

INSTRUCTIONS

HVAC/R
Service Products



HY-EX-6

4687047

HY-EX

4687048

Instruction Manual
Hydraulic expander

Bedienungsanleitung
Hydraulik Expander

Mode d'emploi
Expandeur hydraulique

Istruzioni per l'uso
Espansore idraulico

Manual de instrucciones
Expansor hidráulico

Hydraulic expander HY-EX(-6)

Thank you for purchasing the HY-EX(-6) hydraulic expander.

The new hydraulic expander with 6 expander heads (HY-EX-6 only) for tube diameters of 3/8", 1/2", 5/8", 3/4", 7/8" and 1 1/8".

With hydraulic pressure this light weight expander allows a perfect expansion of copper- and aluminium pipes using a few pump movements.

The kit contains a heavy duty deburring tool and it is packed in a practical hard plastic case.

This device is characterized by following features:

- **Single hand operation** The hydraulic mechanism and the thumb release allows for single hand operation. The laser-engraved expander heads are easy to identify and screwed on quickly.
- **Space-saving** Thanks to the unique compact pistol-shape it is possible to work in hard to access places.
- **120° angle** Requires less pumping power, ensures ergonomic handling and optimal tool management.
- **Exchangeable heads** Fits on all HVAC/R standard imperial size tubes. Expander heads for **metric size tubes** are also available.
- **Compatibility** Compatible with most expander tools on the market.
- **Deburring tool**
RFA-209-STYLO-HD Provides burr-free pipes for easy installation of the expander heads.
- **Dimensions** Length: 25 cm (10"), Width: 4.5 cm (1.75")
Height: 12 cm (5")
- **Weight** 1.2 kg (2.6 lbs)
- **Tube materials** Soft pipes only. Copper, aluminium, brass.

Safety First!



It is important to read this entire manual and be familiar with its contents before using the tool. It gives important instructions for proper operation, maintenance and disposal of the device.

Operation

REFCO-products are specially designed and manufactured for qualified personnel in the HVAC/R field. Due to the high pressures, chemical and physical gases used in refrigeration systems, REFCO is not responsible or liable for any accidents, injuries and death. REFCO explicitly points out, only to sell the products to qualified technicians.

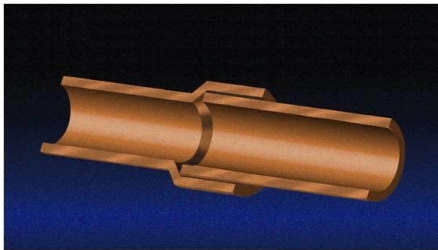


Notice

When working on refrigeration systems proper protective equipment such as gloves, safety glasses and protective footwear must be worn.



Application



1. Cut the pipe to the correct length and deburr it inside and out.
2. Choose the correct expander head size and screw it onto the HY-EX.
3. Push the pipe all the way onto the un-expanded expander head until it bottoms out.



Notice

Do not push with violence and twisting. The expander head is free to slightly rotate in the pipe.

On the 3/8" (8 mm) please heat the copper pipe to be expanded or it will very likely split depending on the age, quality and wall thickness of the small diameter tubing.

4. Pull the pump handle until the correct tube diameter is reached. Normally 16 - 22 pumps depending on the size of the expander head used.
5. Press the thumb release button to loosen and release the expander and remove from the expanded pipe.
6. Use the saved power for the next step.

Maintenance

For smooth operation, we recommend to remove the expander head and regularly re-grease the thrust cone after expanding 20 tubes. (Multi-purpose grease).

It is very important to keep the expander heads and the thrust cone free of dirt and debris. If debris enter the back side of the expander heads or on the thrust cone, you risk the tool sticking in the expanded position.

Please keep the thrust cone and expander heads clean to ensure proper operation.

Filling up hydraulic oil (only if necessary)

It is possible to refill hydraulic oil in the expander HY-EX after 10'000 or more usages.



Notice

The addition of hydraulic oil should be carried out at a suitable location, as it is possible that oil might be spilled during re-filling and bleeding process.

Procedure:

1. Secure the HY-EX head down / handle up in a bench vice.
2. Unscrew the main handle counter-clockwise. Use a strap wrench to avoid marring tool finish.
3. Pull out the plug from the oil reservoir.
4. Fill up the hydraulic oil until the reservoir is full (about 15 ml if it is empty). For an ideal performance, we suggest using ISO-HV-15 hydraulic oil.
5. Fully pump up the HY-EX several times with open reservoir and push the release button (yellow), so trapped air can escape from the hydraulic oil.
6. If air escapes, the liquid level may decrease. Repeat steps 4 and 5 until the liquid level does not decrease anymore.
7. Close the reservoir with the plug.
8. Screw on the handle.

9. Clean the device.

Environment

REFCO Manufacturing Ltd. sees their lifelong responsibility for its products. This is the reason why REFCO got the DIN EN ISO 14001 : 2004 certification.

When decommissioning the device, the user must follow the applicable disposal regulations of its country.

Oil and other components have to be disposed thus the environmental pollutions are excluded.

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