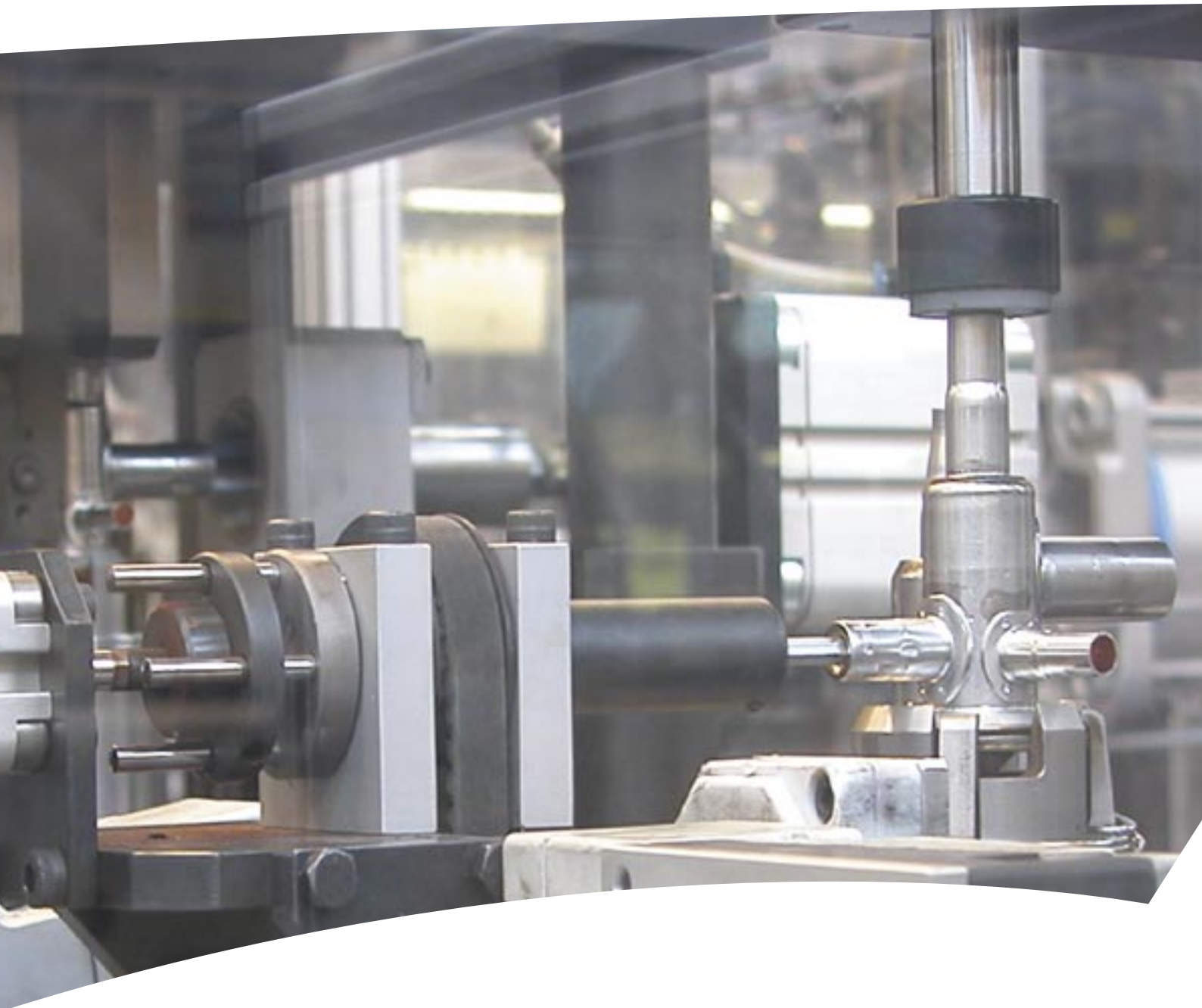


*Danfoss*

# High-quality Thermostatic Expansion Valves



REFRIGERATION AND  
AIR CONDITIONING



## Danfoss - your solution provider

Danfoss offers a wide range of thermostatic expansion valves covering the majority of customer demands.

Our production utilises state-of-the-art processes and every product is thoroughly tested in accordance with the most demanding standards.

If the component you are looking for is not mentioned in this leaflet or if you have special requirements, our competent personnel are always ready with help and guidance.

Make sure you obtain the right solution - contact your local Danfoss sales company or find us on <http://www.danfoss.com/how2con/>



### Thermostatic expansion valves, type TK 1

- Patented double contact bulb
  - Fast and easy to install
  - Good temperature transfer from pipe to bulb
- Supplied with fixed superheat setting
- Available with filter at the inlet side
- Version with and without bleed
- Laser-welded stainless steel thermostatic element
  - Optimum regulation properties
  - Long-life diaphragm
  - High compressive strength
- Available with MOP (Max. Operating Pressure)

#### Facts:

- Rated capacities:  
From 1.1 to 6.8 kW for R 22
- Max. working pressure:  
29 bar
- Refrigerants:  
R 22, R 134a and R 404A  
(other refrigerants on demand)



### Thermostatic expansion valves, type TUB/TUC

- Available in a number of variants that give countless combination possibilities
- Bimetal connections:
  - Waterless brazing
  - Quicker installation times
  - Higher productivity
- Stainless steel, hermetically tight solder version
- Stainless steel double contact bulb
  - Straightforward and fast installation
  - Good heat transfer from bulb to pipe
- Stable regulation
- Biflow function
- Available with MOP (Max. Operating Pressure)

#### Facts:

- Rated capacities:  
From 0.6 to 16 kW for R 22
- Max. working pressure:  
34 bar (42.5 bar for R 410A)
- Refrigerants:  
R 22, R 134a, R 404A, R 507, R 407C and R 410A

### Thermostatic expansion valves, type TCCE/TCBE

- Available in a number of variants that give countless combination possibilities
- Bimetal connections:
  - Waterless brazing
  - Quicker installation times
  - Higher productivity
- Stainless steel, hermetically tight solder version
- Stainless steel double contact bulb
  - Straightforward and fast installation
  - Good heat transfer from bulb to pipe
- Stable regulation
- Biflow function
- Available with MOP (Max. Operating Pressure)

#### Facts:

- Rated capacities:  
From 17.5 to 26.5 kW for R 22
- Max. working pressure:  
34 bar (42.5 bar for R 410A)
- Refrigerants:  
R 22, R 134a, R 404A, R 507, R 407C and R 410A



### Thermostatic expansion valves, type TRE

- Bimetal connections:
  - Waterless brazing
  - Quicker installation times
  - Higher productivity
- Laser-welded power element
  - Long-life diaphragm
  - High pressure tolerance and working pressure
- Stainless steel power element, capillary tube and bulb
- Two-way balanced port / biflow function
  - Superheat unaffected by condensing pressure irrespective of flow direction
  - One valve for heat pump service
- Available with MOP (Max. Operating Pressure) and universal cross-ambient charge

#### Facts:

- Rated capacities: From 28 to 245 kW for R 22
- Max. working pressure: 42 bar
- Refrigerants:  
R 22, R 134a, R 404A, R 507, R 407C and R 410A



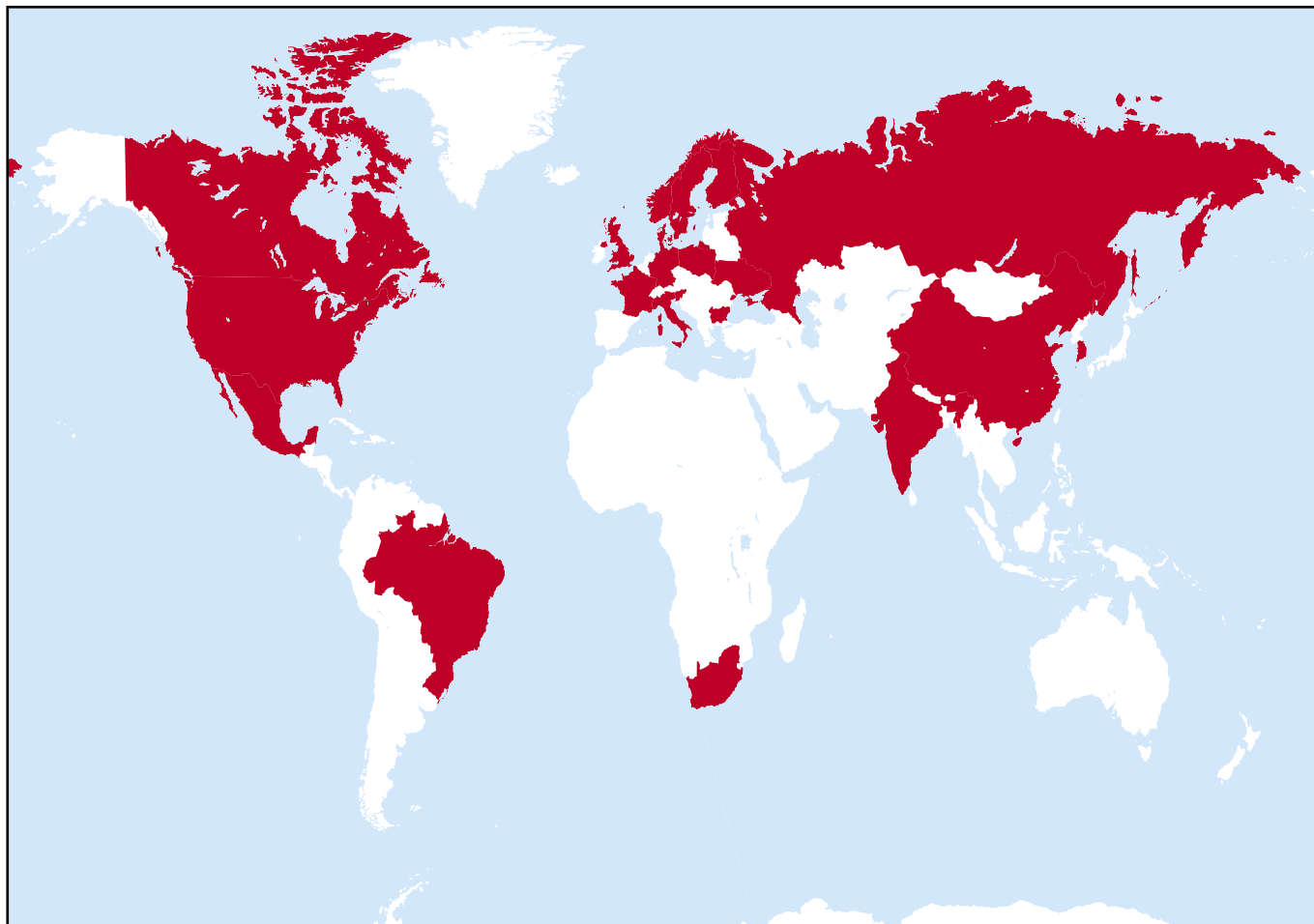
### Thermostatic expansion valves, type TDE/TDEB

- Head pressure independent
- Available with biflow function
- Available with self-cleaning bleed
- Superheat adjustable during operation
- Compact and hermetically tight design
- Laser-welded stainless steel thermostatic element
  - Optimum regulation properties
  - Long-life diaphragm
  - High compressive strength
- Available with MOP (Max. Operating Pressure) and universal cross-ambient charge

#### Facts:

- Rated capacities:  
From 10.5 to 140 kW for R 22 and R 407C
- Max. working pressure: 28 bar
- Refrigerants:  
R 22 and R 407C (TDE for R 134a manufactured on request)

# Danfoss factories worldwide



Refrigeration and Air Conditioning Controls, part of the Danfoss Group, is certified in accordance with international standards ISO 9001 and ISO 14001.

Danfoss thus fulfils international standards with respect to product development, design, production, sale and environmental awareness.

## Rated capacities in kW for R 22

Type	Range N -40°C → +10°C	Range N MOP -40°C → -5°C	Range K MOP -25°C → +10°C	Range B -60°C → -25°C	Connection
<b>TK1/TKE1</b>	1.75 → 4.5		1.75 → 4.5		Solder × solder (copper) Angleway
<b>TUB/TUBE TUC/TUCE</b>	0.9 → 16	0.9 → 16		0.44 → 7.5	Stainless steel / copper bimetal
<b>TCBE/TCCE</b>	17.5 → 26.5	17.5 → 26.5		12.5 → 22	Stainless steel / copper bimetal
<b>TDE/TDEB</b>	10.5 → 140		10.5 → 140		Solder × solder (copper) Straightway
<b>TRE</b>	28 → 350		28 → 350		Solder × solder (stainless steel/copper bimetal) Straightway