rivet drill adapter Fortum® 4770667 for clamping into the chuck head of a cordless drill, electric or pneumatic drill, intended for inserting both blind rivets with a body diameter of 2.4 mm; 3.2 mm; 4.0mm; 4.8 mm; 6.0 mm; 6.4 mm, as well as rivet nuts of sizes M3; M4; M5; M6; M8; M10; M12 made from aluminium, steel, stainless steel for creating strong threadless material joints.
- Thanks to the integrated handle, it is possible to use the rivet drill adapter for blind rivets with a body diameter of up to 6.4 mm and for rivet nuts up to a size of M12 because the handle helps to better counter the effects of torsion forces when pulling blind rivets or rivet nuts for creating strong threadless material joints.

operating instructions

- Carefully read the entire user‘s manual before first use and keep it with the product so that the user can become acquainted with it.
- If you lend or sell the product to somebody, include this user‘s manual with it.

- Prevent this user‘s manual from being damaged.
- The manufacturer takes no responsibility for damages or injuries arising from use of the device that is in contradiction to this user‘s manual.
- Acquaint yourself with all the control elements and parts of the tool before using it.
- Before using, first check that all parts are firmly attached and check that no part of the tool is missing from its place or damaged or incorrectly installed.
- Do not use a tool with damaged or missing parts and have it repaired or replaced at an authorized service centre for the Fortum brand – see chapter Servicing and maintenance, or the website address at the introduction to this user‘s manual.
- When disassembling the rivet drill adapter, use gloves half-dipped in nitrile or polyurethane, which have good gripping properties The internal parts of the rivet drill adapter are treated with machine Vaseline, which is absorbed through the skin into the body.
- During work, use certified eye protection with a sufficient level of protection.

WARNINGS

- The rivet drill adapter must not be used with percussion power tools and the hammer function, this would damage it.
- When using the rivet drill adapter, for safety reasons it is necessary to use a very low rotation speed, max. 20 min-1, due to the generated reactive recoil. When working with the rivet drill adapter, hold the power tool by the handle with a firm and stable body stance, otherwise there is a risk of injury caused by the violent jolting out of the handle of the rivet drill adapter.

CHARGING CORDLESS POWER TooL BATTERIES

When a cordless drill (cordless screwdriver) is used, its battery must be well charged, which is important particularly for larger blind rivets and rivet nuts. Higher current is drawn under load and if the battery is not sufficiently charged or has a low capacity in mAh, which may be the result of wear, it may not sufficiently meet the consumption of current requirements, and the cordless drill, despite having a sufficiently large torque may not necessarily provide the required performance. Li-ion batteries usually have integrated electronic protection against complete discharge, which damages them. This protection manifest itself by the battery suddenly ceasing to supply electrical current and the cordless power tool suddenly stops running. After a sufficiently long break the supply of electrical current is renewed, however, it will again stop suddenly, which may also manifest itself while working with the rivet drill adapter if the battery is not sufficiently charged.

IMPORTANT INFORMATION ABOUT DRILL SETTINGS

- Always set the lowest speed level on the drill, since it applies that torque is greater at lower speeds. Otherwise, the tightening torque of the drill may not be sufficient.
- In the event that the drill has a torque adjustment setting (screw symbol) and the tightening torque is insufficient even when set to the highest possible tightening torque, set it to drill mode (drill bit symbol) – this setting option is standard on cordless drills. In the event that the tightening torque is insufficient even when the drill mode is set, it is necessary to select a drill with a higher torque.

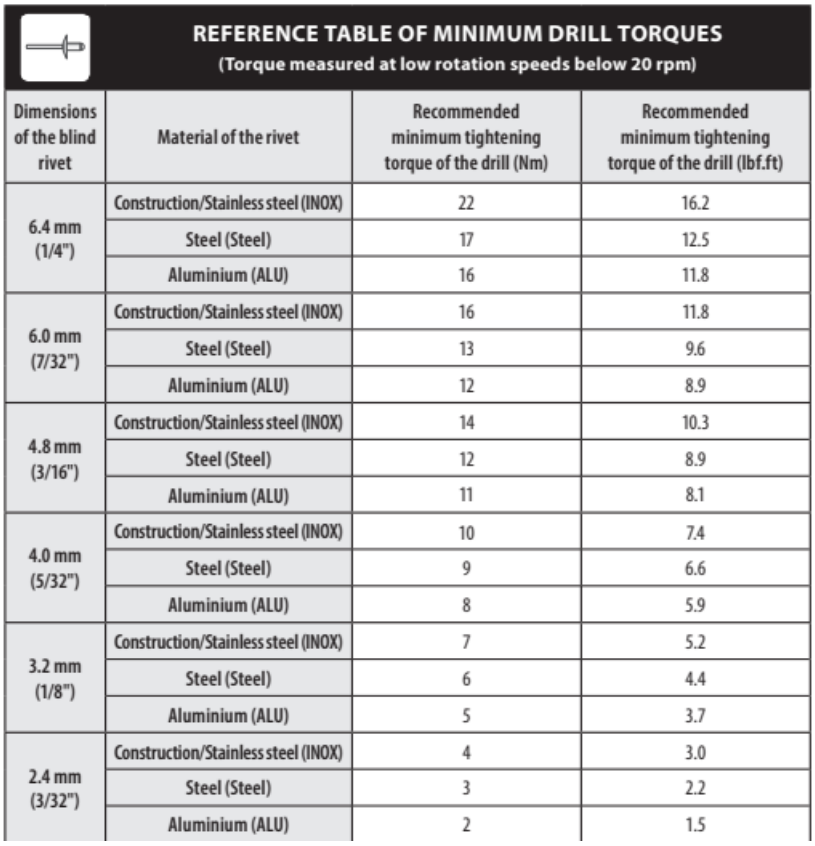
SPECIFICATIONS oF TIGHTENING TORQUE ON POWER TOOLS

The specified torque value in the technical specifications of the drill is not necessarily precise and may be determined using several possible methods with a differing uncertainty, and therefore it is necessary to first perform practical tests to determine the proper settings for the installation of blind rivets or rivet nuts, to determine whether the torque of the drill is sufficient and in the case of the rivet nut to also verify whether the thread of the rivet mandrel is being torn from the rivet nut, which damages the thread of the rivet mandrel (see below).

ATTENTIoN

- Table 1 provides the minimum requirements for the tightening torque of the drill for the size and material of the blind rivet in relation to the material into which the blind rivet is placed.
- Use drills with a higher tightening torque. To ensure that the motor of the drill is not overloaded, the drill should be able to achieve a torque that is 80-100% greater than the specified minimum values in table 1. To set the optimal torque, perform practical tests

REFERENCE TABLE OF MINIMUM DRILL TORQUES



REFERENCE TABLE OF MINIMUM DRILL TORQUES
(Torque measured at low rotation speeds below 20 rpm)

Dimensions of the blind rivet	Material of the rivet	Recommended minimum tightening torque of the drill (Nm)	Recommended minimum tightening torque of the drill (lbf.ft)
6.4 mm (1/4")	Construction/Stainless steel (INOX)	22	16.2
	Steel (Steel)	17	12.5
	Aluminium (ALU)	16	11.8
6.0 mm (7/32")	Construction/Stainless steel (INOX)	16	11.8
	Steel (Steel)	13	9.6
	Aluminium (ALU)	12	8.9
4.8 mm (3/16")	Construction/Stainless steel (INOX)	14	10.3
	Steel (Steel)	12	8.9
	Aluminium (ALU)	11	8.1
4.0 mm (5/32")	Construction/Stainless steel (INOX)	10	7.4
	Steel (Steel)	9	6.6
	Aluminium (ALU)	8	5.9
3.2 mm (1/8")	Construction/Stainless steel (INOX)	7	5.2
	Steel (Steel)	6	4.4
	Aluminium (ALU)	5	3.7
2.4 mm (3/32")	Construction/Stainless steel (INOX)	4	3.0
	Steel (Steel)	3	2.2
	Aluminium (ALU)	2	1.5

ATTENTIoN

- Into the rivet drill adapter, screw the riveting nosepiece marked with the number corresponding to the blind rivet body diameter. Using a nosepiece intended for
  a different blind rivet body diameter will result in the rivet drill adapter not working correctly.
- Riveting nosepieces differ by the length (height) according to the diameter of the pin (mandrel) of the blind rivet for which they are intended in order to produce sufficient pressure on the jaws to create a hole with a sufficient diameter for the insertion of the mandrel of the rivet of a certain diameter.
- In the event that the dimension of the riveting nosepiece is inadequate for the blind rivet, it will not be possible to pull the rivet or the torn mandrel will not be released from the jaws and then disassembly will be necessary.

ATTENTIoN

Only the riveting nosepieces supplied with this rivet drill adapter model may be used in the rivet drill adapter. The fact that a nosepiece from a different riveting device can be screwed into this rivet drill adapter model does not ensure the correct and problem-free operation of the adapter and may damage it.

ATTENTIoN

- Table 2 presents the maximum permissible tightening torque values for pulling rivet nuts with respect to their material and size. Using a higher torque frequently results in the thread of the rivet mandrel being torn out of the rivet nut (particularly on small rivet nuts), which damages the tread of the rivet mandrel.
- In the column „Recommended minimum drill torque“ there are torque values that the drill shouldbe able to achieve, representing torque values that are not used for the rivet nut material of the specified size, but express the recommended „drill power“ such that when the maximum permitted torque is set the drill motor is not overloaded.

WARNING

- For the installation of a rivet nut, it is essential to have sufficient torque in order to pull the rivet nut, but it is also necessary to ensure that the thread of the rivet mandrel thread is not torn out of the rivet nut, which damages the thread of the rivet mandrel. Tearing out of the rivet mandrel thread from the rivet nut occurs easily on smaller rivet nuts, particularly those from aluminium. To set the correct torque with respect to the material and the size of the rivet nut, it is necessary to perform practical tests with respect to the maximum permitted tightening torque values specified in tabl
- Tearing out of the rivet mandrel from the thread of the rivet nut is not the fault of the rivet drill adapter but rather is caused by excessive (tightening) torque of the drill.

ATTENTION

- The rivet nut must be screwed on to the rivet mandrel along the full length of its thread. To achieve this, slide the rivet mandrel in as far as possible by turning the chuck head in the direction according to fig. 17, step 1.
- Then, screw the rivet nut on to the thread of the rivet mandrel, however by holding the nut by hand without the use of assembly tools.
- The rivet nut must be screwed on to the thread of the rivet mandrel in the orientation shown in fig. 17, otherwise it will not be possible to pull the rivet nut.

ATTENTION

To set the optimal torque and to become acquainted with the methodology of work with the rivet drill adapter, first perform practical tests on a piece of sample material. Initially set a lower torque, which can be increased if insufficient. Setting a torque that is too high will result in the thread of the rivet mandrel being torn out of the rivet nut, which likewise damages the thread of the rivet mandrel and causes wear to the internal parts of the adapter that is not covered by free warranty repairs/replacement of the rivet drill adapter.

TABLE oF REFERENCE ToRQUES
(Torque measured at low rotation speeds below 20 rpm

TABLE OF REFERENCE TORQUES (Torque measured at low rotation speeds below 20 rpm)				
Dimensions rivet nut	Material rivet nut	Permitted max. tightening torque (Nm)	Recommended minimum tightening torque of the drill (Nm)	Recommended minimum tightening torque of the drill (lbf.ft)
M12 (SAE 1/2-13)	Stainless steel (INOX)	15.7	28.3	20.9
	Steel (Steel)	14.8	26.6	19.6
	Aluminium (ALU)	9	16.2	11.9
M10 (SAE 3/8-16)	Stainless steel (INOX)	12.5	22.5	16.6
	Steel (Steel)	11	19.8	14.6
	Aluminium (ALU)	6.2	11.2	8.3
M8 (SAE 5/16-18)	Stainless steel (INOX)	11.8	21.3	15.7
	Steel (Steel)	10.8	19.5	14.4
	Aluminium (ALU)	6	10.8	8.0
M6 (SAE 1/4-20)	Stainless steel (INOX)	11.2	20.2	14.9
	Steel (Steel)	10	18.0	13.3
	Aluminium (ALU)	5.6	10.1	7.4
M5 (SAE 10-24)	Stainless steel (INOX)	10.4	18.8	13.9
	Steel (Steel)	9	16.2	11.9
	Aluminium (ALU)	4.5	8.1	6.0
M4 (SAE 10-32)	Stainless steel (INOX)	5.8	10.5	7.7
	Steel (Steel)	4.7	8.5	6.3
	Aluminium (ALU)	1.3	2.4	1.8
M3 (SAE 8-32)	Stainless steel (INOX)	3.8	6.9	5.1
	Steel (Steel)	2.5	4.4	3.2
	Aluminium (ALU)	1.0	1.9	1.4

Safety Instructions

- Keep hands and all body parts in a safe place at a sufficient distance from the work area.
- Make sure that there is no loosely hanging clothing, chains, long hair, gloves, etc. in the vicinity of the work area since they could be caught/snagged.
- Do not use the rivet drill attachment for fastening electrical cables because the insulation on the wires could become damaged and life-threatening voltage could be conducted to the metal parts of the tool, which could lead to injury of the user by electrical shock.
- Long term use of the rivet drill adapter may result in the body of the rivet drill adapter becoming hot, pay increased attention.

Cleaning and maintenance

- Remove the rivet drill adapter from the drill before cleaning and maintenance The rivet drill adapter is supplied factory lubricated. After installing 2000 rivet nuts/ blind rivets it is recommended to lubricate the rivet drill adapter with machine lubricant (machine Vaseline).
- Do not use any organic solvents or corrosive cleaning products for cleaning. Prevent any water or other liquids from entering the rivet drill adapter.
- For safety reasons and for reason of exercising the warranty, exclusively original parts of the manufacturer may be used for repairs.

STORAGE

Store the rivet drill adapter in a dry place, out of the reach of children. Protect it against rain, moisture and the ingression of water and against temperatures exceeding 50 °C.

WARRANTY AND SERVICE

- The product is covered by a 2-year guarantee from the date of sale according to law. If requested by the buyer, the seller is obliged to provide the buyer with the warranty conditions (rights relating to faulty performance) in written form.
- Free warranty repairs relate only to manufacturing defects on the product (hidden and external) and do not relate to the wear of the product as a result of excessive load or normal use or damage of the product caused by incorrect use.

Documents / Resources

	fortum 4770667 Rivet Drill Adapter for Blind Rivets and Rivet Nuts 2 in 1 [pdf] User Manual 4770667, Rivet Drill Adapter for Blind Rivets and Rivet Nuts 2 in 1, Rivet Drill Adapter, Drill Adapter, 4770667, Adapter

References

- Extol
- | Extol.hu
- EXTOL - náradie pre remeselníkov, domácich majstrov aj profesionálov
- FORTUM / Profesionální dílenské a stavební nářadí