

Fig. 1

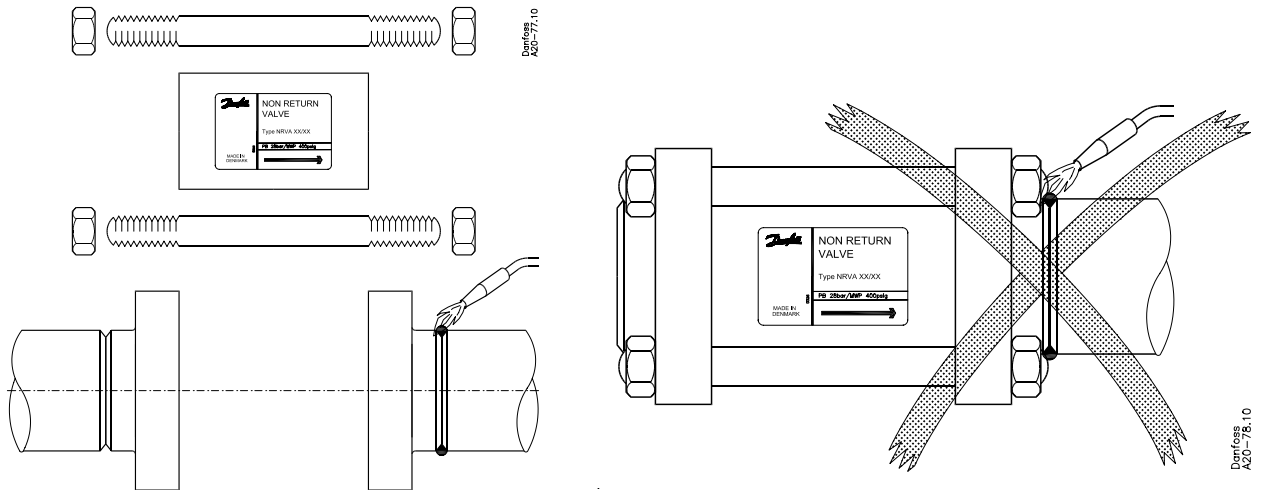
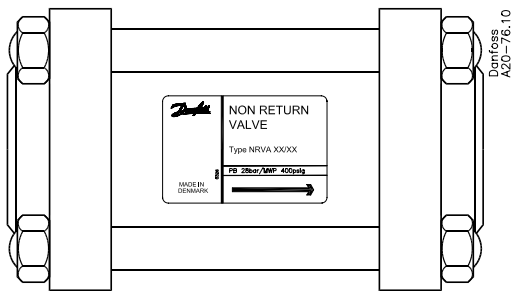


Fig. 2



Type	Bolt	Nm	LB-Feet
NRVA 15-20	2 x M12	50	37
NRVA 25-32	4 x M12	70	52
NRVA 40-50	4 x M12	70	52
NRVA 65	8 x M16	100	74

Fig. 3

Installation

Refrigerants

Applicable to all common non-flammable refrigerants, including R717 and non-corrosive gases/liquids dependent on sealing material compatibility. Flammable hydrocarbons are not recommended. The valve is only recommended for use in closed circuits. For further information please contact Danfoss.

Temperature range

NRVA: $-50/+140^{\circ}\text{C}$ ($-58/+285^{\circ}\text{F}$)

Pressure range

NRVA: The valves are designed for a max. working pressure of 28 bar g (406 psi g).

Installation

The valve must be installed in the flow direction as indicated by the arrow on the valve housing (fig. 1).

The valve is designed to withstand a high internal pressure. However, the piping system should be designed to avoid liquid traps and reduce the risk of hydraulic pressure caused by thermal expansion. It must be ensured that the valve is protected from pressure transients like "liquid hammer" in the system.

Welding

The internal parts should be removed before welding (fig. 2) to prevent damage to the gaskets, as well as the teflon gasket in the valve seat. Only materials and welding methods, compatible with the flange material, must be welded to the flanges. The flanges should be cleaned internally to remove welding debris on completion of welding and before the valve is reassembled.

Be careful not to damage the teflon on the cone.

The valve inclusive flanges must be free from stresses (external loads) after installation.

The valves must not be mounted in systems where the outlet side of the valve is open to atmosphere. Both the inlet and outlet side of the valve must always be connected to the system or properly capped off, for example with a welded-on end plate.

Assembly

Remove welding debris and any dirt from pipes and valve body before assembly.

Tightening

Tighten the staybolts and nut with a torque wrench, to the values indicated in the table (fig. 3).

Surface protection

The external surface of the flanges must be prevented against corrosion with a suitable protective coating after installation and assembly.

Maintenance

Dismantling the valve

Do not remove the valve housing while the valve is still under pressure.

- Check that the gasket has not been damaged.
- Check that the cone is free of scratches and impact marks.
- If the teflon cone ring has been damaged, the whole cone assembly must be replaced.

Assembly

Remove any dirt from the body before the valve is assembled.

Tightening

Tighten the staybolts and nut with a torque wrench, to the values indicated in the table (fig. 3).

Use only original Danfoss parts, including gaskets for replacement. Materials of new parts are certified for the relevant refrigerant.

In cases of doubt, please contact Danfoss.

Danfoss accepts no responsibility for errors and omissions. Danfoss Industrial Refrigeration reserves the right to make changes to products and specifications without prior notice.

DECLARATION OF CONFORMITY
The Pressure Equipment Directive 97/23/EC



Name and Address of Manufacturer within the European Community

Danfoss Industrial Refrigeration A/S
Stormosevej 10
PO Box 60
DK-8361 Hasselager
Denmark

Declaration

We hereby declare that below-mentioned equipment are Classified for Fluid Group I (all refrigerants (toxic, non-toxic, flammable and non-flammable)), and that all are covered by Article 3, paragraph 3.

For further details / restrictions - see Installation Instruction

Description of Pressure Equipment

Refrigerant check valve
Type **NRVA**

Nominal bore **DN ≤ 25 mm.** (1 in.)

References of other Technical Standards and Specifications used

prEN 12284 DIN 3158
AD-Merkblätter

Authorised Person for the Manufacturer within the European Community

Name: Morten Steen Hansen **Title:** Production Manager

Signature: Morten Steen Hansen **Date:** 11/03/2001

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DECLARATION OF CONFORMITY
The Pressure Equipment Directive 97/23/EC



Name and Address of Manufacturer within the European Community

Danfoss Industrial Refrigeration A/S
Stormosevej 10
PO Box 60
DK-8361 Hasselager
Denmark

Description of Pressure Equipment

Refrigerant check valve

Type NRVA

Nominal bore	DN32-65 mm. (1¼ - 2½ in.)	
Classified for	Fluid Group I (all refrigerants (toxic, nontoxic, flammable and nonflammable)). For further details / restrictions - see Installation Instruction.	
Temperature range	NRVA	-50°C/+140°C (-58°F/+285°F)
Maximum allowable working pressure	NRVA	28 bar (406 psi) -50°C/+80°C (-58°F/+176°F) 26 bar (377 psi) +80°C/+120°C (+176°F/+248°F) 24 bar (348 psi) +120°C/+140°C (+248°F/+284°F)

Conformity and Assessment Procedure Followed

Category	II	
Module	D1	
Certificate ID	-	
Nominal bore	Standard applications	DN32-65 mm (1¼ - 1½ in.)

Name and Address of the Notified Body which carried out the Inspection

TÜV-Nord e.V.
Grosse Bahnstrasse 31
22525 Hamburg, Germany



Name and Address of the Notified Body monitoring the Manufacturer's Quality Assurance System

TÜV-Nord e.V.
Grosse Bahnstrasse 31
22525 Hamburg, Germany

References of Harmonised Standards used

References of other Technical Standards and Specifications used

prEN 12284 DIN 3158
AD-Merkblätter DIN 17173

Authorised Person for the Manufacturer within the European Community

Name: Morten Steen Hansen **Title:** Production Manager

Signature: Morten Steen Hansen

Date: 11/03/2002