

CalcMaster®



As partner on table with:

Product designer – Mould maker- Injection moulder
Purchasing - Sales and Management

Why you need the CalcMaster software ?

CalcMaster® is currently the **most complete**
consulting and calculation software for the
Business advising &
Product cost optimizing

The most comprehensive calculation software



CalcMaster® innovative

advising and calculation software

Injection moulding software for optimization and calculation of moulded products.

Makes the mould– and product calculation very easy

Is the comprehensive injection moulding software

Business advising &
Product cost optimizing



**With a new product design, directly the
mould investment and product price**



CalcMaster® advising and calculation software.
You can save **much time** when you use the **CalcMaster software**.

Comparisons with other calculation software: are the
CalcMaster advising and calculation software
the **most comprehensive injection moulding software**
Business advising & Product cost optimizing

Product and mould estimating in our 3D software in the beginning of the total project.

Comparison: we are the only one how use this type of software.

CalcMaster – I know Moulding 3D mould simulation software.

The designer can use the 3D software which can show both core and cavity side of the mould after the product CAD STL-file is opened. He can directly see the possible issues with the mould design. Afterwards you can make directly in the **CalcMaster software** a mould price calculation. i-Know Moulding offers Instant Mould Previews for each stage of product development. Use automatic mould preview for feedback within minutes on any 3D design. Use the extended manual editing modes to plan your mould generation process in detail. **CalcMaster** calculations i-Know Moulding can be used in any stage of product design to check the mouldability of your design.

Mould price calculation

Comparison: CalcMaster is a very special and good mould calculation software.
We are selling the CalcMaster software already 25 years worldwide!

Mould dimension calculation

Comparison: we are the only one how use this type of software.

The **CalcMaster software** can play an essential role in your company, because **CalcMaster** can calculate very fast from the 3D product design the mould price, the injection moulding parameters, the number of cavities and the final product price and from there with simple parameter changes it can also calculate alternatives to get the lowest product price.

Very important in this situation is how quickly you can calculate all the mould dimensions.

Mould price correction is possible

Comparison: Here you can use your own experience with mould making.
We are the only one how use this type of software.

Detailed mould hours

Comparison: Here we calculated all the detailed mould hours.
We are the only one how use this type of software.

Injection moulding data

Comparison: we are the only one how use this type of software.

Calculation of injection time, injection pressure, clamping force, cooling time and cycle time.

Dependent on the plastics rheological data of the plastics type.

Injection moulding temperature selection for:

- Temperature of the melt
- Temperature mould
- Temperature demoulding

Selection of the injection machine

Comparison: we are the only one how use this type of software.

Automatic selection of the required injection moulding machine for your mould and product.

After the input of the required parameters the required injection moulding machines will be selected for you.

Economical number of mould cavities

Comparison: we are the only one how use this type of software.

Product price calculation

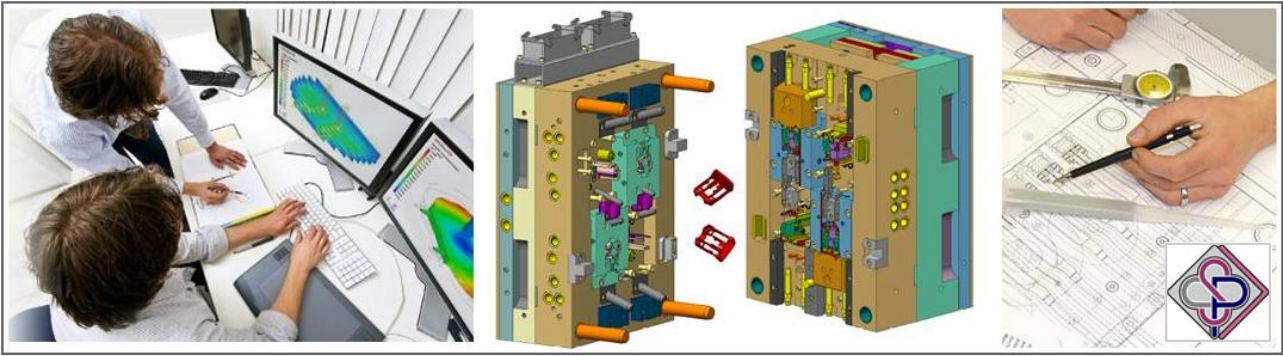
Comparison: we are the only one how use this type of software.

Here we use directly all the calculated data from Menu2: "the injection moulding data".

After the **CalcMaster** calculation we send the calculating data to an **Automotive Excel sheet**.

During the design phase of the product a direct connection is made between:

the **product design, mould cost, injection moulding data, economical number of cavities** and the complete **product price** of an injection moulded product



CalcMaster I Know Moulding 3D software.

The designer can use a 3D software which can show both core and cavity side of the mould after the product CAD stl-file is opened.
He can directly see the possible issues with the mould design.

Calculation from:

Mould prices - Mould dimensions - Moulding data -
Economical nr. of cavities - Complete product price
Selection of the moulding machine.



CalcMaster software.

Is the **comprehensive** injection moulding software
Business advising & Product cost optimizing

CalcMaster® Innovation software

Project, mould, moulding and product calculation made very easy

You can save **much time** when you use the **CalcMaster software**.

CalcMaster Innovation **advising** and **calculation software** for the total injection moulding industry. **Estimate** the **product design** and the **mould design** first very well with our **CalcMaster 3D software**. after this you can make direct:

- the calculation of the mould investments with a new product design.
- the calculation of the product price.

We want inform you about the possibilities of the CalcMaster software.

CalcMaster advising and calculation software for the total injection moulding industry:

- **Product and mould estimating** in our 3D software in the beginning of the total project.
- **Mould price calculation.**
- **Mould dimension calculation.**
- **Mould price correction is possible.**
- **Detailed mould hours.**

Special moulds:

This **Optional** part can only be used in combination with the Standard CalcMaster software.

This **OPTIONAL** part for the mould and injection moulding software contains:

- **2 Components in 2 cavities**
- **2 Components in 1 cavity**
- **Left and the right product**
- **Stack moulds**
- **Soft tool mould**
- **1+1 product in the mould**
- **Combinations are possible** (not every combination is possible)

Injection moulding data.

- injection time
- injection pressure
- clamping force during injection
- clamping force during holding
- theoretical cooling time
- actual cooling time
- maximum holding time
- total cycle time
- detailed cycle time
- **Selection of the injection machine.**
- **Economical numbers of mould cavities.**
- **Product price calculation.**
- After the CalcMaster calculation we send all the calculate data to an **Automotive Excel sheet**.

CalcMaster Modules

- **CalcMaster - i-Know Moulding 3D software**
i-Know Moulding Works with the STL-file CAD format.
With 3D mould plates overview. Mould parting lines 3D on your screen.
With automatic parameter transfer of data for a fast direct mould calculation.
- **CalcMaster Mould Dimensions.**
Mould dimensions for 1 to 96 cavities.
Calculation of all the mould plates dimensions.
You can select the steel type for each separate plate.
- **CalcMaster Selection of the injection machine.**
After the calculation from the CalcMaster Menus 1 - 2 - 3 and 4 this module can automatically the right injection moulding machine.

We have the possibility that you can **testing** the complete CalcMaster Advising software.

CalcMaster Trial version, ask for the price. Testing time 4 weeks after the installation.

During the design phase of the product a direct connection is made between:

the **product design**, **mould cost**, **injection moulding data**, **economical number of cavities** and the complete **product price** of an injection moulded product.

CalcMaster®

Innovative advising and calculation software
As partner on table with:

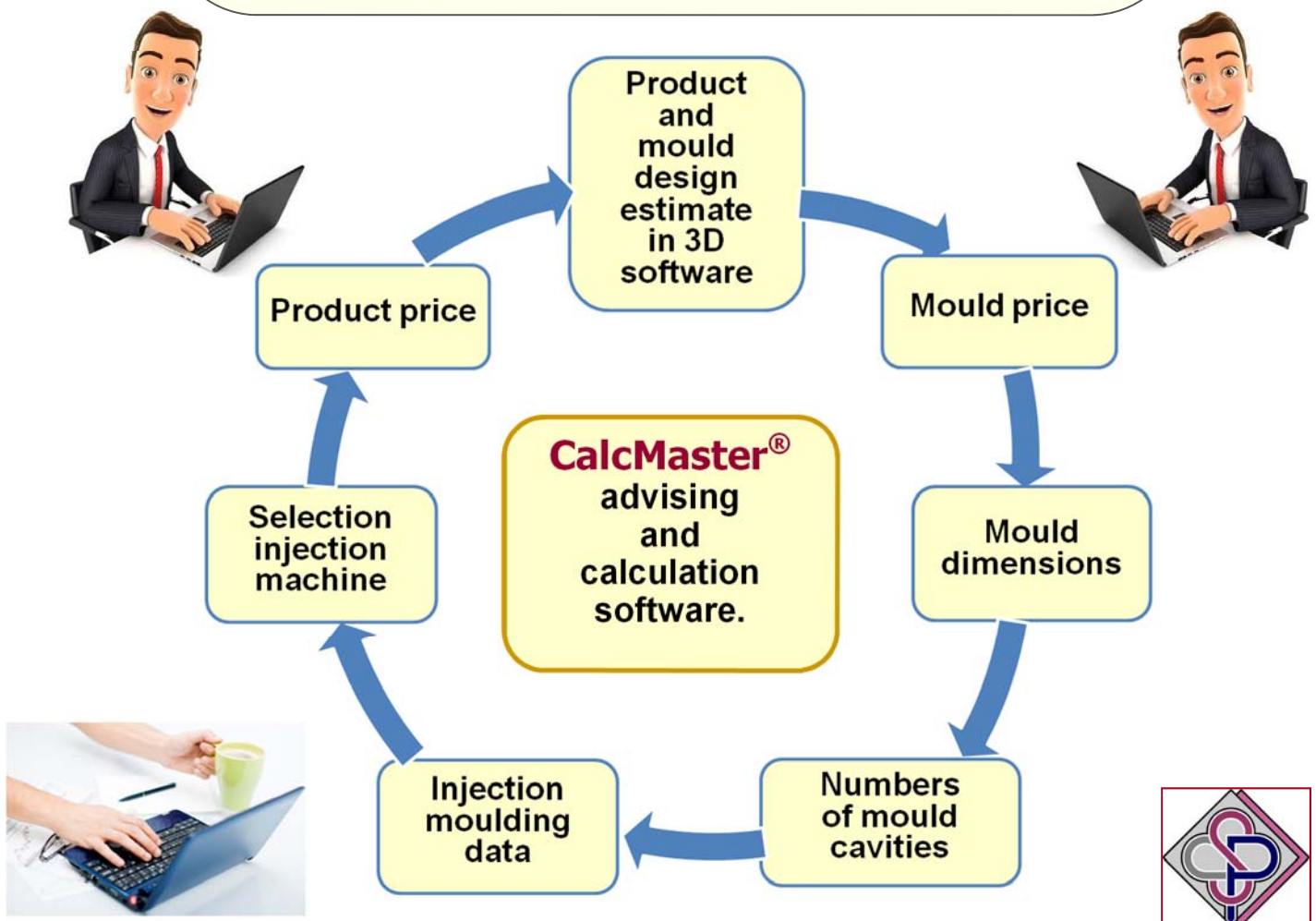
**Product designer – Mould maker- Injection
moulder - Purchasing - Sales and Management**

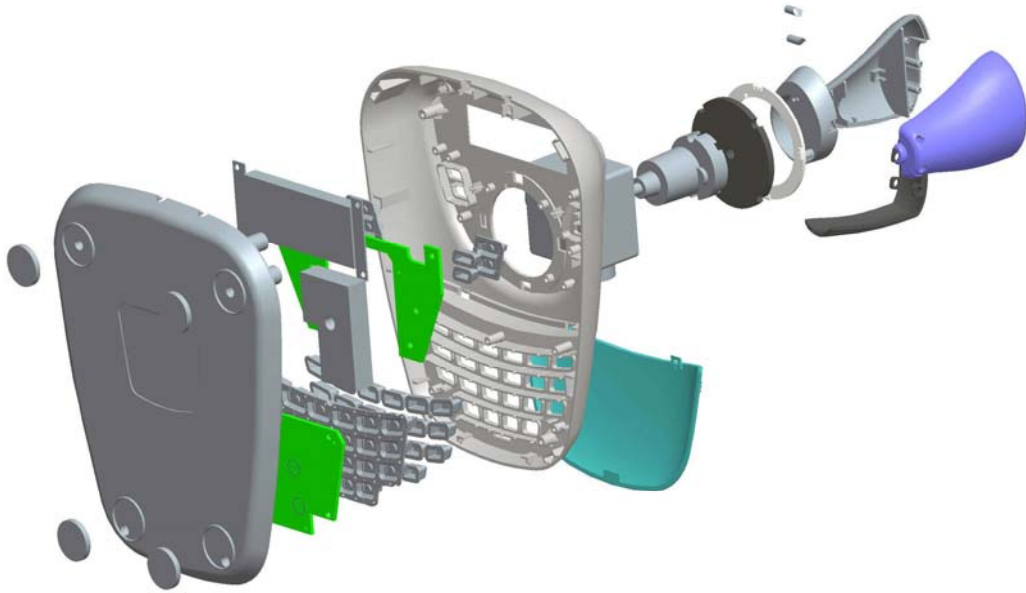
New product and mould design

With a **new product design**,
make by yourselves
directly the calculation of the
mould price and **product price** .

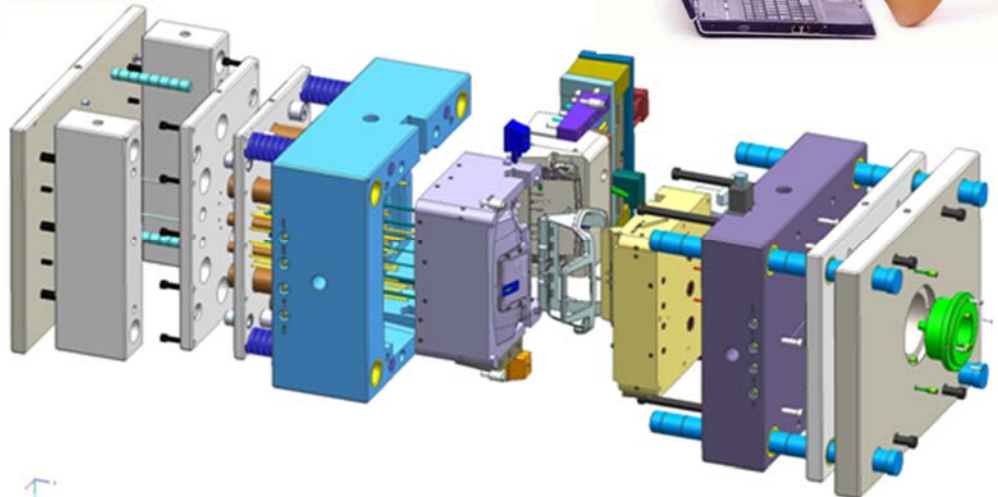
Without direct help from mould maker
and injection moulder.
with the **CalcMaster software**.

CalcMaster® Innovative software





With designing a new
moulding product.
use then the
CalcMaster software





The **CalcMaster software** is used at the start of a new project of the calculation from the **Mould price** and **Product price**.

In the meeting you need about **10 minutes** for the complete mould calculation.

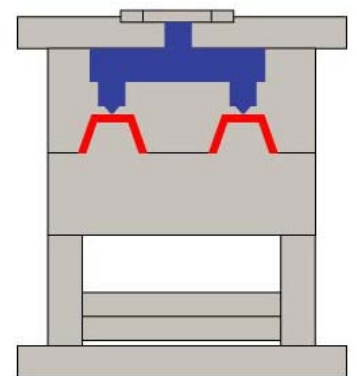
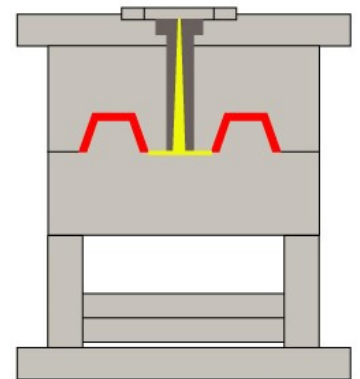
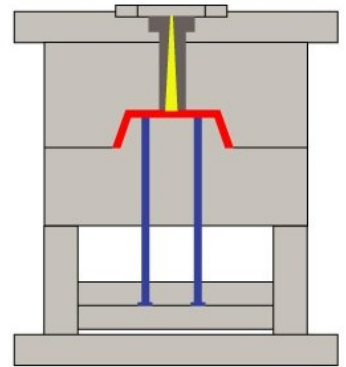
You have before prepare first the product information in the **CalcMaster I-Know Moulding 3D software**.

You can make very fast and good a total calculation from the **mould** and **product prices**.

You can send all the calculation data to the CalcMaster **Excel** sheet.

You could compare this to the growth of a new **tree**. You **plant** a new seed in the earth, take good care of it and after some time you will get very **beautiful apples**.

The **same happens** if you work with the **CalcMaster software**

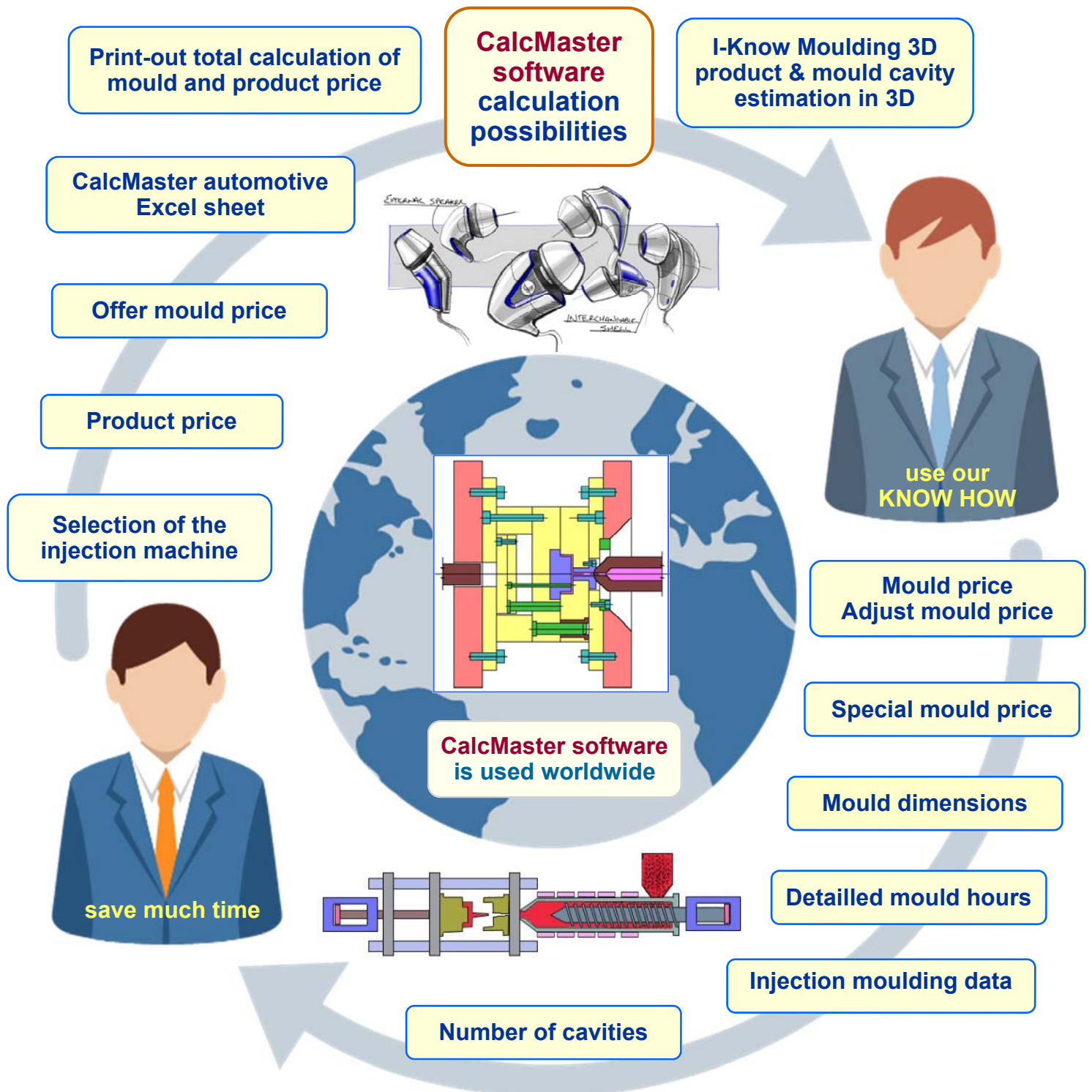


CalcMaster[®] advising and calculation software

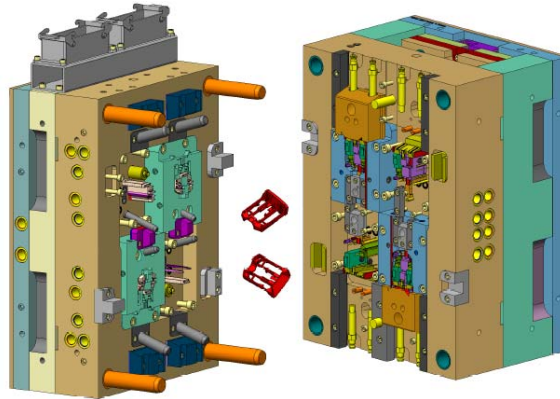
Makes the mould and product calculation very easy

Business advising & Product costs optimizing
as partner on table with:

Product designer- Mould maker - Injection moulder
Purchasing - Sales - Management



CalcMaster[®] advising and calculation software



Injection molding software for optimization and calculation of injection molded products

Made Project- Mold- and Product calculation very easy.

Is the most comprehensive injection molding software for:

The Standard CalcMaster software calculates for you very fast the:

- Mold prices
- Detailed mould hours
- Injection molding data
- Most economical quantity of cavities
- Complete cost price of the product
- Asking a quotation for a mold price
- Making a quotation for a mold price
- Print out the total calculation
- 12 languages
- Mould maker user profiles
- Settings for different mould makers

The Optional CalcMaster part for the mold and injection molding software calculates for you very fast:

- 2 Components in 2 cavities
- 2 Components in 1 cavity
- Left and Right product
- Stack molds
- Softtools molds
- 1+1 Product in the mold
- You can send all the calculated data to an automotive Excel sheet
- Suppliers cost overview data sheet

The **Professional** CalcMaster software is the **Standard + Optional** CalcMaster part

CalcMaster Modules

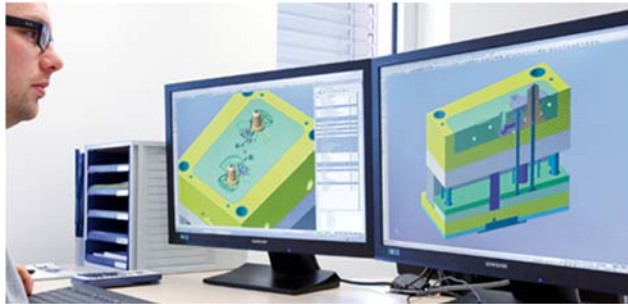
- **CalcMaster - i-Know Moulding 3D software**
i-Know Moulding Works with the STL-file CAD format.
With 3D mould plates overview. Mould parting lines 3D on your screen.
With automatic parameter transfer of data for a fast mould calculation.
A directly mould calculation is possible.
- **CalcMaster Mould Dimensions.**
Mould dimensions for 1 to 96 cavities.
Calculation of all the mould plates dimensions.
You can select the steel type for each separate plate.
- **CalcMaster Selection of the injection machine.**
After the calculation from the CalcMaster Menus 1 - 2 - 3 and 4
this module can automatically find the right injection moulding machine.

CalcMaster®

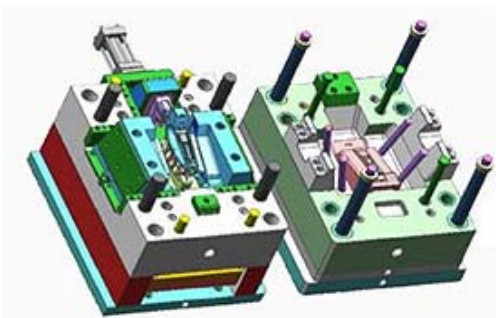


Innovative advising and calculation software
As partner on table with:

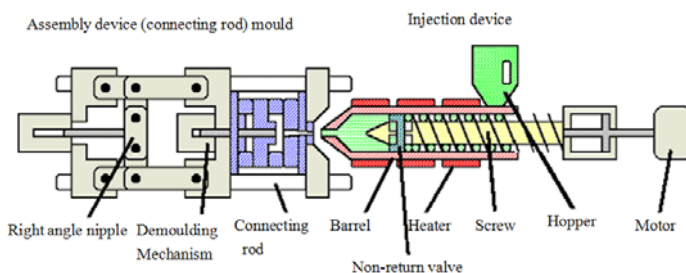
Product designer – Mould maker- Injection moulder
Purchasing - Sales and Management



Estimate first product design and
mould cavity and core in 3D software



Calculation of the total mould price



Calculation the injection moulding data



Calculation of the product price

CalcMaster® software
is an **interactive**
software with a direct
connection between
the:

Product design +
Mould cavity in 3D
estimate

the

Mould costs

the

Mould dimensions

the

Injection moulding
data

the

Numbers of cavities

the

Selection of the
moulding machine

and the

Product price.

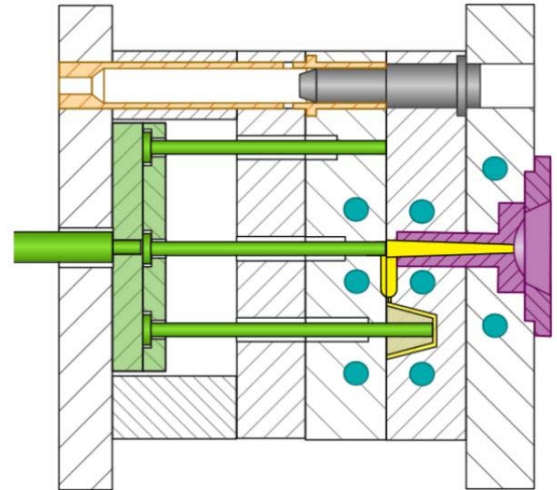
CalcMaster® software
Innovative advising and
calculation software



CalcMaster® advising and calculation software
Makes the mould, moulding and product calculation very easy



Use the
CalcMaster
software



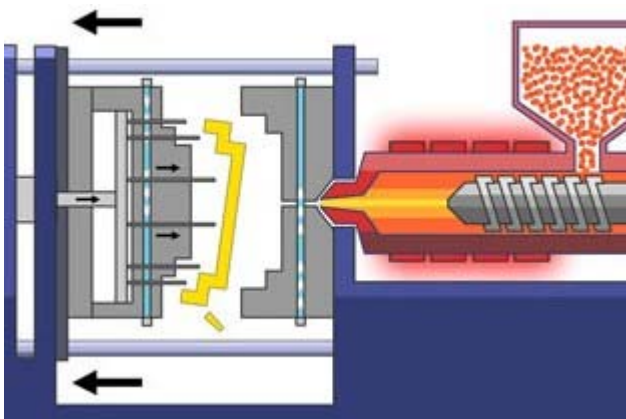
Product-and Mould designer

Mould maker

CalcMaster
presentation about:
Overview injection mould calculations.
Estimate product and mould design.
Moulding process calculation.
Calculation of the product price

CalcMaster®

Injection moulder



Purchasing and Sales



CalcMaster software possibilities

Working under Windows Windows10

CalcMaster Settings possibilities:

- 12 languages.
- Change exchanging rate.
- All the projectdata will be safet.
- All the projectdata will be safet extra under a special CalcMaster CME file.
- This CalcMaster CME file you can use via import on another PC.
- Product price calculation in a price / 100 pieces or price / 1000 pieces.
- Mouldmaker users profiles for 8 mouldmakers or product groups.
- The CalcMaster Settings you can safe this with a password.
- You can use the CalcMaster software with your own Company data.
- Programming profiles for the numbers of programming hours.
- Work preparation profiles for the numbers of work preparation hours.

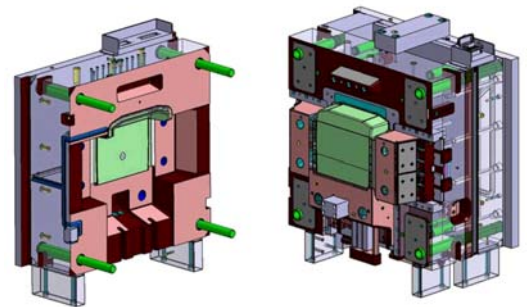


Specifically correction factors by mould calculation for:

cavity, standard mould housing, assembly, construction, programming and work preparation.

Specifically heure rates for:

- Mould construction.
- CNC programming
- Work preparation
- Cutting machines.
- Touching
- Assembly
- Trail moulding
- Optimizing
- Measurements report
- Cpk studies.
- Mould flow analyses



Export all the CalcMaster data in an Automotive CalcMaster Excel sheet.

You can use this direct for you own company Excel sheet.

Help texts in Windows with F1 button.

Help CalcMaster screens in a PDF file for every CalcMaster menu.

Handbook CalcMaster software in a PDF file.

CalcMaster PDF presentations of all the CalcMaster screens

Menu of the CalcMaster - i-Know Moulding 3D software.

CalcMaster 3D mould simulation software.

The designer can use the 3D software which can show both core and cavity side of the mould after the product CAD STL-file is opened. He can directly see the possible issues with the mould design.

Afterwards you can make directly in CalcMaster software a mould price calculation.

i-Know Moulding offers Instant Mould Previews for each stage of product development.

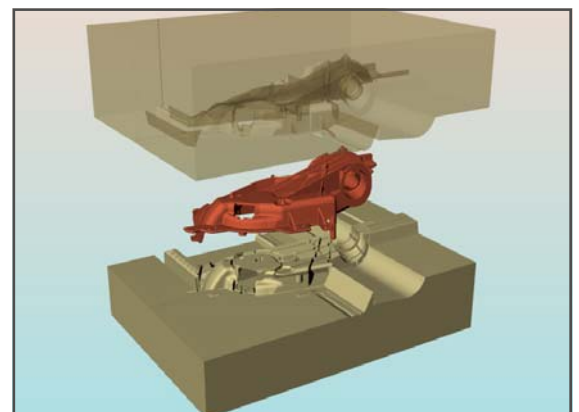
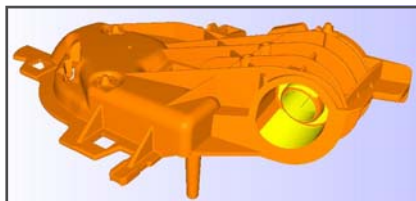
Use automatic mould preview for feedback within minutes on any 3D design. Use the extended

manual editing modes to plan your mould generation process in detail. CalcMaster calculations

i-Know Moulding can be used in any stage of product design to check the mouldability of your design.

i-Know Moulding features:

- Import any 3D model as STL
- Create a mould preview in one singel click
- Identify possible tooling problems
- Customise the mould geometry
- Export results in 3D or 2D
- Extract parameters for mould price in the mould price calculation and check the mouldability of your design.



CalcMaster software possibilities

Menu 1 - Mould calculation

Calculations of the complete mould price.
 Calculations of the hours of, mould construction, cavity, mould base, programming. workpreparation.
 Calculation of, material and harding costs
 Calculation of standard parts
 Calculation of hotrunner costs
 We can using your experience in the correction of the total mould price
 Calculation of all the detailed mould hours
 Calculation of the total project costs.

Mold construction and the mold price.

We have to discusse about the numbers of hours what we need for the complete cavitie (s)
 In the mould calculation we have to look to all the problems for making a new mold.
 Injection point(s) and the type of the gate, Structure of the mold, Mechanisms of slides, Unscrewing,
 Mold cooling, Ejector pins, Slides, Parting lines, Land surfaces, Tolerances, Polishing, Strength of the
 mold base, Proofinjection, Costs of the follow-up, Cost of risc, General hourly costs of the moldmaking.

Menu - Special Tools

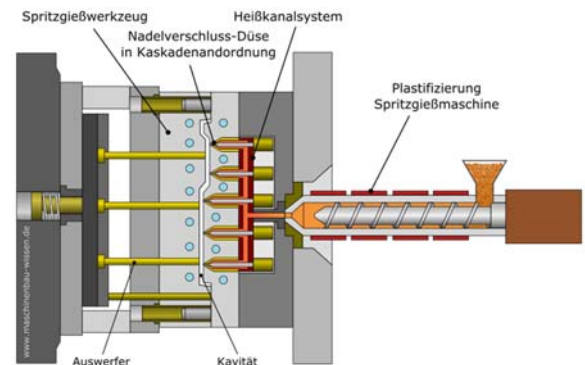
- 2 Components in 2 cavities
- 2 Components in 1 cavity
- Left and the right product
- Stack moulds
- Soft tool mould
- 1+1 product in the mould

Menu Mould Dimensions

Calculation of the total dimensions of all the mould plates.
 Calculation of the total costs of the standard mould base.
 Mould steel selection for all the mould plates.
 Costs of the mould steel.
 Costs for hardening

The **CalcMaster software** can play an essential role in your company, because CalcMaster can calculate very fast from the 3D product design the mould price, the injection moulding parameters, the number of cavities and the final product price and from there with simple parameter changes it can also calculate alternatives to get the lowest product price.

Very important in this situation is how quickly you can calculate all the mould dimensions.



Menü 2 - Injection moulding data calculation

Calculation of injection time, injection pressure, clamping force, cooling time and cycle time
 Dependent of the Plastics Rheological Data of the platics types.
 Injection moulding temperatures selections for:
 Temperature plastice
 Temperature mould
 Temperature demoulding.

Menu 3 - Economical numbers of cavities

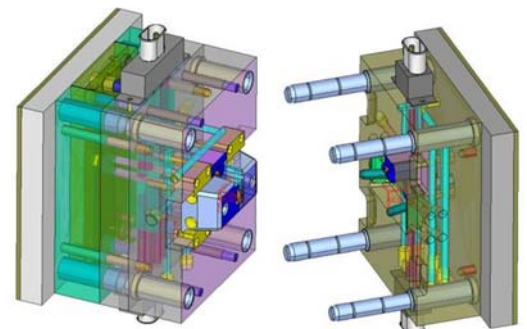
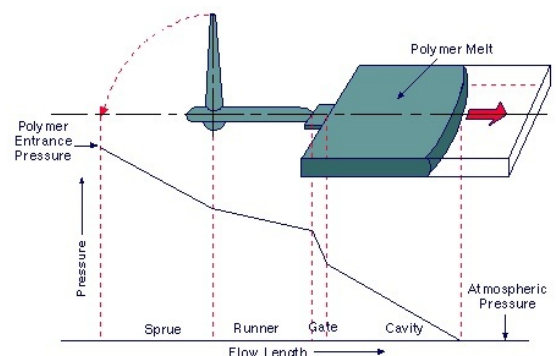
Calculation of the economical numbers of mould cavities.
 This in relation with the total oder size and the mold price.

Menu4 - Complete cost price of the product

Calculation of Total product price.
 Calculation in the next steps:

- Share of the mould
- Share of injection moulding
- Share of mould setup
- Share of resin / masterbatch / additives
- Share of finishing
- Share of packaging

Costs price exclusive the mould share.
 Costs price inclusive the mould share
 Numbers of products per hours
 Total production time
 Total amount of resin.



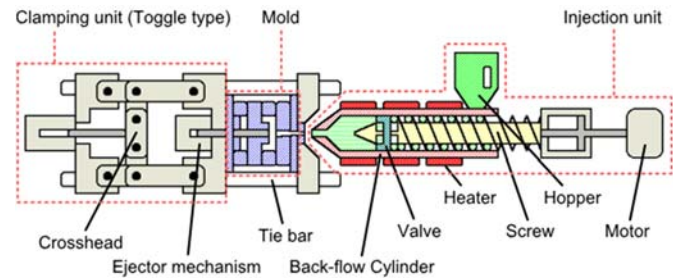
CalcMaster software possibilities

Menu - Selection injection moulding machine.

Automatic selection of your required injection moulding machine for your mould and product.
After the input of the required parameters will be now selected the required injection moulding machines for you.

The parameters where will be search are:

- Mould dimensions
- Mould weight.
- Product height.
- Opening way of the mould.
- Clamping force of the machine.
- Cycle- and cooling time.
- Product weight.
- Plastification capacity.
- Plastic type.



The most of the parameters will be take over automatically from out the:

- CalcMaster software menu 1 - 2 - 3 and 4
- CalcMaster Mould dimensions part
- I-Know moulding 3D software.

In Menu 6 - Quotation of the Mould costs

Asking a complete quotation for the mould price
Making a complete quotation for the mould price

Printing of the total CalcMaster calculation.

Input of your: Company name, company logo, head text, foot text, including picture 1, 2 and 3

**Direct calculation of the mould investments
and the product price with a new product de-**

**Working with the CalcMaster software means:
That you can directly use your own experience in the complete
CalcMaster mould calculation.**

Our philosophy is:

**That you can intervene directly in the CalcMaster mould
calculation by saving in the background once-only the
many extra settings with your own experience.**

CalcMaster is an **interactive** program, in which a direct
connection is made between the
**product design, mould costs, njection moulding data,
economical number of cavities
and the detailed
product cost price
for an injection moulding product.**

CalcMaster®

Advising and calculation software
Mould calculation is made very easy



I Know Molding 3D software.

- After the input of a **STL** cad file we show you on your screen:
- The **product** in **3D**.
- Boths **mold plates** in **3D**, including the partingline of the mold.
- After the export to the CalcMaster software we calculate **directly**
- the **complete moldprice**.

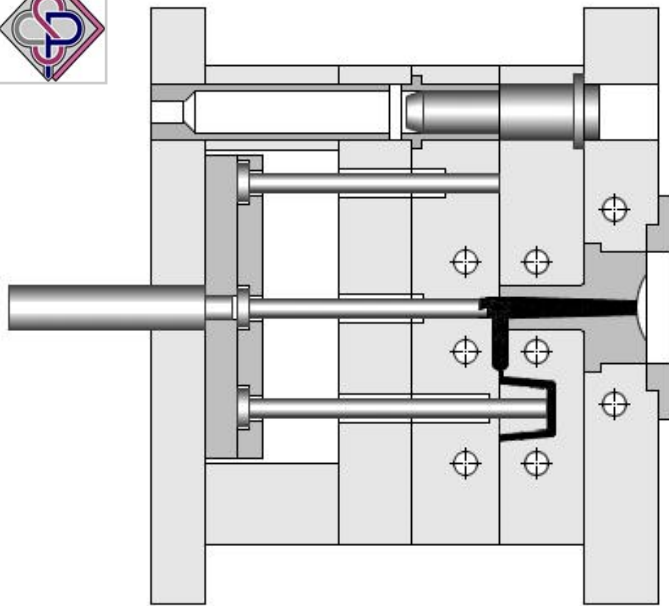
Mold prices + detailed moldhours

- Calculation of the **total Mold costs**.
- Calculation of the **total corrected / adjusted** mold costprice
- Calculation of the **detailed mold drawing hours**
- Calculation of the complete **detailed mold hours**
- Calculation of the **project costs**
- Export all the mold data to the **Automotive** Exel sheet.

Including:

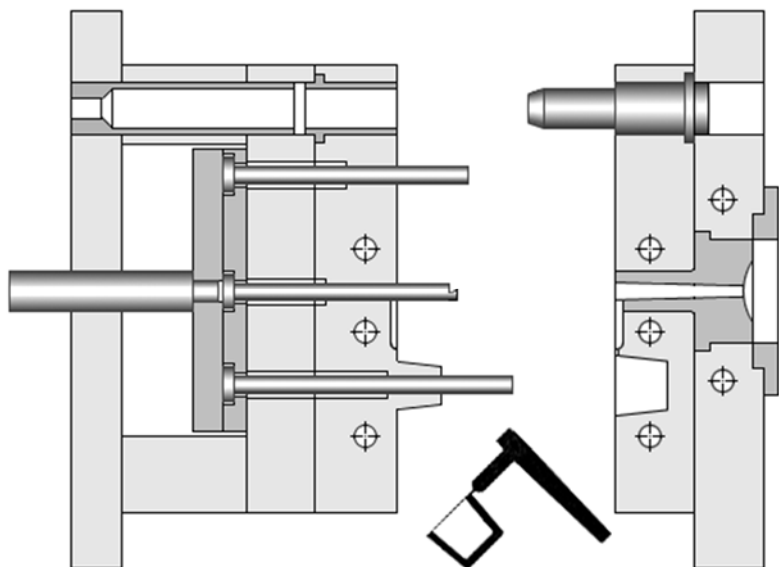
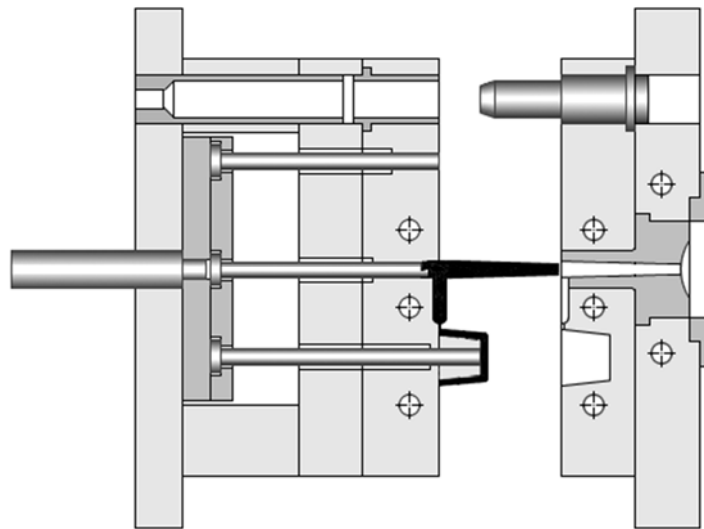
- Manufacturings hours of the cavities.
- Manufacturings hours of the mold base.
- Manufacturings hours for set up / sampling.
- Numbers of hours for making the programming.
- Numbers of hours for making the workpreparation.
- Total number of toolmaker hours.
- Number of mold design and drawing hours.
- Costs of material and hardening.
- Costs of mold base.
- Costs of standard parts.
- Total costs for hotrunner
- Costs for injection trials, follow-up, price at mould acceptance, profit margins.
- Costs for optimizing, measurement reports, Cpk studies, Mold-flow analysis.





CalcMaster
advising and calculation
software

mould, moulding and product
calculation very easy

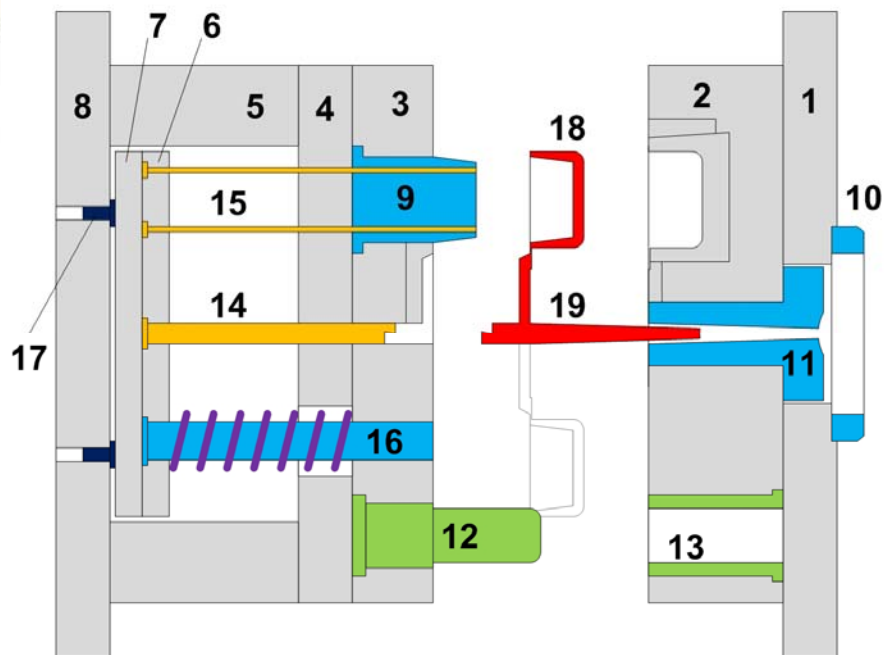
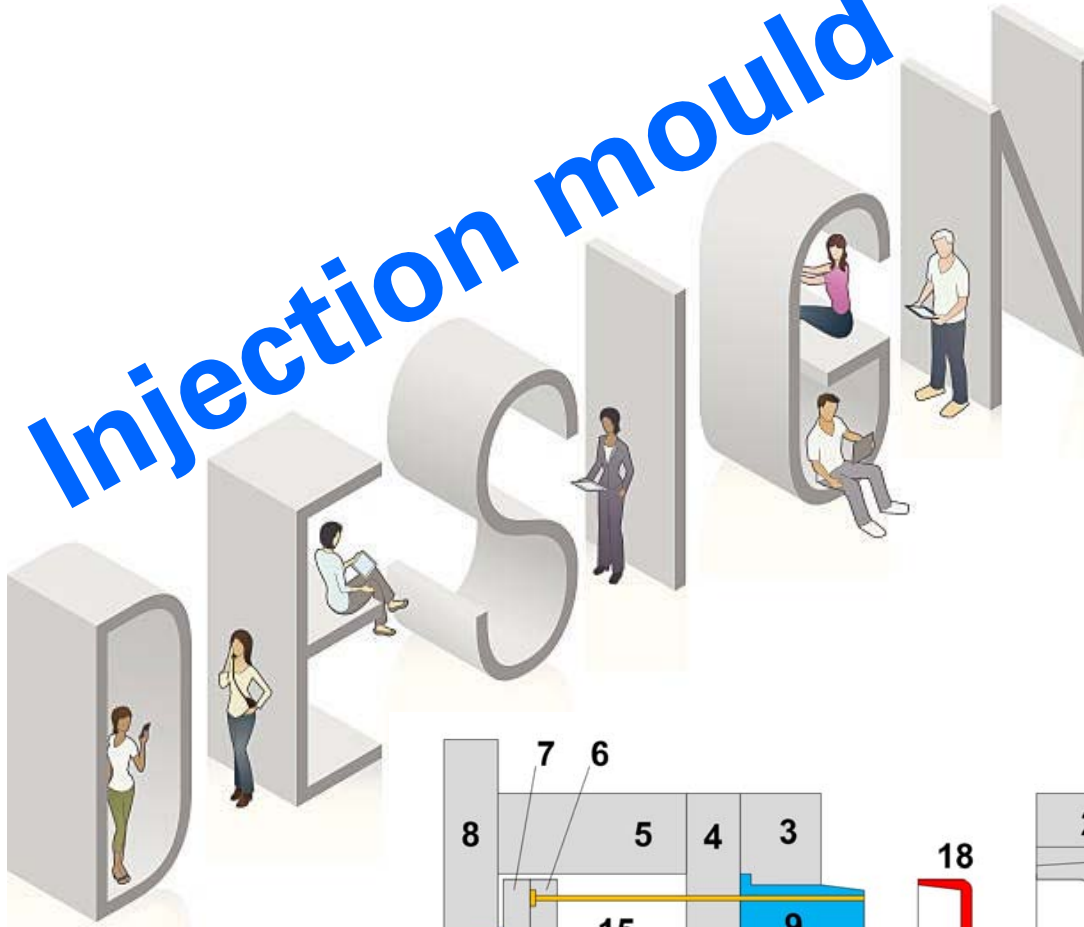


© **CalcMaster®** Innovation advising and calculation software
Makes the complete mould-, moulding- and product calculation very easy.
As partner on table with:
Product and Mould designer - Mouldmaker - Injection moulder
Purchasing- Sales and Management.



With designing a new injection mould
use then the **CalcMaster software**

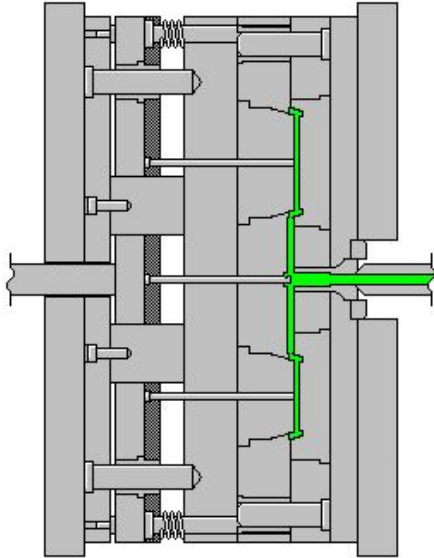
Injection mould



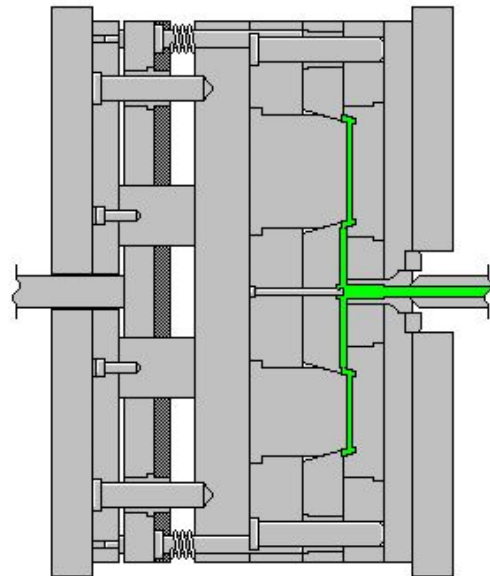
Injection mould calculations

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Purchasing- Sales and Management.

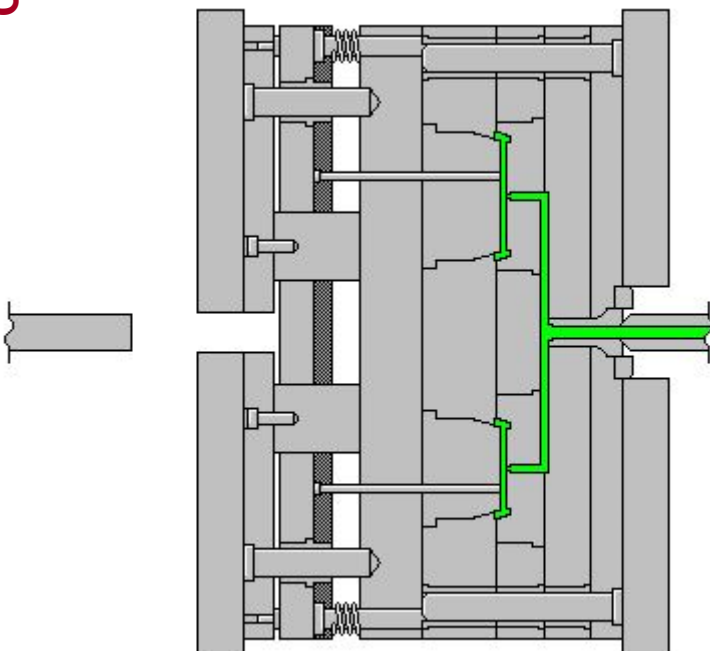
**Mould construction 1
2 plate mould**



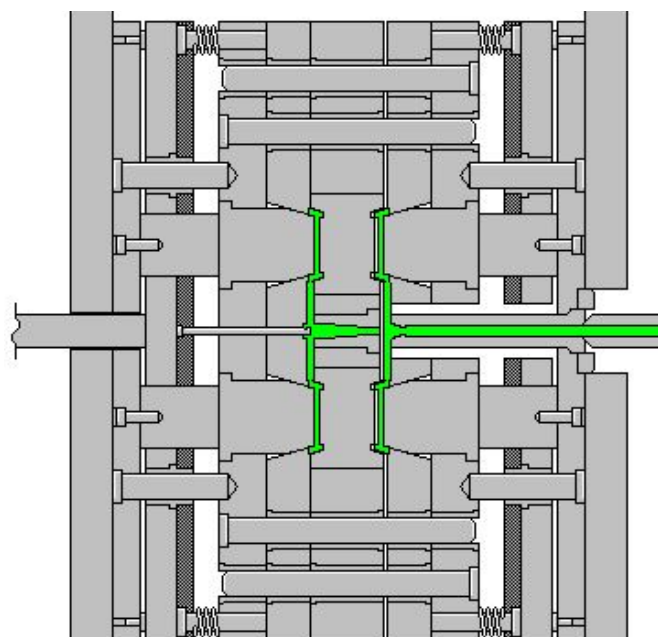
**Mould construction 2
stripper plate**



**Mould construction 3
3 plate mould**

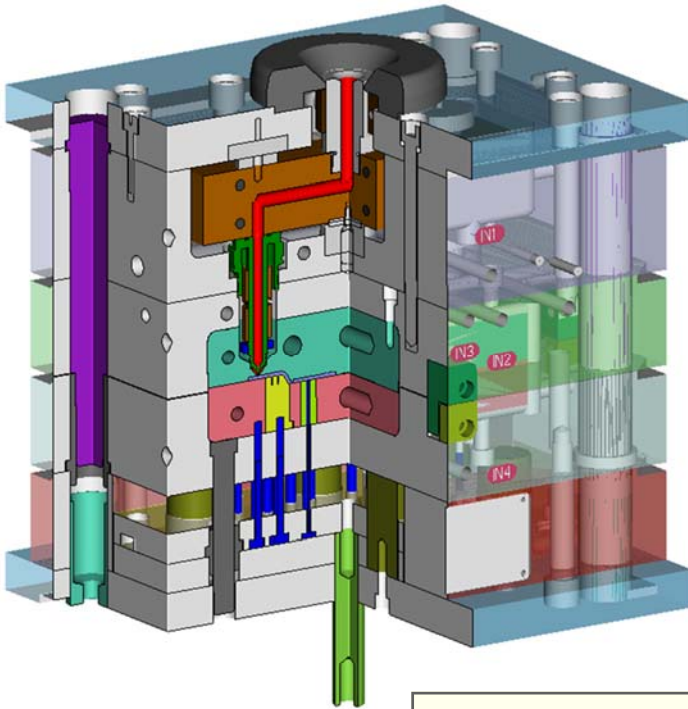


**Mould construction 4
Stack / Etage mould**

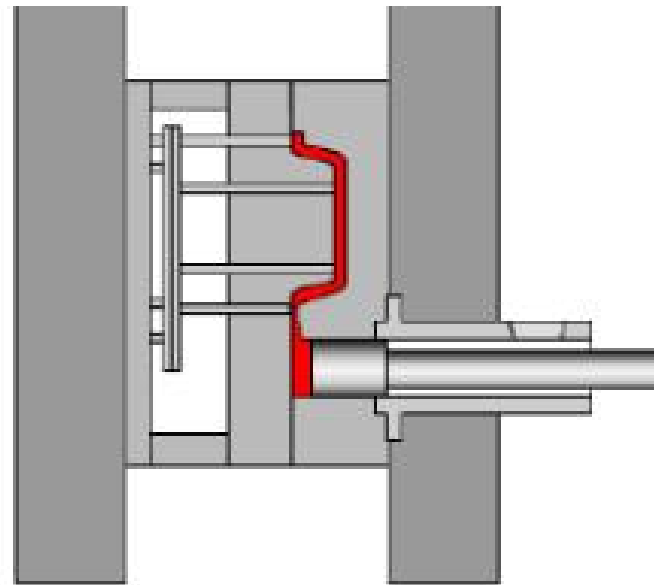


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Product and Mould designer - Mouldmaker - Injection moulder
Purchasing- Sales and Management.

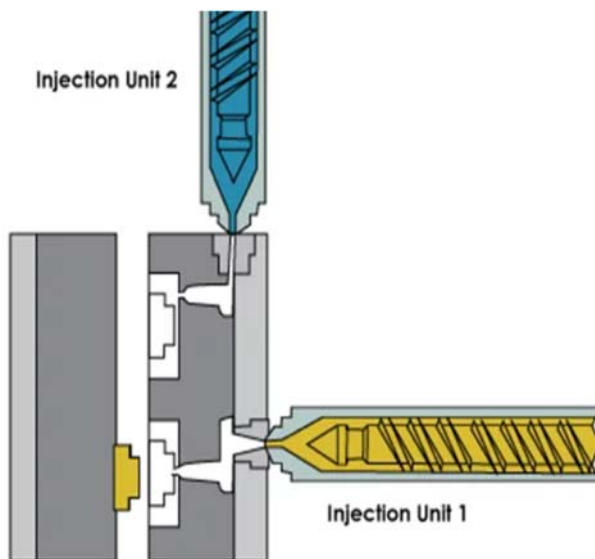
Mould construction 5 Hotrunner mould



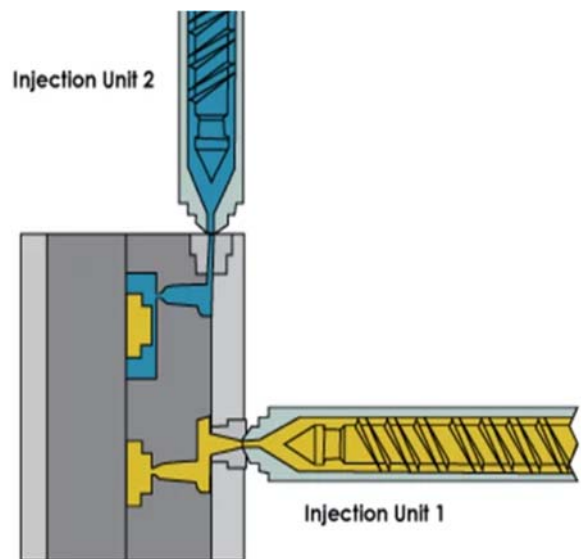
Mould construction 6 Die Casting mould



Mould construction 7 2 Components mould



After injection unit 1 fills bottom mold cavity,
mold opens and rotates 180 degrees.



Injection unit 2 then fills second mold
cavity forming the over mold

© **CalcMaster®** Innovation advising and calculation software
Makes the complete mould-, moulding- and product calculation very easy.

CalcMaster software

presentation about:
some



**Injection mould designs which you
direct can calculate with the CalcMaster.**

- We starting with the CalcMaster **I-Know Moulding 3D** software.
- We **estimate** first de **product**– and **mould** design in **3D** software.
- After this you can make the calculation of the next moulds.
- 2 plate mould
- 3 plate mould
- Hotrunner mould
- Stack / Etage mould
- Enscrewing mould
- Die Casting mould
- Slide and Lifter in the mould
- 2 component with 2 cavities
- 2 component with 1 cavity

Other options

- Left and Right product into the mould
- Softtool mould
- 1+1 product into the mould



and the

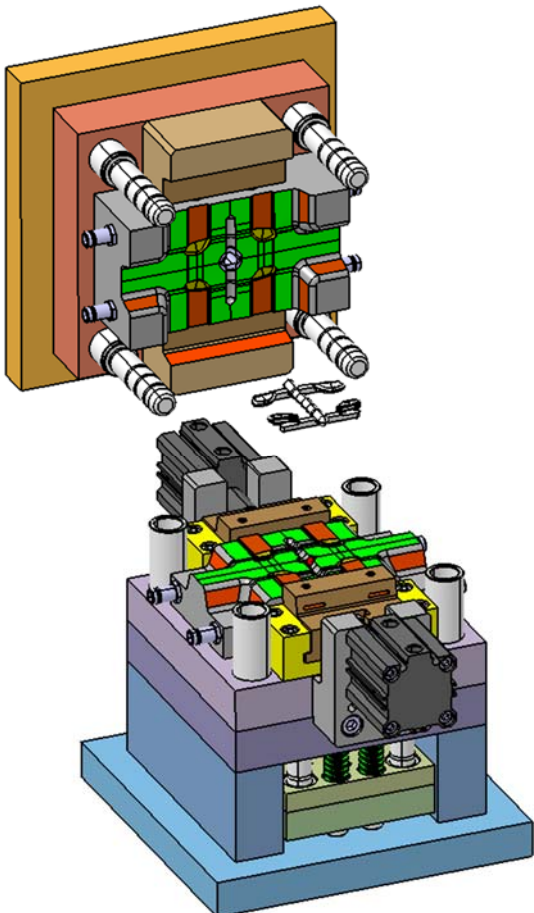
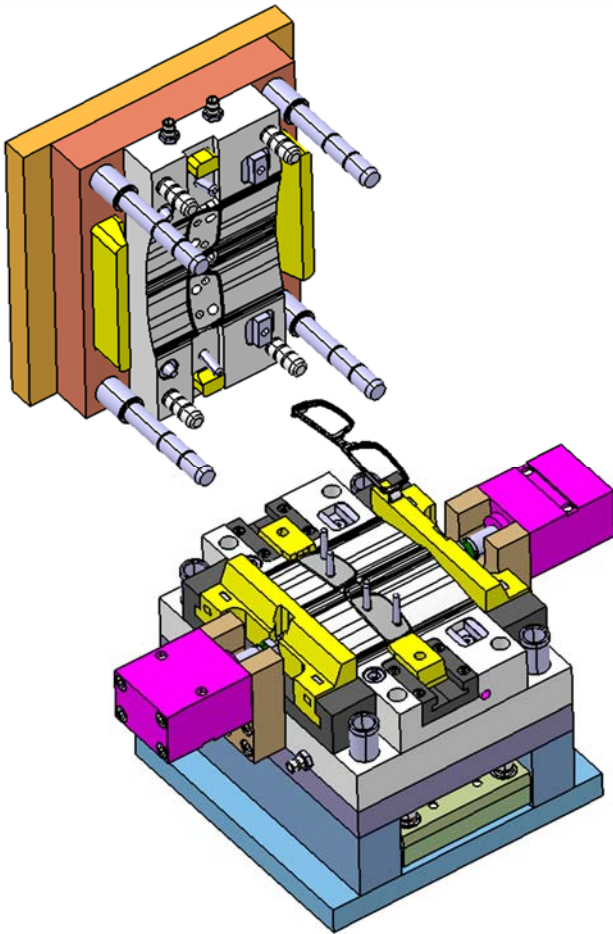
- CalcMaster calculation of the **mould dimensions**
- **Injection moulding** results
- **Economical numbers** of cavities
- **Product** price
- **Selection** of the moulding machine
- You can put all the CalcMaster data into an **Excel sheet**



CalcMaster® advising and calculation software

Makes the mould, moulding and product calculation very easy

CalcMaster® Innovative software



During the
designing of the
product
you have the
possibility on a
simple way
to calculate
directly the

Mould price
and the
Product price

with the
CalcMaster software

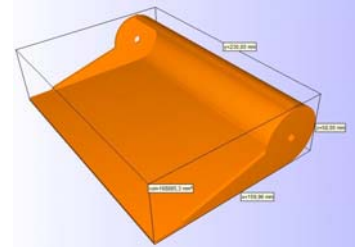
You have then also the
possibility to make a
corrections on your
product design.

You want to design
also a **cheap**
product design ?

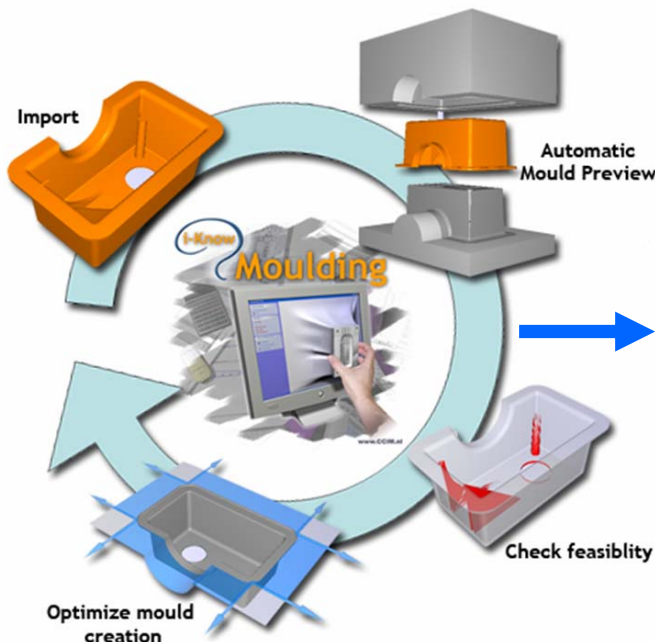
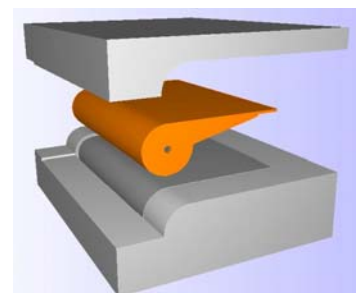
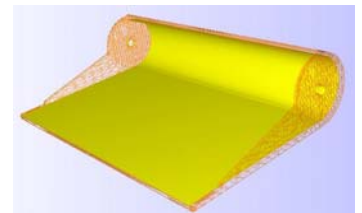
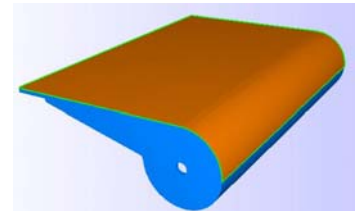
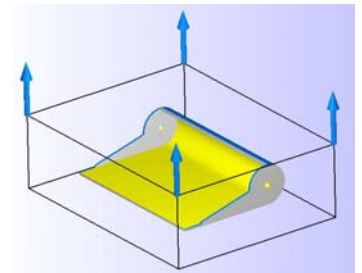
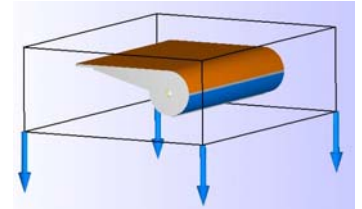
Use also the
CalcMaster software

CalcMaster advising and calculation software
Makes the project, mould, moulding and product calculation very easy

i-Know Moulding 3D software
features together with the
CalcMaster Innovation advising software



Create a mould
geometry from any
3D
model
within
minutes



With an
direct
and complete
mould
calculation

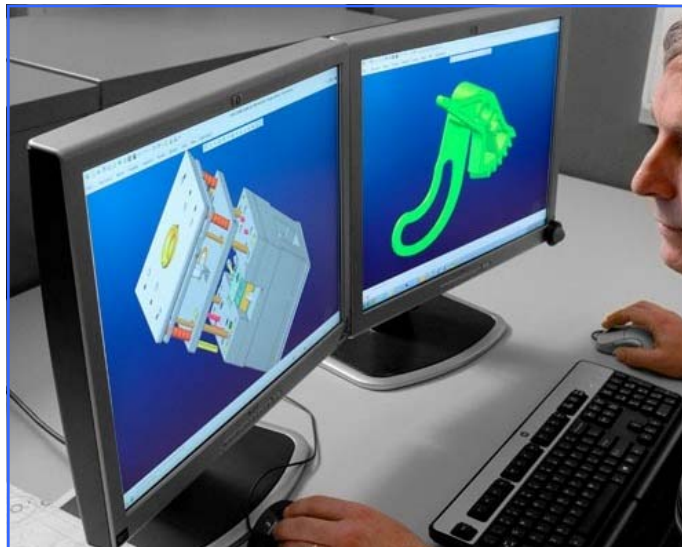
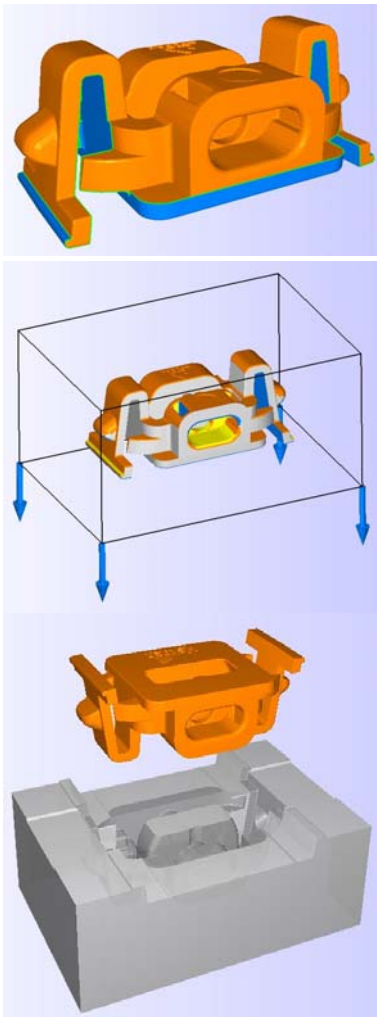
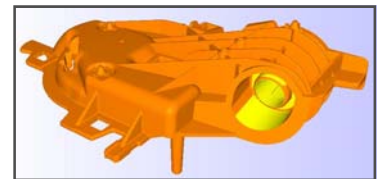
CalcMaster software has a **practical** and **structured** way in
making the total injection moulding calculation



CalcMaster I Know Moulding 3D software.

The designer can use a **3D software** which can show both core and cavity side of the mould after the CAD stl-file is opened. He can directly see possible issues with the mould design. Possible issues can be shown directly:

- show possible undercuts (slides needed)
- make correction to the main parting plane
- show demoulding angle in the product
- show steep parting line area's
- show the dimensions of the core and cavity inserts
- change the opening-closing direction in the mould
- change core and cavity dimensions

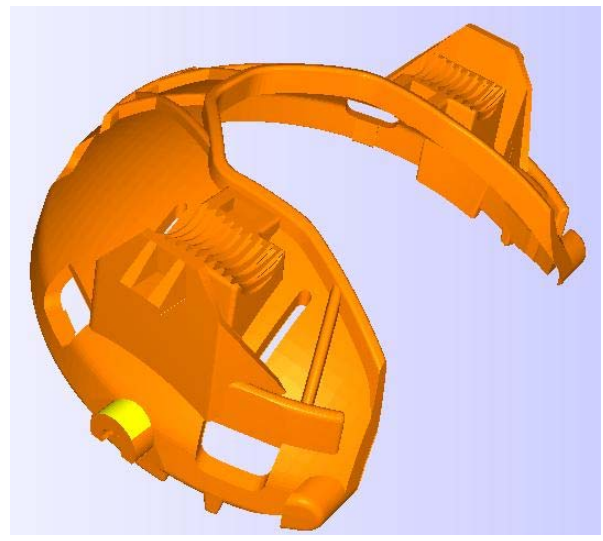
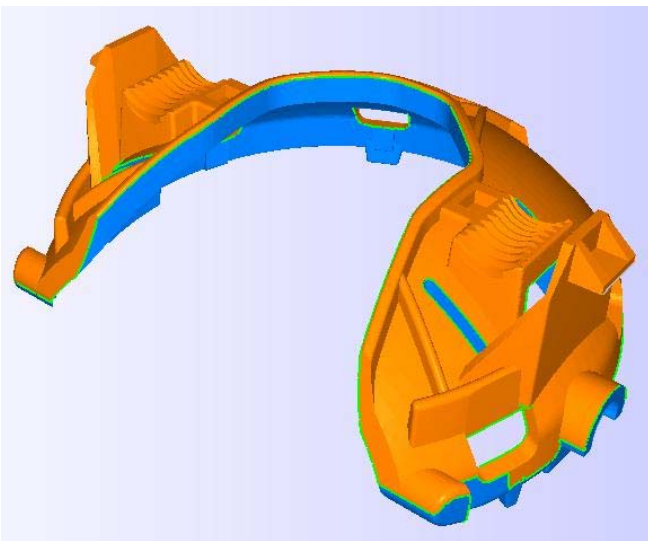
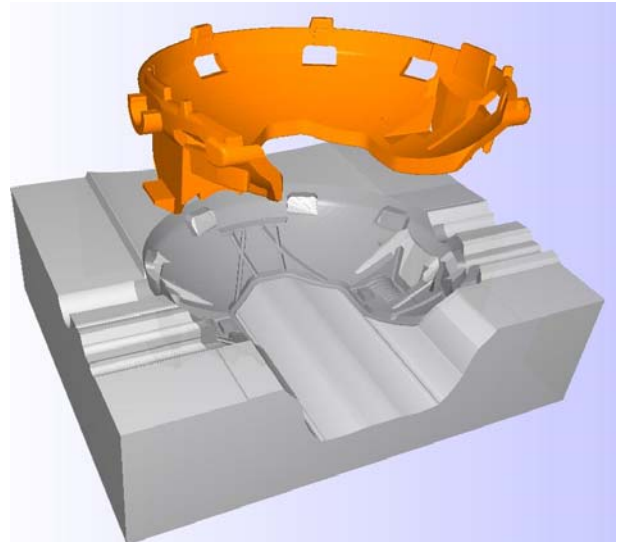
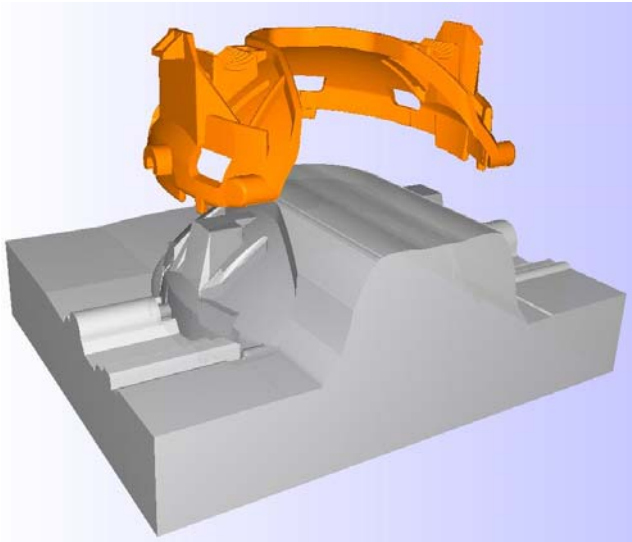
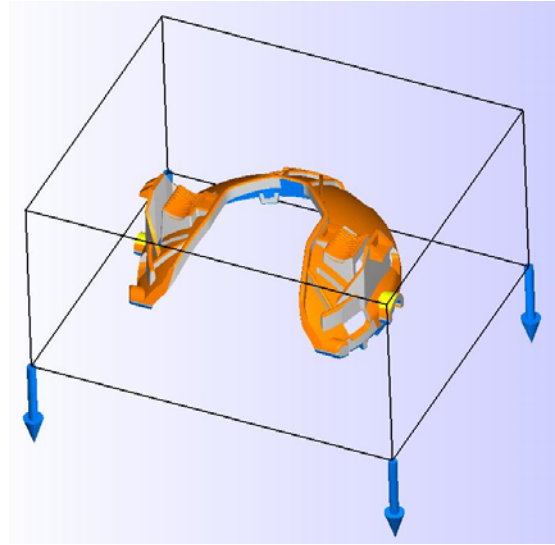
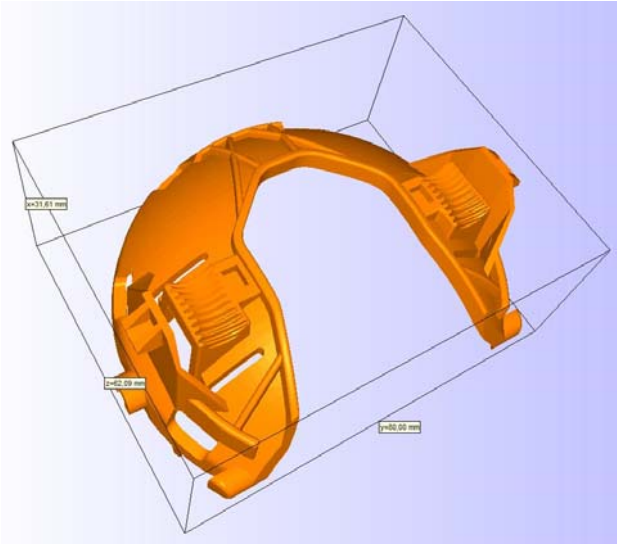


CalcMaster - I-Know Moulding 3D software

During the design phase of the product a direct connection is made between **product design, mould cost, injection moulding data, economical number of cavities and the complete product price of an injection moulded product.**

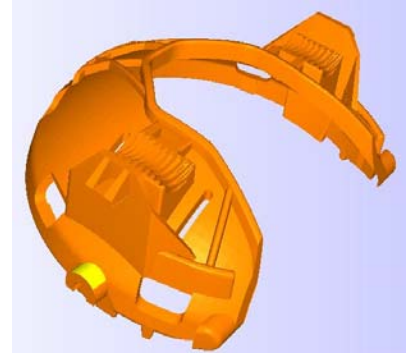
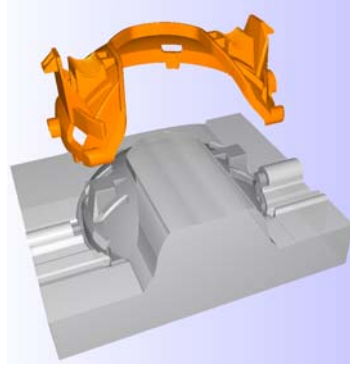
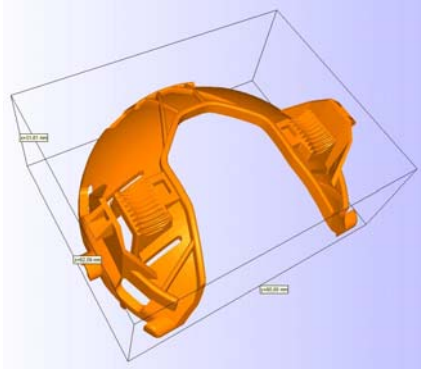


Montage cap 80 x 62 x32 mm
I-Know Moulding 3D software for a direct view of
 3D cavity - parting line and undercut

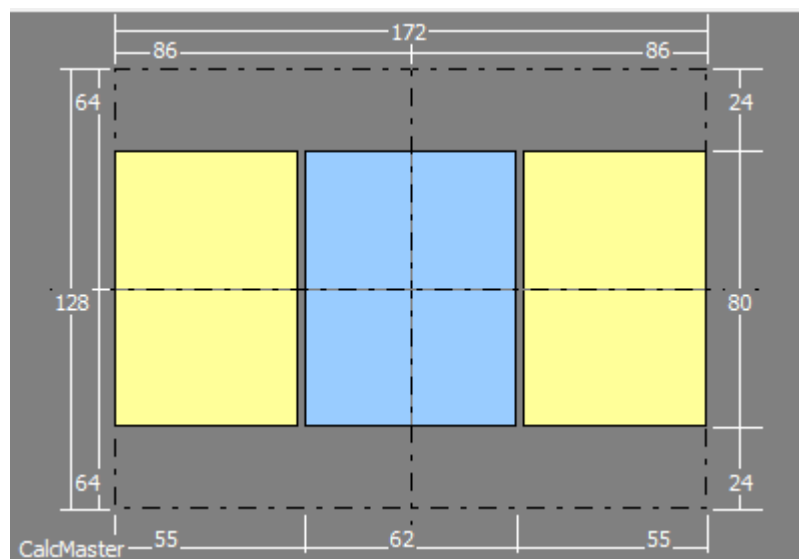
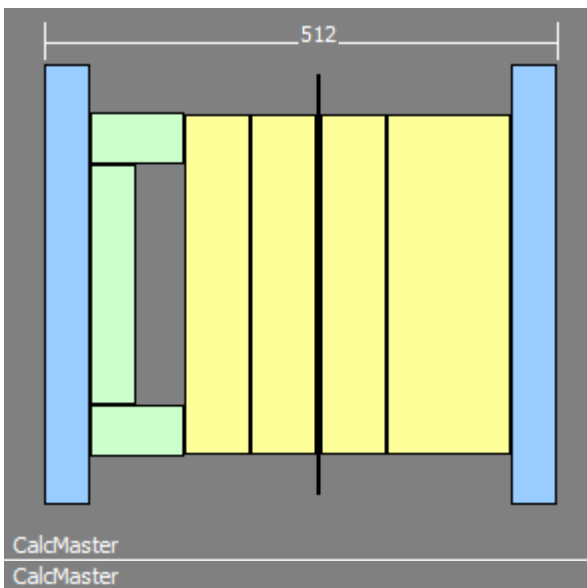


Parting line

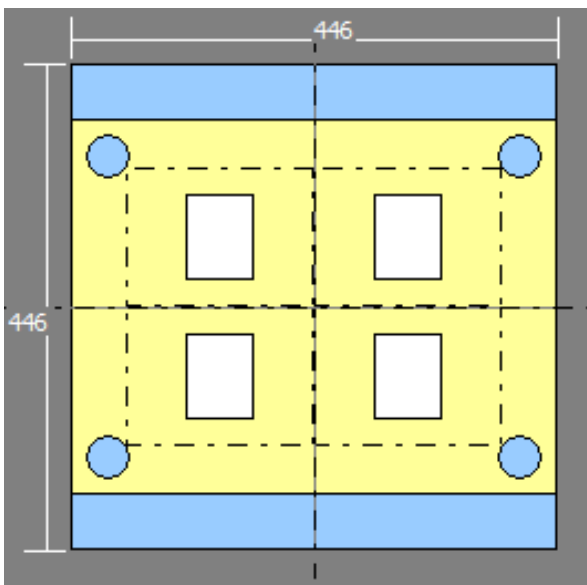
Undercut



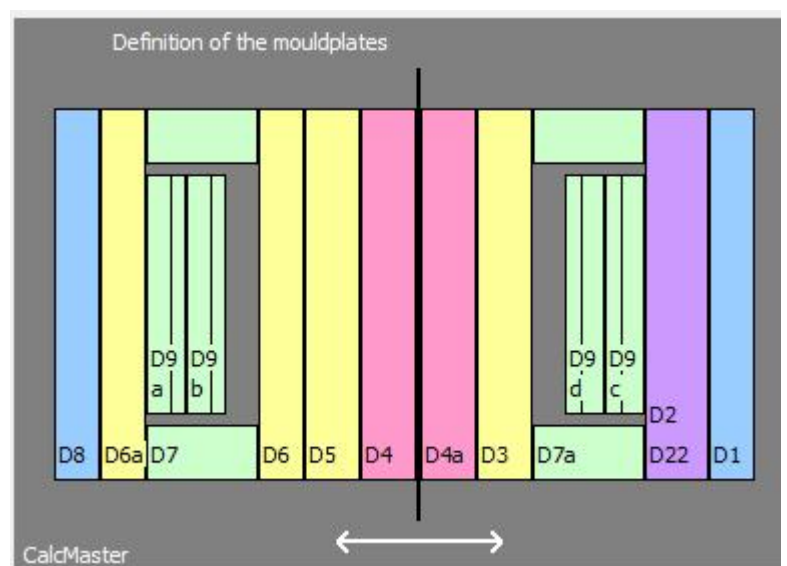
Estimate and calculating of the mould dimensions Montage Cap 80 x 62 x 30 mm



Dimensions of one cavity with 2 slides



Dimensions of 4 cavity mould



Possibilities of mould plates

CalcMaster advising and calculation software
Makes the project, mould, moulding and product calculation very easy

A good and right communication is essential



CalcMaster gives you the right puzzle piece

With the
CalcMaster software,
you have a 100 % right
communication
between all persons
and/or departments



CalcMaster software

Good and right communication

With every new product calculation you will start at zero.
You also do need much advise from other persons and/or departments.
You can also add your own knowledge.

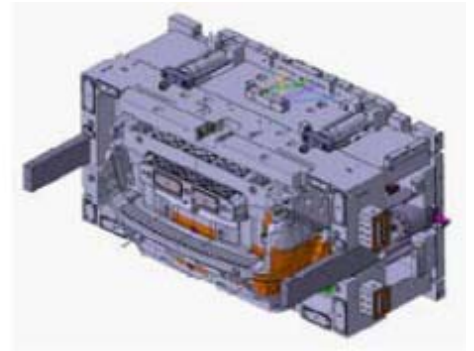
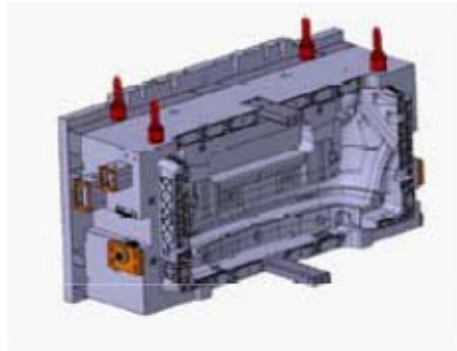
Anyhow you have to communicate in a very short time with these persons.
Many persons know a lot, however they live on their own island.
You don't get a clear answer to all your questions.
However you must take now the right decisions very quickly.

CalcMaster advising and calculation software

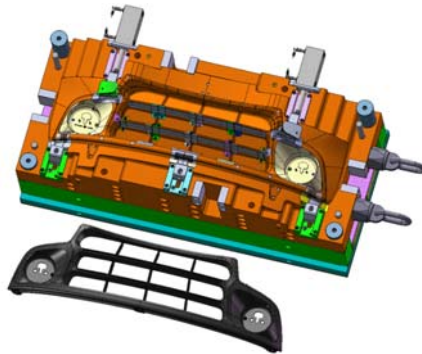
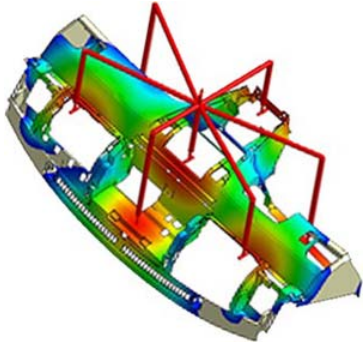
can help you to take the right decisions.
You print the complete calculation and show this at the other persons,
now you get a 100% right communication.

You communicate very well for the full and complete 100%.

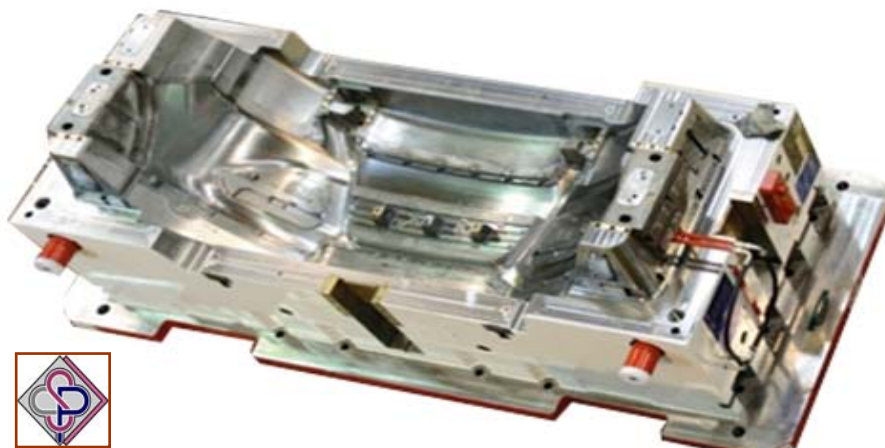
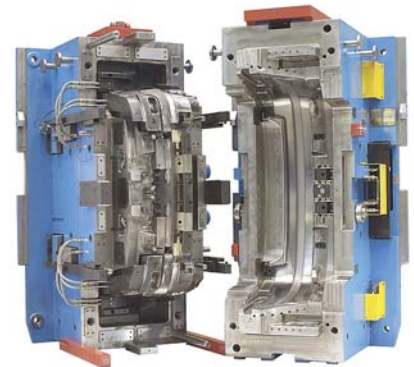
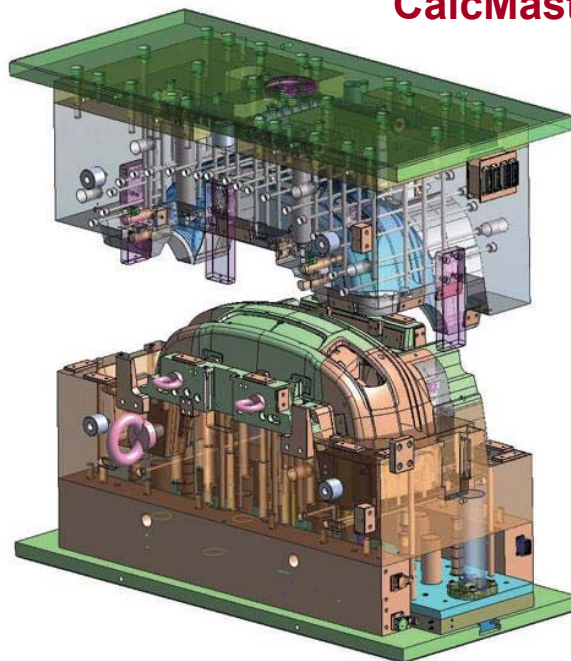
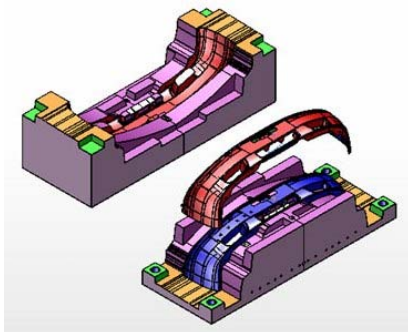
You get a clear answer to all your questions.

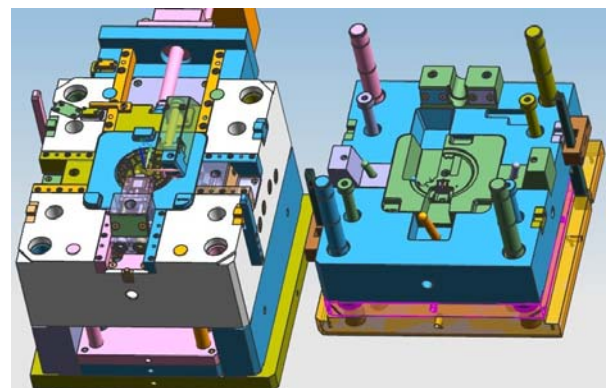
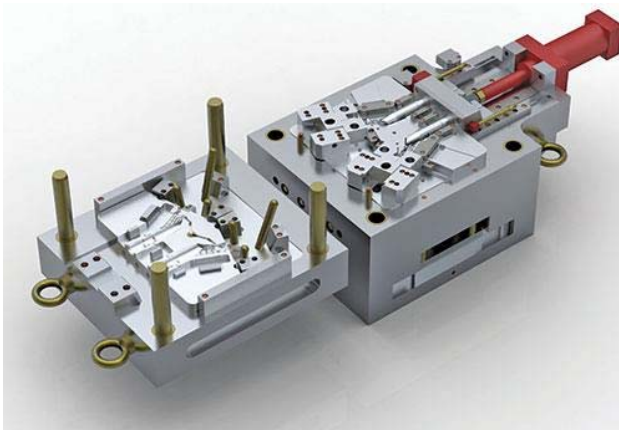
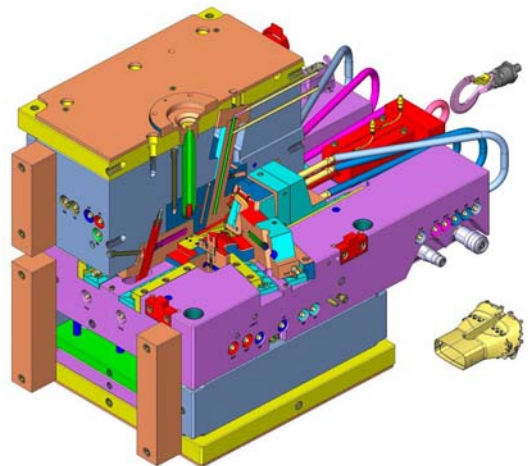
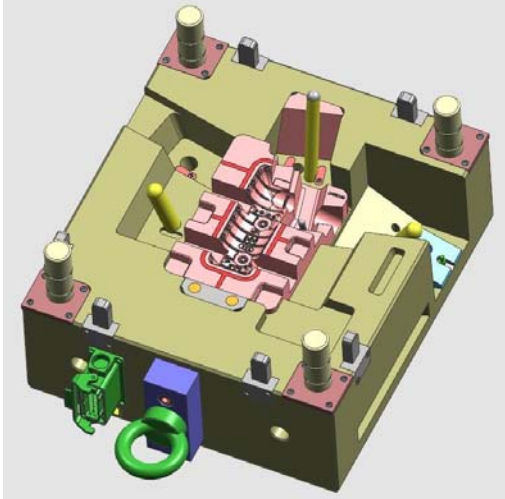
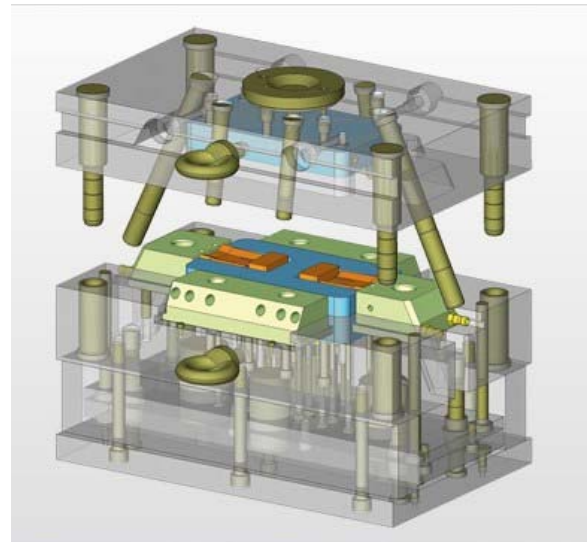
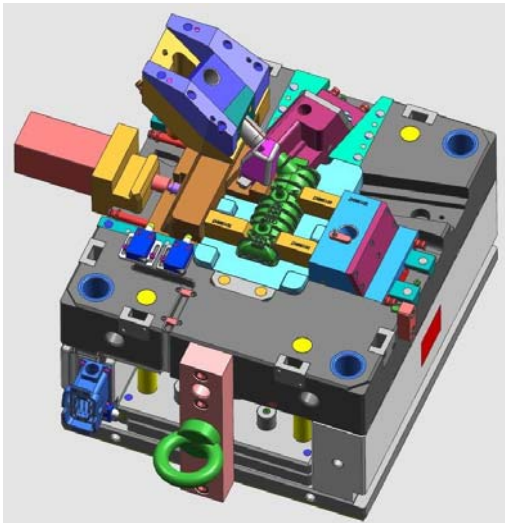
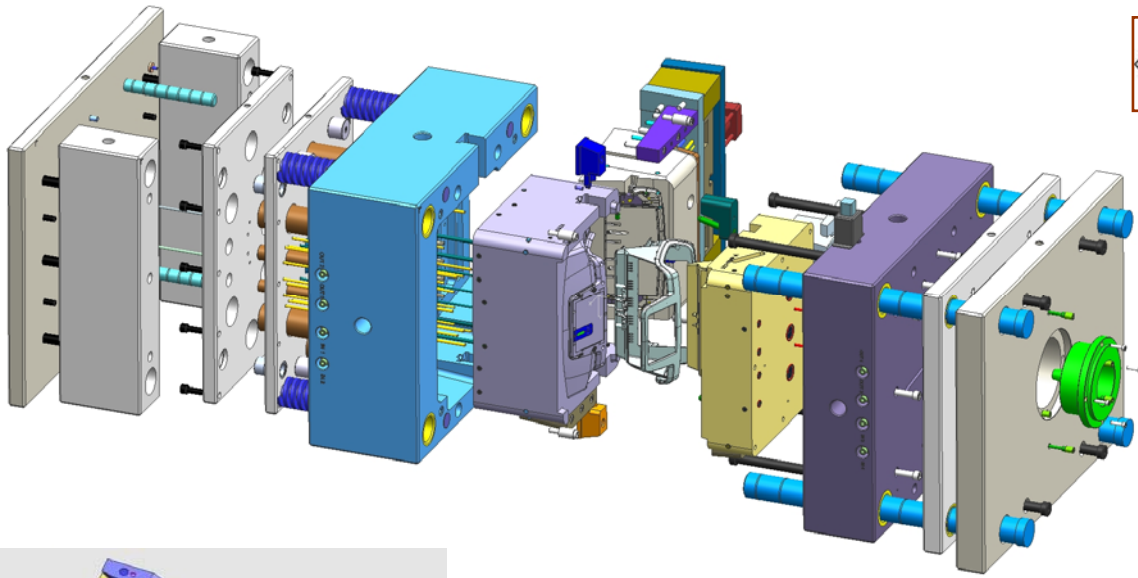


CalcMaster can calculate the mould prices for small and big products



CalcMaster® Innovative software





CalcMaster® Innovative software

CalcMaster can calculate the mould prices for small and big products

CalcMaster software

Product designer
Mouldmaker
Injection moulder
Purchasing - Sales



With a **new part design**, make by yourselves
directly the calculation of the
mould price and product price .

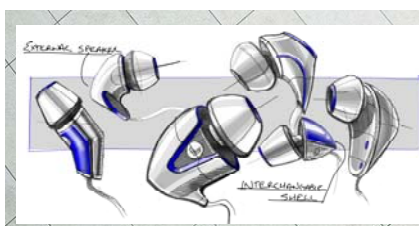
Without direct help from mouldmaker and moulder
with the **CalcMaster software**.

With a new product design you have only
2 Questions
the **mould price**
and the
product price

The customer need a **low-priced product price**.
And herefor he need a injection mould

The **mould price**.
Some times a bit cheaper.
Some times a bit expensiver.
Dependent from many customer wishes.

But the **product price** must be **cheap**.



A 3D perspective drawing of a rectangular frame with rounded corners. The frame is shown in a perspective view, tilted slightly to the right. It has two circular cutouts, one on the top edge and one on the bottom edge, positioned towards the right side. The drawing is a simple line art representation with no shading or texture.

An open, empty cardboard box is shown. The box has a black lid and a gold-colored interior. The lid is propped open, revealing the inside. The box is resting on a white, wrinkled surface, possibly a bedsheet. The background is a light-colored wall with vertical lines.

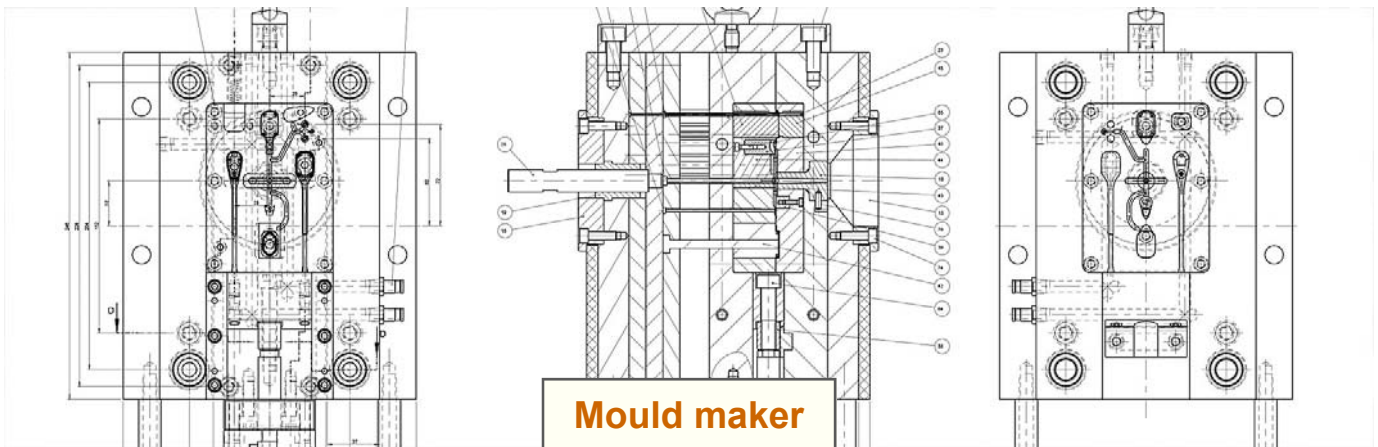


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Tel: +31-344-616161 Page 30 www.schouenberg.nl - info@schouenberg.nl

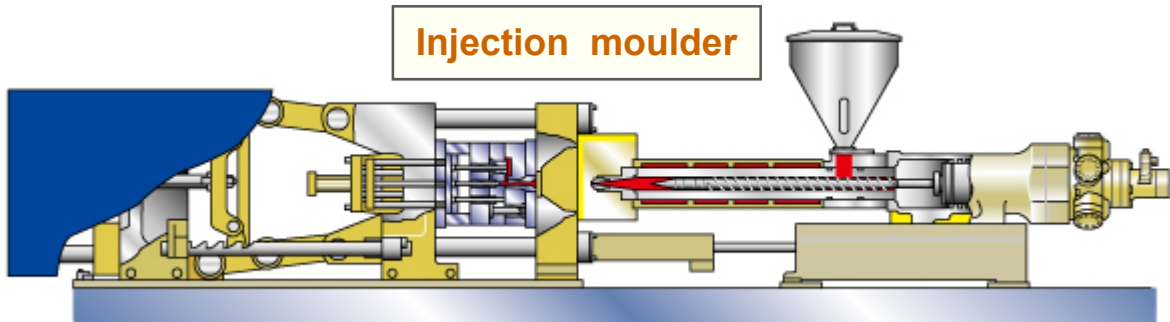
With the CalcMaster software as partner on table with:
Product designer – Mould maker - Injection moulder
Purchasing - Sales - Management



Product designer



Mould maker



Injection moulder

CalcMaster® Innovative software



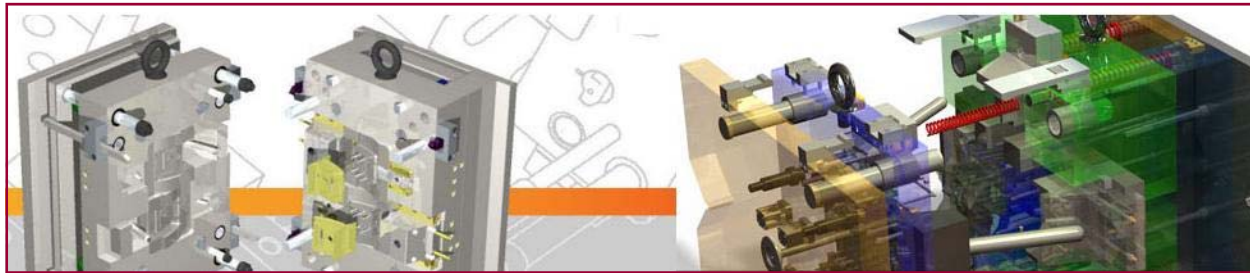
**Designer +
mould maker +
moulder**

Purchasing & Sales

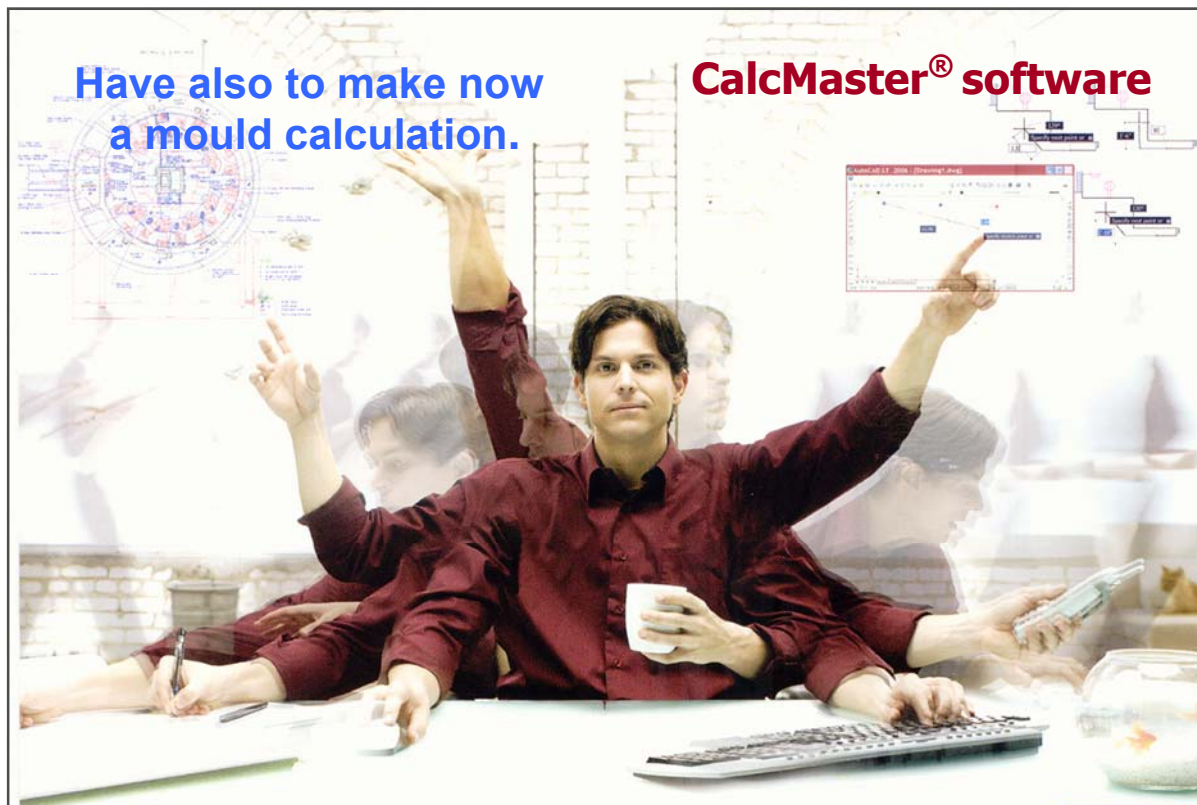
CalcMaster® advising and calculation software
 Makes the mould – and product calculation very easy

CalcMaster®

Injection mould calculation software
+ injection moulding data and the product price.



As conversation partner on table with:



Have also to make now
a mould calculation.

CalcMaster® software

You have to make always a mould calculation
if you have to do a lot of other cases.

The “ **Bellyfeeling** ” calculation must be replaced by working
with **CalcMaster** injection moulding software.

With the **CalcMaster** software you can estimate in 3D the
product– and **mould design** very well and right.



Estimate of the product design and the mould cavity and core in 3D CalcMaster I-Know Moulding software



During the designing of the product you have the possibility on a simple way to calculate directly the

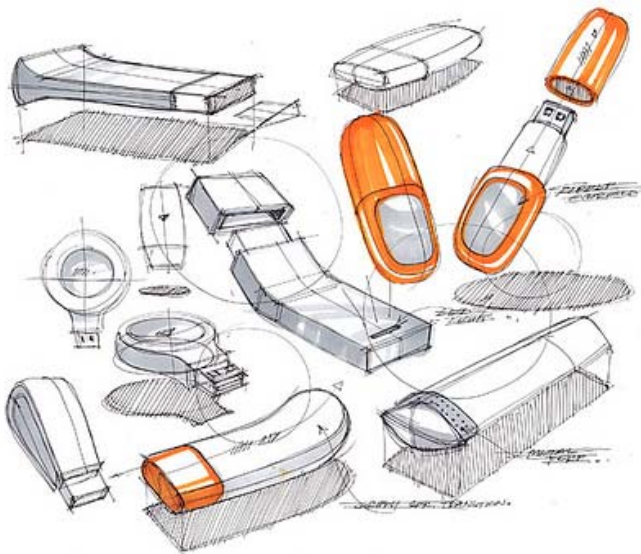
Mould price
and the
Product price

with the
CalcMaster software

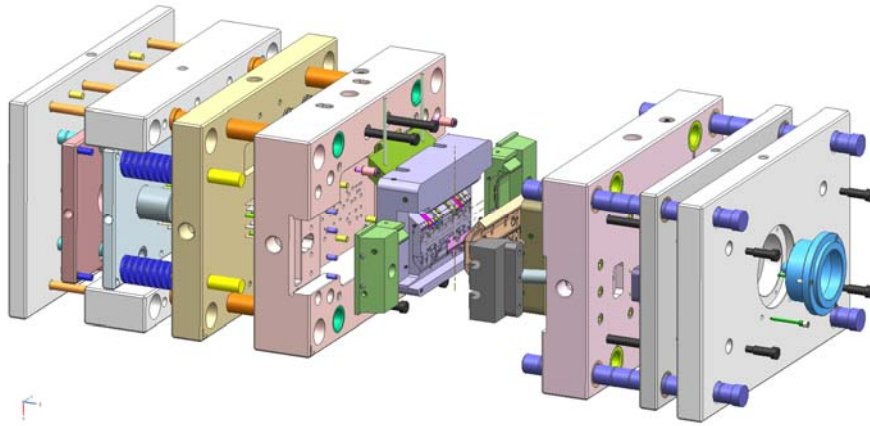
You have then also the possibility to make a corrections on your product design.

You want to design also a **cheap** product design ?

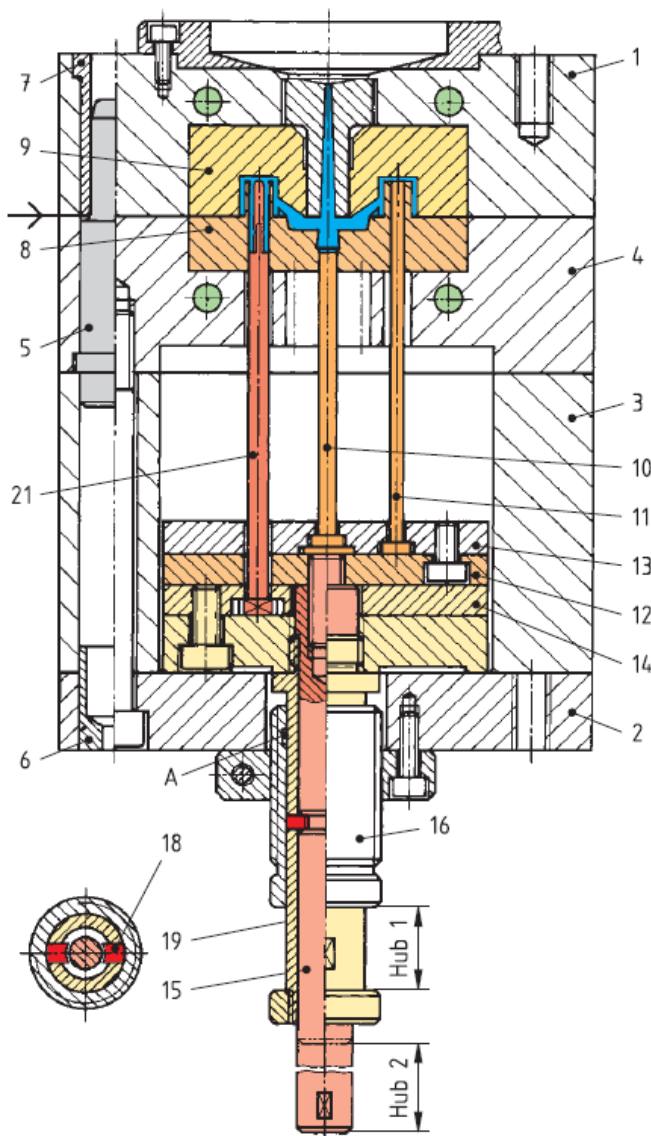
Use also the
CalcMaster software



CalcMaster® advising en calculation software



Estimate and calculating of the mould price



CalcMaster software
calculate direct
for you
the numbers of hours
that you need for the:
Mould construction
Mould cavity
Mould base
Programming
Work preparation

And after this
all the
detailed
mould hours
for all the
cuttings machines.

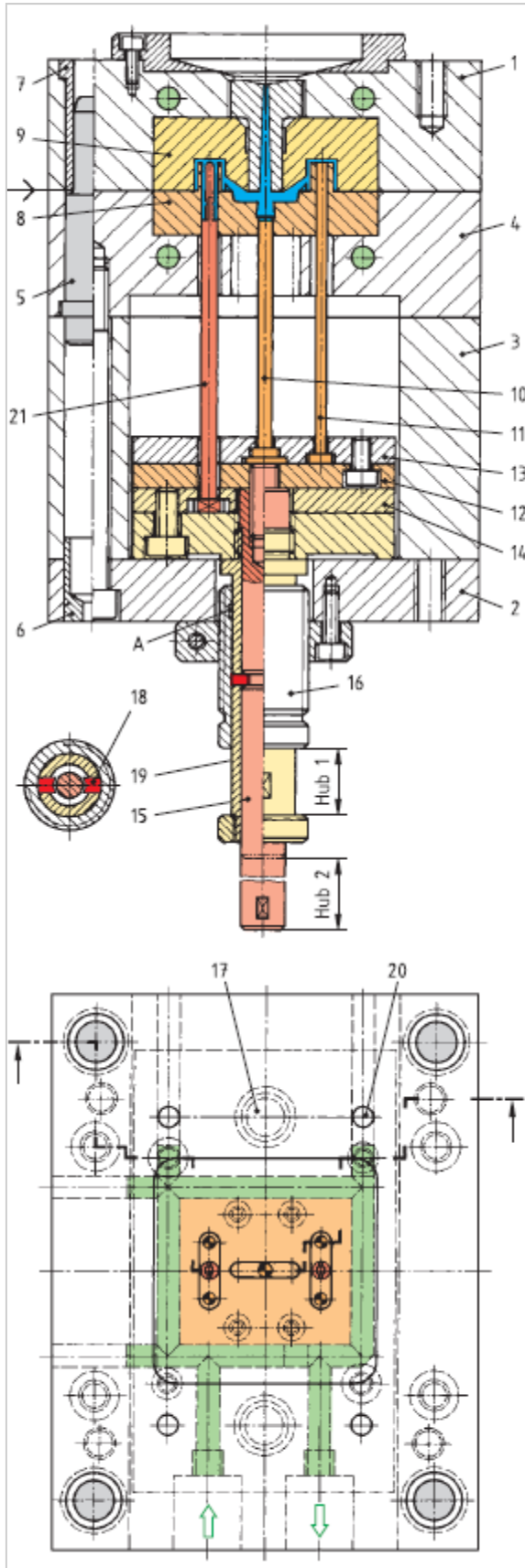
As well will be
calculate the
total
project costs.

Use also the
CalcMaster software

CalcMaster advising and calculation software

Makes the project, mould, moulding and product calculation very easy

Calculation of mould prices



CalcMaster®

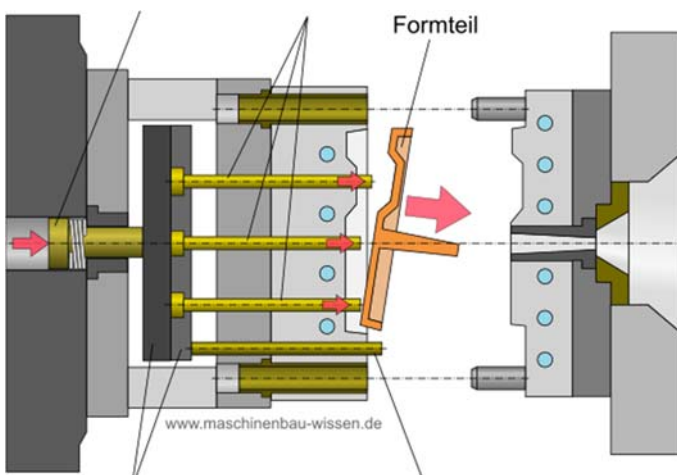
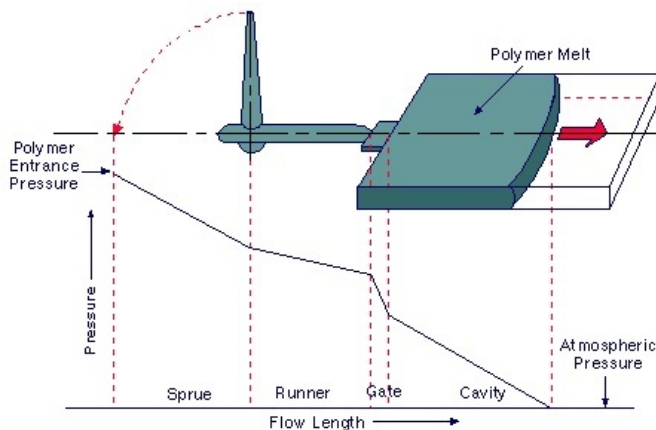
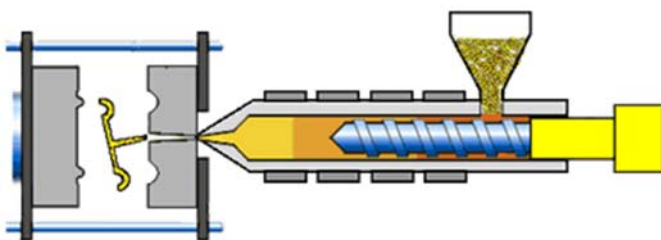


Innovative advising and calculation software
As partner on table with:

Product designer - Mould maker- Injection moulder
Purchasing - Sales and Management

Estimate and calculate the injection moulding process

CalcMaster® Innovative software

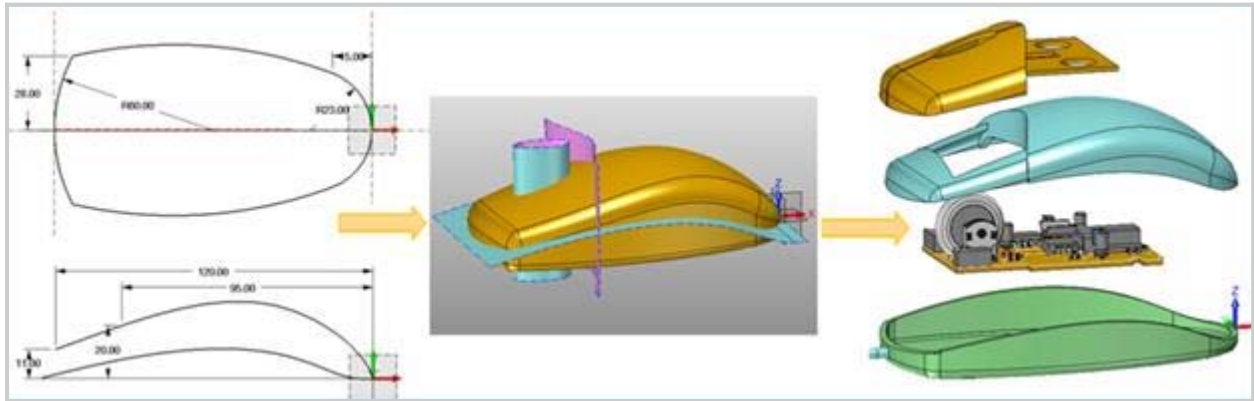


CalcMaster software

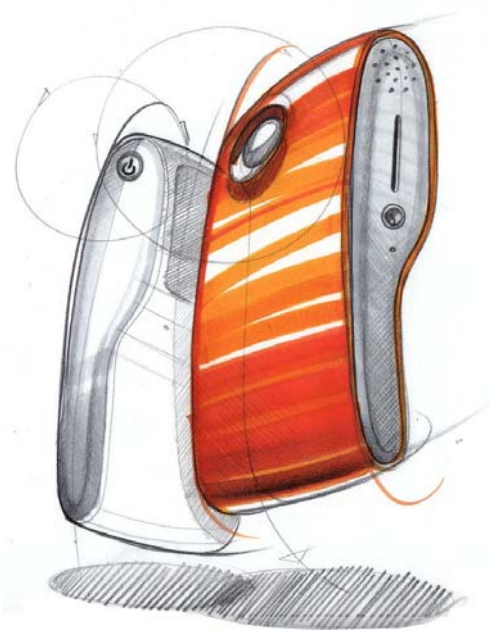
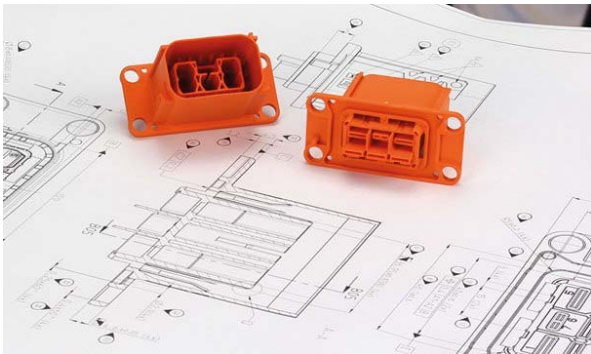
After entering the
product data
and the
plastic grade data
the next injection
moulding data
will be calculated:

- injection time
- injection pressure
- clamping force during injection
- clamping force during holding
- theoretical cooling time
- actual cooling time
- maximum holding time
- total cycle time
- detailed cycle time
-
- **Product price**

Use also the
CalcMaster software



Calculation of the Product price



After entering product data, plastic material data and other necessary data the complete cost price of the product is calculated.

The final cost price of the product is determined by:

- **mould price**
- **injection moulding data**
- **economical number of cavities**
- **choice of injection machine**
- **plastic material type**
- **secondary operations**
- **assembly**
- **packaging**
- **Transportation**

Use also the

n	product	mould price
1	4,80	27.503
2	2,83	34.769
4	1,86	43.917
8	1,52	61.840
16	1,38	97.533
24	1,36	133.348
32	1,40	169.295

CalcMaster®



Innovative advising and calculation software
As partner on table with:

Purchasing - Sales and Management

**Estimate and calculating of the
product price and mould price**



PRODUCT PRICE

With a new product design you have only **2 questions**.

The **mould price** and the **product price**.

The customer must have a **cheap product price**.

And herefor he need injection mould.

The injection mould price.

Some times a bit cheaper.

Some times a bit expensiver.

Dependent from many wiches.

But the **product price** must be **cheap**.

Use also the **CalcMaster software**

CalcMaster® Workshop for commercial employees

Workshop for a structured determination of: PRODUCT DESIGN - MOULD CONCEPT - MOULDING PROCESS Advising– Training - Workshops

Welcome, introduction, general information and introduction to this workshop.



What is the goal of this training?

To appoint all aspects relating to a plastic injection moulding product. With this training an objective insight will be given into all factors that determine the production of a plastic injection moulding product. The relation between the product and the final injection moulding product gets much attention. Determining a mould price is usually done on experience. The mould price is calculated in a structured manner in which all cost-determining components will be discussed in a fixed pattern of decisions and conclusions which have to be made. This allows a fast and accurate calculation of the mould price. At the same time it will be calculated if the injection moulded product can be produced in a fast and realistic manner. In a right concept the mould price, injection moulding possibilities and the product price are depending on each other.

From idea to final product

A direct link between **product design, tooling costs, Injection moulding data, the economical number of cavities** and the **product price**.

Product design

Introduction about the general product design.

An important requirement is that actual product and moulding dimensions should conform to the required shape (drawing dimensions) within the permissible tolerance limits for plastics. By "permissible tolerance limits for plastics" we mean limits which take into account the fact that plastics generally have a higher coefficient of thermal expansion than metals, that mould shrinkage and post-shrinkage produce time-dependent dimensional changes in the moulding, etc.

In planning a phased design schedule: Product design Mould design Mould manufacturing Mould proving, time must be allowed for alterations such as corrections to the mould, since dimensional or shape deviations in the moulding due to shrinkage are frequently unavoidable.

Starting with elementary components, compares the actual moulding shape with the required shape (i.e. drawing dimensions), examines the reasons for the dimensional/shape deviations and -as far as possible- suggests corrective measures.

Injection moulding process

The relation between the injection moulding machine, injection mould, plastic selection and the product design. **Parameters for the injection moulding process:** cylinder temperature, mould temperature, injection pressure, holding pressure, injection time, holding reassurance time, cooling time, cycle time and clamping force. This in relation to the final injection moulded product which must be produced within the prescribed tolerances.

Product design second overview, realizable tolerances and shrinkage. What is the exact problem with a new product design. How can you design this and take in consideration the shrinkage which is dependent of the wall thickness, ribs, bosses, undercuts (slides), flow length, runners, gates, hotrunners, mould temperature, mould design. We want to produce the new products within the correct moulding tolerances.

Mould design and construction

Basic principle of an injection mould (primarily for commercial staff and a tool for technical staff).

Basic mould design for a standard, three plates, insulated runner, hotrunner, unscrewing, stack and slider mould. We need to spend much time for the cooling of the mould.

For a right mould construction the next points are taken into account.

Basic construction of an injection mould: number of cavities, cavity layout, number of parting lines, rough cavity dimensions, sprue and runner, gating, cooling system, mechanical design, exact cavity dimensions, ejector system, leader and alignment system, venting, mounting options, parting line of the product in the mould, parting line for a product with undercuts.

Cases

We want to talk about your own injection moulding products with your own product design en mould drawing. Take 2 till 6 injection moulding products including the mould drawings and also the product drawing in STL-format and in DXF-format.

CalcMaster® Innovation software

Project, mould, moulding and product calculation made very easy

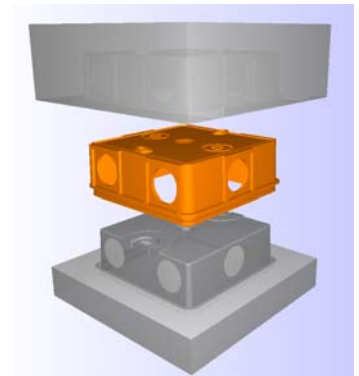
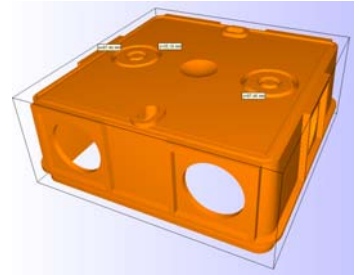


CalcMaster® is the most **comprehensive** injection moulding software
The CalcMaster software calculates for you very fast and accurate:

Standard CalcMaster software part for the mould, moulding and product calculation

- **Mould prices**
Standard and detailed hours calculation
- **Detailed mould hours + Project price**
- **Injection moulding data** (injection moulding simulation)
- **Most economical quantity of mould cavities**
- **Complete cost price of the product**
- **Asking a complete quotation for the mould price**
- **Making a complete quotation for the mould price**

- **Printing the total calculation including pictures + company logo**
- **Export of all the CalcMaster data to an Automotive Excel sheet**
- **Suppliers cost overview data sheet**
- **12 languages**
- **Mould maker user profiles**
- **Settings for 8 different mould makers profiles**
- **CalcMaster help text**

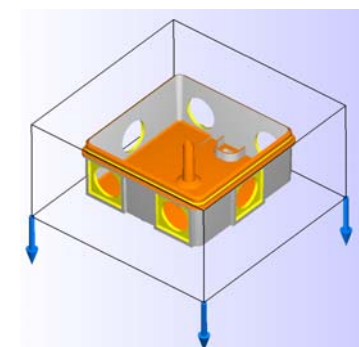
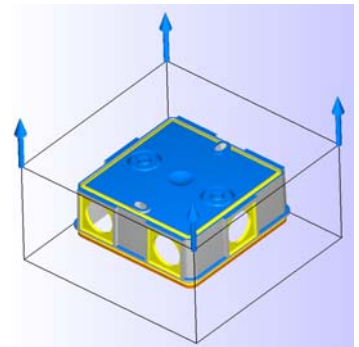
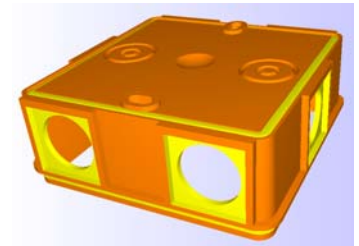


Optional CalcMaster software part for the mould, moulding and product calculation

This **Optional** part can only be used in combination with the Standard CalcMaster software.

This **OPTIONAL** part for the mould and injection moulding software contains:

- **2 Components in 2 cavities**
- **2 Components in 1 cavity**
- **Left and the right product**
- **Stack moulds**
- **Soft tool mould**
- **1+1 product in the mould**
- **Combinations are possible** (not every combination is possible)



The **Professional** CalcMaster software is the
Standard + Optional CalcMaster part

CalcMaster Modules

- **CalcMaster - i-Know Moulding 3D software**
i-Know Moulding Works with the STL-file CAD format.
With 3D mould plates overview. Mould parting lines 3D on your screen.
With automatic parameter transfer of data for a fast mould calculation.
Automatic mould calculation.
- **CalcMaster Mould Dimensions.**
Mould dimensions for 1 to 96 cavities.
Calculation of all the mould plates dimensions.
You can select the steel type for each separate plate.
- **CalcMaster Selection of the injection machine.**
After the calculation from the CalcMaster Menus 1 - 2 - 3 and 4
this module can automatically the right injection moulding machine.