

ROTHENBERGER

ROFROST TURBO II



- 6.2203 230V / 50HZ
- 6.2204 110V / 50HZ
- 6.2205 115V / 60HZ

CE

CSC
Industrial Corporation

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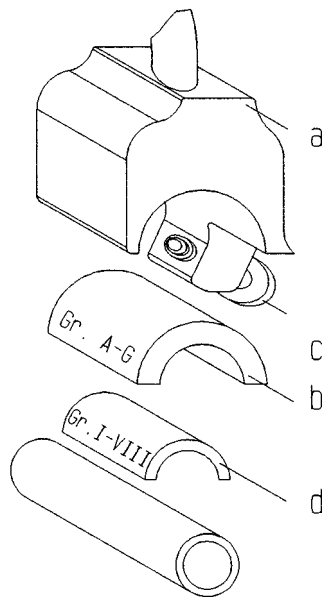


ROFROST TURBO II

(D)	Betriebsanleitung	1 - 4
(GB)	Operating Instructions	5 - 8
(F)	Mode d'emploi	9 - 12
(E)	Instrucciones para el servicio	13 - 16
(I)	Istruzioni per l'uso	17 - 20
(NL)	Gebruiksaanwijzing	21 - 24
(DK)	Driftvejledning	25 - 28
(S)	Bruksanvisning	29 - 32
(SF)	Käyttöohje	33 - 36
(P)	Instruções de uso	37 - 40
(PL)	Instrukcja obsługi	41 - 44
(GR)	Οδηγίες λειτουργίας	45 - 49

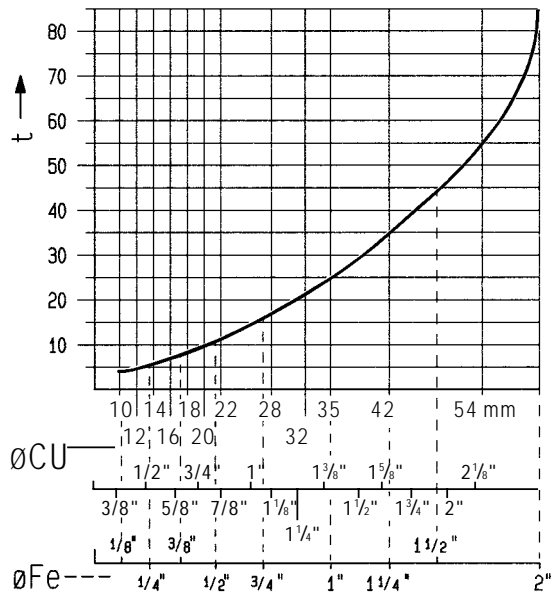
Reduzier-einsatz reduction inserts	Rohrdurchmesser / tube-diameter			Reduzier-einsatz reduction inserts	Rohrdurchmesser / tube-diameter		
	Cu/mm	Fe/Zoll/in.	Cu/Zoll/in.		Cu/mm	Fe/Zoll/in.	Cu/Zoll/in.
Gr. A	28	R 3/4	—	Gr. I	10	R 1/8	3/8
Gr. B	—	—	1 1/8	Gr. II	12	—	1/2
Gr. C	32	—	1 1/4	Gr. III	14/15	R 1/4	—
Gr. D	35	R1	1 3/8	Gr. IV	16	—	5/8
Gr. E	42	R 1 1/4	—	Gr. V	18	R 3/8	—
Gr. F	—	R 1 1/2	—	Gr. VI	20	—	3/4
Gr. G	54	—	2 1/8	Gr. VII	22	R 1/2	7/8
Kältezange freezing-clamp	—	R2	—	Gr. VIII	—	—	1

①



Adaptierung Gr. I-VIII mit Gr. E
adaption of size (Gr.) I-VIII
with size (Gr.) E

②



③

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ROTHENBERGER

EG-Konformitätserklärung
EC-Declaration of Conformity
Déclaration de Conformité CE
Declaracion de Conformidad CE
Dichirazione di Conformità CE
EC Konformiteitsverklaring

CE-Försäkran
EC Konformitetserklæring
CE Erklæring av Ansvarsforhold
CE Todistus standardinmukaisuudesta
Declaração de Conformidade CE
ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ ΕΟΚ

D DEUTSCH
**CE-KONFORMITÄTS-
ERKLÄRUNG**

Wir erklären in alleiniger Verantwortung, daß dieses Produkt mit den Bestimmungen der Richtlinien 89/37/EWG; 73/23/EWG; 89/336/EWG übereinstimmt.

E ESPAÑOL
**DECLARACION DE CON-
FORMIDAD "CE"**

Declaramos bajo nuestra sola responsabilidad que este producto está en conformidad con las regulaciones 89/37/CEE; 73/23/CEE; 89/336/CEE.

S SVENSKA
CE-FÖRSÄKRAN

Vi intygar och ansvarar för, att denna produkt överensstämmer med bestämmelser och riktlinjerna 89/37/EEC; 73/23/EEC; 89/336/EEC.

GB ENGLISH
**EC-DECLARATION OF
CONFORMITY**

We declare under our sole responsibility that this product is in conformity with the regulations 89/37/EEC; 73/23/EEC; 89/336/EEC.

I ITALIANO
**DICHIARAZIONE DI CON-
FORMITÀ**

Dichiariamo, assumendo la piena responsabilità di tale dichiarazione, che il prodotto è conforme alla direttive 89/37/CEE; 73/23/CEE; 89/336/CEE.

DK DANSK
**CE-KONFORMITETSER-
KLÆRING**

Vi erklærer under almindeligt ansvar, at dette produkt er i overensstemmelse med bestemmelserne i direktiverne 89/37/EØF; 73/23/EØF; 89/336/EØF.

F FRANÇAISE
**DÉCLARATION DE
CONFORMITÉ CE**

Nous déclarons sous notre propre responsabilité que ce produit est conforme aux réglementations 89/37/CEE; 73/23/CEE; 89/336/CEE.

NL NEDERLANDS
**EC KONFORMITEITS-
VERKLARING**

Wij verklaren dat dit produkt voldoetaan de bepalingen van de richtlijnen 89/37/EEG; 73/23/EEG; 89/336/EEG.

PL POLAND
CE-Oświadczenie zgodności

Oświadczamy niniejszym jako wyłącznie odpowiedzialni, iż produkt ten odpowiada ustaleniom dyrektyw 89/37/EWG, 73/23/EWG, 89/336/EWG.

SF SUOMI
**CE-TODISTUS STANDARDIN-
MUKAISUUDESTA**

Todistamme täten ja vastaamme yksin siitä, että tämä tuote on seuraavien sääntöjen mukaisesti: 89/37/ETA; 73/23/ETA; 89/336/ETA.

P PORTUGUES
**DECLARAÇÃO DE
CONFORMIDADE CE**

Declaramos, sob nossa exclusiva responsabilidade, que este produto cumpre conforme as disposições das directivas 89/37/CEE; 73/23/CEE; 89/336/CEE.

**GR ΔΗΛΩΣΗ
ΣΥΜΜΟΡΦΩΣΗΣ ΕΟΚ**
Δηλώνουμε με αποκλειστική ευθύνη ότι το παρόν προϊόν ανταποκρίνεται στις διατάξεις των οδηγιών 89/37/ΕΟΚ; 73/23/ΕΟΚ; 89/336/ΕΟΚ.



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ROTHENBERGER

1. Description

Dear customer,

Congratulations on the purchase of a **ROFROST TURBO II** pipe freezing system.

The ROTHENBERGER HIGH TECH pipe freezing system with a hermetically sealed refrigerant cycle is used for freezing copper pipes with a diameter of 10 - 60 mm or 3/8" - 2. 1/8" and steel pipes with a diameter of 1/8" - 2" rapidly, safely and in an environmentally-friendly manner.

Freezing of multiple pipes is possible after consultation with ROTHENBERGER WERKZEUGE AG.

For the sanitary and central heating system installer, the **ROFROST TURBO II** provides an economically-efficient solution to his problems, since maintenance, repair and extension work on existing pipe systems can be carried out without time-consuming draining down of the pipes or the additional installation of shut-off devices.

This means that your customers and their neighbours (e.g. in an apartment house) do not have problems making appointments and are not inconvenienced, particularly during the colder times of year, since the adverse effects caused by lengthy disconnection of the central heating or the water supply no longer occur.

The **ROFROST TURBO II** is perfect for replacing defective components such as radiators, valves, thermostatic valves etc., while substantially reducing the harmful influence of oxygen in the heating system.

1.1 Contents

The **ROFROST TURBO II** pipe freezing system basically consists of the following components:

1. Electric refrigerating set with case, carrying handle cover, plastic inset and mains cable
2. 2 refrigerant hoses
3. 2 freeze clamps for copper pipes with a diameter of 60 mm or 2. 1/8" and for steel pipes with a diameter of 2"
4. 2 thermistors
5. On/off switch
6. Set of reduction inserts (sizes A/D/E/F)
7. 1 tin of heat transfer compound

Special sizes for reduction inserts on inquiry.
Thermally insulated protective gloves to DIN EN 511.

2. Technical data

	GB	USA	Euro
	062204	062205	062203
Rated voltage	110 V	115 V	230-230 V
Rated frequency:	50 Hz	60 Hz	50 Hz
Rated power:	310 W	310 W	325 W
Refrigerant:	R404a		
Filling weight:	160 g		
Weight of appliance:	approx. 25 kg		
Dimensions (L/W/H):	500 x 253 x 315 mm		
Noise level	≤ 70 dB (A)		
Permissible temperature during operation:	-15°C to + 40°C		

3. Safety requirements

Careful and cautious handling and the observance of the operating instructions and safety information for electric tools are prerequisite for the prevention of accidents when using machinery and tools. Please ensure that only authorised personnel operate the appliance!

Personnel being trained in the use of the appliance or those undergoing a general training are only allowed to work with it while under the constant supervision of an experienced person!

The appliance may only be operated when it is in a safe and functioning condition! Cluttered-up workplaces are often the cause of accidents. Always ensure that workplaces are kept tidy!

Do not work in dangerous circumstances!
Unused tools should be kept dry and out of reach of children under lock and key!

Never pull the plug out of the socket by the cable. Keep cable away from oil, heat sources and sharp edges. Replace the mains cable and cable grips immediately, if they are damaged or worn.

Always remove the plug from the socket when the appliance is not in use or during tool changes, maintenance or repair!

Always ensure that there is adequate lighting at the workplace!

The appliance may be only used in dry premises!

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During operation the **ROFROST TURBO II** has an operating range of -30°C at the freeze clamps and max. +70°C inside the case. The metal parts of the freeze clamps reach a temperature of approx. -30°C during the freezing process. To prevent frost-bite, the freeze clamps may only be handled using suitable thermally insulated gloves. The heat transfer compound is environmentally friendly and can be re-used or disposed of as normal waste. Ensure that no components or very small parts are lying on top of the **ROFROST TURBO II** ventilation grille to prevent the appliance overheating or any foreign bodies getting into the appliance.

The ventilation grille should be cleaned when it is dirty.

Important:

If refrigerant should escape from the closed refrigerant circuit of the **ROFROST TURBO II**, keep it away from hot surfaces or fire.

Caution: Formation of dangerous fumes. Danger of poisoning!

When disposing of the **ROFROST TURBO II**, please ensure that the R404a refrigerant is removed separately by a specialist firm.

Keep these operating instructions together with the safety information in a safe place, and ensure that personnel have read and understood them before they use the **ROFROST TURBO II**!

First aid measures

If the closed refrigerant circuit is damaged and refrigerant escapes, please note the following:

- After inhaling
Provide the victim with fresh air and a quiet place. If breathing has stopped or is irregular, carry out artificial respiration. Send for a doctor
- After contact with the eyes
Bath eyes with plenty of lukewarm water and consult a doctor.
- After swallowing
Send for a doctor immediately.

Information for doctor:

Treatment

Do not administer drugs of the ephedrine/adrenaline group.

4. Placing in operation

4.1 Transport and storage

The cryogenic hoses, the freeze clamps and the reduction inserts can be conveniently stored in the portable case for transport and storage.

The **ROFROST TURBO II** should only be stored in a dry place.

Transport and store the freezing appliance only in an upright position. If it should tip over, stand upright for a while before use.

4.2 Installing and setting-up

Switch off the central heating or pump in due time to stop the water circulation.

Then set up the **ROFROST TURBO II** appliance in such a way that the appliance's ventilator motor does not blow on the pipes which are to be frozen, as these must be protected from draughts. The built-in ventilator draws in air, which is required for the liquefaction of the refrigerant as well as for cooling the compressor, at the long side of the appliance and forces this out again at the top.

Caution: always leave the cover opened and ensure that the ventilation grille is not obstructed during the freezing process, as the air must be able to circulate freely.

The **ROFROST TURBO II** is a „contact freezing appliance“, i.e. the appliance only works reliably, when there is a good heat conducting contact between the freeze clamps and the pipes which are to be frozen. Paint and contaminants in the area of attachment of the tongs extend the freezing times; ideally, the pipe which is to be frozen should be clean down to bare metal.

Furthermore, care should be taken that the freeze clamps are only attached to a straight run of pipework. Badly deformed or out-of-round pipes are not suitable for freezing.

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4.3 Use and change of tools

The freeze clamps are designed for pipes with an external diameter of 2.1/8" or 60 mm. Special reduction inserts (fig. 1) are required for freezing pipes with a smaller diameter. Generously coat the contact surfaces with heat transfer compound to avoid insulation by-passing and achieve optimum thermal conductivity and conducting capacity between the freeze clamps (a), reduction inserts (b/d) and pipes (fig. 2).

NOTE: Heat transfer compound is required for the best possible results!

Treat the precision-made, accurate-to-size reduction inserts and freeze clamps with care! Clean them after use with a dry cloth and replace in the insets provided to prevent damage.

Rags soiled with heat transfer compound can be disposed of without problem as normal waste.

Important:

The freeze clamps and pipes must be kept out of draughts during the freezing process!

5. Taking out of service

After the work has been completed, pull out the appliance plug from the mains and allow the freeze clamps and hoses to defrost, before you remove them from the pipe to clean them.

Caution: do not kink or stretch hoses!

6. Directions for use

The **ROFROST TURBO II** is a plug-in compact appliance. It operates with a hermetically sealed cooling circuit on the compression principle. Continuous operation over several hours or days presents no problems.

The simple clamping system of the freeze clamps ensures a firm attachment to the pipe.

For attachment, press the clamp and the appropriate inset against the pipe which is to be frozen and secure with the fixing screw. Remove any superfluous heat transfer compound.

Caution: tighten the fixing screw only by hand! In addition, it is recommended that the screw be greased, as this enables the clamps to be detached more easily after the freezing process.

Working near a wall or in a constrained position is made possible by the favourable width across corners. The freeze clamps are connected to a flexible, diffusion resistant mono-hose system. As a result, the **ROFROST TURBO II** is extremely handy, and the 2.5 m long hoses also ensure an ample working area.

Important:

There can be a temperature difference from display (L) to display (R) during freezing; this, however, is normally compensated for in the minus range.

In addition, external factors may also play a role, e.g.:

- variable initial temperatures of the respective pipes to be frozen
- variable pipe diameters
- variable contacting of the freeze clamp to the pipe
- adverse effect of draughts

Switch on the appliance only after both freeze clamps are securely attached to the pipes which are to be frozen. The central heating system or the pump must be switched off in due time to stop the water circulation in the pipes.

The metal parts of the freeze clamps reach a temperature of approx. -30°C during the freezing process. To prevent frost-bite, the freeze clamps may only be handled using suitable thermally insulated gloves.

Re-open the circuit only after the temperature has reached -18°C and the period stated in the table (approximate values) has elapsed (fig. 4). The values stated are approximate values, which were determined at an ambient temperature of 22°C.

7. Maintenance

The **ROFROST TURBO II** is designed for use on construction sites and is therefore contained in a robust sheet steel case. Nevertheless, handle it carefully. The technical components inside the appliance are sensitive to rough treatment. As a result, never drop the appliance or allow it to fall over.

Should, contrary to expectations, a technical fault occur in spite of careful handling, please contact the dealer or the manufacturer directly.

The refrigeration cycle may only be opened by qualified personnel of the **ROTHENBERGER WERKZEUGE AG**.

When the **ROTHENBERGER** heat transfer compound has been used up, a further supply can be ordered quoting order no. 6.2291.

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7.1 Troubleshooting

When the freezing process takes too long or cannot be carried out at all, hang up the clamps for approx. 10 minutes with the appliance switched on, so that any oil in them can return to the compressor.

In addition, check that

- sufficient heat transfer compound for contacting has been applied between clamp and pipe or inset and pipe (see chapter 4.3)
- the freeze clamps have been correctly attached to the pipes (see chapter 6)
- the water circuit is not flowing

Other influences may affect inter alia the freezing time:

- wall-thickness of the pipes
- material of the pipes
- dirty water
- initial temperature of the water which is to be frozen
- ambient temperature (e.g. insulation)
- operating temperature of the appliance
- kinked or stretched cryogenic hoses

The freezing parameters in the table are only reference values, for which ROTHENBERGER WERKZEUGE AG can accept no guarantee.

Avoid short current interruptions when the appliance is in service!

Should this occur in spite of careful preparation, wait at least 5 minutes before switching on.

The compressor will otherwise be disconnected from the mains supply by a built-in safety cut-out switch. This has a thermal overload protection which is automatically reset after cut-out.

Should the appliance still be not fully operative after troubleshooting, contact ROTHENBERGER.

7.2 Warranty

ROTHENBERGER WERKZEUGE AG guarantees the **ROFROST TURBO II** for a period of 6 months starting from the date of delivery (proof furnished by invoice or delivery note).

Damage which is the result of ordinary wear and tear, abuse or improper handling is excluded from the guarantee service.

The appliance is carefully checked and subsequently sealed before leaving our factory. The warranty of quality also becomes void, if the appliance or the cooling circuit has been opened before expiration of the period of warranty.

We will not accept any claims which go beyond the above mentioned guarantee service.



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