

# IRF Valves

**Danfoss A/S**

DK-6430  
Nordborg

2026.05.18

## Subject.: Vacuum evacuation certification

We hereby certify that all products placed on the market are designed and manufactured to withstand vacuum evacuation conditions, specifically for the purpose of charging refrigeration circuit systems, but also during operation for refrigerants where the saturated pressure is in vacuum at the minimum operation temperature.

The design, materials, and verification of these products are performed in accordance with the essential safety requirements of the Pressure Equipment Directive 2014/68/EU (PED).

Where applicable, compliance with harmonized European standards is ensured, including but not limited to:

EN 13445 (Unfired Pressure Vessels), covering design verification under internal and external (vacuum) pressure conditions.

EN 378 (Parts 1–4) (Refrigerating systems and heat pumps – Safety and environmental requirements), addressing design, construction, and operation of refrigeration systems.

These standards provide the technical basis for demonstrating conformity with PED requirements and ensuring that the equipment maintains structural integrity under vacuum conditions encountered during evacuation and commissioning of refrigeration systems.

Type designation(s):

SVA-S - SVA-L - REG-SA - REG-SB - SCA-X - CHV-X - FIA - SVA-DH - SVA-DL - SVL-F - CSV - NRVA - DSV - AKS38 - ORV - SVA-HL - SVA-S SS - REG-SA SS - REG-SB SS - SCA-X SS - CHV-X SS - FIA-SS - SFA - SFV - BSV - POV - SV - ICV - PM - ICM - ICS - ICF - ICL - ICLX - ICSH - ICC - ICD - ICMTS 50/80 - KDC - GVD - HFI - PMFL/H - EVRA - EVR- OFC - FIA-140B - SVA-140B - SVA-65BT - DCR - CHV-140B - CVP - CVPP - CVH - CVQ - CVT - CVC - EVM - DSV1 - DSV2 - DSV10 - AKVA - EVRS - EVRB - QDV - SNV ST - SNV SS



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Lead Expert Design and Approval

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