



## Design and manufacturing of plastic injection mould

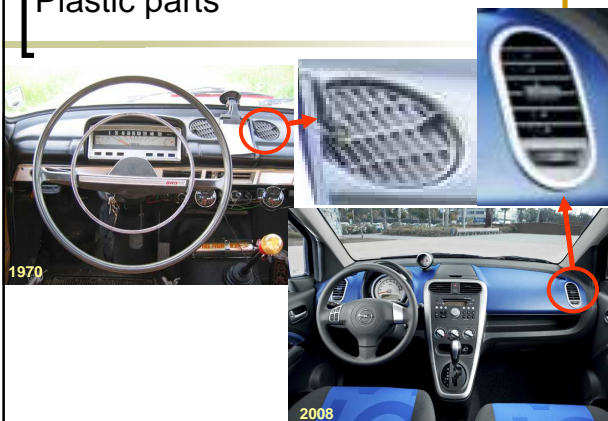
### 01 – Introduction, Injection moulding and machines

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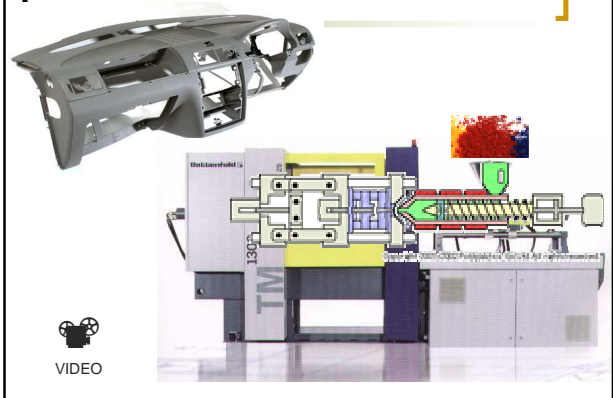
## Scheduling and requirements

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## Plastic parts

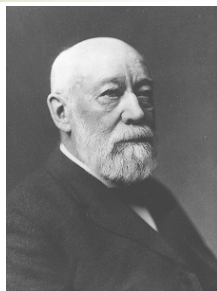


## Components of the system



## History

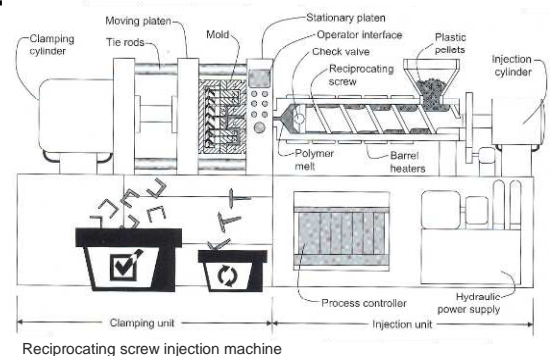
- John Wesley Hyatt
- 1868.
- Celluloid billiard ball
- US patent 50359



John Wesley Hyatt (1837-1920)  
founder of plastics industry with  
the discovery of celluloid,  
cellulose nitrate, 1868.

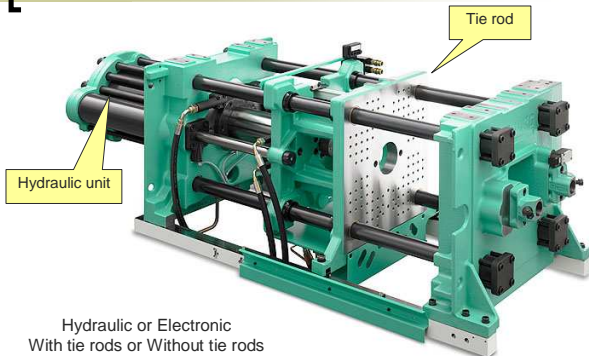
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## Parts of injection machine

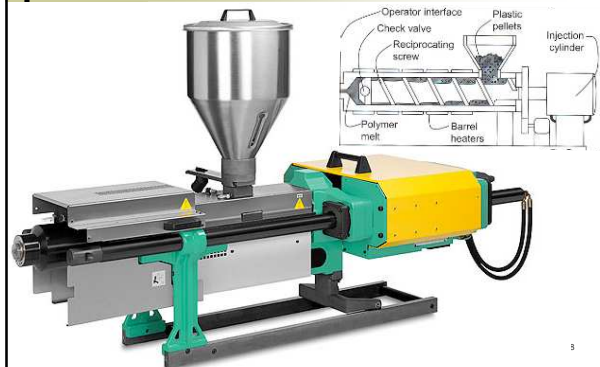


Reciprocating screw injection machine

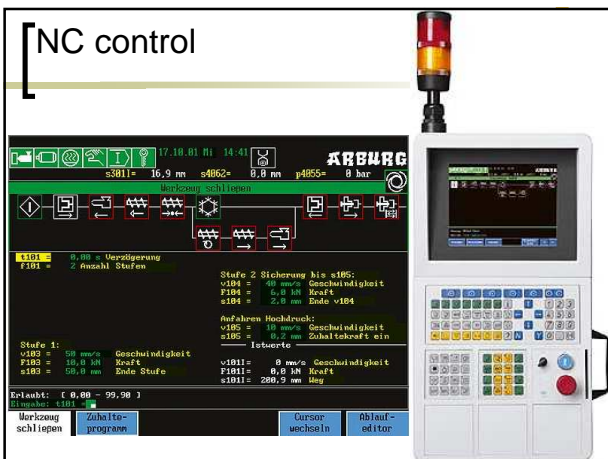
## Clamping unit



## Injection unit



## NC control



## Machine parameters

- Clamping force: 1 ton – 5000 ton
- Injected weight: 0,1 g – 500 kg
- Size of the work place

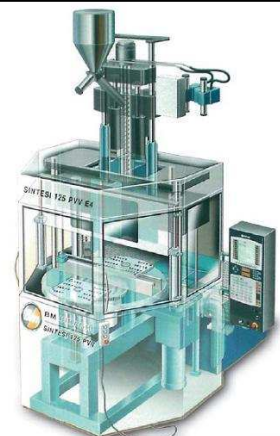
## Example



PDF

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## Vertical machine



## Manufacturers

**KRAUSS MAFFEI**

**ENGEL**  
be the first

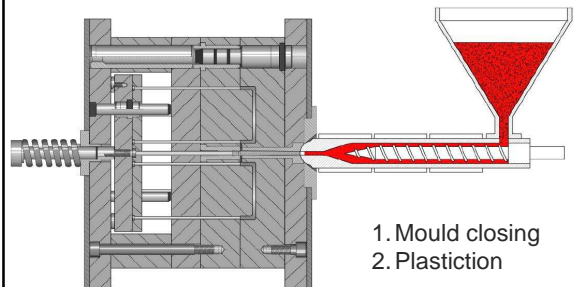
**ARBURG**

**NEGRI BOSSI**

**Battenfeld**

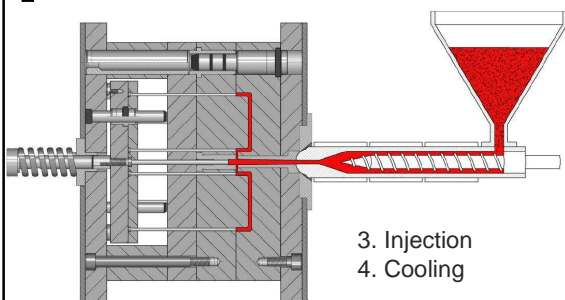
Innovative Injection Molding

## Steps of injection moulding



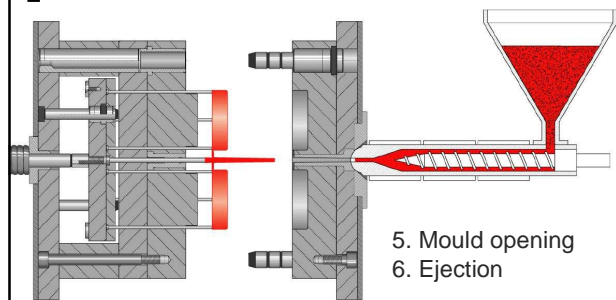
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## Steps of injection moulding



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## Steps of injection moulding



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## Mould design and manufacturing process

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## Plastic injection mould

