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Title: Injection mold improvement for a cosmetic jar through CNC machining

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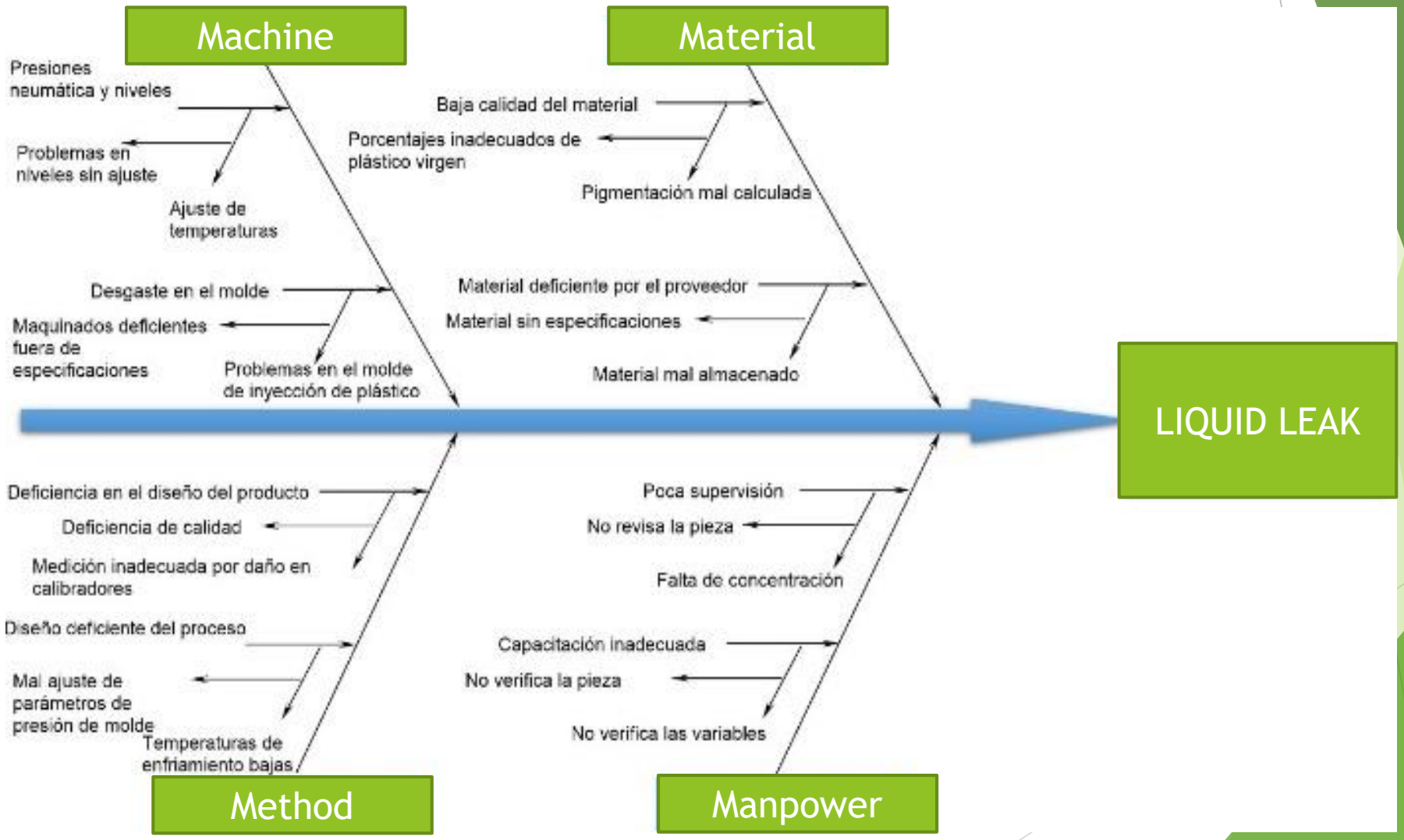
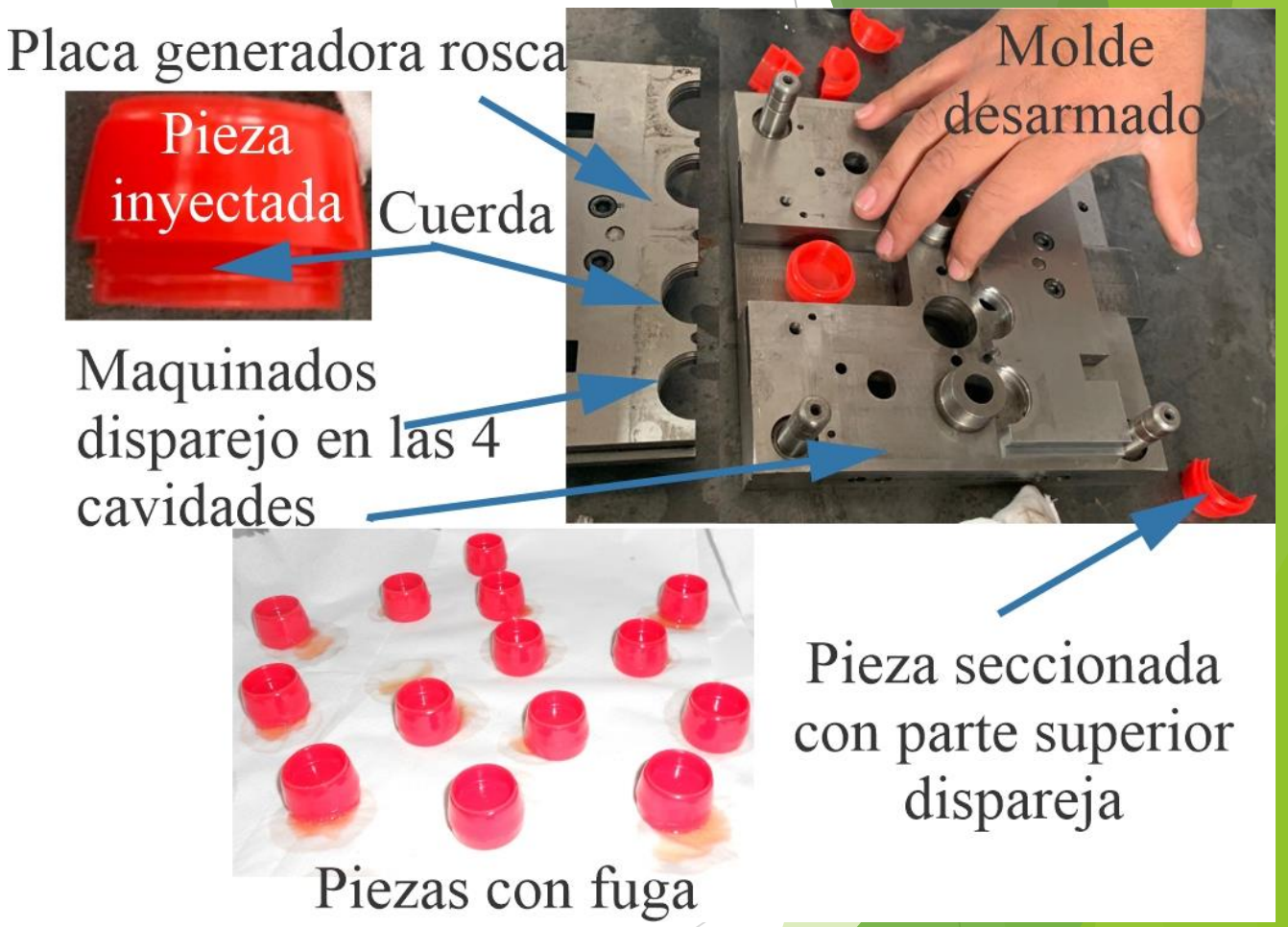
Introduction



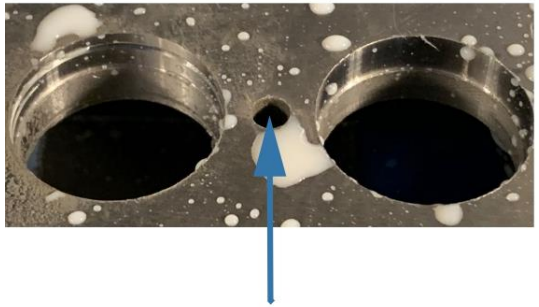
Methodology

- Material properties: PP C
- Injection machine temperature: 230°C
  Injection machine pressure: 60 Ton
- Machining: not concentric, offset of 1mm



Results

Bore holes



Injected jar

Plates for injection mold

Results

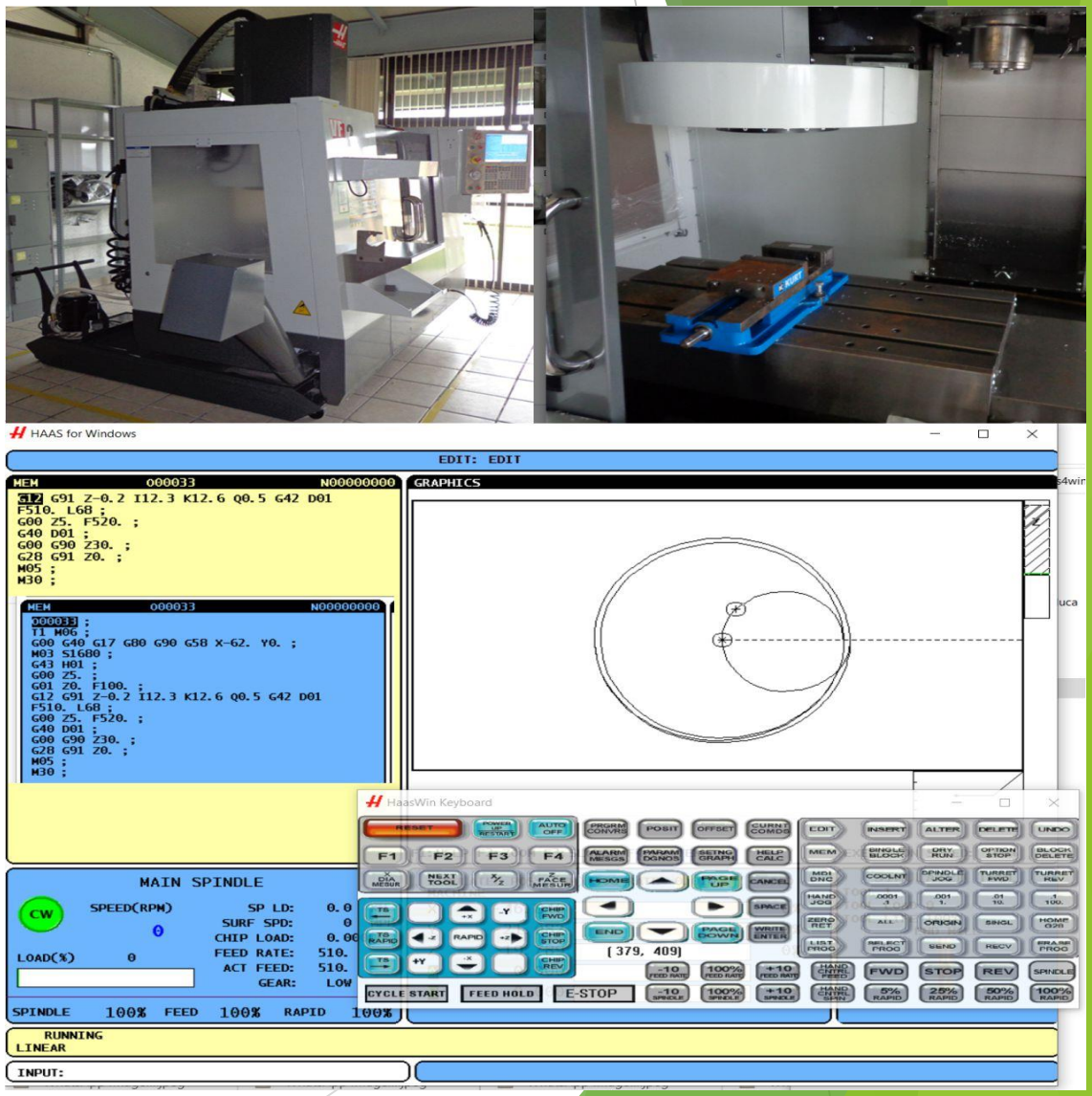
Leak test

Whit wather

Whitout wather

Annexes

CODE	DESCRIPTION
O0033	Program name
T1 M06	Tool change
G00 G40 G17 G80 G90 G58 X-62. Y0.	Part cero
M03 S1680	Clock wise spindle at 1680 RPM.
G43 H01	Tool offset
G00 Z5.	Rapid movement
G01 Z0. F100.	Cutting speed.
G12 G91 Z-0.2 I12.3 K12.6 Q0.5 G42 D01 F510. L68	Roughing cycle, 68 times till 25.2 mm of diameter.
G40 D01	Tool offset cancel
G00 G90 Z30.	Rapid movement
G28 G91 Z0.	Machine home
M05	Spindle stop
M30	Program end



Conclusions

- The plate whit four-cavities was machined using 1018 steel, obtaining an accurasy of +0.02mm.
- Modeling, programming, simulation and machining were carried out for the Hass VF2 VMC, using a thread cutter.
- The IPIMSA company performed the vacuum test successfully, complying with the quality control.

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