

# CalcMaster®

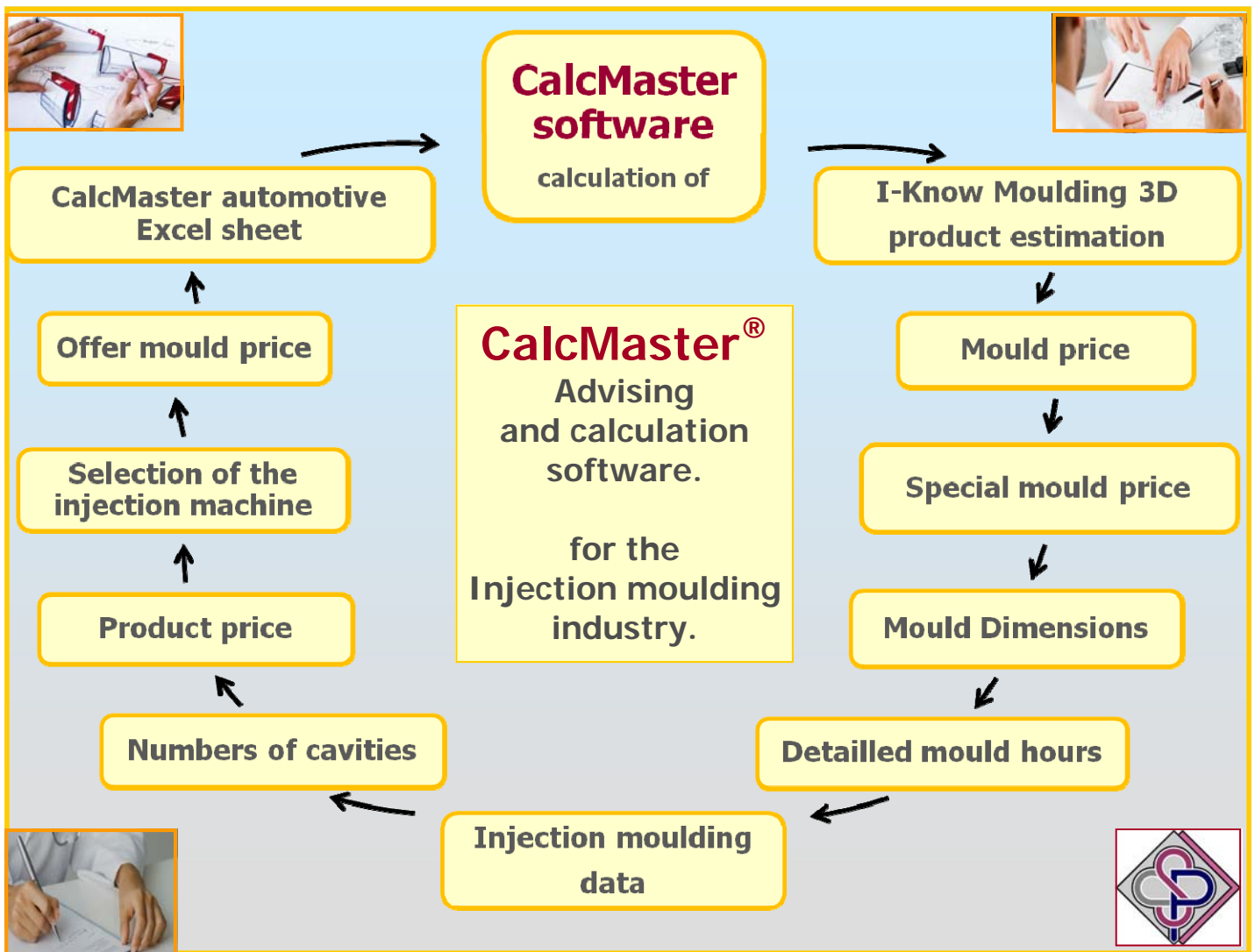


Innovative advising and calculation software

As conversation partner on table with the:

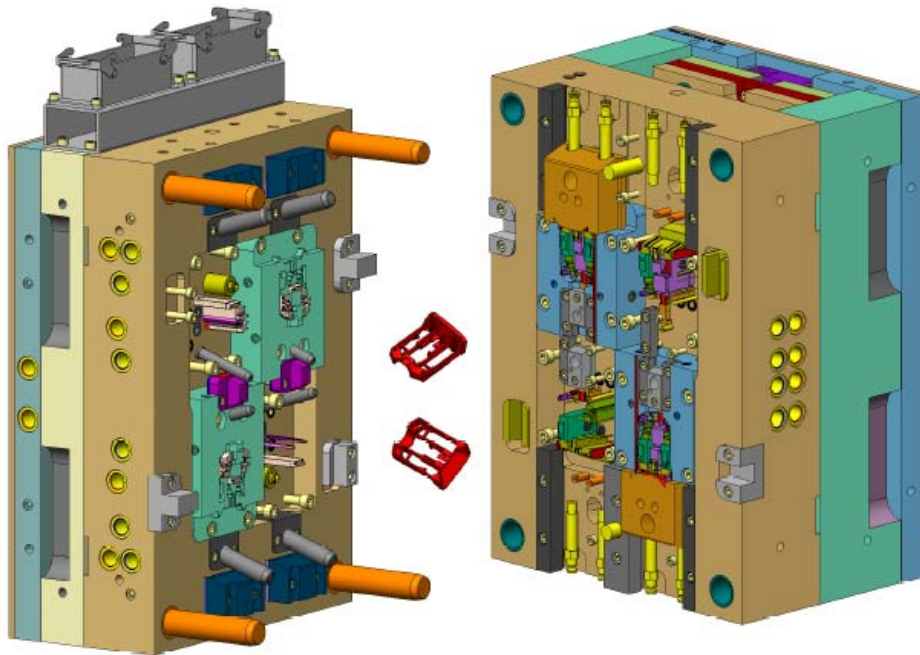
**Product designer – Mould maker**  
**Injection moulder - Purchasing - Sales**  
**and Management**

## CalcMaster® software Overview of the calculation possibilities



# CalcMaster®

advising and calculation software



Injection molding software for optimization  
and calculation of injection molded products  
**Made Project- Mold- and Productcalculation very easy.**

Is the most comprehensive injection molding software for:

**The Standard CalcMaster software calculates for you very fast the:**

- Moldprices
- Detailed mould hours
- Mould Dimensions.
- Injection molding data
- Selection of the injection machine
- Most economical quantity of cavities
- Complete costprice of the product
- Asking a quotation for a moldprice
- Making a quotation for a moldprice
- I-Know Moulding 3D software

**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

**CalcMaster** is an **interactive** program which makes a clear and direct connection between the **Productdesign, Moldcosts, Injection molding data** and the **complete Costprice** of the product

**SCHOUENBERG & PARTNERS V.O.F.** Burg.Stolklaan 16, 4002 WJ Tiel The Netherlands

tel:+31-344-616161 email: info@schouenberg.nl www.schouenberg.nl

**CalcMaster® Injection molding software for the plastic industry**

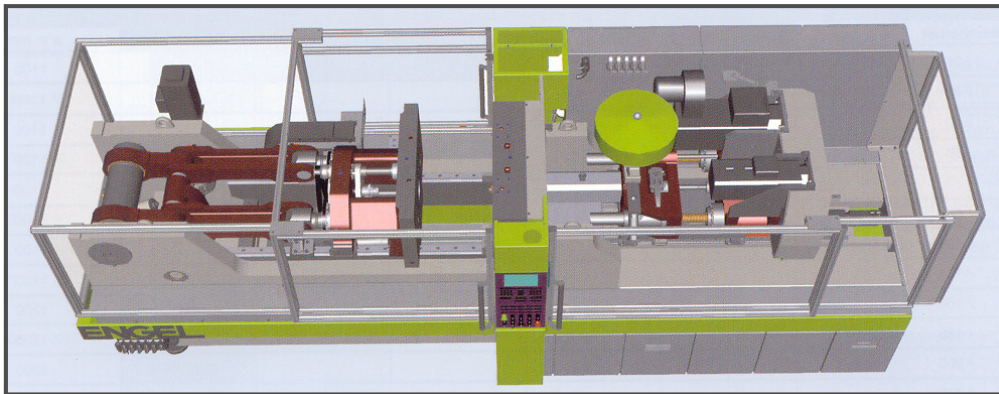
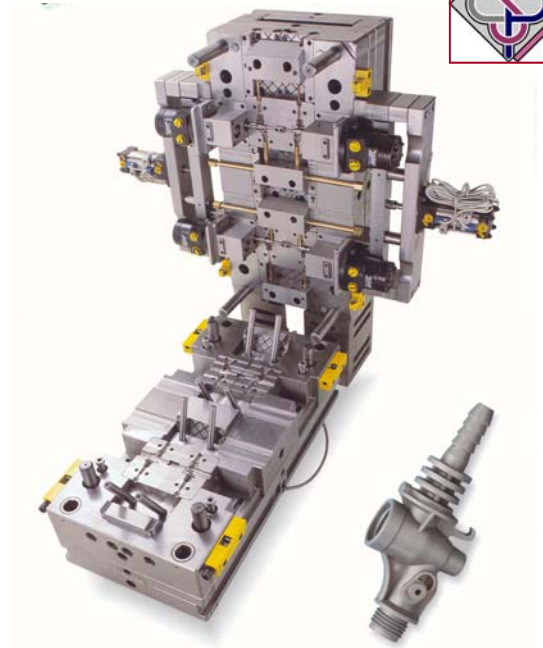
Software, Consulting and Training for the Mold- and Molding industry



## Mould costprice

For working out the costprice of the mould we use a counting system. Herewith we always make the choice for the relevant point for a criterion such as for example product geometry, tolerances, surface ratio, the type of gating and ejection system, mechanisms, cooling, slides, etc. The points for the manufacturing of the cavities and the mould base are added and the program calculates the total number of manufacturing-hours, construction-hours and the remaining costs for material and hardening, hotrunner, standard mould base parts etc. and afterwards the total mouldprice. By changing the number of cavities, the program calculates very quickly the new mouldprice.

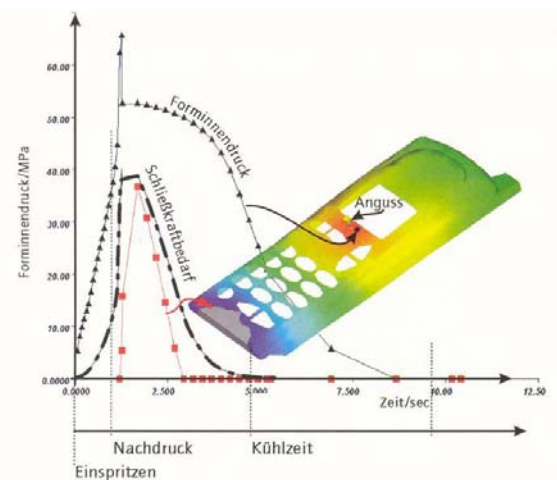
This mouldprice can eventually, with the help of the calculated values, be corrected step by step. The cost analysis of the hours and cost shares can be viewed graphically.



## Injection pressure, Clamping force and Cycle time

In this menu we can, with the help of the injection-moulding simulation, calculate all the injection moulding data. With the use of the product and plastics data all the values are calculated, in which the rheological data from the database is used. When entering the processing temperatures, the values which are recommended by the plastics supplier are automatically taken from the database.

The injection pressure and the clamping force are calculated at different injection times from the flowlength / wall thickness ratio. The injection times are chosen by the CalcMaster program and dependent of the wall thickness. After the calculation of the cooling time, the cycle time is calculated and displayed in detail and can be used for further correction and evaluation. For products with thick walls, for which in most cases the inner core of the products does not have to be cooled down until the demoulding temperature, you can select an optimal cooling time from the graph of the temperature curve against the total wall thickness for 5 cooling times. With the use of the graph for the temperature curve you can make a correct estimation.





## Economical number of cavities

The determination for the optimal number of cavities in a mould is not as simple as it looks. CalcMaster can definitely be useful for this determination. With the use of the already calculated mould price, cycle time, clamping force, size of the injection moulding machine and the costprice of the product, the program calculates the most economical number of cavities. The graph gives a clear overview, with which a final decision and estimation can be made.

With the help of this information you can further calculate the mould and product price based on the correctly chosen number of cavities

Design

CalcMaster

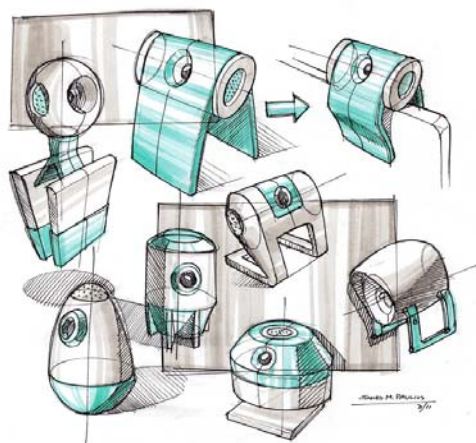
Productdevelopment

Mouldmaker

Injection moulding

Productprice

from concept till the product



## Product price calculation.

At the costprice calculation, all the cost determining aspects are taken into account. At the material costs the raw materials, colour compounds and remaining additives, as well as supplementary parts and material storage can be read in separately. At the injection moulding machine costs, the injection moulding machine size is determined from the clamping force calculation. The machine costs are determined with the help of the machine rates and the calculated cycle time.

The machine rates are printed in a table within a separate window and you only have to make your choice from this table. Furthermore you can bring labour, general costs and costs for changing the mould into account.

On the calculated manufacturing costs a factor for rejects is added. Furthermore the general costs such as finishing, transport and packaging are calculated separately. In the end, discounts, commission and profits are calculated. The costprice is now calculated for 100 products and is stored with and without the amortization of the mould. At last, some general information is stored, such as the total turnover, the required amount of material, the total production time, etc. To make a good estimation the costprice can be viewed graphically.



## Supplementary functions

- Substantial, expandable plastics-database with standard groups and trademark types.
- Machine hour rates for injection moulding machines or machine groups, visible in a help window.
- A selection for several languages (Dutch, German, English, French, Portuguese, Spanish, Italian, Finnish, Swedish, Turkish, Polish).
- A selection from several currencies with automatic conversion. Standard currency is €.
- Possibility for on-line help-screens for all the important input.
- Many graphic screens, such as: temperature curves against the product wall thickness, injection pressure against injection time, cycle time, economical number of cavities, product price, manufacturing hours and mould costs.

## Hardware Configuration

- Hasp dongle connector installation on the USB port
- Working under Windows XP / Windows 7 / Vista / Windows 8 and 10.
- Delivery as a Standalone and as a Network version.

## Succesfull mould calculations en injection moulding simulation made very easy.

**Especially for the plastic moulding industry**, we have developed the software package CalcMaster. During the **product design stage** the **quotation-stage** and later in the **manufacturing** of an injection moulding product working with CalcMaster will **save you a lot of time** and produces the right information for you.

## Mould calculation

For working out **the costprice of the mould** we use a counting system. Herewith we always make the choice for the relevant point for a criterion such as for example, product geometry, tolerances, surface ratio, the type of gating and ejection system, mechanism, cooling and the mould base are added and the program calculates the total numbers of manufacturing-hours, construction-hours and the remaining cost for material and hardening, hotrunner, standard mould base parts etc. and afterwards **the total mouldprice**.

## Injection moulding simulation

Because the CalcMaster software can **simulate the injection moulding process**, there is a direct connection between the **wall thickness of the product**, the **cooling time**, the **cycle time**, the **flow-length / wall thickness ratio**, the **required injection pressure** and the **clamping force of the injection moulding machine**.

## Product cost price

**CalcMaster** is an **interactive** program, in which a direct connection is made between the **Product design**, **Mould costs**, **Injection moulding data**, **Economical number of cavities** and the detailed **Product costprice** for an injection moulding product. With the use of a counting system, you can simply and quickly determine the mouldprice, and can make a simulation of the injection moulding process, after which the economical number of cavities can be calculated and at last the total product price can be found.

## CalcMaster is especially developed for the injection moulding industry.

### Also for your business.

CalcMaster is momentary used worldwide at many locations. It's used by **Product development**, **Injection moulders**, **Mouldmakers**, **Machine suppliers** and **Materials suppliers**, **Trainings institutes** and **Universities** at home and abroad.

When designing a new plastic injection moulding product we always come to a standard pattern of decisions that have to be made in order to get an optimal final result. **Product design**, **Mould construction**, **Injection moulding results** and the **Product price** are unquestionable connected with each other, while the largest part from the total costs are fixed during the product design. On the basis of this fact it is important to calculate already in this early stage the future production-circumstances and costs to get an optimal product concept to produce at the lowest costs. With the help of CalcMaster all alternatives can be calculated in a very short time.

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**CalcMaster® Injection moulding software for the plastic industry**

Software, Consulting and Training for the Mold- and Molding industry



With a new part design, make by yourselves directly the calculation of the **mould price and product price** without directly help from mouldmaker and moulder with the **CalcMaster software**.

CalcMaster® Innovative software



# CalcMaster®



Innovative advising and calculation software  
As partner on table with:  
**Purchasing - Sales and Management**

**Estimate 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® 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.

