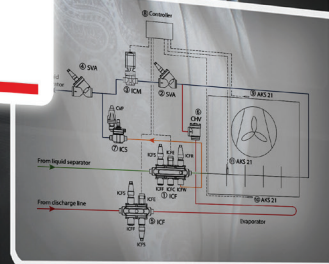
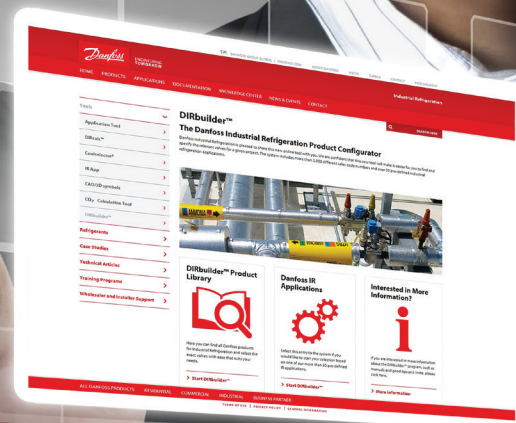


# DIRbuilder™ Quick Guide

## Tips & Tricks for DIRbuilder™ usage

DIRbuilder™ is the new free online selection tool developed for easing your selection of valves. This guideline takes you through the features of the program step-by-step and gives tips & tricks on how to maximize your user-experience with DIRbuilder™.



**2,000+**  
sales code numbers

are comprised in the  
DIRbuilder™ to facilitate  
easy valve selection  
between all Danfoss  
Industrial Refrigeration  
products.

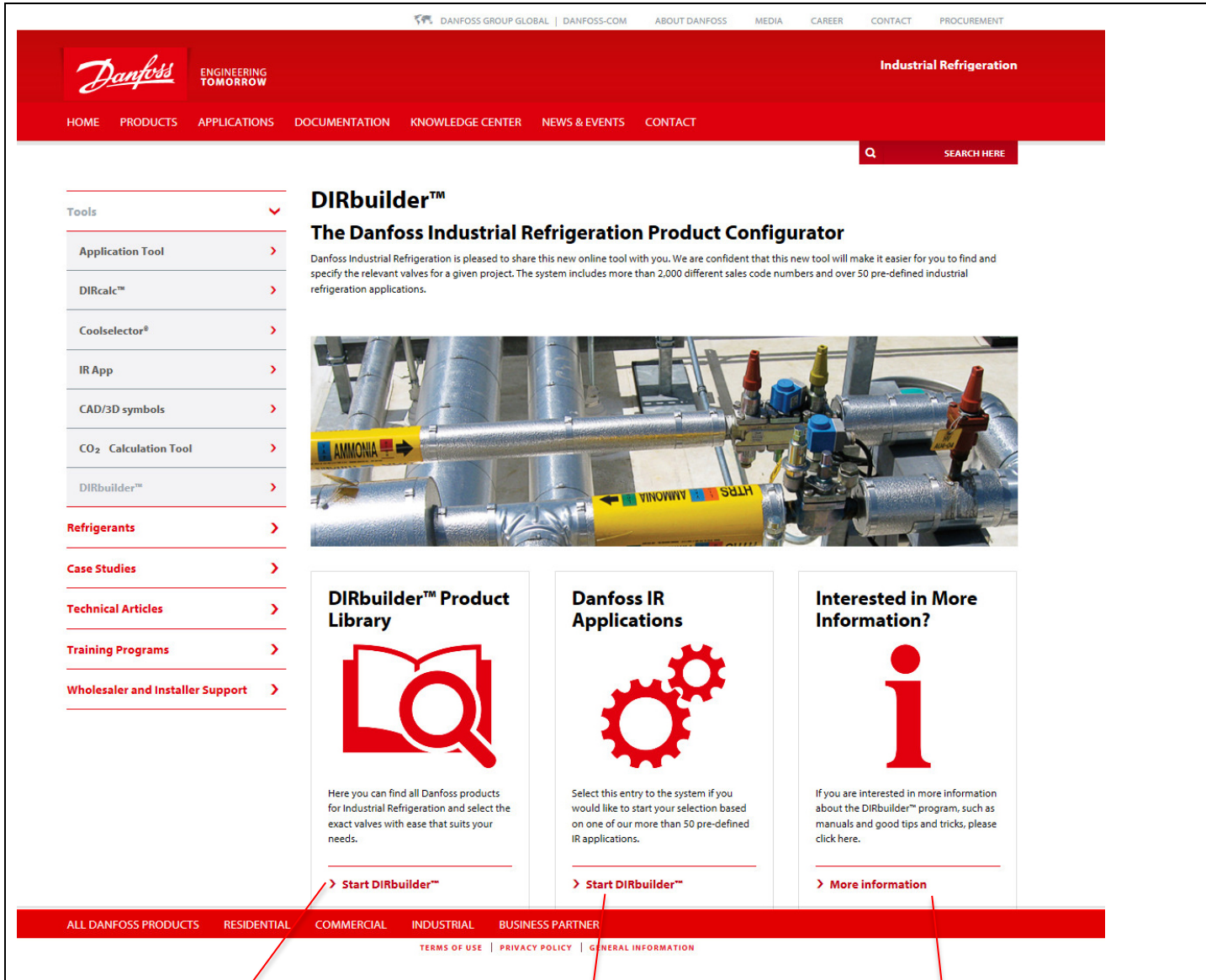


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## Chapter 01 - The DIRbuilder™ Front Page

The DIRbuilder™ front page will guide you to the main areas of the Danfoss Industrial Refrigeration product configurator.



**Tools**

- Application Tool
- DIRcalc™
- Coolselector®
- IR App
- CAD/3D symbols
- CO<sub>2</sub> Calculation Tool
- DIRbuilder™

**Refrigerants**

**Case Studies**

**Technical Articles**


**Training Programs**

**Wholesaler and Installer Support**

### DIRbuilder™

#### The Danfoss Industrial Refrigeration Product Configurator

Danfoss Industrial Refrigeration is pleased to share this new online tool with you. We are confident that this new tool will make it easier for you to find and specify the relevant valves for a given project. The system includes more than 2,000 different sales code numbers and over 50 pre-defined industrial refrigeration applications.



#### DIRbuilder™ Product Library

Here you can find all Danfoss products for Industrial Refrigeration and select the exact valves with ease that suits your needs.

[Start DIRbuilder™](#)

#### Danfoss IR Applications

Select this entry to the system if you would like to start your selection based on one of our more than 50 pre-defined IR applications.

[Start DIRbuilder™](#)

#### Interested in More Information?

If you are interested in more information about the DIRbuilder™ program, such as manuals and good tips and tricks, please click here.

[More information](#)

ALL DANFOSS PRODUCTS | RESIDENTIAL | COMMERCIAL | INDUSTRIAL | BUSINESS PARTNER

TERMS OF USE | PRIVACY POLICY | GENERAL INFORMATION

**Link to DIRbuilder™'s Product Library**

**Link to standard IR applications**

**Link to info and help guide**



Chapter 02 - Explanation Applications Lines and Valves

The shopping baskets structure consists of **Applications**, **Lines** and **Valves**. This is similar to examples in the Industrial Refrigeration Application Handbook. **Valves** have **Lines** as parents. **Lines** have **Applications** as parents.

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Basket menu

Application menu

Project details

File menu

Hide basket

Shopping Basket

Quantity	Sales Code	Product Description	Type Code
Application 1			
Line 1			
1	027B1120	Normally closed EVM solenoid pilot valve	
1	027B0087	Pilot valve CVC-XP	

Applications

Lines

Valves



Chapter 03 - Shopping Basket icons

What to do...

How to do...

By hovering over this icon, you may view generic images of the selected valve.

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Basket menu

Hide basket

Application menu

Project details

File menu

Shopping Basket

Quantity	Sales Code	Product Description	Type Code
DX evaporator, with hot gas defrost system with ICF control solution			
Liquid line			
1	Please select	ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Manual opening. M5=, M6=Stop	
1	Please select	SVA Stop valve. Selection not complete	
Suction line			
1	Please select	SVA Stop valve. Selection not complete	
1	Please select	2-step on/off valve GPLX - Selection not complete	
1	Please select	SVA Stop valve. Selection not complete	
Hot gas line			
1	Please select	ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Stop	
Discharge line			
1	Please select	Check valve NRVA - Selection not complete	

By clicking this icon, the Application or Line in question collapses.

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Basket menu

Hide basket

Application menu

Project details

File menu

Shopping Basket

Quantity	Sales Code	Product Description	Type Code
DX evaporator, with hot gas defrost system with ICF control solution			
Liquid line			
1	Please select	ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Manual opening. M5=, M6=Stop	
1	Please select	SVA Stop valve. Selection not complete	
Suction line			
1	Please select	SVA Stop valve. Selection not complete	
1	Please select	2-step on/off valve GPLX - Selection not complete	
1	Please select	SVA Stop valve. Selection not complete	
Hot gas line			
1	Please select	ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Stop	
Discharge line			
1	Please select	Check valve NRVA - Selection not complete	

By clicking this icon, the Application or Line in question expands.

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Basket menu

Hide basket

Application menu

Project details

File menu

Shopping Basket

Quantity	Sales Code	Product Description	Type Code
DX evaporator, with hot gas defrost system with ICF control solution			



By clicking this icon, the Application, Line or Valve in question is deleted

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator



Basket menu		Hide basket	Application menu		Project details	File menu	
Shopping Basket							
Quantity	Sales Code	Product Description				Type Code	
DX evaporator, with hot gas defrost system with ICF control solution							
Liquid line							
1	Please select		ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Manual opening. M5=, M6=Stop				
1	Please select		SVA Stop valve. Selection not complete				
Suction line							
1	Please select		SVA Stop valve. Selection not complete				
1	Please select		2-step on/off valve GPLX - Selection not complete				
1	Please select		SVA Stop valve. Selection not complete				
Hot gas line							
1	Please select		ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Stop				
Discharge line							
1	Please select		Check valve NRVA - Selection not complete				



By clicking this icon, the Application, Line or Valve is copied.

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator



Basket menu		Hide basket	Application menu		Project details	File menu
Shopping Basket						
Quantity	Sales Code	Product Description				Type Code
DX evaporator, with hot gas defrost system with ICF control solution						
Liquid line						
1	Please select		ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Manual opening. M5=, M6=Stop			
1	Please select		SVA Stop valve. Selection not complete			
Suction line						
1	Please select		SVA Stop valve. Selection not complete			
1	Please select		2-step on/off valve GPLX - Selection not complete			
1	Please select		SVA Stop valve. Selection not complete			
Hot gas line						
1	Please select		ICF Flexline™ - Control Solution. (). M1=Stop. M2=Filter. M3=Solenoid. M4=Stop			



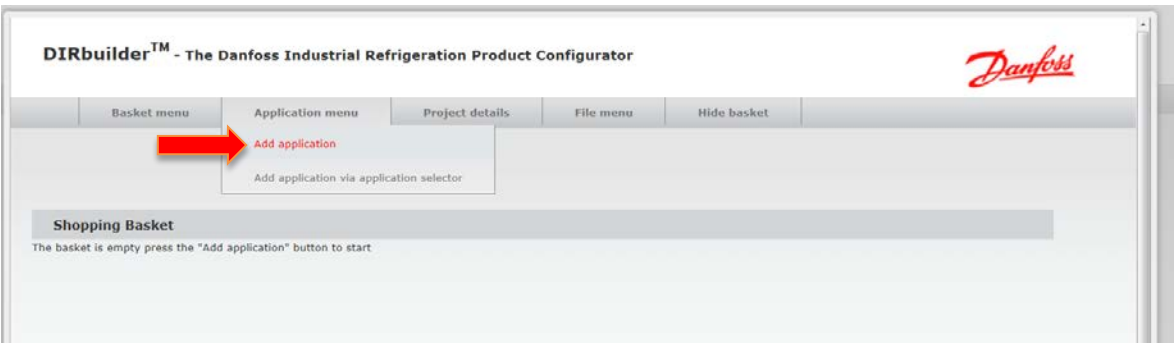
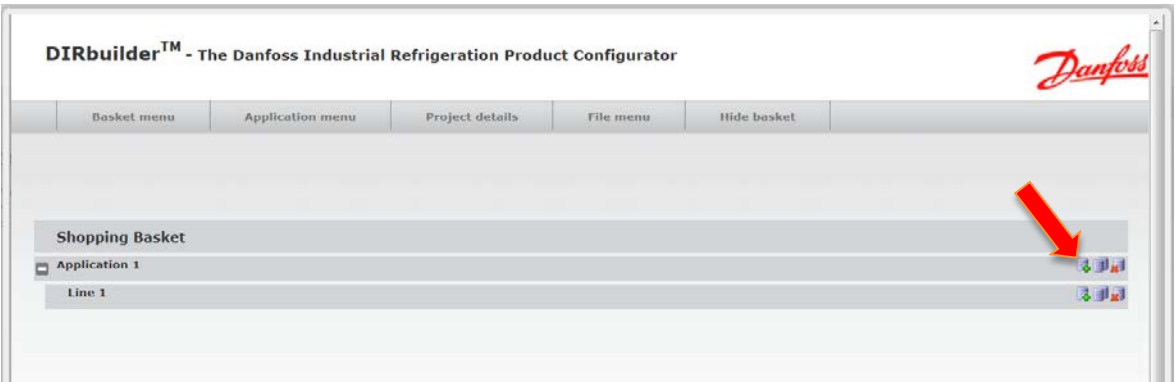
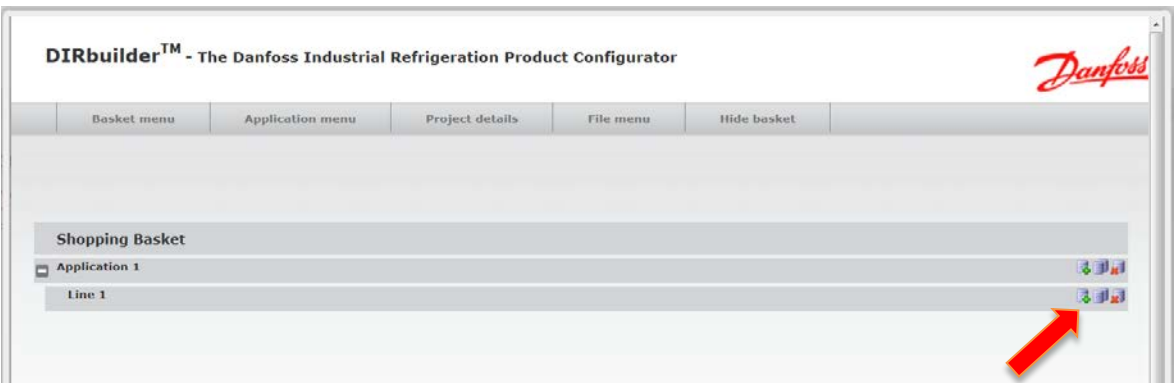


Chapter 04 - Applications and Lines

In order to add valves to the shopping basket, you must first add an application and a line. Follow these easy steps.

What to do...

How to do...

First, choose the 'Application menu' dropdown, followed by 'Add application'	
Then, click the 'Add' icon on the application bar to add a line.	
Finally, click the 'Add' icon on the line to add a valve.	

Tips!

- A useful tip is to click 'Hide basket'. Then select a valve and add it to the shopping basket. By doing this, an application and a line will be created automatically.

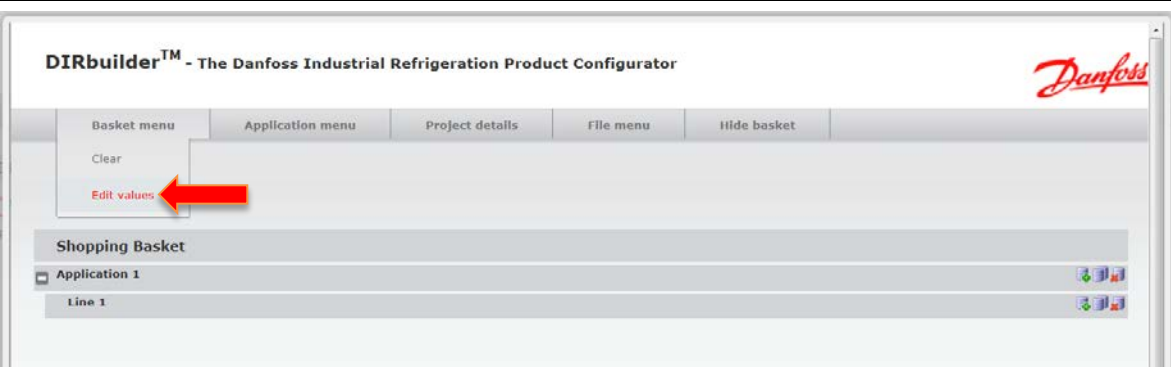
Chapter 05 - Edit text for Applications, Lines and Valve quantities

To customize the application and line text to suit the project, follow these simple steps.

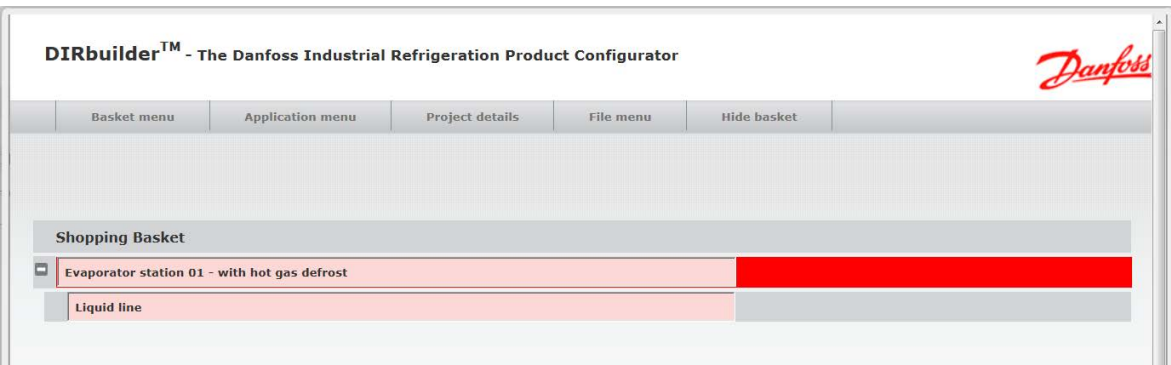
What to do...

How to do...

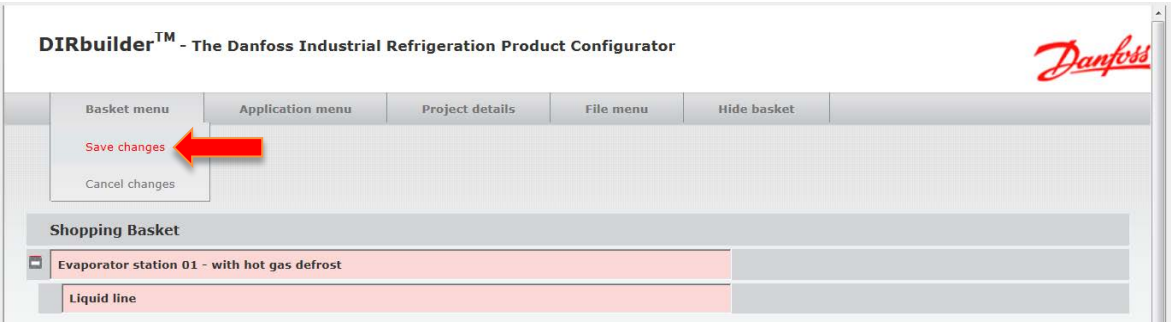
First, choose the 'Basket menu' dropdown, followed by 'Edit values'.



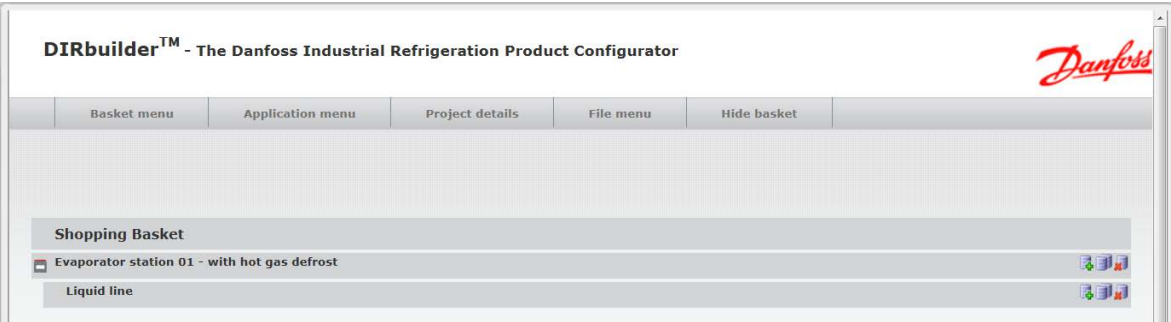
Then, edit the text to suit your needs.



Finally, choose the 'Basket menu' dropdown, followed by 'Save changes'.



Your changes will then be saved







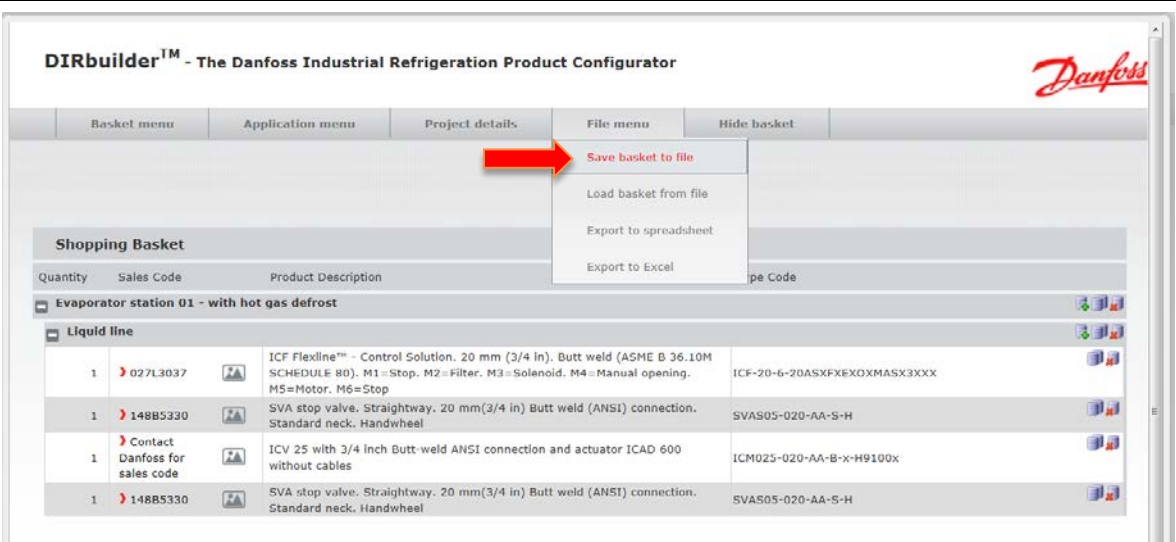
Chapter 06 - Saving the Shopping Basket

Your shopping basket may be saved at any time, or saved as another file name, to be recalled later. Follow these simple steps.

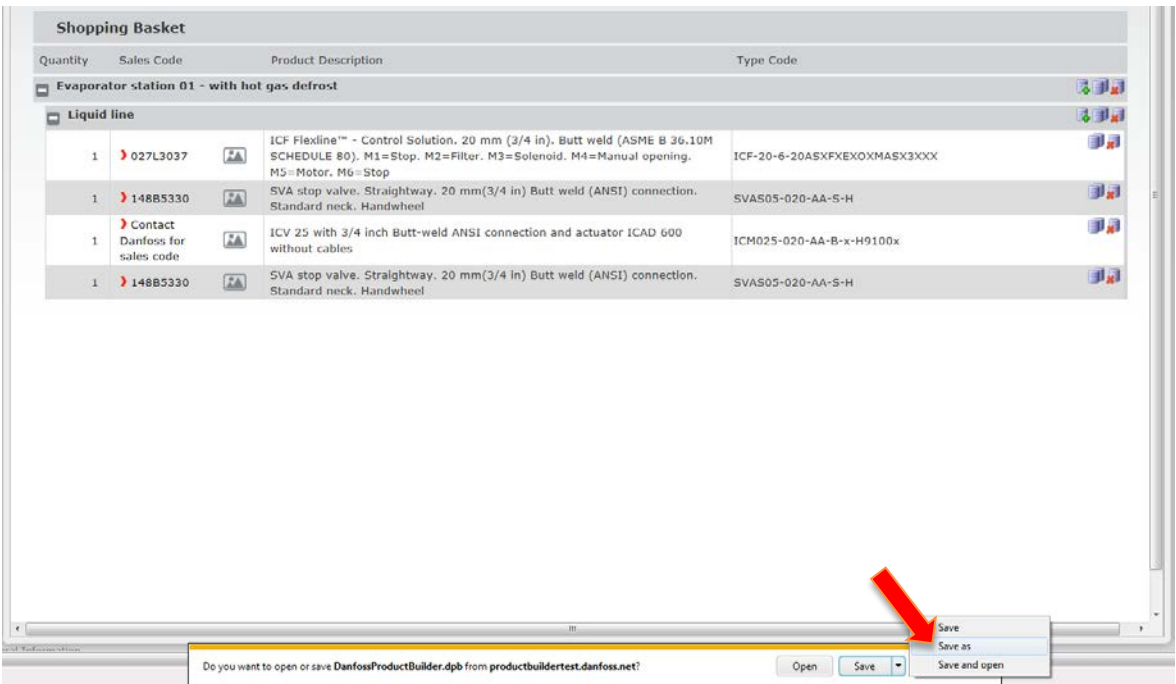
What to do...

First, choose the 'File menu' dropdown, followed by 'Save basket to file'.

How to do...



Then, at the bottom of the page, choose 'Save as', and specify where you want to save the basket.



Tips!

- Consider building up your own library of saved baskets. Then you can easily reuse them when needed, for future similar project pricing exercises. For example, make a folder for a customer and save the file according to global location and date (e.g. CompanyName\Country\Year-Month).

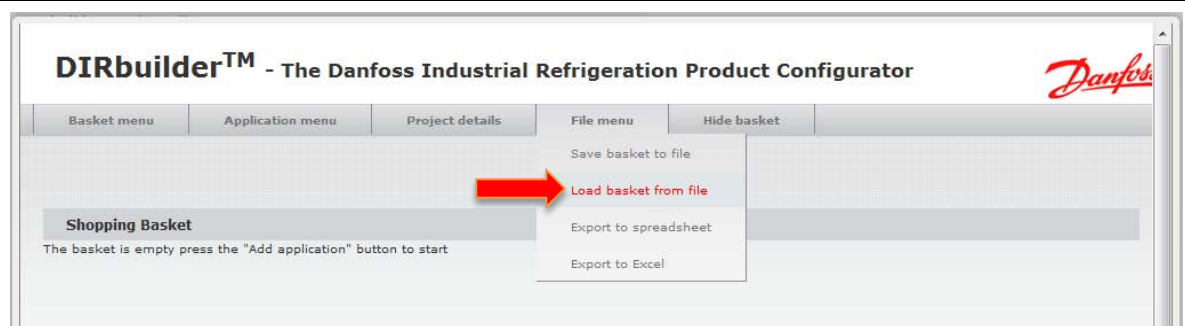
## Chapter 07 - Load a saved Shopping Basket

The baskets you saved in your library may be loaded again. Just follow these simple steps.

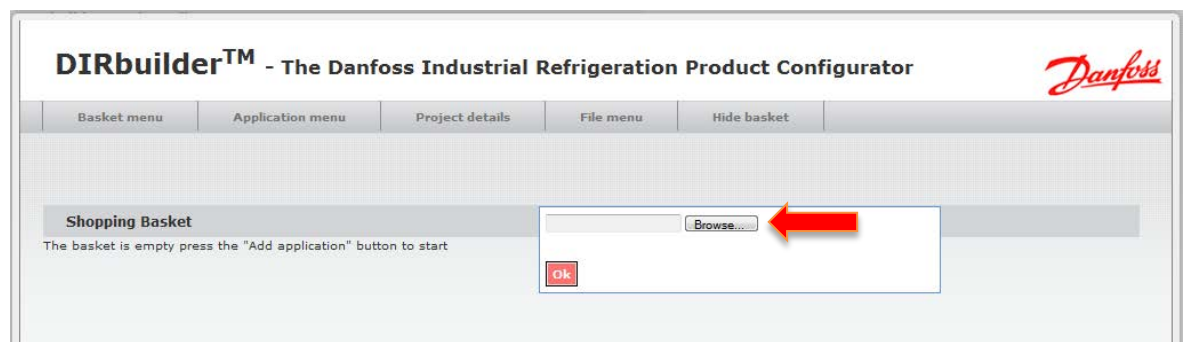
### What to do...

### How to do...

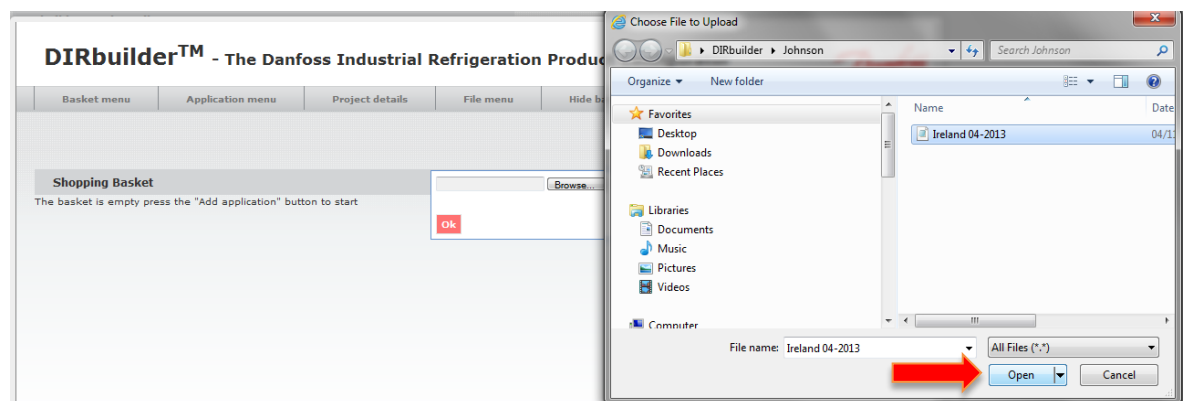
First, choose the 'File menu' dropdown, followed by 'Load basket from file'.



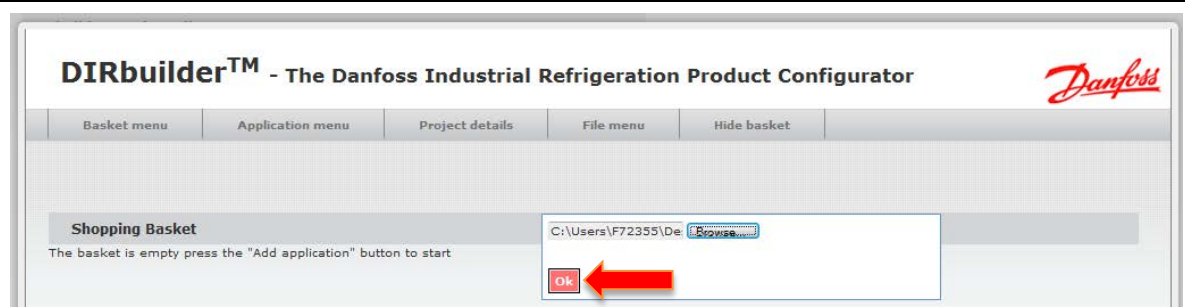
Then click 'Browse'.



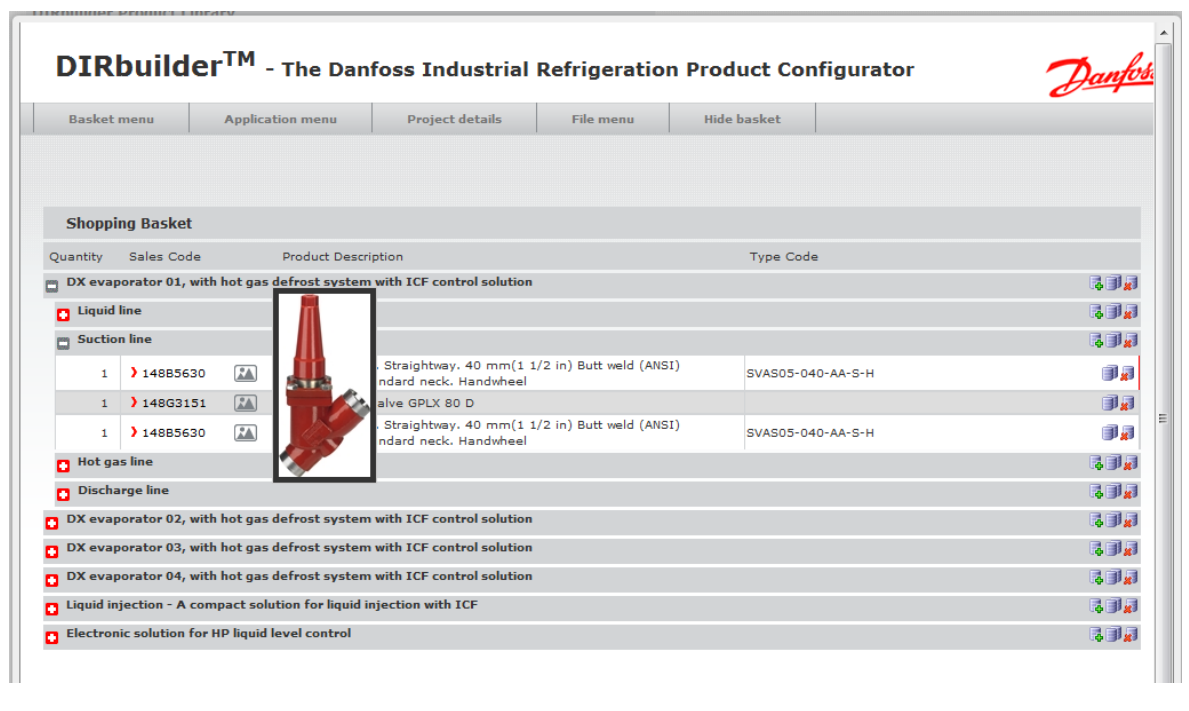
Then locate your basket and click 'Open'.



Finally, click 'Ok'.



Now you are ready to continue on or adapt your saved shopping basket to new needs and preferences.



## Tips!

- You may consider emailing saved shopping basket files to colleagues to discuss, compare and reuse successful projects. Or, save basket files onto a common server, so that all may access completed shopping basket files. This may be useful in situations where e.g. the sales engineer is absent and a customer needs to discuss details of a project.

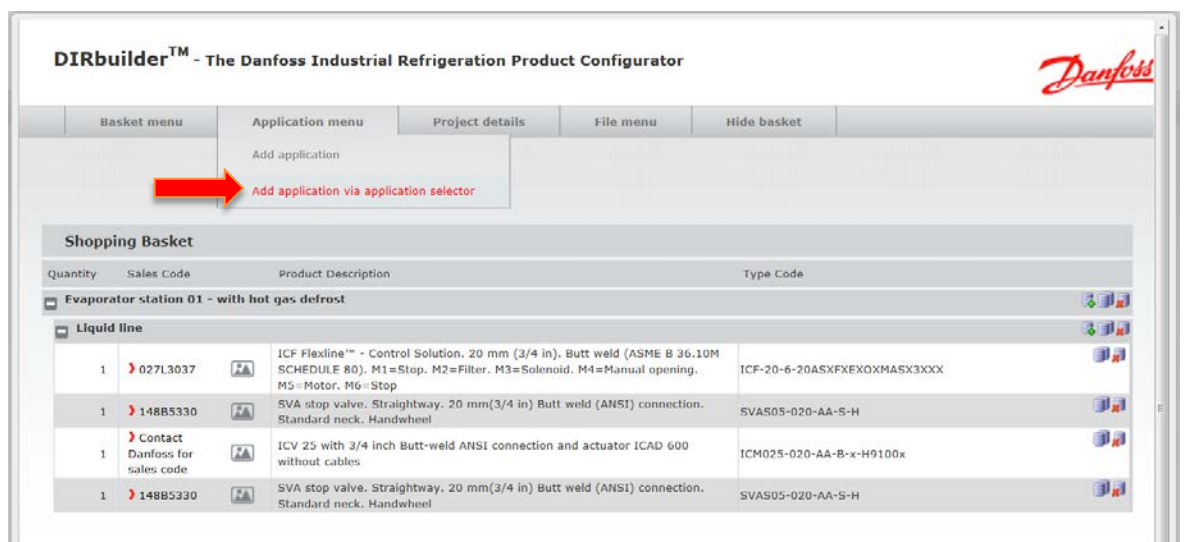
## Chapter 08 - Add standard applications from the IR Application Handbook

DIRbuilder contains many standard applications already found in the Industrial Refrigeration Application Handbook. You may choose one of these applications and add it to the shopping basket by following these simple steps.

### What to do...

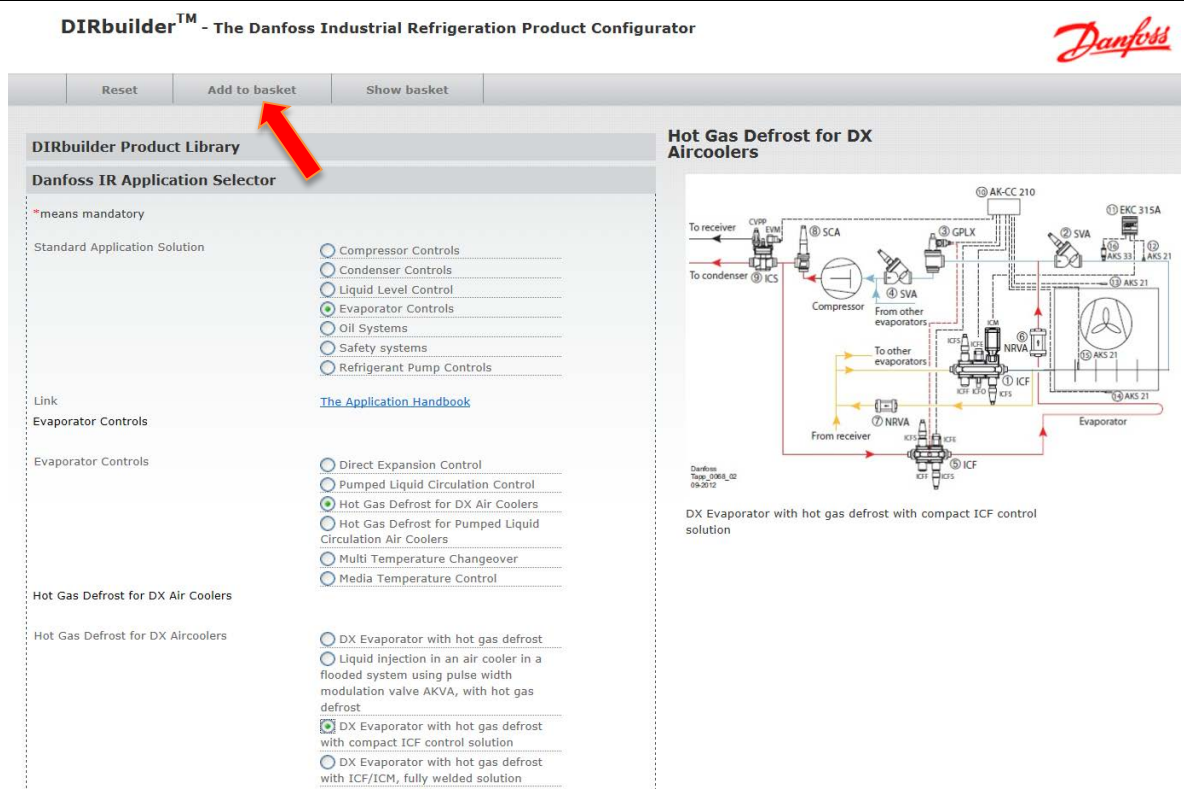
First, choose the 'Application menu' dropdown, followed by 'Add application via application selector'.

### How to do...



Then, choose the standard application you need, followed by clicking on 'Add to basket' when it appears.

*('Add to basket' only appears when all specifications are chosen)*





Finally, start choosing sales codes for each by clicking 'Please select'

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Basket menu   Application menu   Project details   File menu   Hide basket

**Shopping Basket**

Quantity	Sales Code	Product Description	Type Code
<b>Evaporator station 01 - with hot gas defrost</b>			
DX evaporator, with hot gas defrost system with ICF control solution			
Liquid line			
1	Please select	ICF Flexline™ - Control Solution. (). . M1=Stop. M2=Filter. M3=Solenoid. M4=Manual opening. M5=, M6=Stop	
1	Please select	SVA Stop valve. Selection not complete	
Suction line			
1	Please select	SVA Stop valve. Selection not complete	
1	Please select	2-step on/off valve GPLX - Selection not complete	
1	Please select	SVA Stop valve. Selection not complete	
Hot gas line			
1	Please select	ICF Flexline™ - Control Solution. (). . M1=Stop. M2=Filter. M3=Solenoid. M4=Stop	
Discharge line			
1	Please select	Check valve NRVA - Selection not complete	
1	Please select	Check valve NRVA - Selection not complete	
1	Please select	SCA-X Stop/check valve. Selection not complete	
1	Please select	Pilot controlled servo valve ICS - BL, for Differential pressure regulation with electric wide-opening. Selection not complete	
1	Please select	Electronic controller EKC - Selection not complete	
1	Please select	AKS Temperature Sensor - Selection not complete	
1	Please select	AKS Pressure Transmitter - Selection not complete	

Afterwards, you may edit the quantities of valves by choosing the 'Basket Menu' followed by clicking on 'Edit values'.

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Basket menu   Hide basket   Application menu   Project details   File menu

Clear

**Edit values**

Quantity	Sales Code	Product Description	Type Code
<b>DX evaporator 01, with hot gas defrost system with ICF control solution</b>			
Liquid line			
1	Please select	ICF Flexline™ - Control Solution. (). . M1=Stop. M2=Filter. M3=Solenoid. M4=Manual opening. M5=, M6=Stop	
1	Please select	SVA Stop valve. Selection not complete	
Suction line			
2	Please select	SVA Stop valve. Selection not complete	
2	Please select	2-step on/off valve GPLX - Selection not complete	
2	Please select	SVA Stop valve. Selection not complete	
Hot gas line			
1	Please select	ICF Flexline™ - Control Solution. (). . M1=Stop. M2=Filter. M3=Solenoid. M4=Stop	
Discharge line			
1	Please select	Check valve NRVA - Selection not complete	
1	Please select	Check valve NRVA - Selection not complete	
1	Please select	SCA-X Stop/check valve. Selection not complete	
1	Please select	Pilot controlled servo valve ICS - BL, for Differential pressure regulation with electric wide-opening. Selection not complete	
1	Please select	Electronic controller EKC - Selection not complete	
1	Please select	AKS Temperature Sensor - Selection not complete	
1	Please select	AKS Pressure Transmitter - Selection not complete	
<b>DX evaporator 02, with hot gas defrost system with ICF control solution</b>			



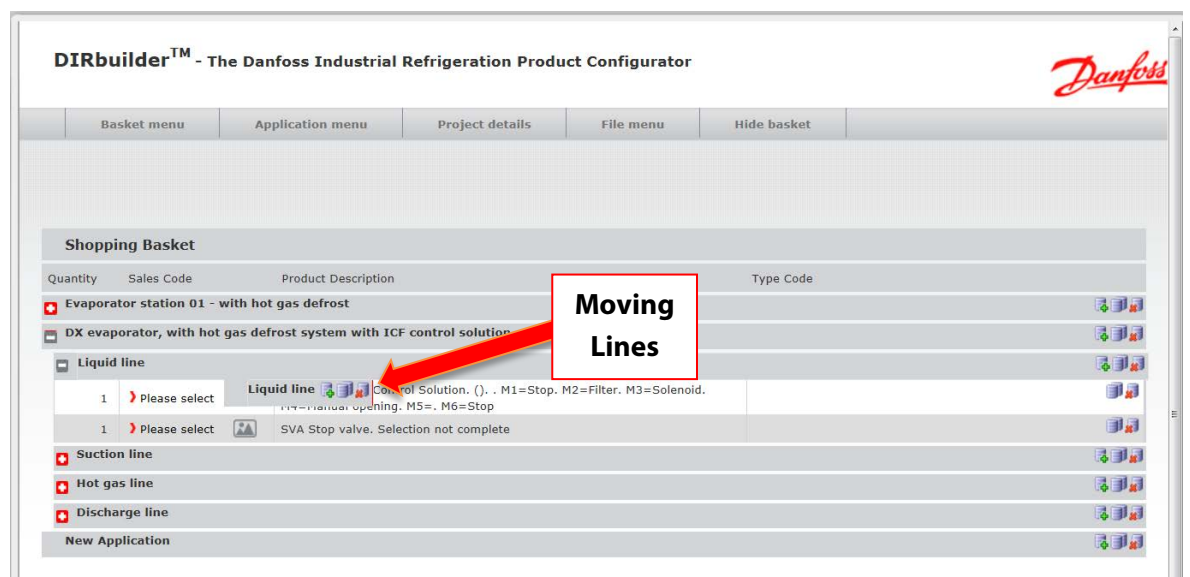
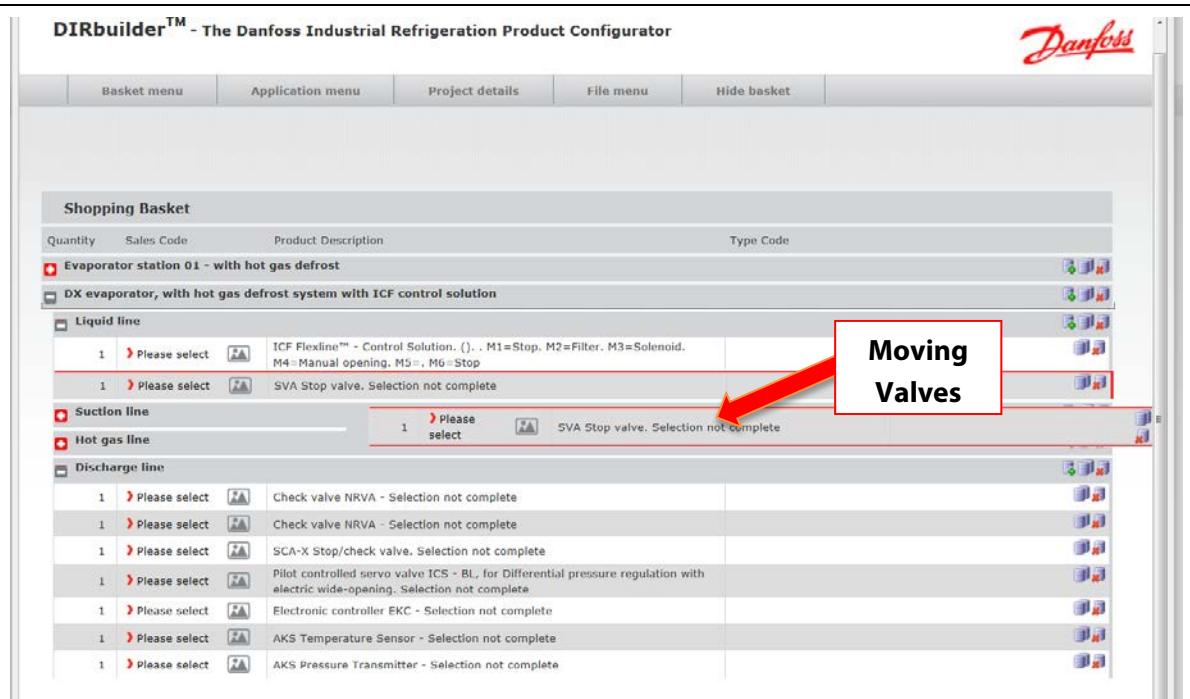
## Chapter 09 - Move Applications, Lines and Valves by drag-and-drop

Applications, Lines and Valves may be moved within the shopping basket by following these simple steps.

### What to do...

Click, hold and then drag the Application, Line or Valve of choice to another destination.

### How to do...



### Tips!

- A useful tip is to copy Valves, Lines or Applications and move them to the location needed, instead of creating new Valves, Lines or Applications. This may often prove to save time.





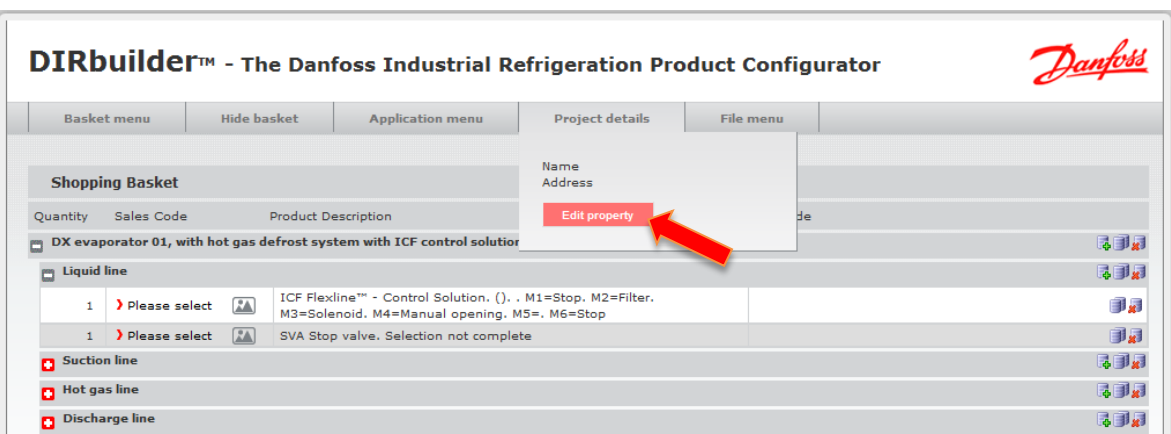
Chapter 10 - Adding and editing project details

You can attribute specific project details to your shopping basket by following these simple steps.

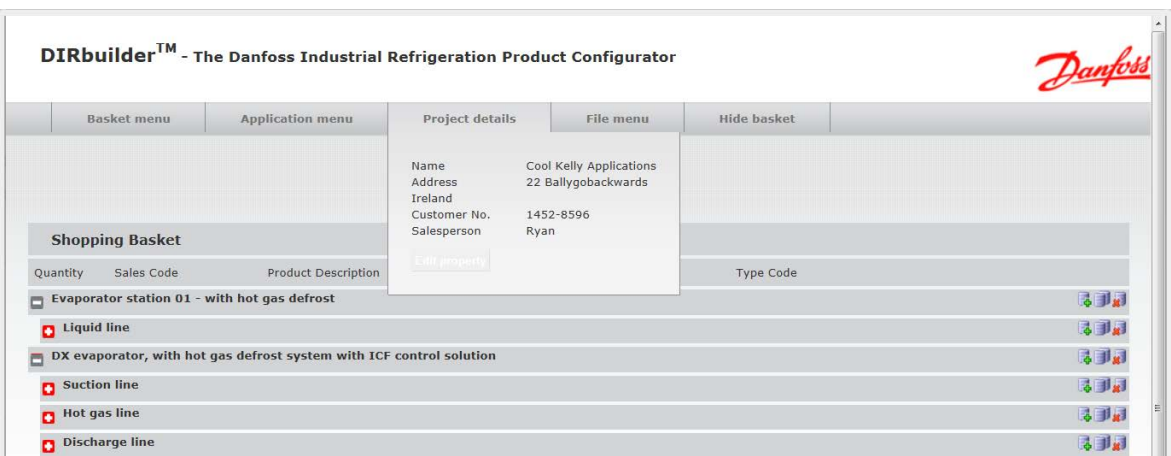
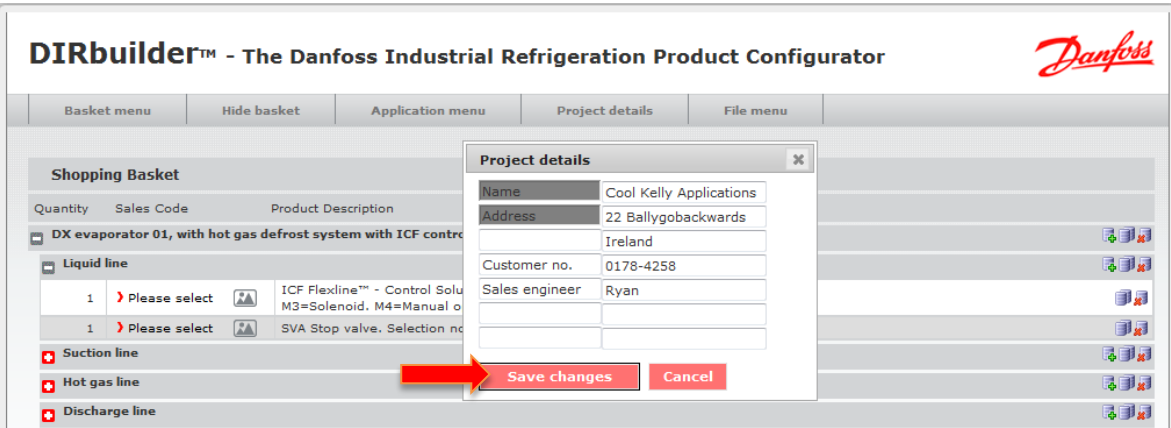
What to do...

First, choose the 'Project details' drop down, followed by 'Edit property'.

How to do...



Then, assign your project details and click Save changes.



Tips!

- Please note that, if you require more than 7 project detail lines, first, save the changes and then edit again as explained. You will notice that 5 new detail lines will be automatically created.

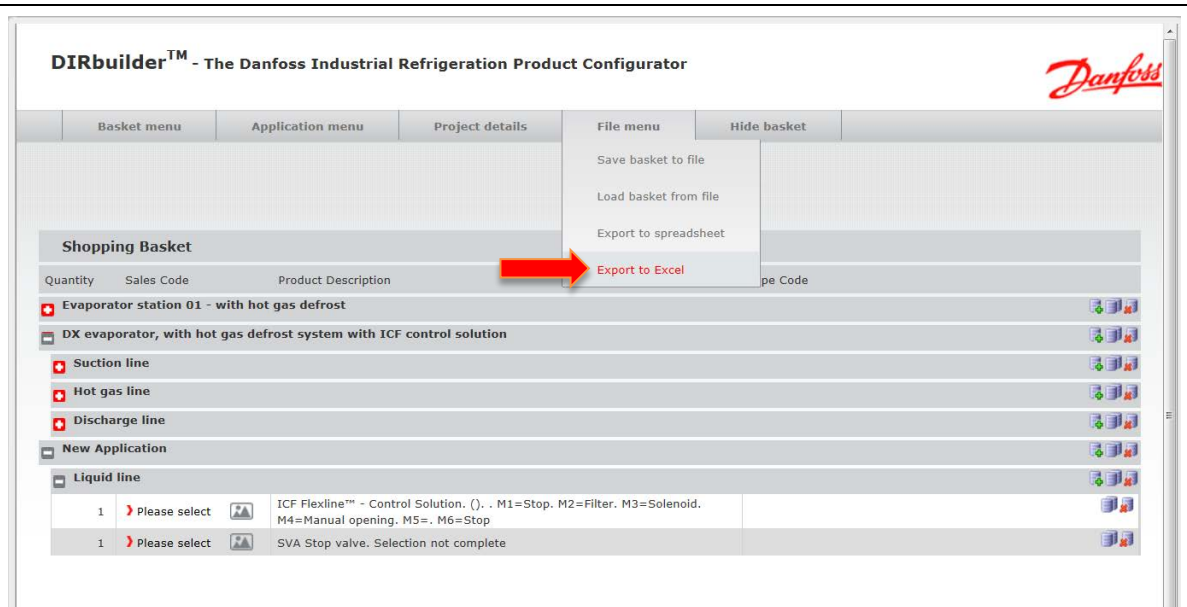
## Chapter 11 - Export to Excel

In order to export your shopping basket to Excel, follow these simple steps.

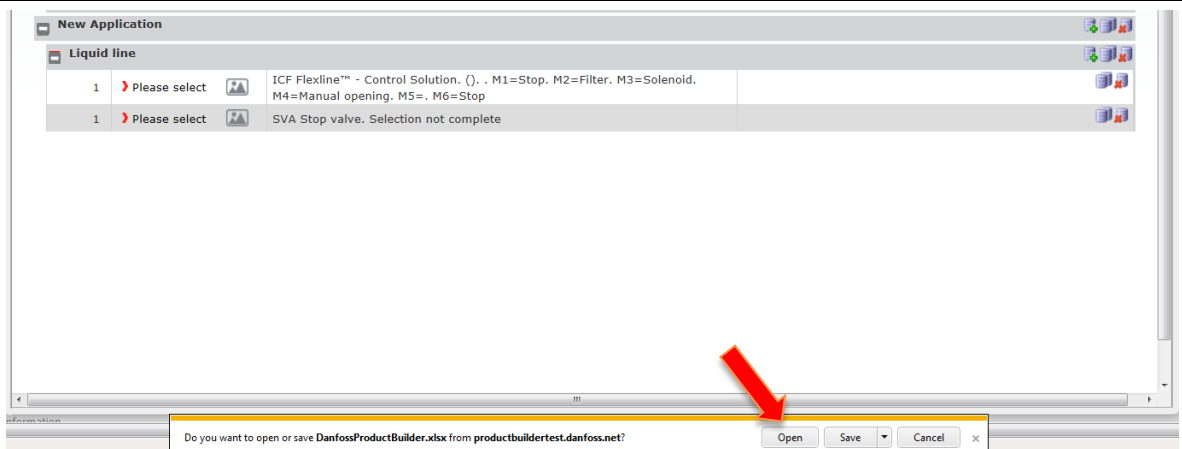
### What to do...

First, choose the 'File menu' drop down followed by 'Export to Excel'.

### How to do...



Then, click 'Open' to view the Excel file. Remember to save your file if need be.



### Tips!

- If you prefer to export your shopping basket to a comma separated file then choose the 'File menu' drop down, followed by 'Export to spread sheet'.

The Product Library contains all Danfoss Industrial Refrigeration products. The following simple steps show how to navigate the product library.

## How to do...

# DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

Reset	Show basket	
-------	-------------	--

**DIRbuilder Product Library**

- \* means mandatory
- \* Product Categories

☐ Flexline™ Products
 

- ☐ SVL Flexline™ - Line Components
- ☐ ICF Flexline™ - ICS and ICM Control Valves
- ☐ ICF Flexline™ - Control Solutions
- ☐ Flexline™ Parts Production
- ☐ Manual Shut-off Valves
- ☐ Check Valves
- ☐ Filters
- ☐ Line Components
- ☐ Stainless Steel Line Components
- ☐ Solenoid Valves
- ☐ Stainless Steel Solenoid Valves
- ☐ Pressure & Temperature Regulating Valves (and accessories)
- ☐ Safety Valves
- ☐ Expansion Valves
- ☐ Level Controls
- ☐ Gas Detection
- ☐ Electromechanical Controls
- ☐ Electronic Controls and Transmitters
- ☐ Spare Parts

\* If you know the sales code, please enter it here (case sensitive)

**DIRbuilder™** - The Danfoss Industrial Refrigeration Product Configurator

*Danfoss*

---

Reset    Show basket

### DIRbuilder Product Library

- \* means mandatory
- \* Product Categories

	<input type="radio"/> Flexline™ Products <input type="radio"/> SVL Flexline™ - Line Components <input type="radio"/> ICV Flexline™ - ICS and ICM Control Valves <input type="radio"/> ICF Flexline™ - Control Solutions <input type="radio"/> Flexline™ Parts Production <input checked="" type="radio"/> Manual Shut-off Valves <input type="radio"/> Check Valves <input type="radio"/> Filters <input type="radio"/> Line Components <input type="radio"/> Stainless Steel Line Components <input type="radio"/> Solenoid Valves <input type="radio"/> Stainless Steel Solenoid Valves <input type="radio"/> Pressure & Temperature Regulating Valves (and accessories) <input type="radio"/> Safety Valves <input type="radio"/> Expansion Valves <input type="radio"/> Level Controls <input type="radio"/> Gas Detection <input type="radio"/> Electromechanical Controls <input type="radio"/> Electronic Controls and Transmitters <input type="radio"/> Spare Parts
--	---

\* If you know the sales code, please enter it here (case sensitive)

Danfoss



Danfoss



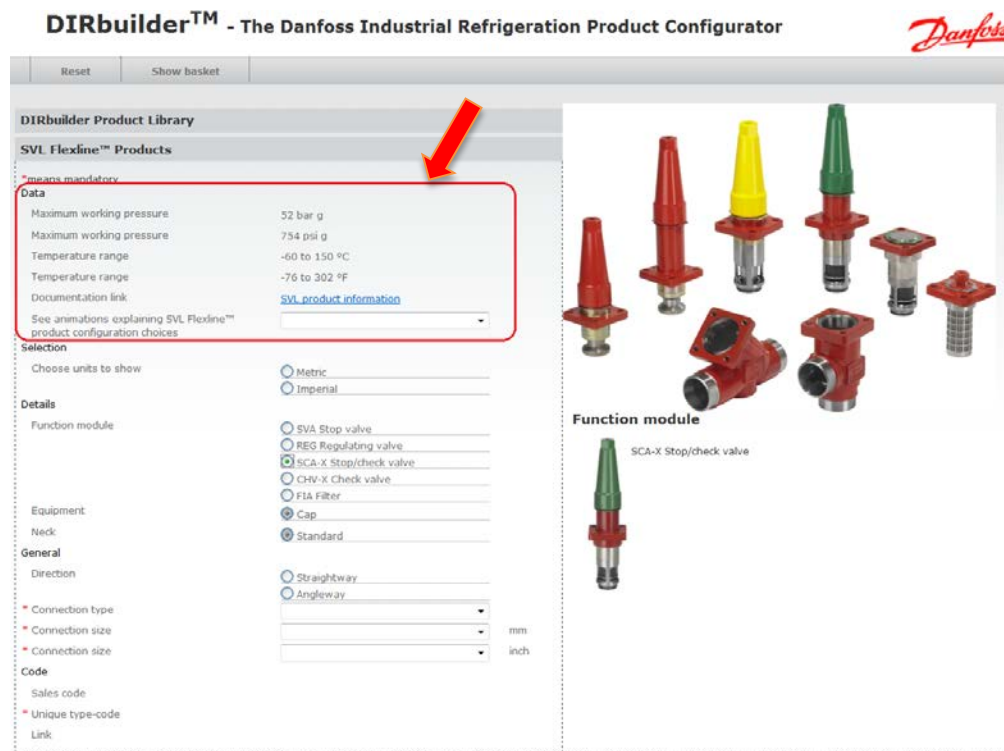
## Chapter 13 - The Product Window

When navigating within the product library product tabs, you will notice that the contents of a typical product tabs are generally divided into sections.

### What...

The 'Data' section contains product data, links to Danfoss.com literature and helpful animations.

### Where...



**DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator**

Reset Show basket

**DIRbuilder Product Library**

**SVL Flexline™ Products**

\* means mandatory

**Data**

Maximum working pressure 52 bar g  
Maximum working pressure 754 psi g  
Temperature range -60 to 150 °C  
Temperature range -76 to 302 °F  
Documentation link [SVL product information](#)  
See animations explaining SVL Flexline™ product configuration choices

**Selection**

Choose units to show ☐ Metric ☐ Imperial

**Details**

Function module ☐ SVA Stop valve ☐ REG Regulating valve ☒ SCA-X Stop/check valve ☐ CHV-X Check valve ☐ FIA Filter ☒ Cap ☒ Standard

Equipment

Neck

**General**

Direction ☐ Straightway ☐ Anglway

\* Connection type

\* Connection size  mm

\* Connection size  inch

**Code**

Sales code

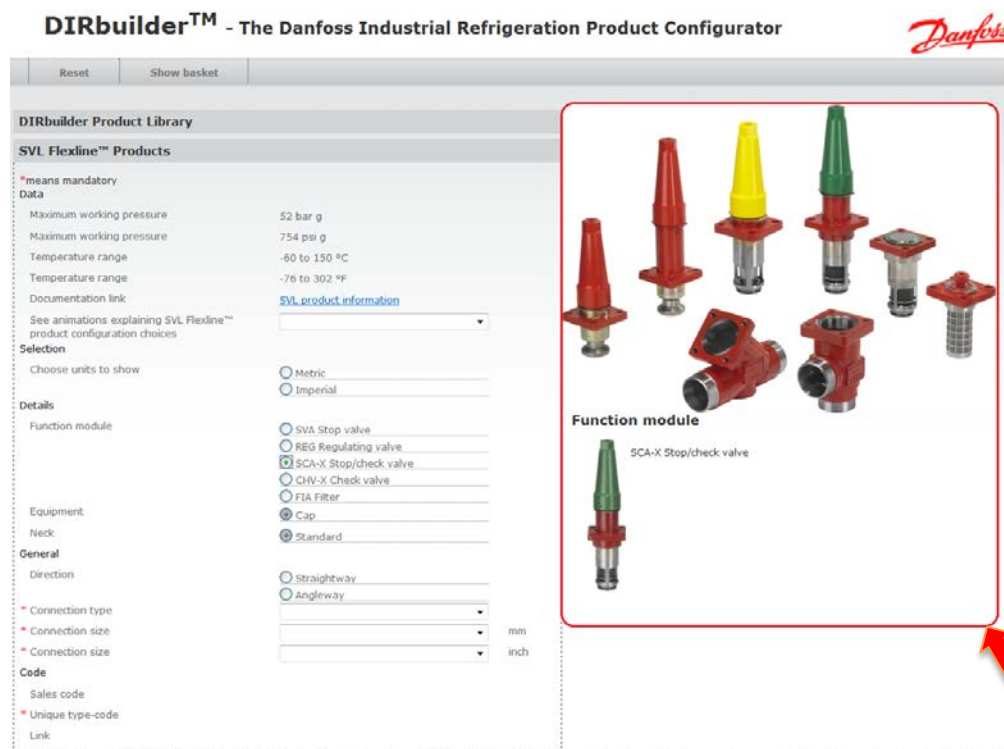
\* Unique type-code

Link

**Function module**

SCA-X Stop/check valve

The Image section contains images that reflect the most recent selections.



**DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator**

Reset Show basket

**DIRbuilder Product Library**

**SVL Flexline™ Products**

\* means mandatory

**Data**

Maximum working pressure 52 bar g  
Maximum working pressure 754 psi g  
Temperature range -60 to 150 °C  
Temperature range -76 to 302 °F  
Documentation link [SVL product information](#)  
See animations explaining SVL Flexline™ product configuration choices

**Selection**

Choose units to show ☐ Metric ☐ Imperial

**Details**

Function module ☐ SVA Stop valve ☐ REG Regulating valve ☒ SCA-X Stop/check valve ☐ CHV-X Check valve ☐ FIA Filter ☒ Cap ☒ Standard

Equipment

Neck

**General**

Direction ☐ Straightway ☐ Anglway

\* Connection type

\* Connection size  mm

\* Connection size  inch

**Code**

Sales code

\* Unique type-code

Link

**Function module**

SCA-X Stop/check valve



The Selection section contains all the selections parameters needed to find a sales code number.

**DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator**

Reset Show basket

**DIRbuilder Product Library**

**SVL Flexline™ Products**

\* means mandatory

**Data**

Maximum working pressure 52 bar g  
Maximum working pressure 754 psi g  
Temperature range -60 to 150 °C  
Temperature range -76 to 302 °F  
Documentation link: [SVL product information](#)  
See animations explaining SVL Flexline™ product configuration choices

**Selection**

Choose units to show: ☐ Metric ☐ Imperial

**Details**

Function module: ☐ SVA Stop valve, ☐ REG Regulating valve, ☒ SCA-X Stop/check valve, ☐ CHV-Y Check valve, ☐ FIA Filter

Equipment: ☒ Cap, ☒ Standard

Neck: ☐ Straightway, ☐ Angleway

**General**

Direction: ☐ Straightway, ☐ Angleway

Connection type:   
\* Connection size:  mm  
\* Connection size:  inch

**Code**

Sales code:   
\* Unique type-code:   
Link:

**Function module**

SCA-X Stop/check valve

The red asterisk indicates that the selection choice must be completed in order to find a sales code number.

Only after all asterisks disappear, can a code be added to the shopping basket.

\* Connection type  
\* Connection size  
\* Connection size





The Code section contains the sales code, link to code specific data containing literature, approvals and CAD symbols. For some products, a type-code is included. This is explained in more detail in Chapter 16 - Type-code.

Reset

Show basket

DIRbuilder™ - The Danfoss Industrial Refrigeration Product Configurator

DIRbuilder Product Library

SVL Flexline™ Products

\*means mandatory

Data

Maximum working pressure

52 bar g

Maximum working pressure

754 psi g

Temperature range

-60 to 150 °C

Temperature range

-76 to 302 °F

Documentation link

[SVL product information](#)

See animations explaining SVL Flexline™ product configuration choices

Selection

Choose units to show

☐ Metric

☐ Imperial

Details

Function module

☐ SVA Stop valve

☐ REG Regulating valve

☒ SCA-X Stop/check valve

☐ CHV-X Check valve

☐ FIA Filter

☐ Cap

☒ Standard

Equipment

Neck

General

Direction

☐ Straightway

☐ Angleway

\* Connection type

\* Connection size

\* Connection size

mm

inch

Code

Sales code

\* Unique type-code

Link

Function module

SCA-X Stop/check valve

## Chapter 14 - Selecting a code to add to the Shopping Basket

This chapter explains a typical scenario in which a sales code number is chosen by way of making certain selection choices and then added the sales code number to the shopping basket.

### What to do...

To assist in selection, some of the selection headings have explanatory text boxes that appear while the cursor hovers over selection heading.

### How to do...

**DIRbuilder Product Library**

**ICS servo operated valves**

\*means mandatory  
Please choose one

☐ ICS without pilot valves  
☒ Predefined functions (ICS + pilots)

Animations

Predefined (ICS + pilot valves) functions

Functions

\* Predefined functions

Pilots valves

\* Port P selection

Main valve

\* Flowrate module

\* Connection type

\* Connection size

\* Top cover type

\* Valve house size

Code

Unique type-code

Sales code

Assembled or Separate Products

\* Available as

☒ Fully assembled ICS + pilot(s)  
☐ Separate items

Link

Port P pilot literature link

By choosing fully assembled, your selection will appear in the basket as one item.  
By choosing separate, your selection will appear in the basket as separate items.  
This represents the method in which your selection will be shipped/packaged.

Only when all asterisks disappear, will the sales code number and the option to Add to basket, appear.

When this happens, choose 'Add to basket', if you are satisfied with your selection.

**DIRbuilder Product Library**

**ICS servo operated valves**

\*means mandatory  
Please choose one

☐ ICS without pilot valves  
☒ Predefined functions (ICS + pilots)

Animations

Predefined (ICS + pilot valves) functions

Functions

Predefined functions

S, for Inlet pressure regulation with

Pilots valves

Port P selection

Port S1 selection

Port S2 selection

Main valve

Flowrate module

Connection type

Connection size

Top cover type

Valve house size

Code

Unique type-code

Sales code

ICS040-048-S0-0-3-F1046x-B1120x-B1100x-148X0228

Assembled or Separate Products

Available as

☒ Fully assembled ICS + pilot(s)  
☐ Separate items

Link

Port P pilot literature link

Port S1 pilot literature link

Port S2 pilot literature link

Sales code 027F1046 Plug A+B

Sales code 027B1120 EVM NC: MOPD = 21 barg/305 psig (I)

Sales code 027B1100 CVP LP: 0 to 7 barg/0 to 102 psig (MWP = 17 barg/247 psig)

Port S2 selection

CVP LP: 0 to 7 barg/0 to 102 psig (MWP = 17 barg/247 psig)

Low pressure version of CVP constant-pressure pilot valve

Greyed out values in the drop down menus reflect choices that are not in line with, or may contradict, other selection choices made. You may choose to 'force' these values, thereby changing previous selection values accordingly.

Reset
Add to basket
Show basket

### DIRbuilder Product Library

#### ICS servo operated valves

\* means mandatory  
Please choose one

Animations

Predefined (ICS + pilot valves) functions

Functions

Predefined functions

Pilots valves

Port P selection

Port S1 selection

Port S2 selection

Main valve

Flowrate module

Connection type

Connection size

Top cover type

Valve house size

Code

Unique type-code

Sales code

Assembled or Separate Products

Available as

Link

ICS without pilot valves

Predefined functions (ICS + pilots)

S, for Inlet pressure regulation with

Plug A+B

EVM NC: MOPD = 21 barg/305 psig (I)

CVP LP: 0 to 7 barg/0 to 102 psig (M)

ICS 40

Socket-weld ANSI

1½ inch

3-pilot top cover

ICS 40

ICS 40

ICS 25

ICS 32

ICS 50

ICS 65

ICS 80

ICS 100

ICS 125

ICS 150

Separate items

**Port S2 selection**

CVP LP: 0 to 7 barg/0 to 102 psig (MWP = 17 barg/247 psig)

Low pressure version of CVP constant-pressure pilot valve

If you insist on selecting a value that contradicts previous selections, DIRbuilder™ will help you adapt your 'forced' choice to a configuration that is acceptable.

Reset
Add to basket
Show basket

### DIRbuilder Product Library

#### ICS servo operated valves

\* means mandatory  
Please choose one

Animations

Predefined (ICS + pilot valves) functions

Functions

Predefined functions

Pilots valves

Port P selection

Port S1 selection

Port S2 selection

Main valve

Flowrate module

Connection type

Connection size

Top cover type

Valve house size

Code

Unique type-code

Sales code

Assembled or Separate Products

Available as

Link

ICS without pilot valves

Predefined functions (ICS + pilots)

S, for Inlet pressure regulation with

Plug A+B

EVM NC: MOPD = 21 barg/305 psig (I)

CVP LP: 0 to 7 barg/0 to 102 psig (M)

ICS 40

Socket-weld ANSI

1½ inch

3-pilot top cover

ICS 40

ICS 40

ICS 25

ICS 32

ICS 50

ICS 65

ICS 80

ICS 100

ICS 125

ICS 150

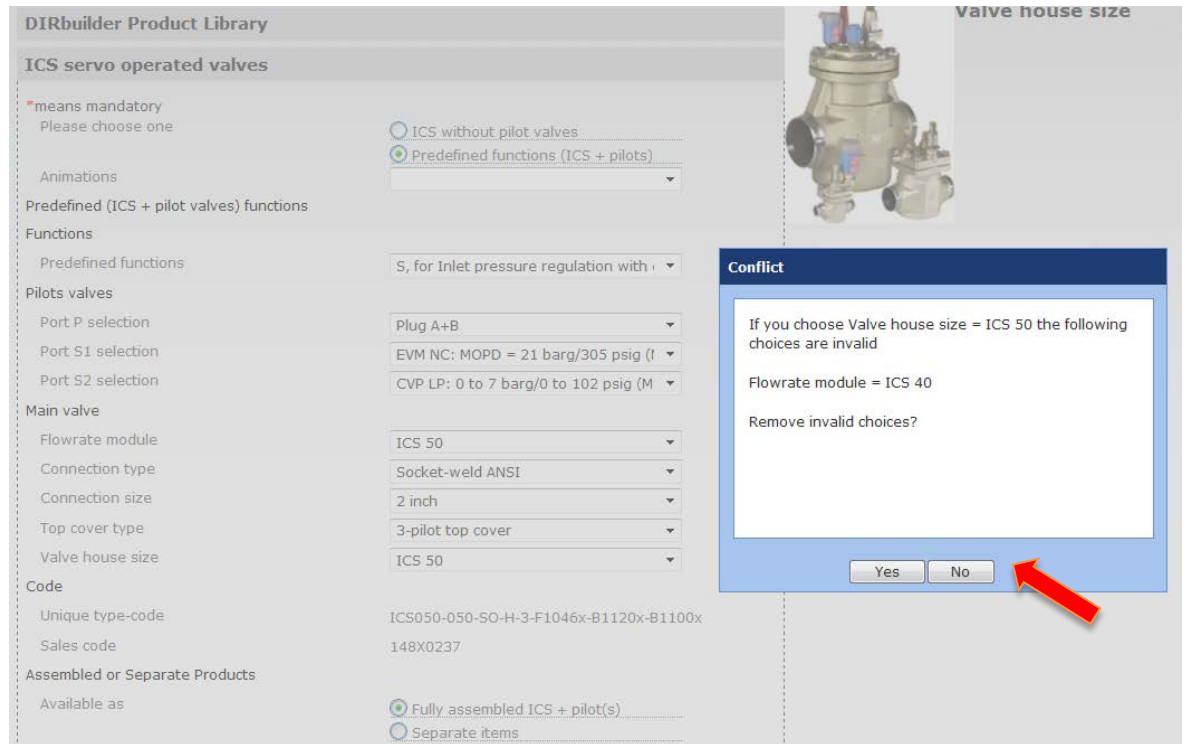
Separate items

**Port S2 selection**

CVP LP: 0 to 7 barg/0 to 102 psig (MWP = 17 barg/247 psig)

Low pressure version of CVP constant-pressure pilot valve

DIRbuilder™ will open, what is called, a conflict dialog. To resolve the conflict, you will be asked to disregard one or more previous selections. By choosing 'Yes', the mentioned selection value or values will be changed.



**DIRbuilder Product Library**

**ICS servo operated valves**

\* means mandatory  
Please choose one

Animations

Predefined (ICS + pilot valves) functions

Functions

Predefined functions

Pilots valves

Port P selection

Port S1 selection

Port S2 selection

Main valve

Flowrate module

Connection type

Connection size

Top cover type

Valve house size

Code

Unique type-code

Sales code

Assembled or Separate Products

Available as

ICS without pilot valves

Predefined functions (ICS + pilots)

S, for Inlet pressure regulation with

Plug A+B

EVM NC; MOPD = 21 barg/305 psig (I

CVP LP: 0 to 7 barg/0 to 102 psig (M

ICS 50

Socket-weld ANSI

2 inch

3-pilot top cover

ICS 50

ICS050-050-SO-H-3-F1046x-B1120x-B1100x

148X0237

Fully assembled ICS + pilot(s)

Separate items

**Conflict**

If you choose Valve house size = ICS 50 the following choices are invalid

Flowrate module = ICS 40

Remove invalid choices?

Yes No

## Tips!

- Remember, the selection process does not necessarily have to start top downwards. You may begin your selection process with selections you are most familiar with. For example, in this instance, you may just as easily start with 'Connection size' and 'Connection type'. This will automatically reduce the amount of options in all the other selection dropdowns.

## Chapter 15 - Add spare parts and accessories

After finding a Flexline product sales code number, DIRbuilder™ will offer a range of available spare parts and accessories associated with the selected sales code number. The following simple steps show how these may be added to the shopping basket.

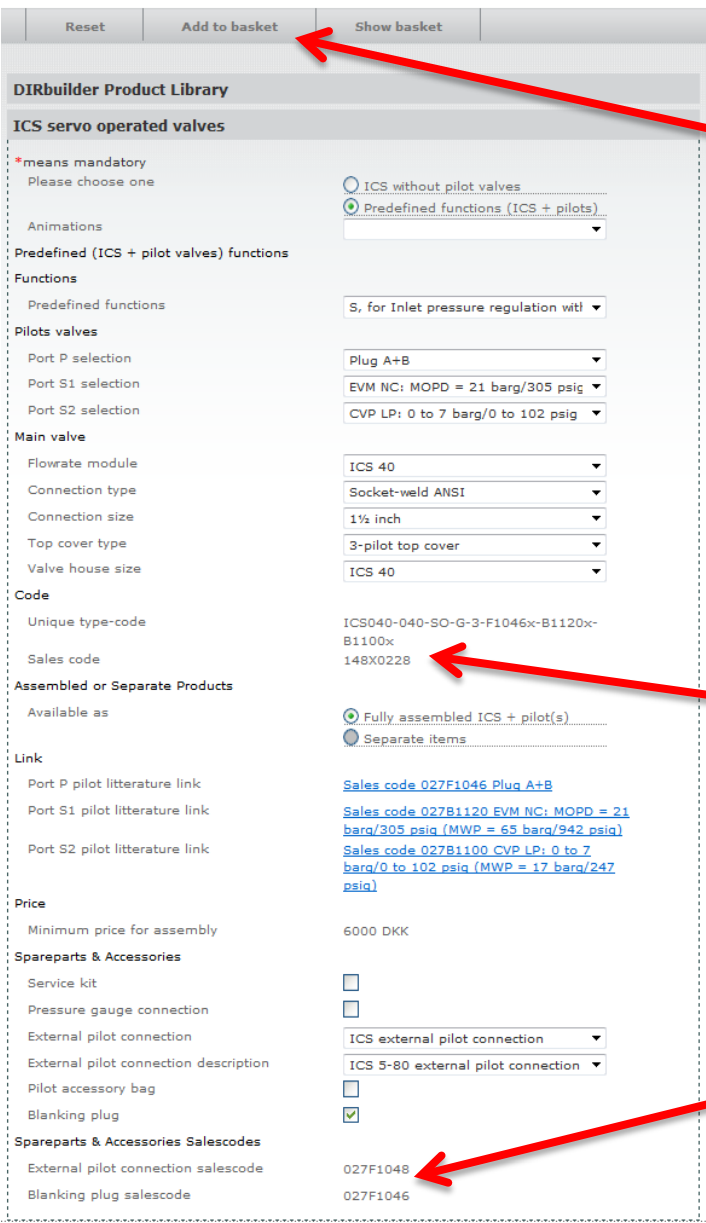
### What to do...

After finding the valve code of choice, the 'Spare parts & Accessories' selection options will appear.

Before choosing 'Add to basket', choose the relevant spare parts and accessories.

Finally, choose 'Add to basket'.

### How to do...



The screenshot shows the DIRbuilder Product Library interface for 'ICS servo operated valves'. The interface includes a top navigation bar with 'Reset', 'Add to basket', and 'Show basket' buttons. The main content area is divided into sections for configuration and pricing. Red arrows and numbers 1, 2, and 3 highlight the steps to add spare parts and accessories to the basket.

**1** Points to the 'Sales code' field, which displays '148X0228'.

**2** Points to the 'Spareparts & Accessories' section, specifically the 'Blanking plug' checkbox, which is checked.

**3** Points to the 'Add to basket' button at the top of the interface.

The 'Spareparts & Accessories' section includes the following items:

- Service kit: ☐
- Pressure gauge connection: ☐
- External pilot connection: ☐
- External pilot connection description: ☐
- Pilot accessory bag: ☐
- Blanking plug: ☒

The 'Spareparts & Accessories Salescodes' section includes the following items:

- External pilot connection salescode: 027F1048
- Blanking plug salescode: 027F1046

### Tips!

- If you forget to add spare parts and accessories, they may be located again by choosing the spare parts option in the DIRbuilder™ product library.
- You can always check the current state of your shopping basket before adding anything to it by choosing Show basket. Then you can resume from where you left off by choosing Hide basket.


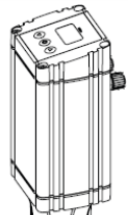

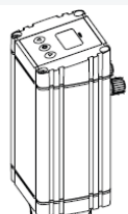
## Chapter 16 - Type-code

Type codes are used by the engineering office to create sales code numbers for Flexline™ product configurations that have never been sold before. This is an explanation of what to do when you encounter a situation in which you configure a product that does not have a sales code number.

### What...

With customized Flexline™ products, a type-code will appear. A type-code includes a unique bill of materials and detailed instructions for assembly and testing.

### Where...

<p>With customized Flexline™ products, a type-code will appear. A type-code includes a unique bill of materials and detailed instructions for assembly and testing.</p>	<div data-bbox="391 593 933 1153"> <p><b>DIRbuilder Product Library</b></p> <p><b>ICM - Motorized Main Valves</b></p> <p>*means mandatory</p> <p><b>Data</b></p> <p>Maximum working pressure 52 bar g</p> <p>Maximum working pressure 754 psi g</p> <p>Temperature range -60 to 120 °C</p> <p>Temperature range -76 to 248 °F</p> <p>Refrigerants CFC, HCFC, HFC, R717, R744</p> <p>Link to literature <a href="#">ICM</a></p> <p><b>HousingSelection</b></p> <p>House size <input type="text" value="ICV 40"/></p> <p>Connection type <input type="text" value="Socket-weld ANSI"/></p> <p>Connection size <input type="text" value="1 1/2 inch"/></p> <p><b>Module Selection</b></p> <p>Function module/top cover <input type="text" value="ICM40-A"/></p> <p><b>Actuator Selection</b></p> <p>Actuator <input type="text" value="ICAD 900 without cables"/></p> <p><b>Code</b></p> <p>Unique type-code ICM040-040-SO-A-x-H9101x</p> <p>Sales code Contact Danfoss for sales code</p> <p><b>Links</b></p> <p>Module link <a href="#">Sales code 027H4180: ICM40-A</a></p> <p>Actuator link <a href="#">Sales code 027H9101: ICAD 900 without cables</a></p> </div> <div data-bbox="965 582 1364 1041"> <p><b>Actuator</b></p>   <p>ICAD 900 without cables</p> <p>ICAD 900</p> </div>
<p>If your flexline product configuration does not produce a sales code, it means that it has not been sold previously.</p> <p>You will then be asked to contact Danfoss in order to create one.</p>	<div data-bbox="391 1214 933 1774"> <p><b>DIRbuilder Product Library</b></p> <p><b>ICM - Motorized Main Valves</b></p> <p>*means mandatory</p> <p><b>Data</b></p> <p>Maximum working pressure 52 bar g</p> <p>Maximum working pressure 754 psi g</p> <p>Temperature range -60 to 120 °C</p> <p>Temperature range -76 to 248 °F</p> <p>Refrigerants CFC, HCFC, HFC, R717, R744</p> <p>Link to literature <a href="#">ICM</a></p> <p><b>HousingSelection</b></p> <p>House size <input type="text" value="ICV 40"/></p> <p>Connection type <input type="text" value="Socket-weld ANSI"/></p> <p>Connection size <input type="text" value="1 1/2 inch"/></p> <p><b>Module Selection</b></p> <p>Function module/top cover <input type="text" value="ICM40-A"/></p> <p><b>Actuator Selection</b></p> <p>Actuator <input type="text" value="ICAD 900 without cables"/></p> <p><b>Code</b></p> <p>Unique type-code ICM040-040-SO-A-x-H9101x</p> <p>Sales code Contact Danfoss for sales code</p> <p><b>Links</b></p> <p>Module link <a href="#">Sales code 027H4180: ICM40-A</a></p> <p>Actuator link <a href="#">Sales code 027H9101: ICAD 900 without cables</a></p> </div> <div data-bbox="965 1198 1364 1657"> <p><b>Actuator</b></p>   <p>ICAD 900 without cables</p> <p>ICAD 900</p> </div>

### Tips!

- Remember that configurations without sales codes may be added to the shopping basket.
- Configurations without sales codes will be remembered by the shopping basket, so clicking on them in the shopping basket will show the details of the configuration.





# Danfoss Industrial Refrigeration

## A world of expertise at the click of a button

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Select the right valves for the job with DIRCalc™. This software will pick the right valves for your job, based on your input and advanced calculations made by Danfoss experts. Download DIRCalc™ at [Danfoss.com/DIRCalc](http://Danfoss.com/DIRCalc).



### Danfoss IR app

The free IR App gives you a spare parts tool, which makes it easy for you to find the spare part number for a given Danfoss industrial refrigeration valve. It also presents all the products and benefits of the SVL Flexline™ range – with a fun game thrown in as well.



### Download 3D CAD symbols

From our online product catalogue on our website, you can download 3D CAD symbols and illustrations to help you when designing refrigeration plants.



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With this interactive PowerPoint slideshow, you can explore all the details of a two-stage ammonia plant. You will find detailed cut-away drawings and information on the valves in the installation along with links to videos, literature and product animations.



### Application handbook

The Application Handbook is designed to help you every step of the way when working with industrial refrigeration systems. Among many other things, it contains examples of how to select control methods for different refrigeration systems, their design and which components to choose.

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