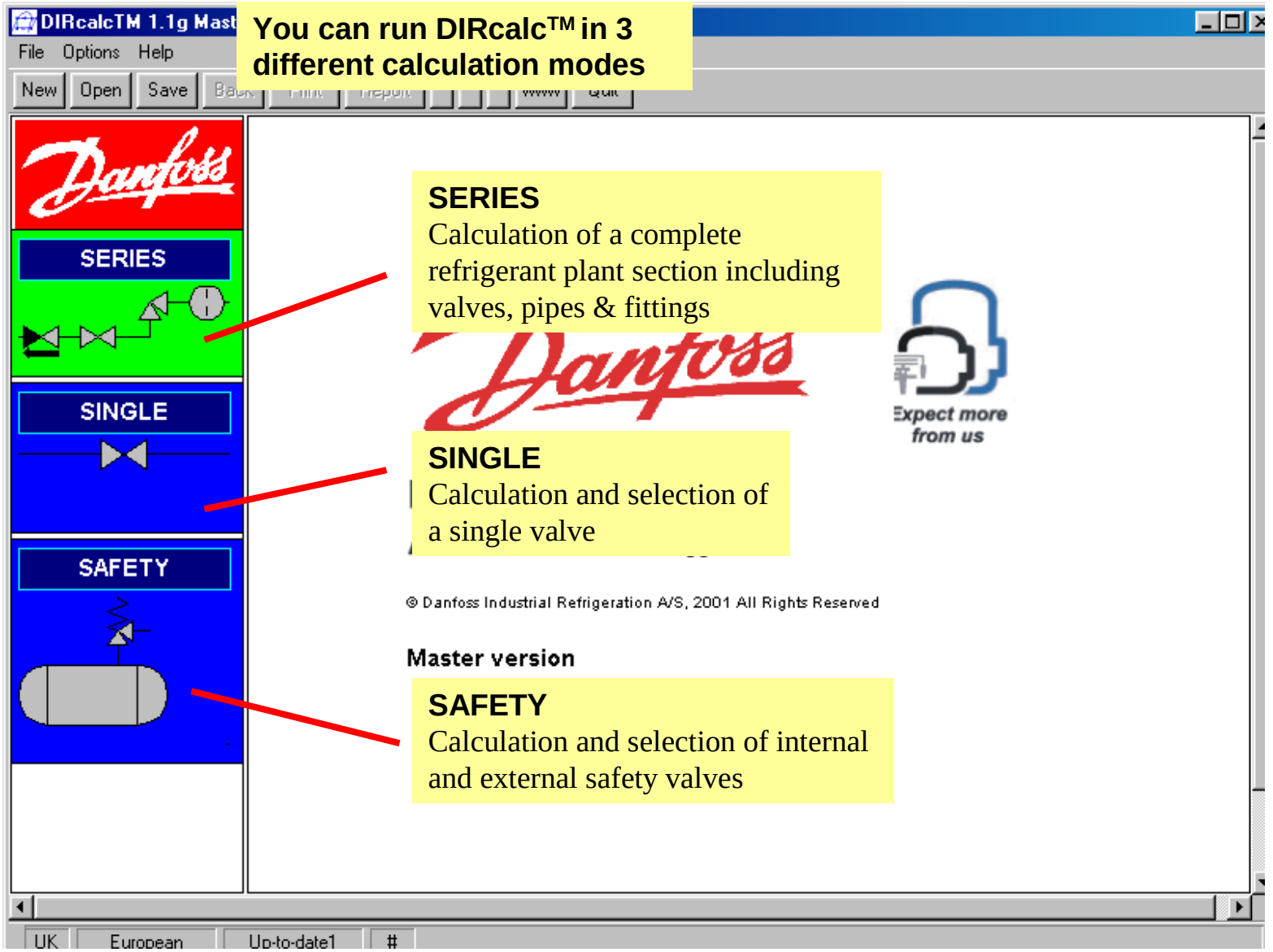
# Welcome
# to
# Getting Started

## DIRcalc™ version 1.1

# Mode Selection

**You can run DIRcalc™ in 3 different calculation modes**

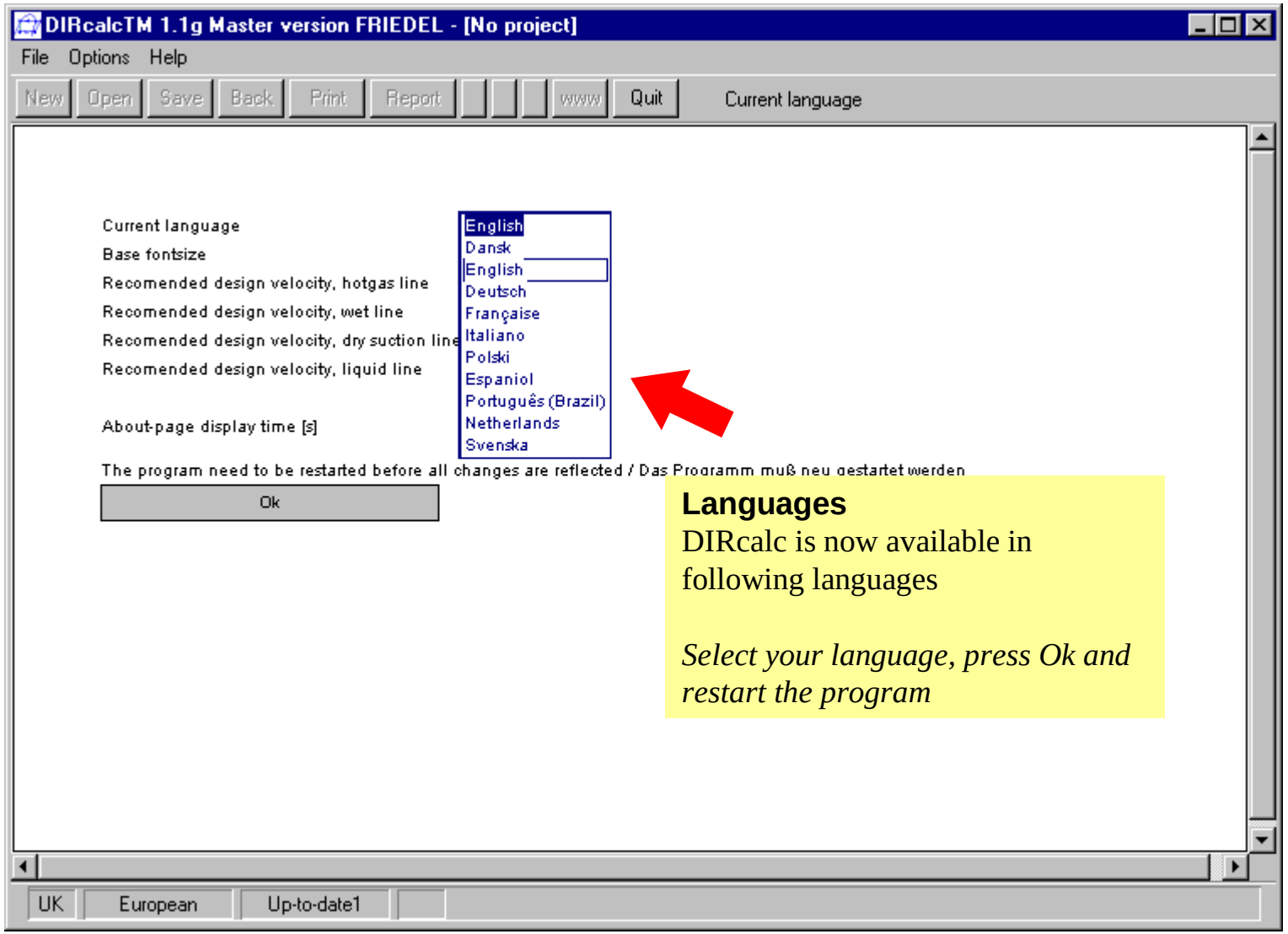



**SERIES**
Calculation of a complete refrigerant plant section including valves, pipes & fittings

**SINGLE**
Calculation and selection of a single valve

**SAFETY**
Calculation and selection of internal and external safety valves

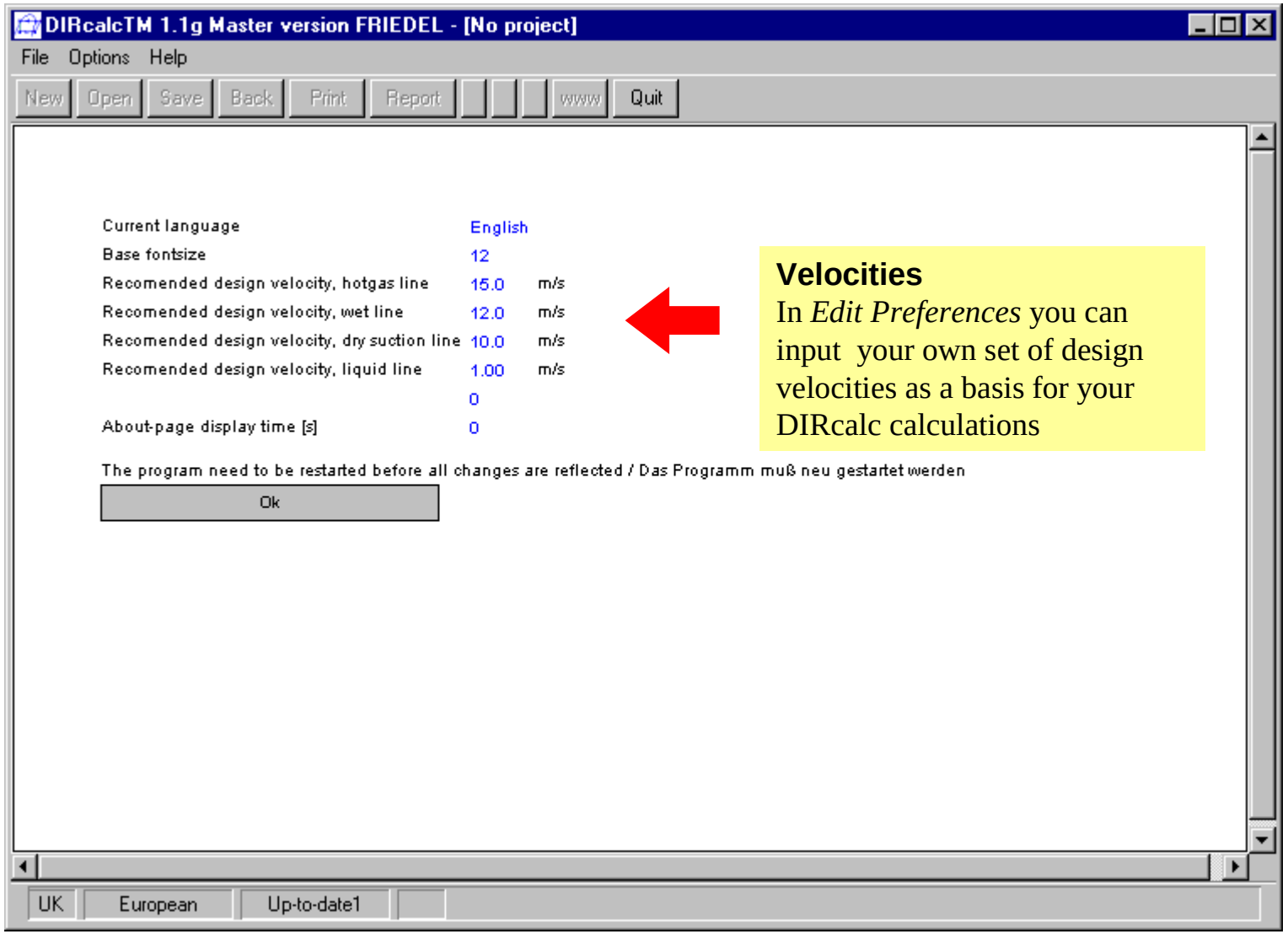
# Languages




**Languages**
DIRcalc is now available in following languages

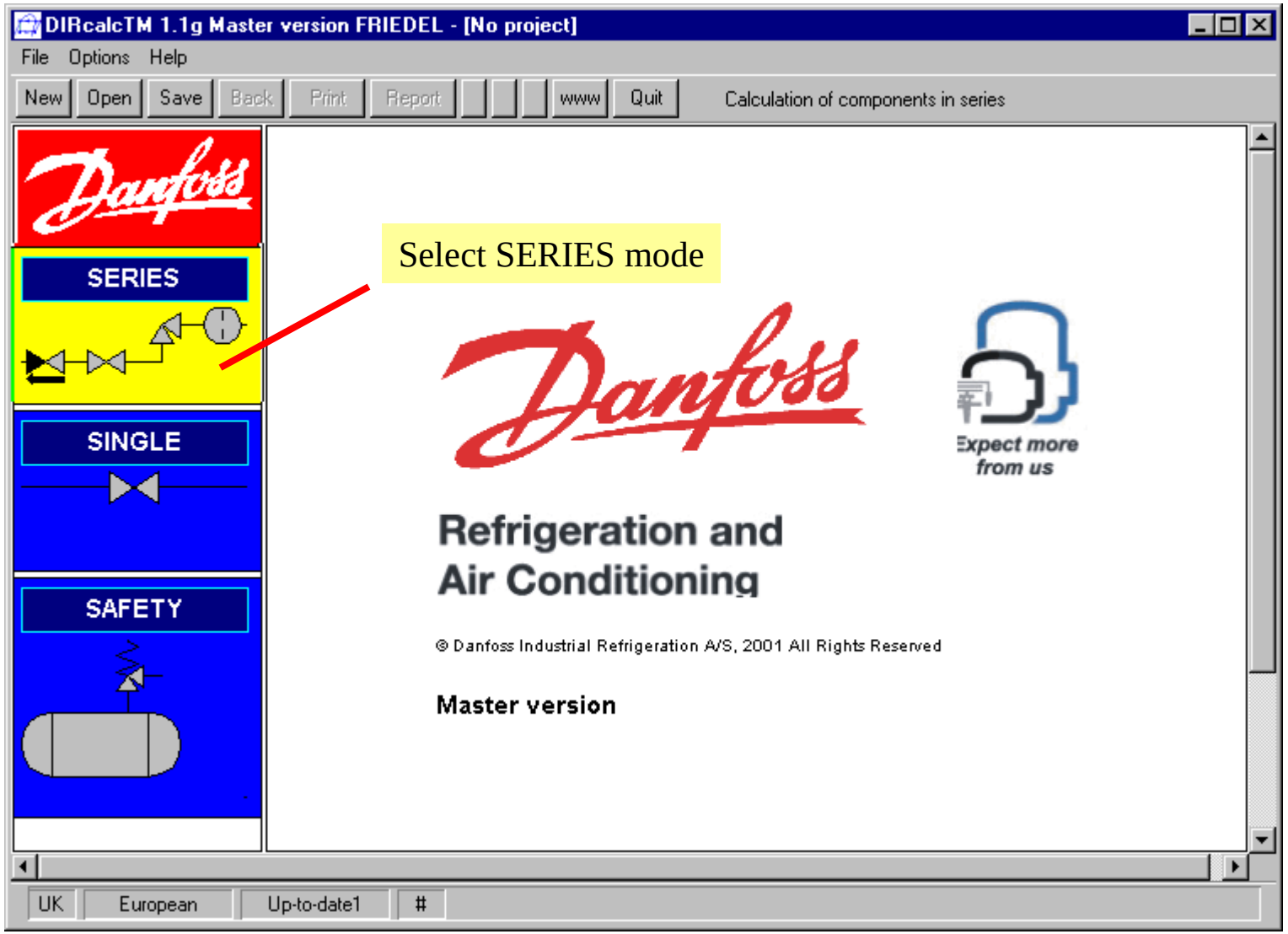
*Select your language, press Ok and restart the program*

# Velocities

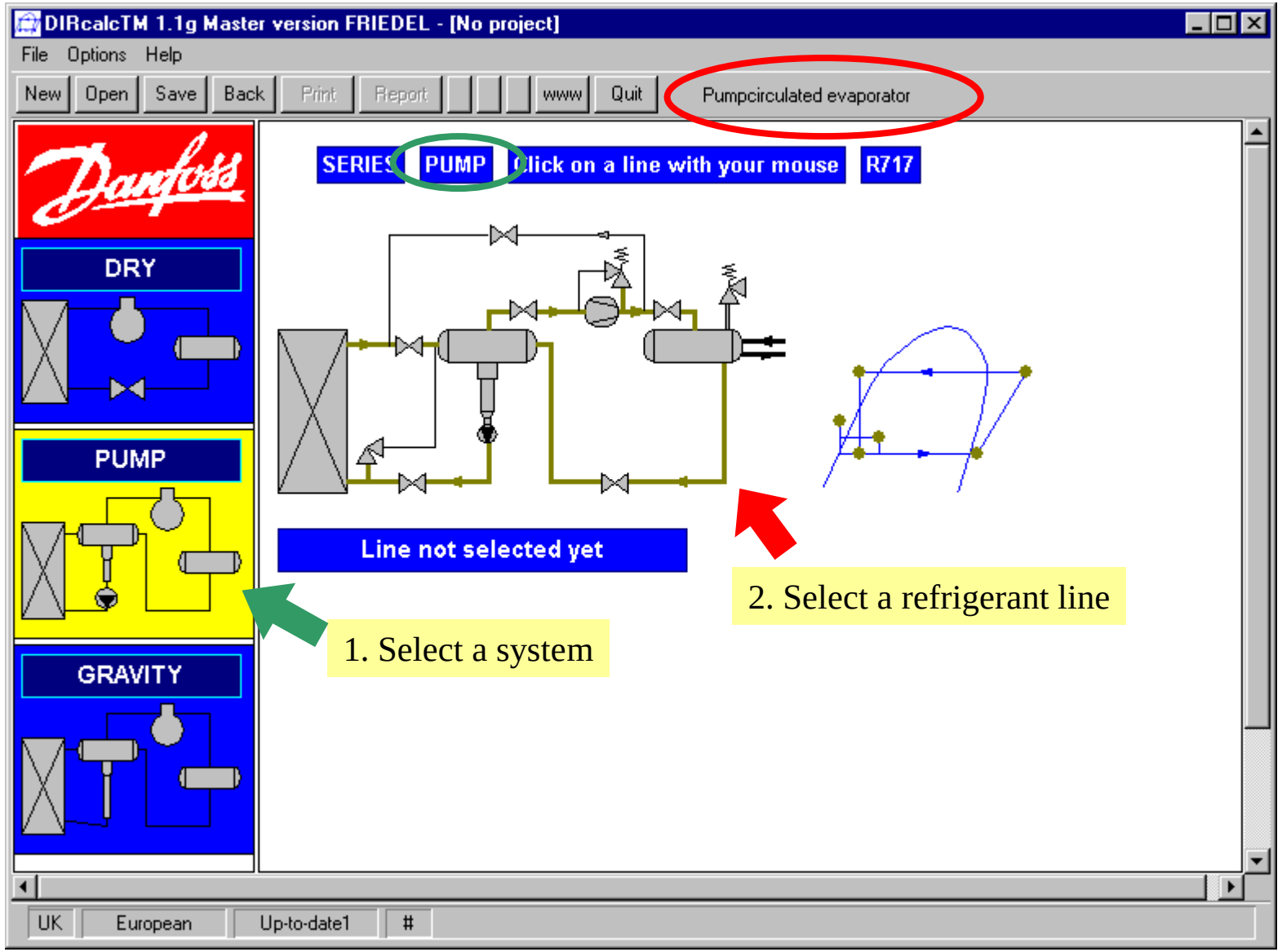



**Velocities**
In *Edit Preferences* you can input your own set of design velocities as a basis for your DIRcalc calculations

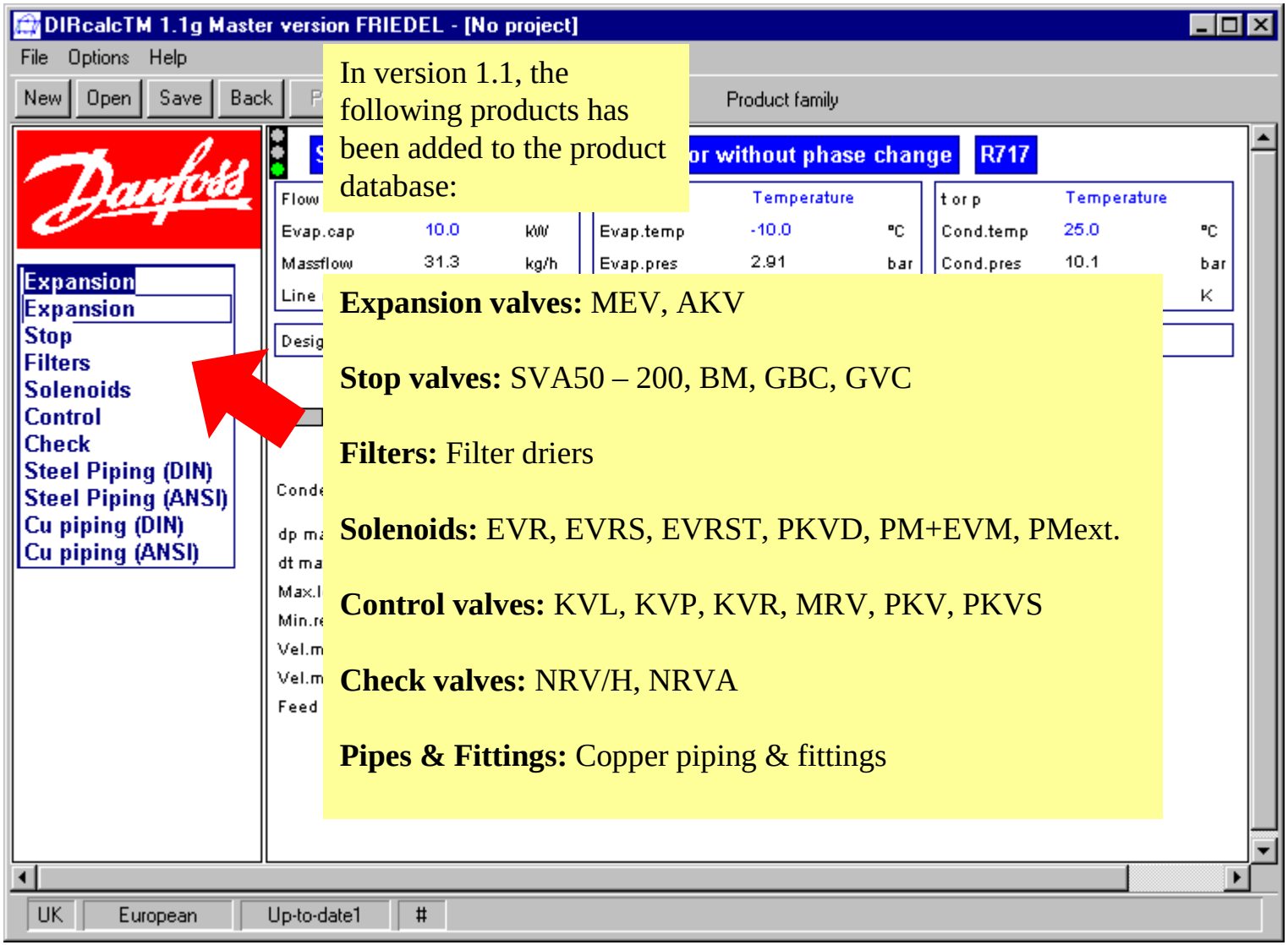
# Calculation in SERIES Mode



# Calculation in SERIES Mode



# Extended Product Database




In version 1.1, the following products has been added to the product database:

**Expansion valves:** MEV, AKV

**Stop valves:** SVA50 – 200, BM, GBC, GVC

**Filters:** Filter driers

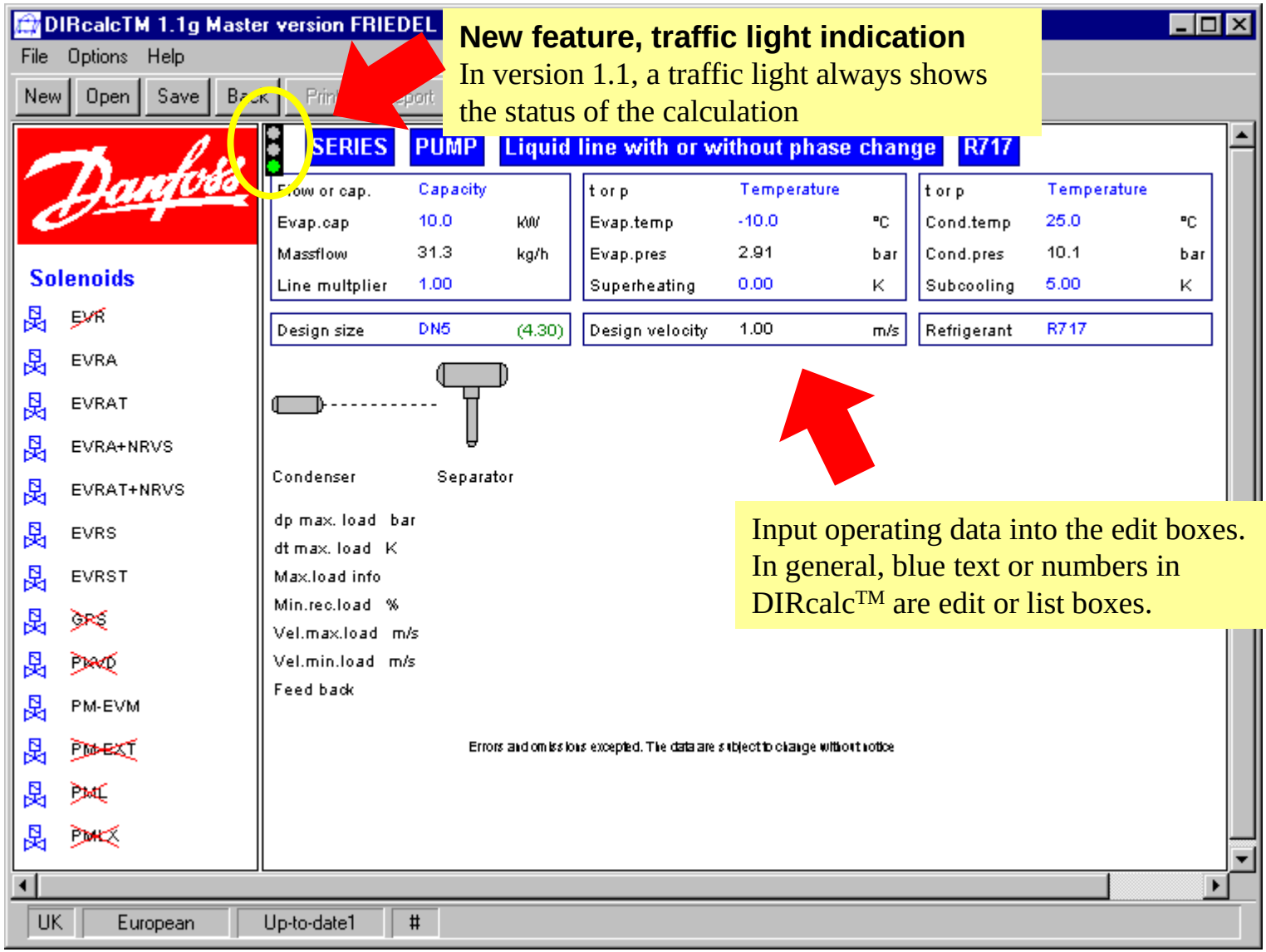
**Solenoids:** EVR, EVRS, EVRST, PKVD, PM+EVM, PMext.

**Control valves:** KVL, KVP, KVR, MRV, PKV, PKVS

**Check valves:** NRV/H, NRVA

**Pipes & Fittings:** Copper piping & fittings

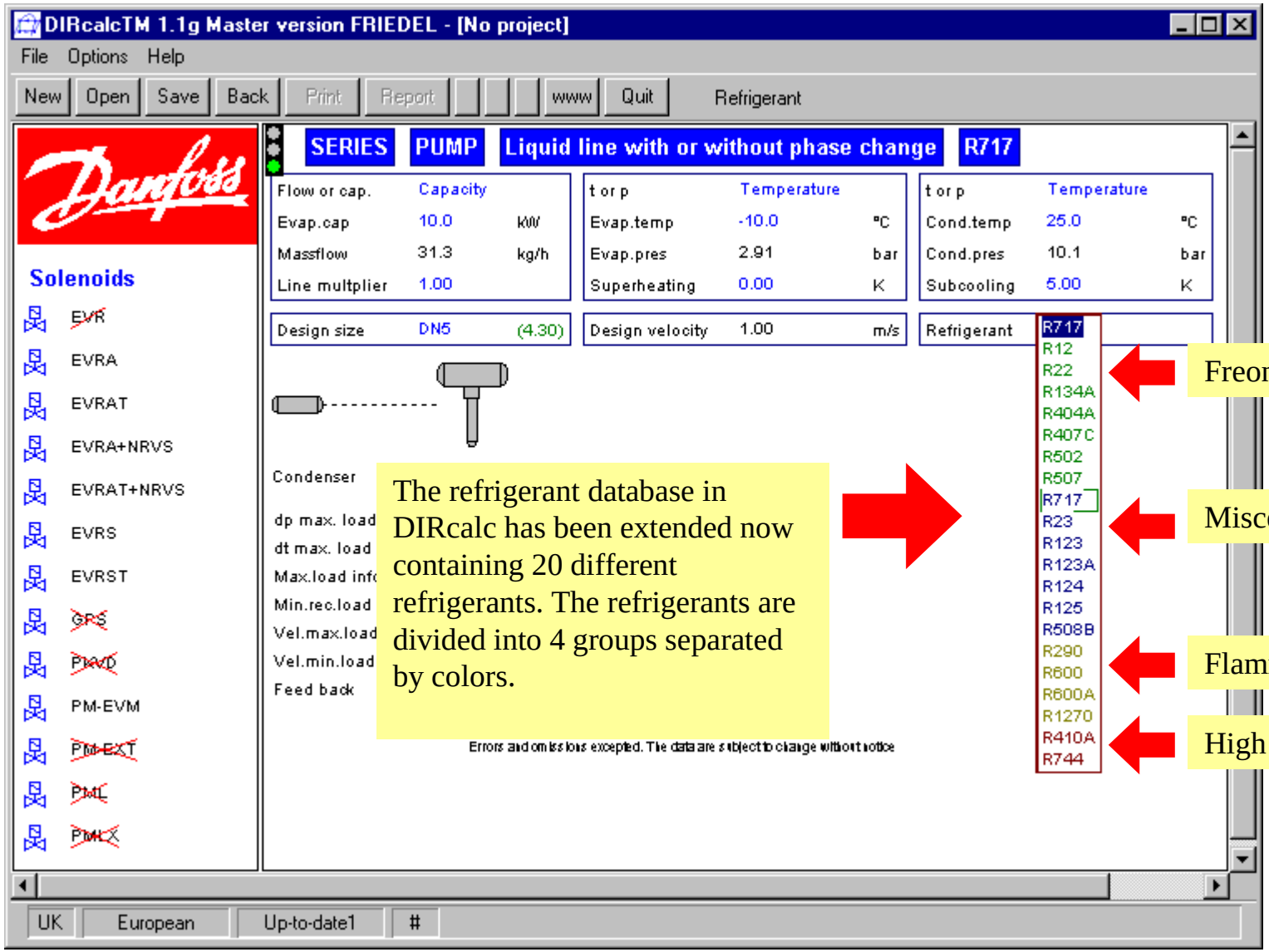
# Traffic Light Indication




**New feature, traffic light indication**
In version 1.1, a traffic light always shows the status of the calculation

Input operating data into the edit boxes. In general, blue text or numbers in DIRcalc™ are edit or list boxes.

# Extended Refrigerant Database




The refrigerant database in DIRcalc has been extended now containing 20 different refrigerants. The refrigerants are divided into 4 groups separated by colors.

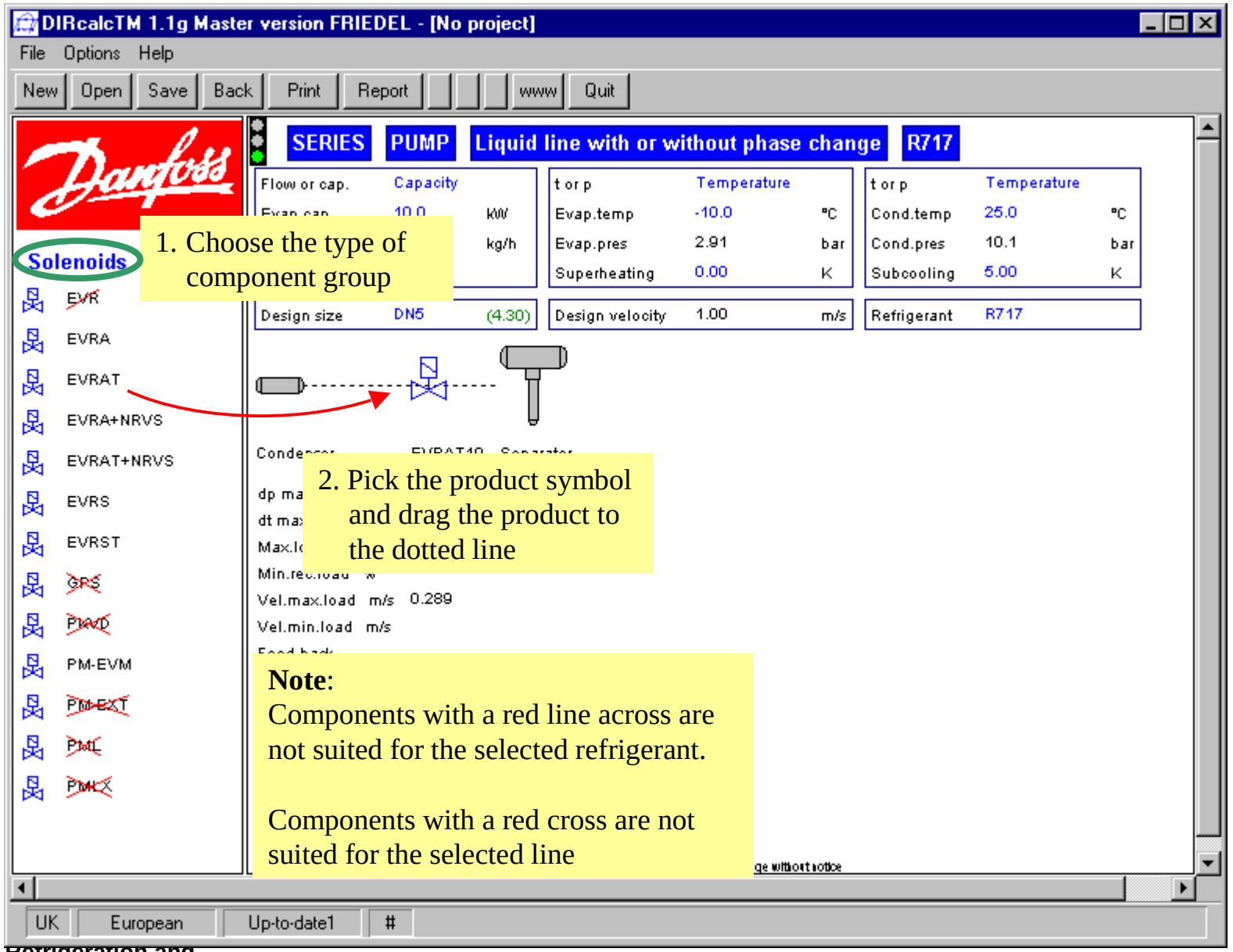
Freon / HFC

Miscellaneous

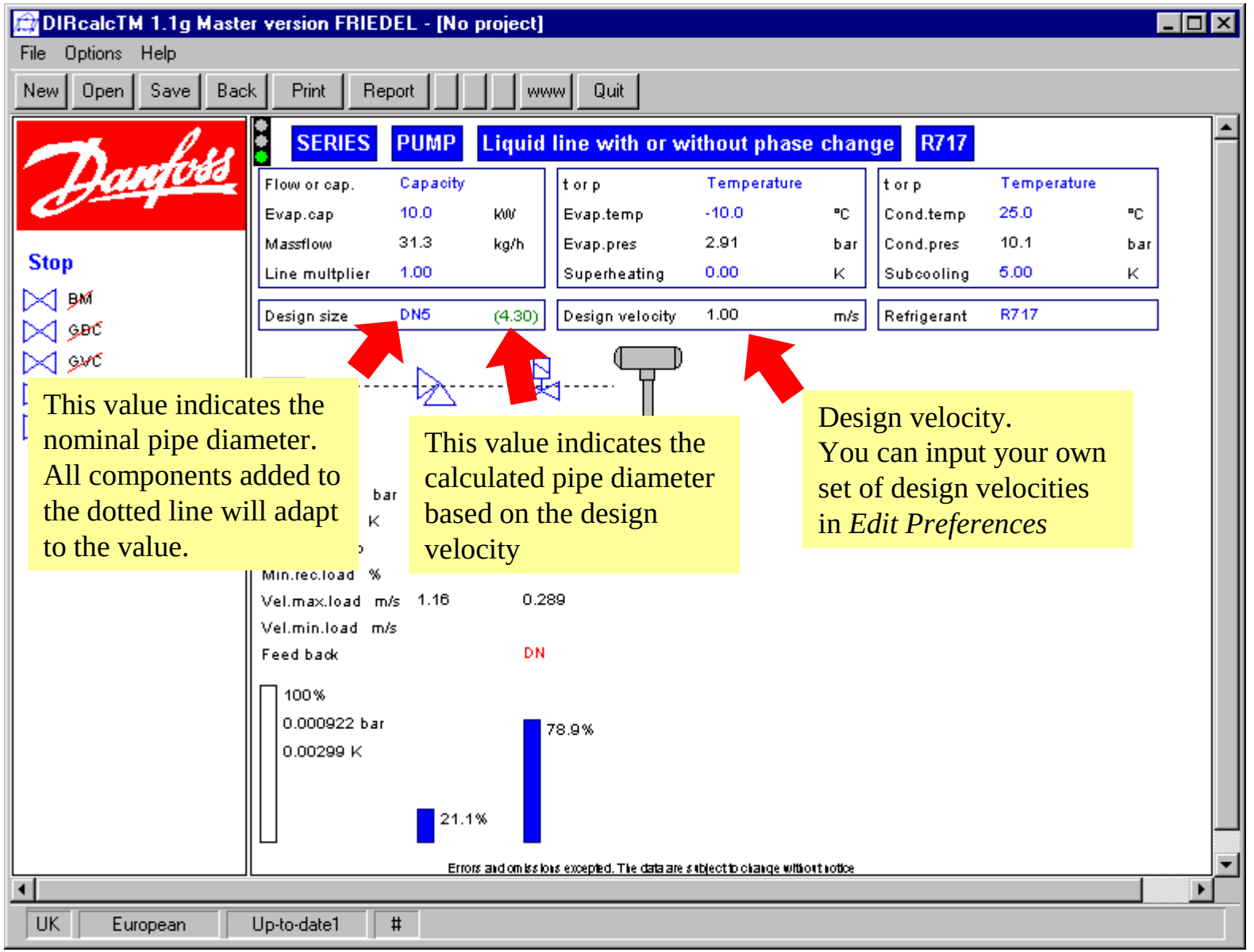
Flammable

High pressure

# Building up the Line Section



# Calculation in SERIES Mode

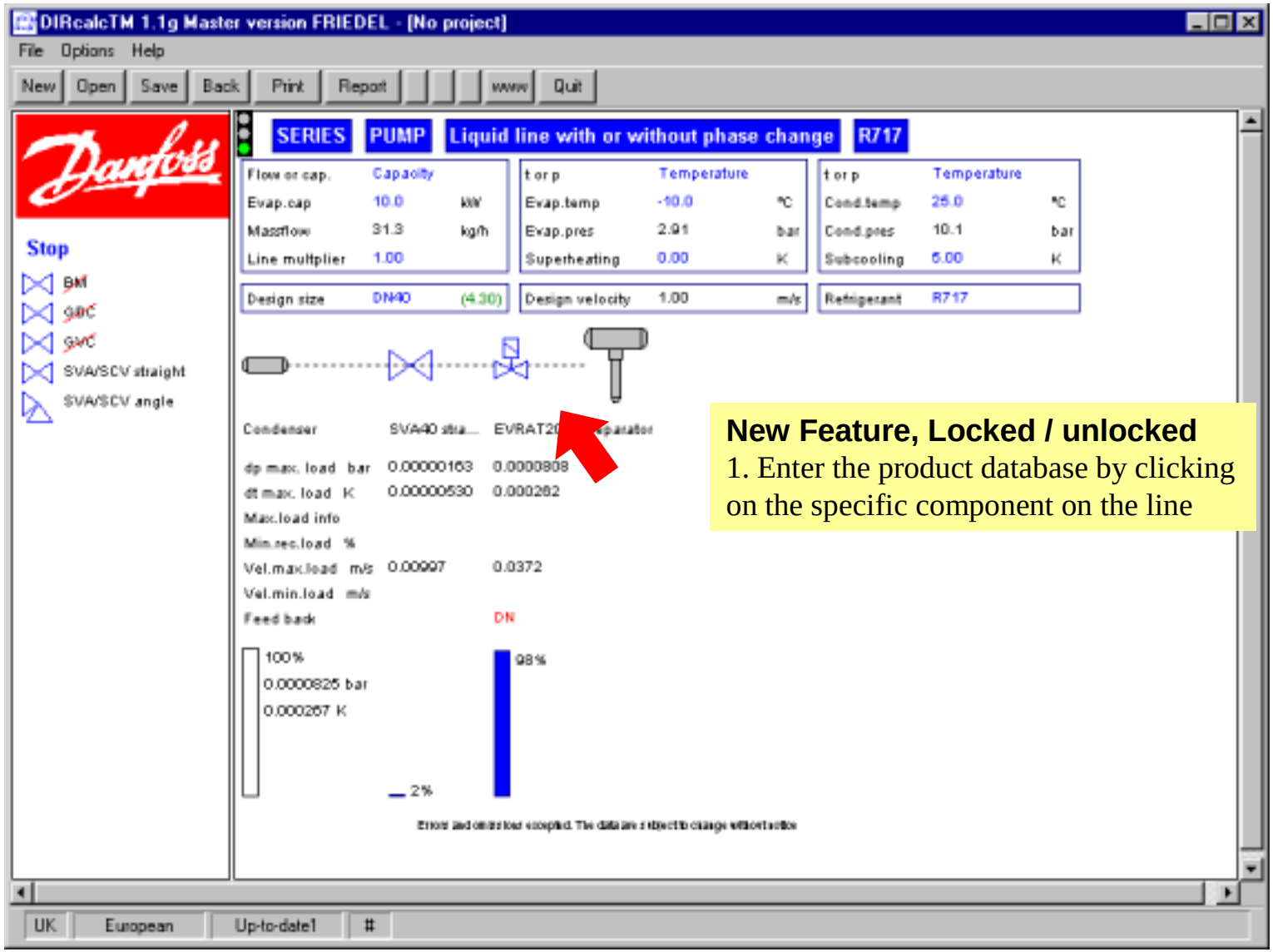



This value indicates the nominal pipe diameter. All components added to the dotted line will adapt to the value.

This value indicates the calculated pipe diameter based on the design velocity

Design velocity.
You can input your own set of design velocities in *Edit Preferences*

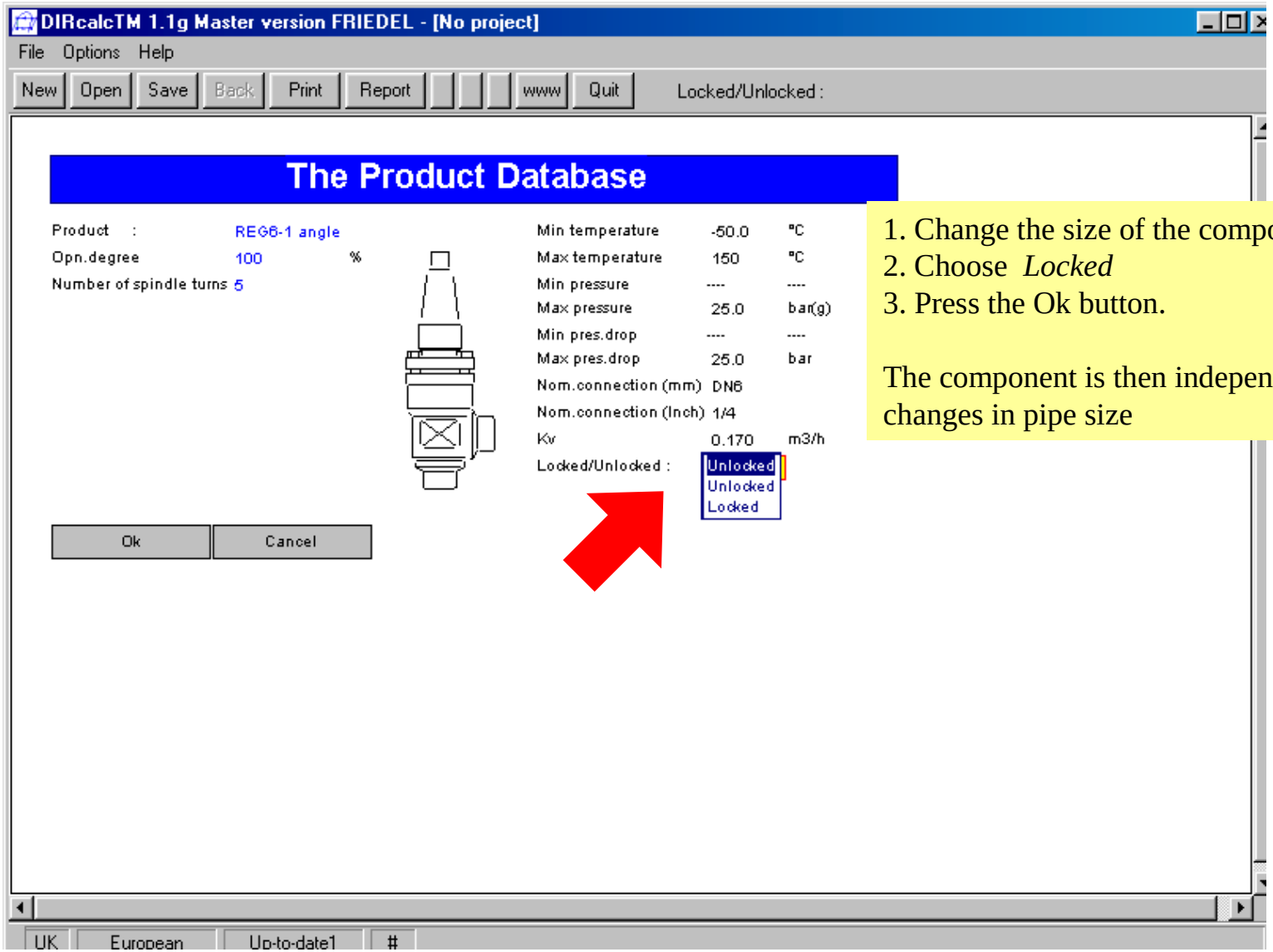
# Locked / Unlocked




**New Feature, Locked / unlocked**

1. Enter the product database by clicking on the specific component on the line

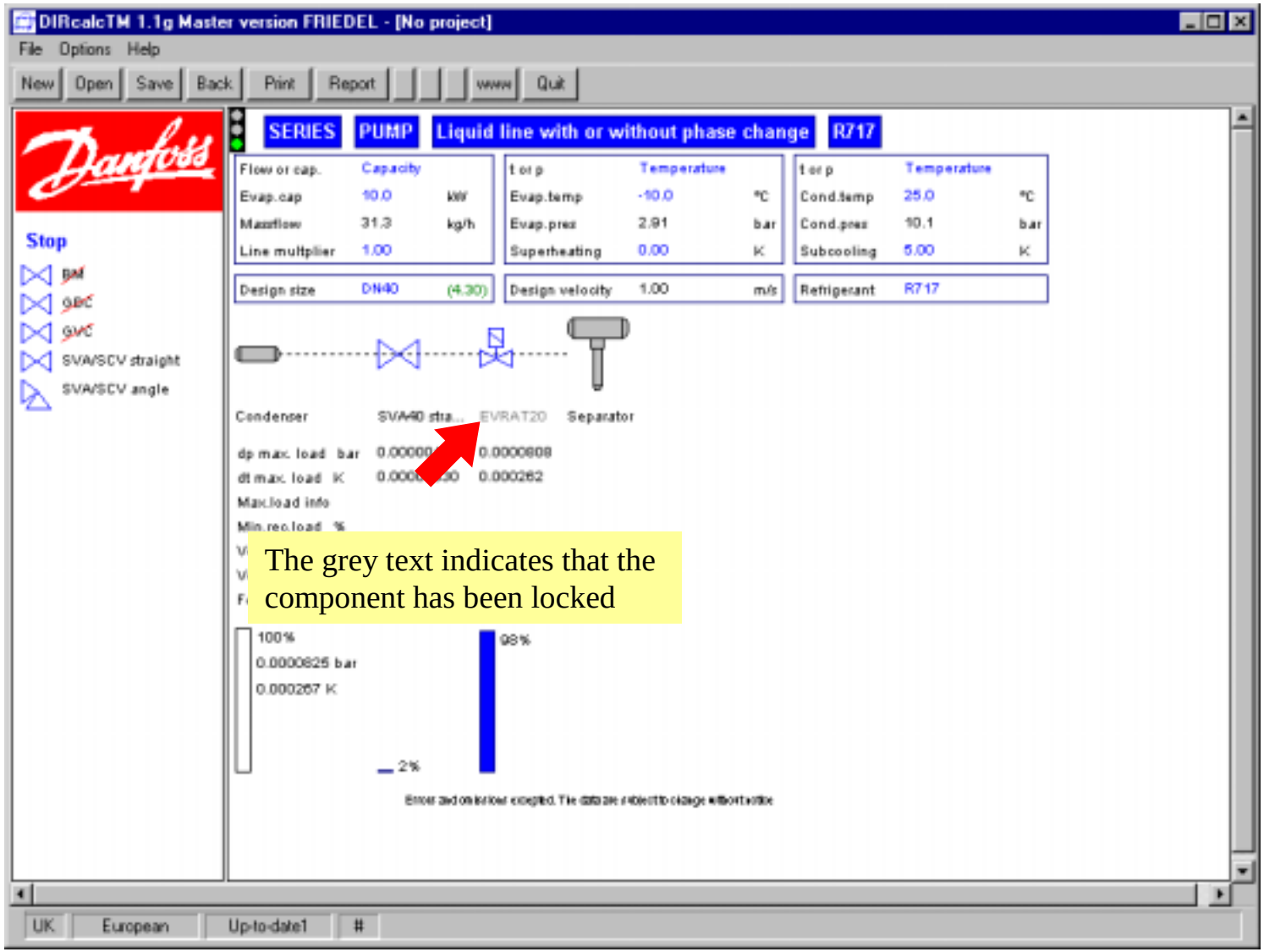
# Locked / Unlocked



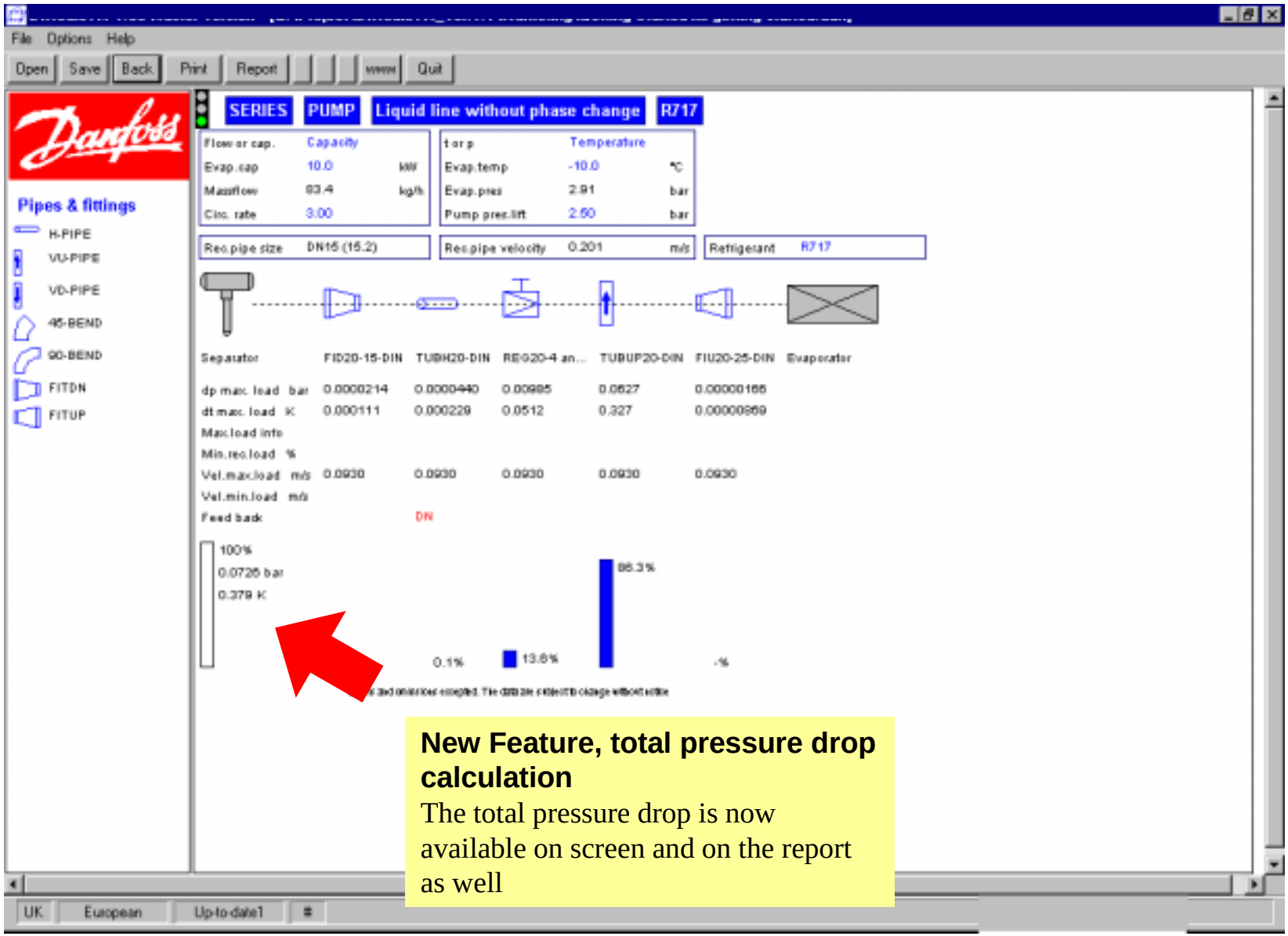

1. Change the size of the component
2. Choose *Locked*
3. Press the Ok button.

The component is then independent of changes in pipe size

# Locked / Unlocked



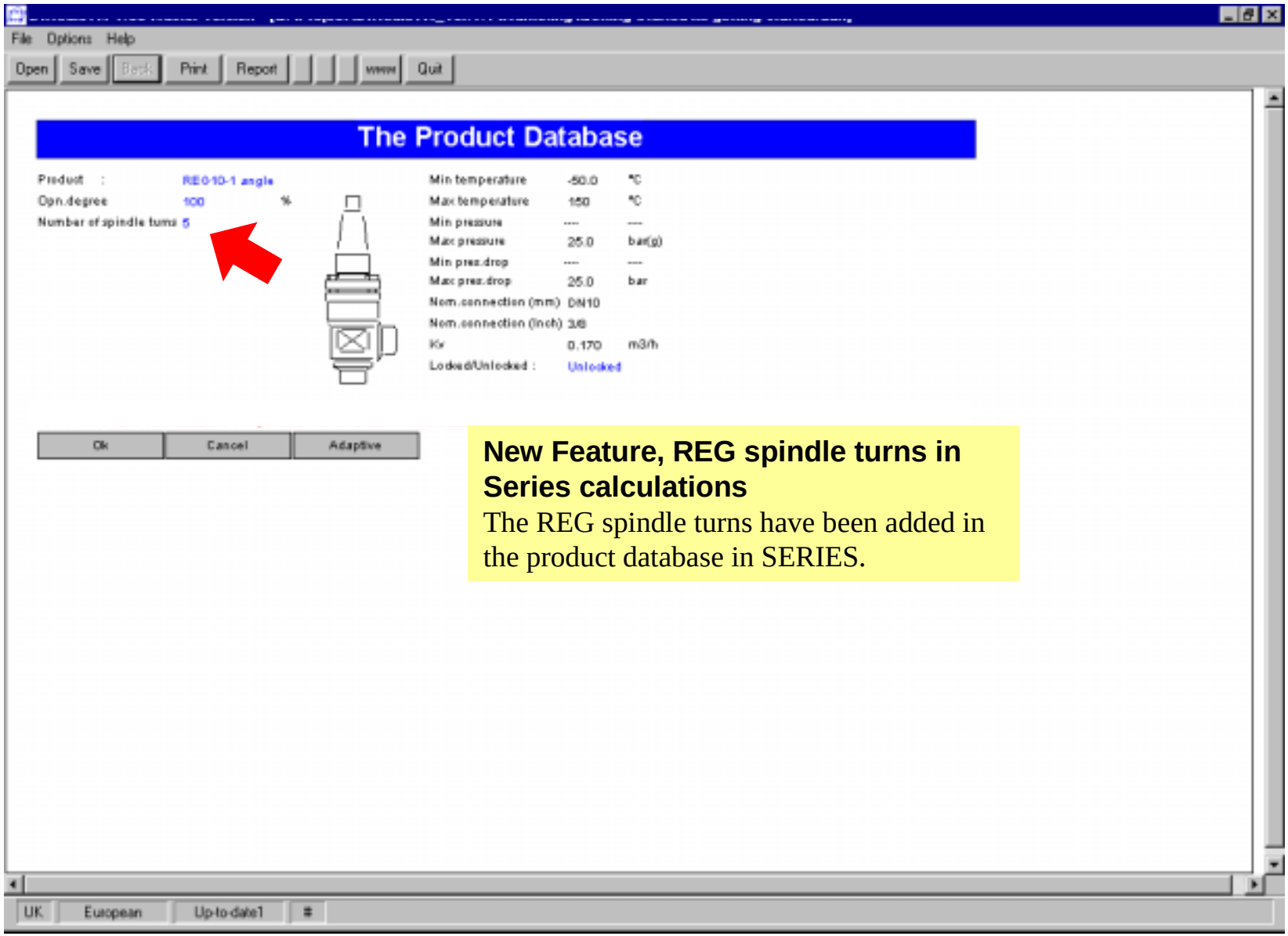
# Total Pressure Drop Calculation




**New Feature, total pressure drop calculation**

The total pressure drop is now available on screen and on the report as well

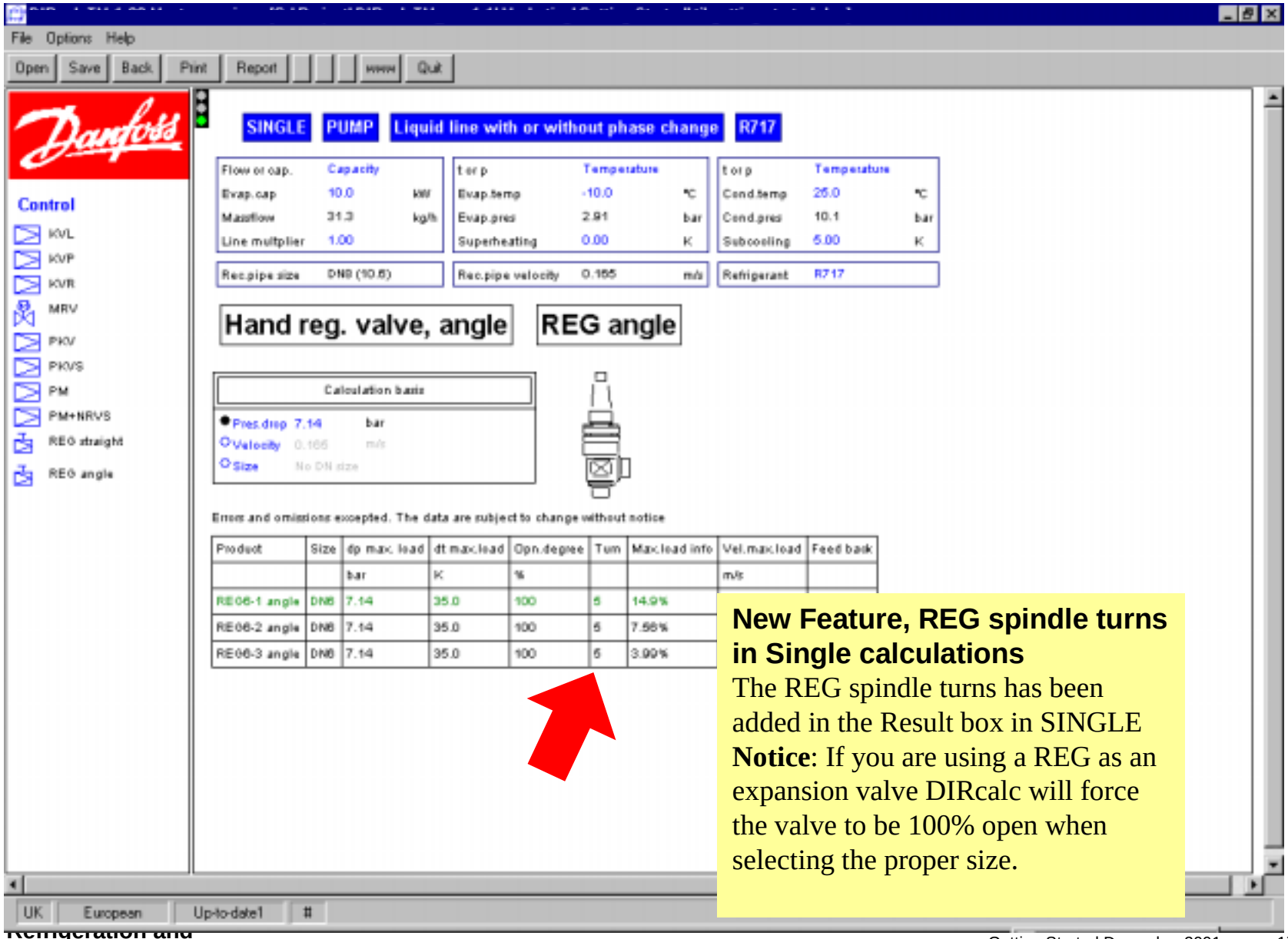
# REG Spindle Turns in SERIES




**New Feature, REG spindle turns in Series calculations**

The REG spindle turns have been added in the product database in SERIES.

# REG Spindle Turns in SINGLE

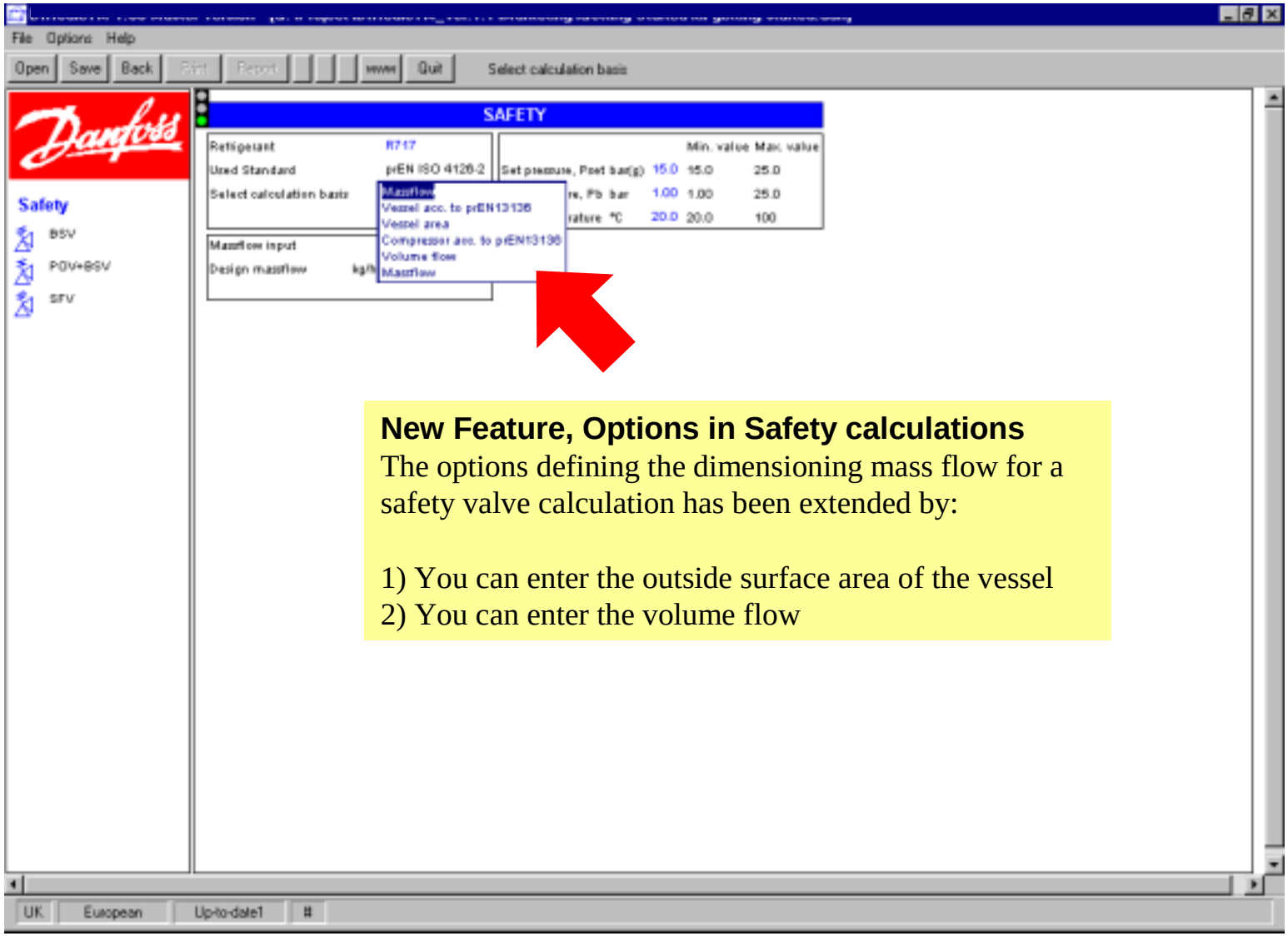



**New Feature, REG spindle turns in Single calculations**

The REG spindle turns has been added in the Result box in SINGLE

**Notice**: If you are using a REG as an expansion valve DIRcalc will force the valve to be 100% open when selecting the proper size.

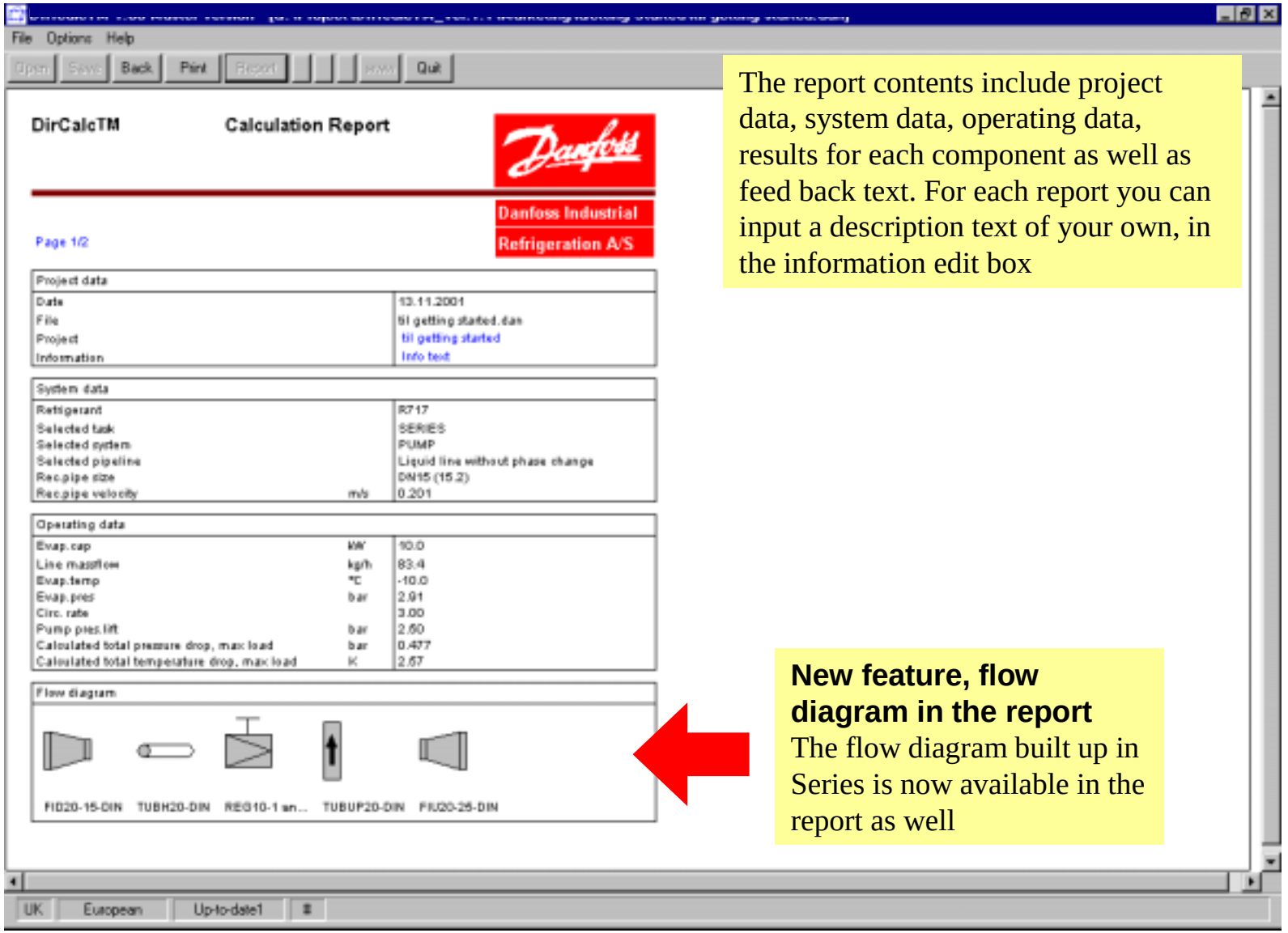
# Options in SAFETY




**New Feature, Options in Safety calculations**
The options defining the dimensioning mass flow for a safety valve calculation has been extended by:

1) You can enter the outside surface area of the vessel
2) You can enter the volume flow

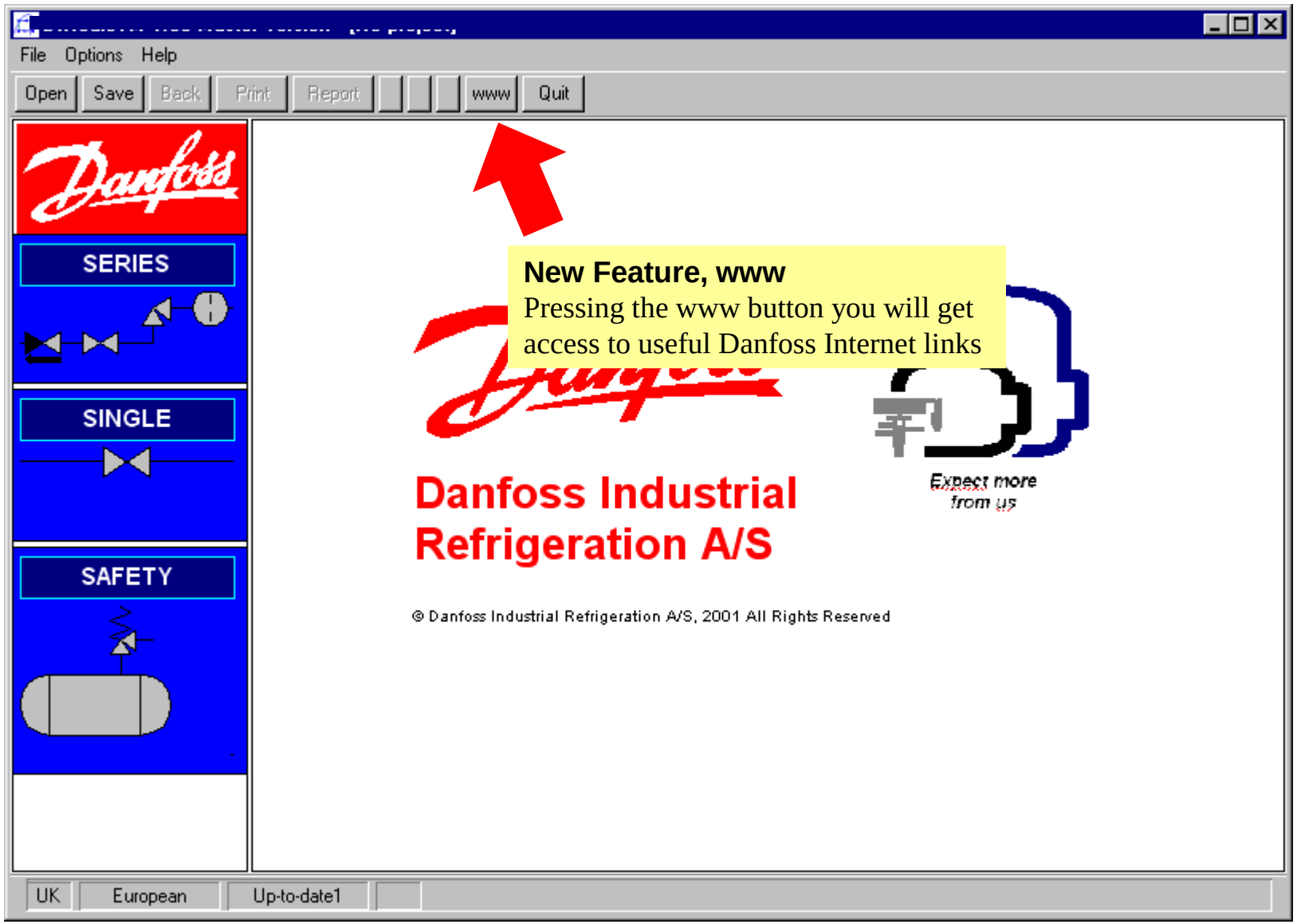
# Flow Diagram in the Report




The report contents include project data, system data, operating data, results for each component as well as feed back text. For each report you can input a description text of your own, in the information edit box

**New feature, flow diagram in the report**
The flow diagram built up in Series is now available in the report as well

# WWW


File Options Help
Open Save Back Print Report www Quit
SERIES
SINGLE
SAFETY
New Feature, www
Pressing the www button you will get access to useful Danfoss Internet links
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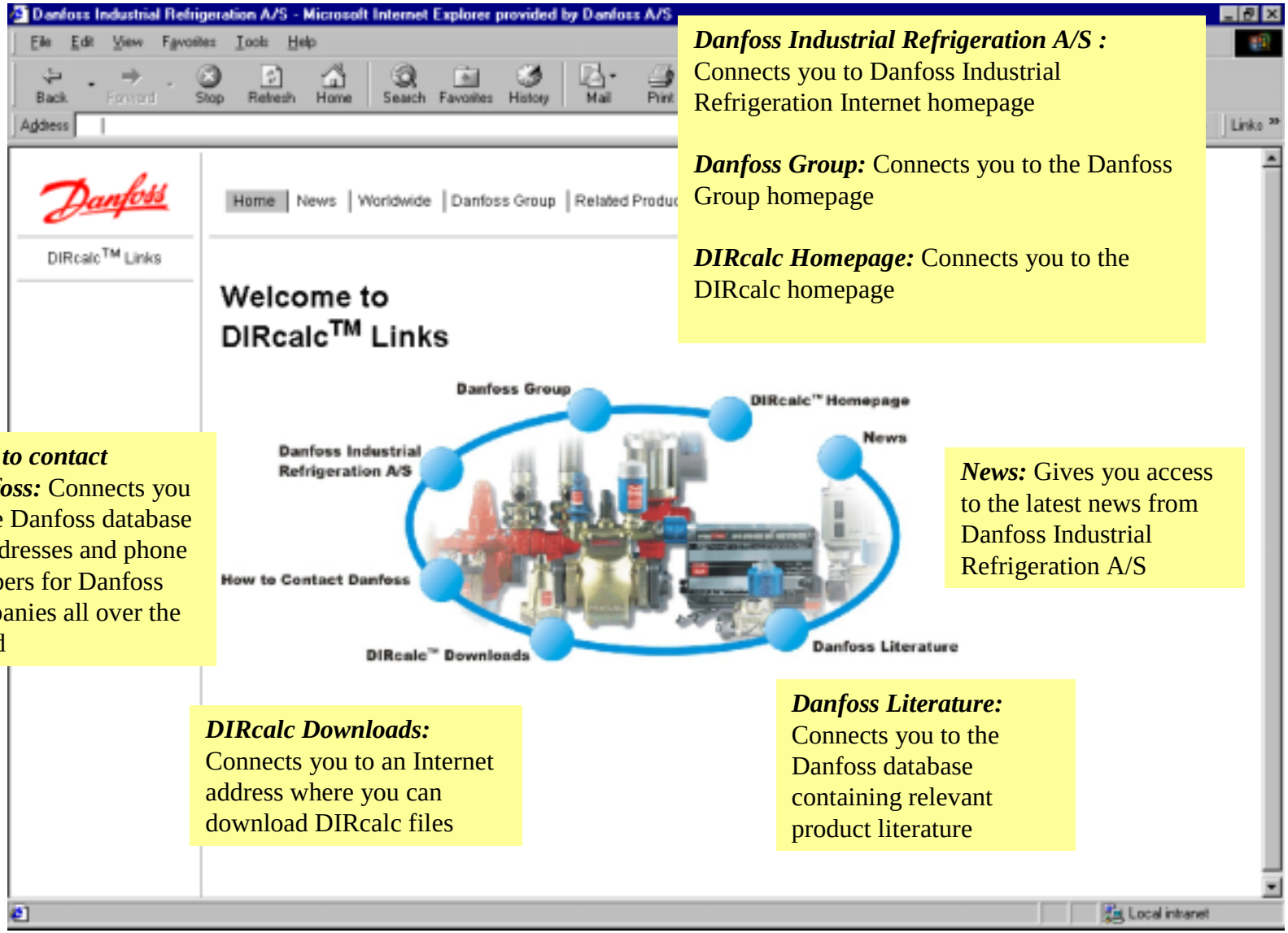
European
Up-to-date1

# WWW




***Danfoss Industrial Refrigeration A/S :*** Connects you to Danfoss Industrial Refrigeration Internet homepage

***Danfoss Group:*** Connects you to the Danfoss Group homepage

***DIRcalc Homepage:*** Connects you to the DIRcalc homepage

***How to contact Danfoss:*** Connects you to the Danfoss database of addresses and phone numbers for Danfoss companies all over the world

***News:*** Gives you access to the latest news from Danfoss Industrial Refrigeration A/S

***DIRcalc Downloads:*** Connects you to an Internet address where you can download DIRcalc files

***Danfoss Literature:*** Connects you to the Danfoss database containing relevant product literature