NEVICOLOR®
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Nevicolor Webinar #2

STAMPAGGIO AD INIEZIONE
(iniezione gas / acqua / foaming microcellulare)

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Relatore

Antonio Besozzi

Application Development Consultant

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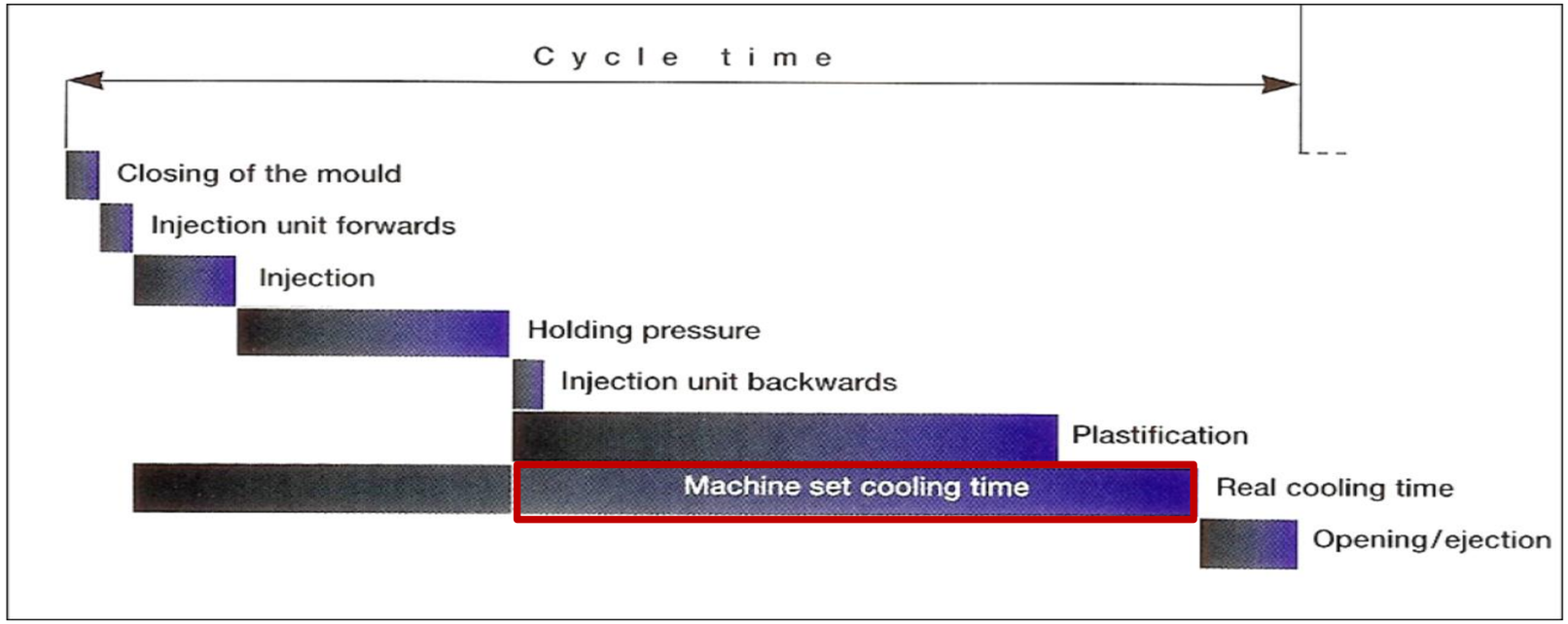
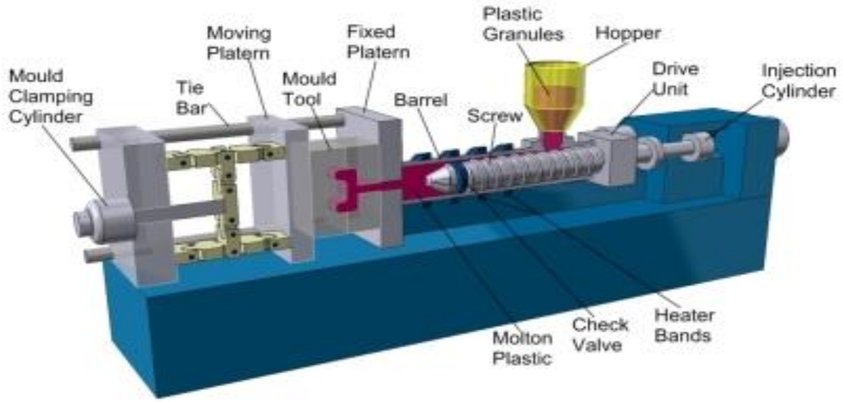
Il Ciclo di Stampaggio





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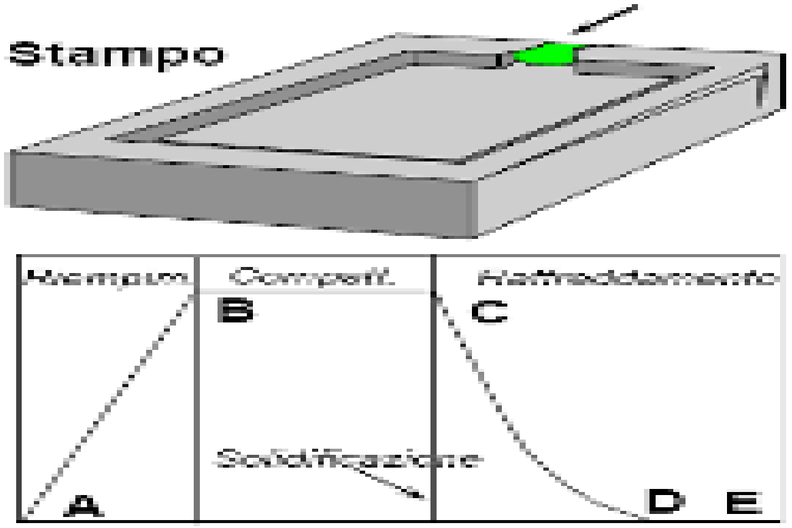
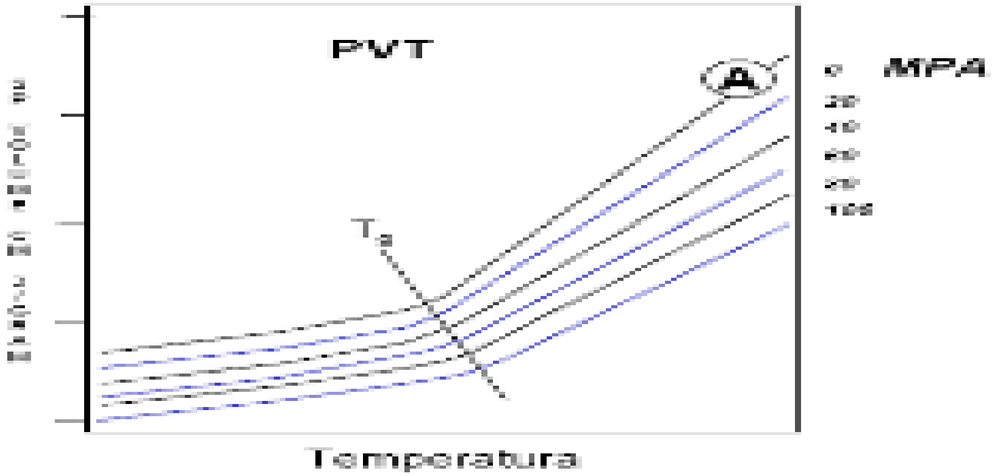
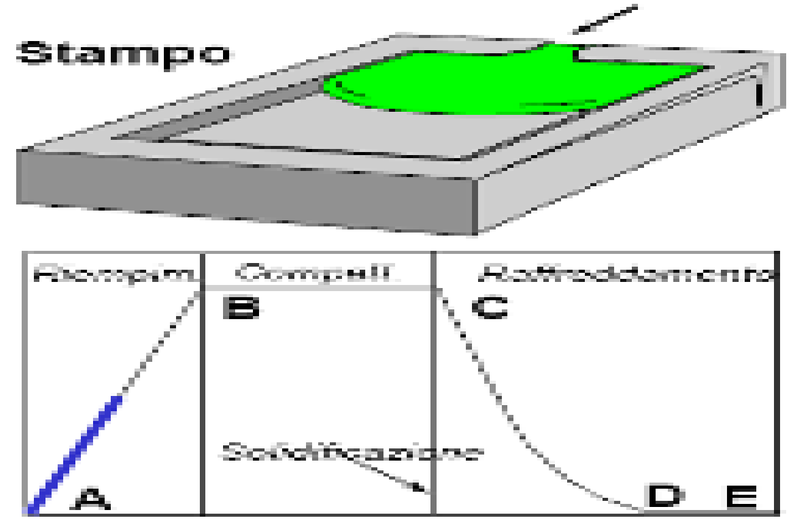
Fase di riempimento

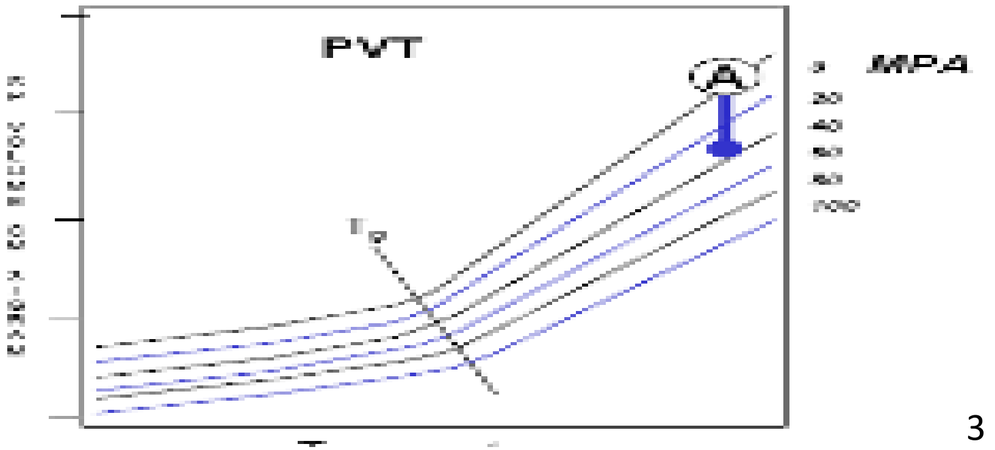


(Molto Semplificato)





Inizio Riempimento Impronta



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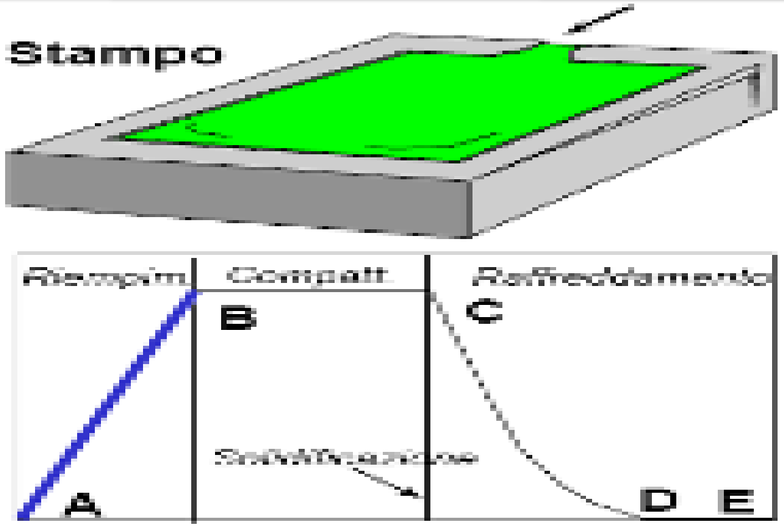
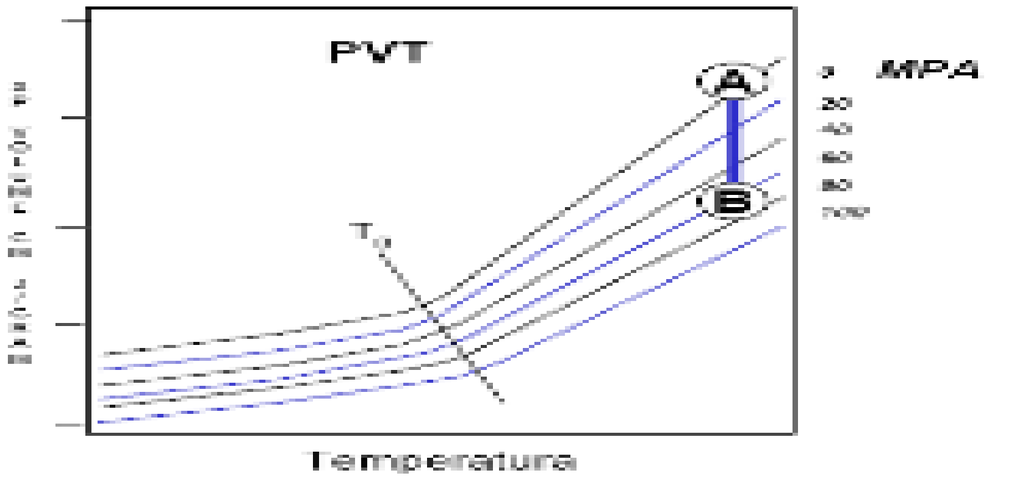
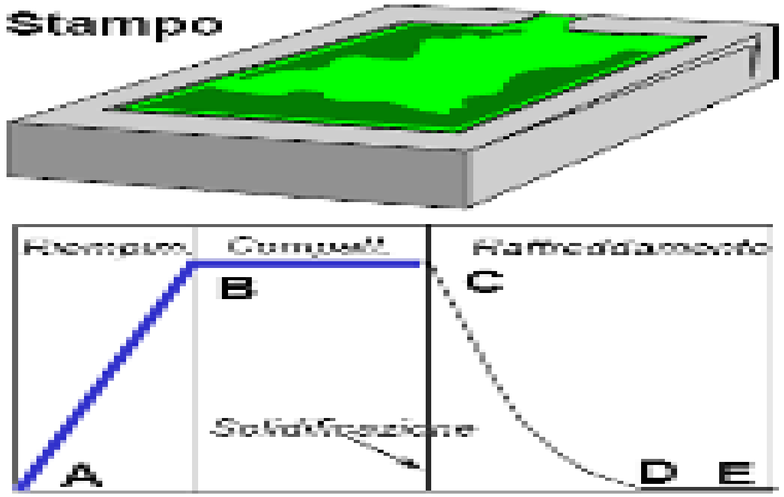
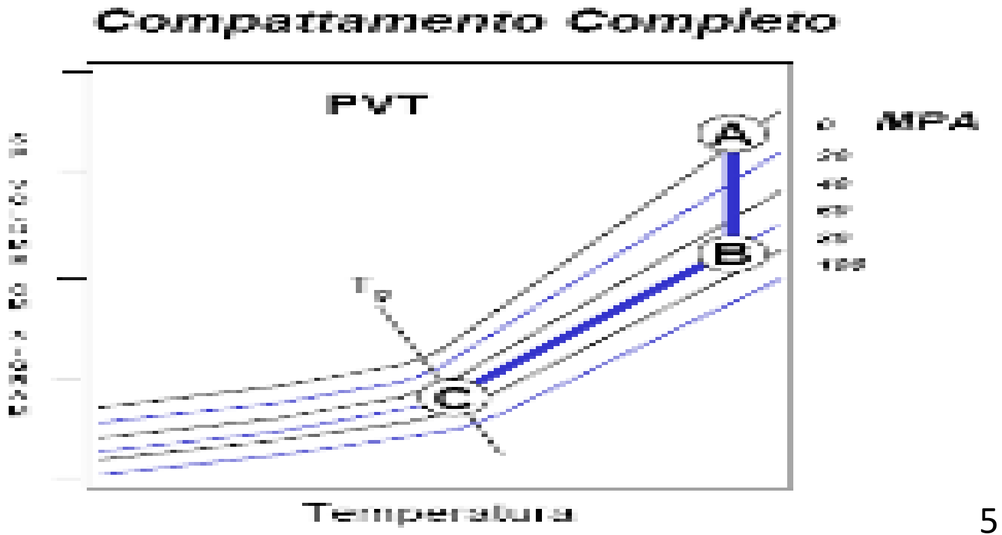
Fase di compattamento









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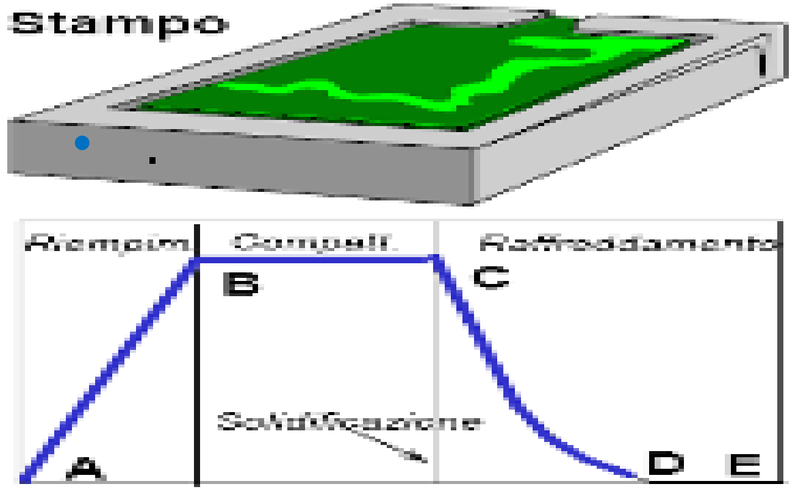
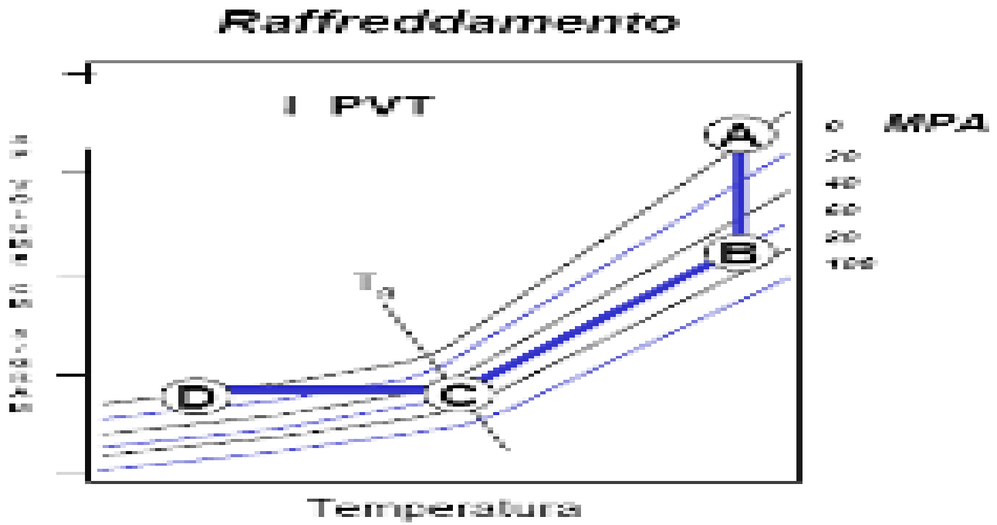
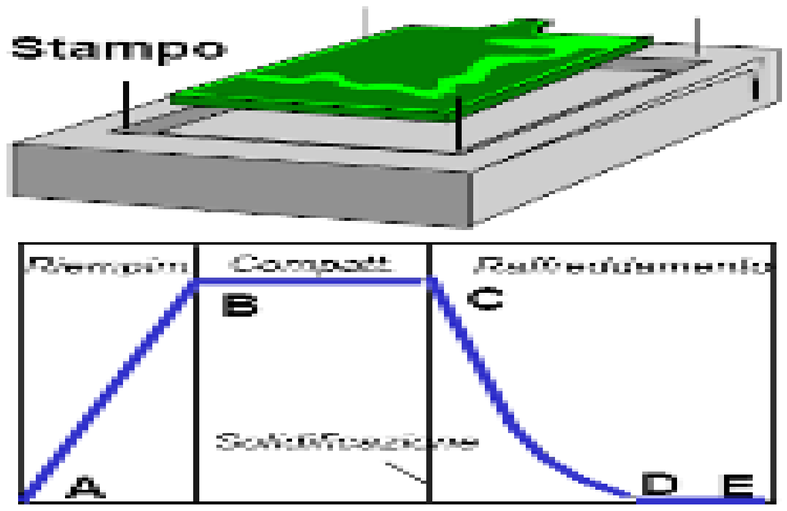
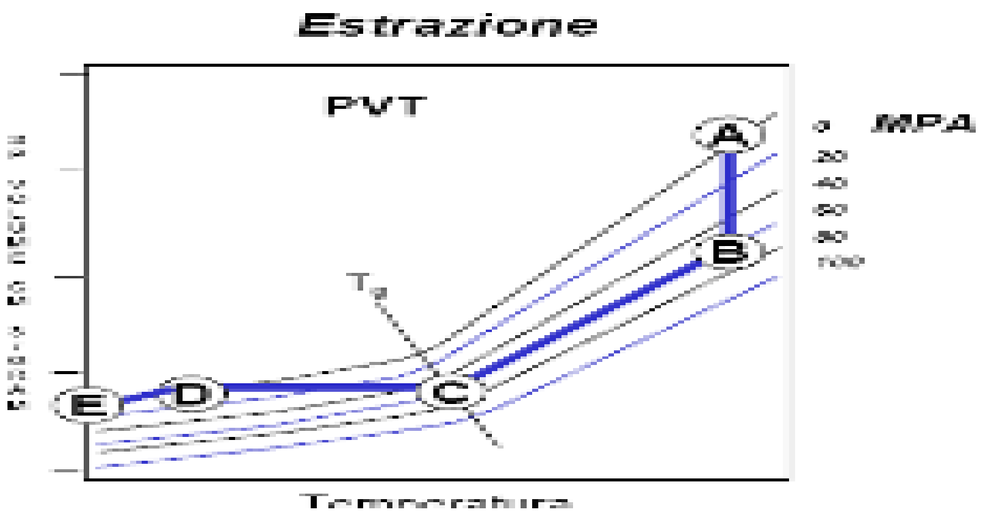
Fase di raffreddamento









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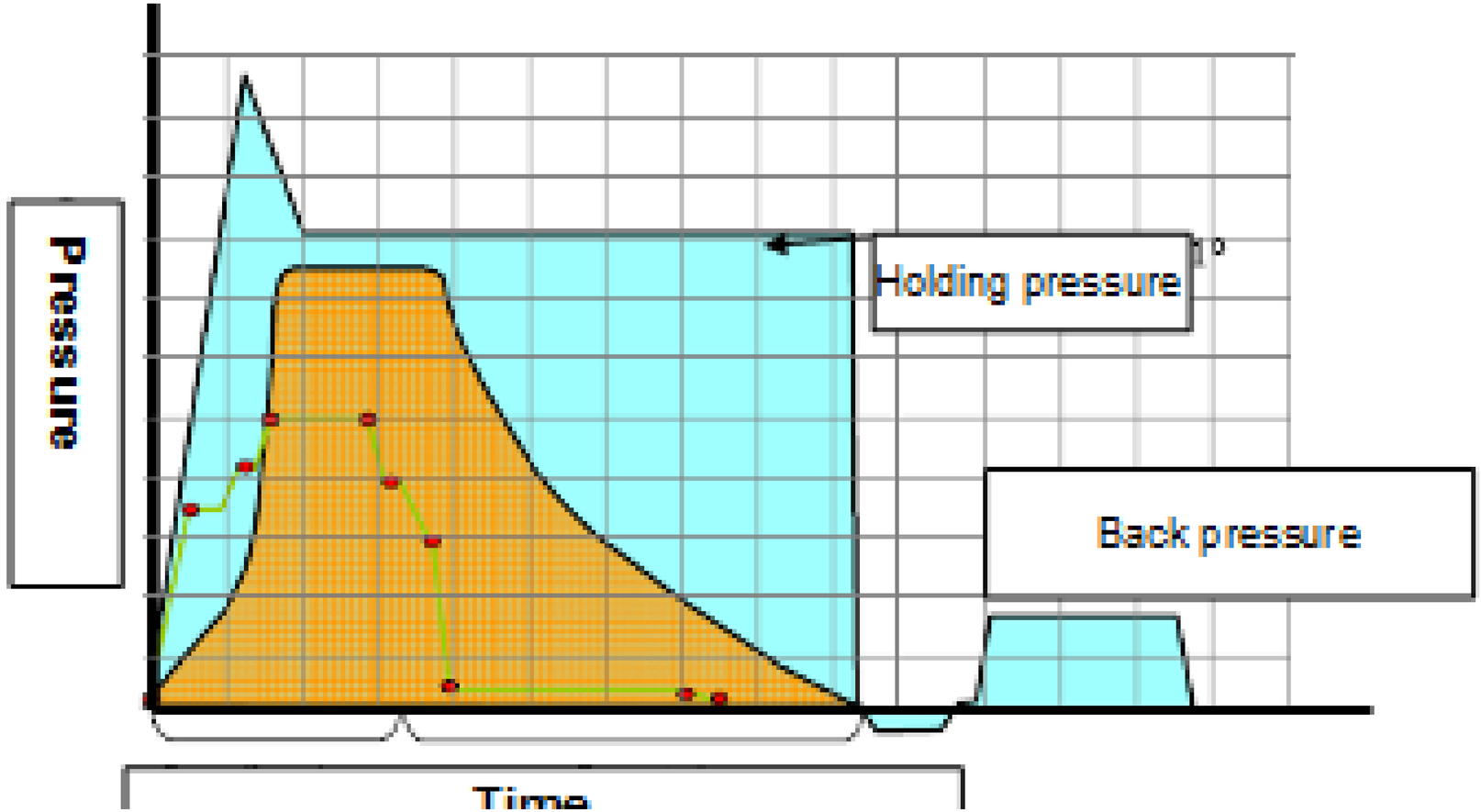
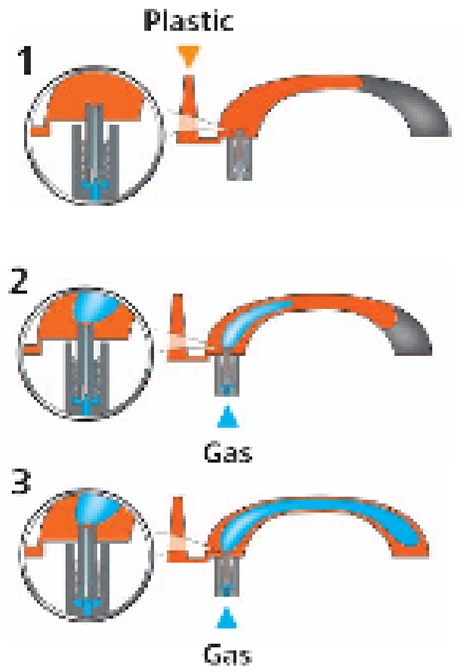
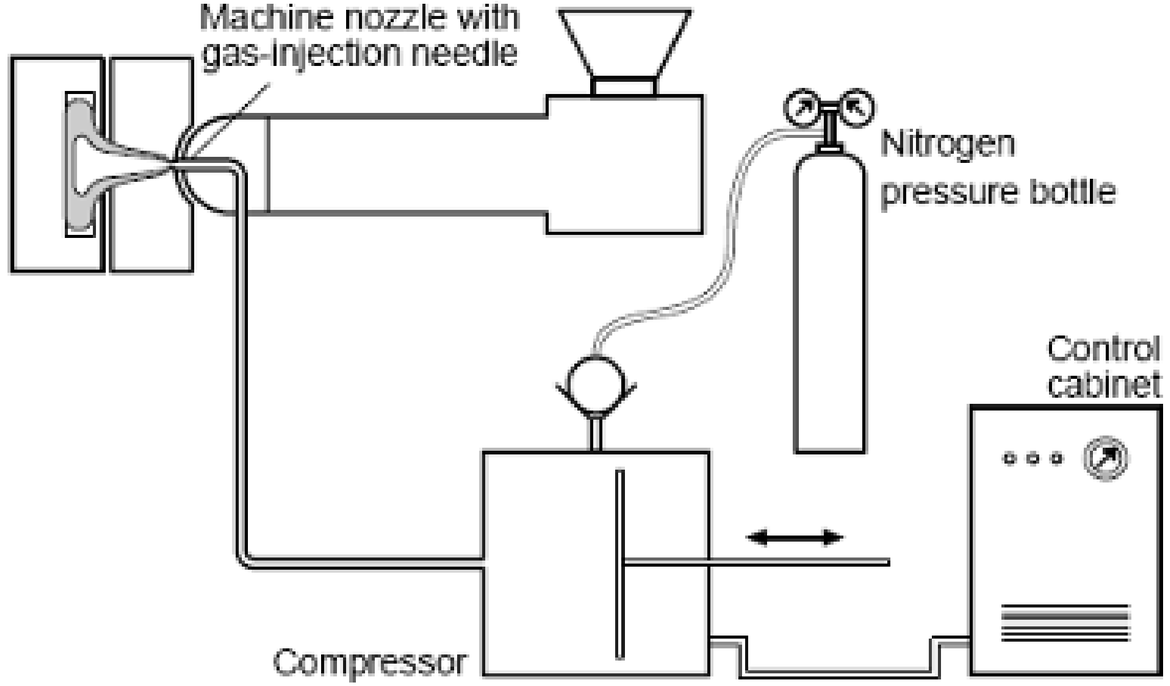
Le fasi delle pressioni

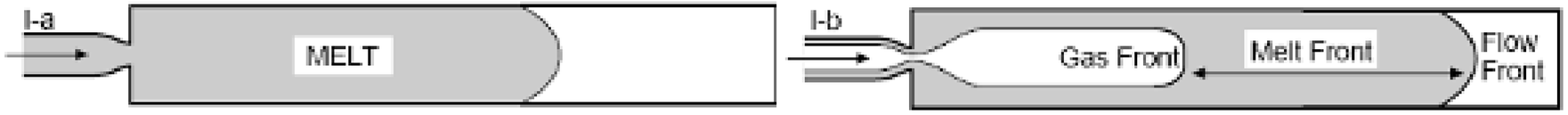


Stampaggio ad iniezione assistito gas



Principle of gas injection unit





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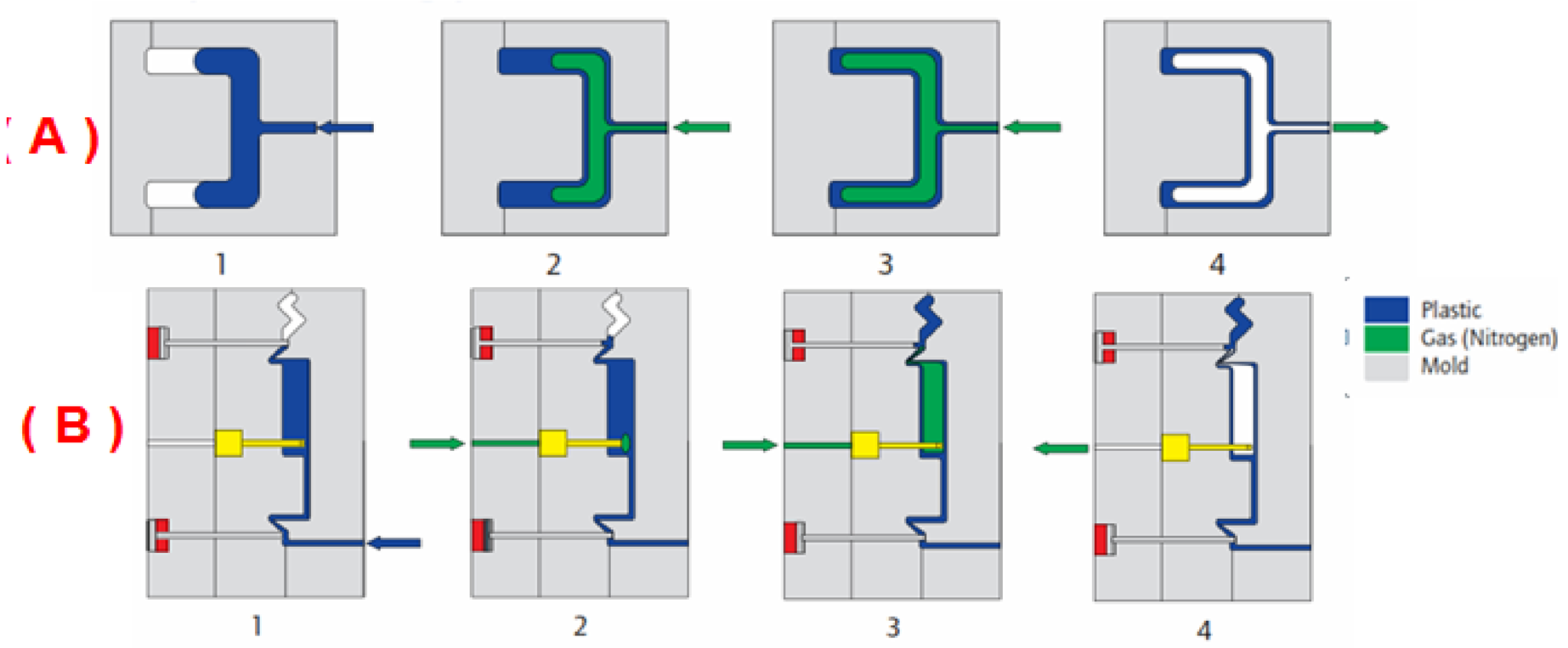
Stampaggio ad iniezione assistito gas

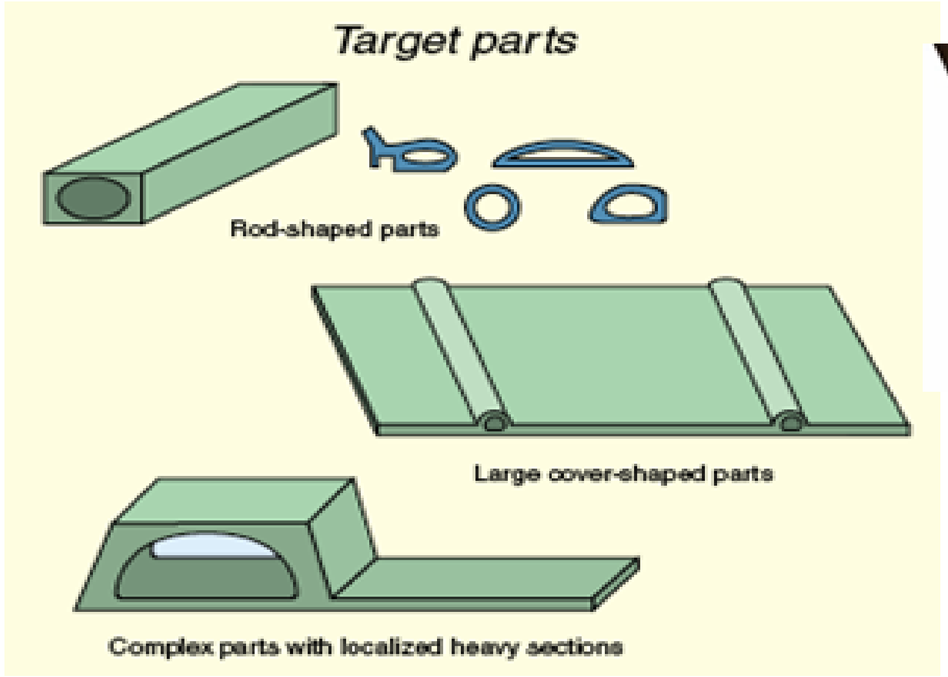
Stampaggio assistito da gas (GIT)



Il processo di stampaggio assistito da gas consiste nell'iniettare dell'azoto in pressione (da 20 a 200 bar) dopo aver parzialmente (A) o totalmente (B) riempito la cavità con polimero fuso.

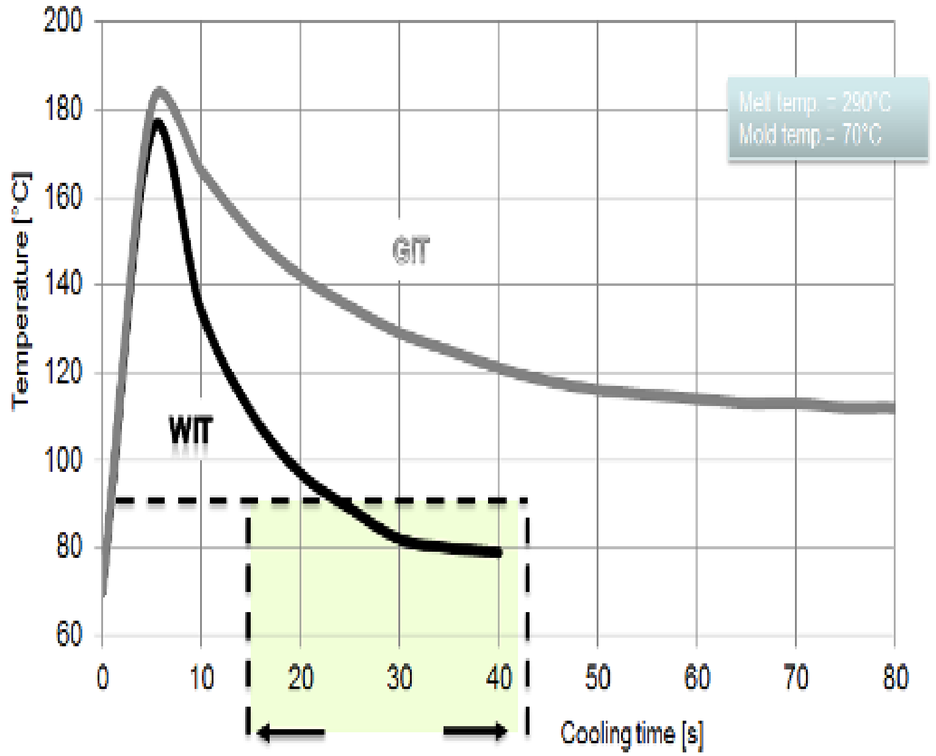
Stampaggio ad iniezione assistito gas

Stampaggio assistito da gas
Gas Injection Technology (GIT)

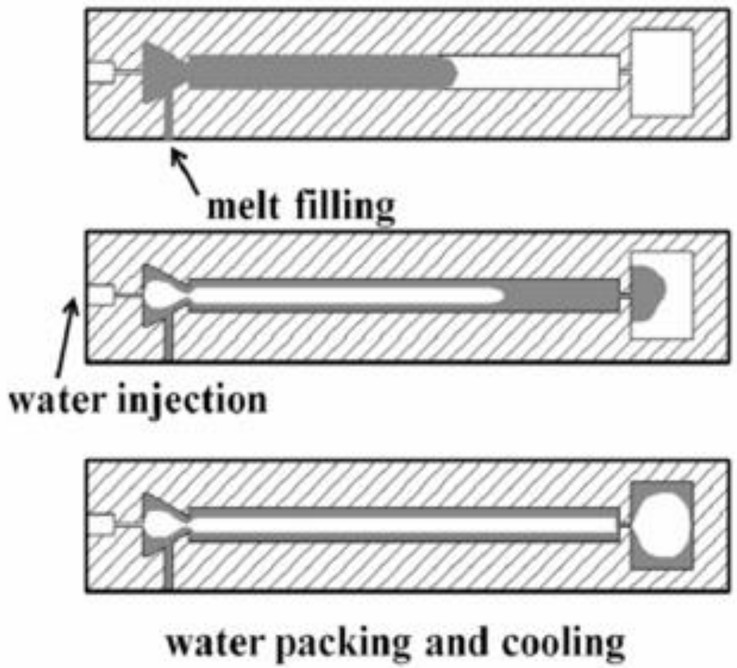


Lo stampaggio assistito da gas consente la produzione di pezzi a forte spessore a costi e tempi accettabili.

Stampaggio ad iniezione assistito H2O



Stampaggio assistito da acqua
Water Injection Technology (WIT)



L'utilizzo di acqua in pressione per "svuotare" la cavità consente cicli di stampaggio ridotti a motivo del più efficace raffreddamento del fuso

Stampaggio ad iniezione assistito H2O

E' preferibile stampare tubi ricurvi mediante stampaggio assistito da acqua che non mediante stampaggio assistito da gas perché l'acqua resta al centro del tubo nelle curve, mentre il gas genera spessori più sottili all'esterno della curvatura.

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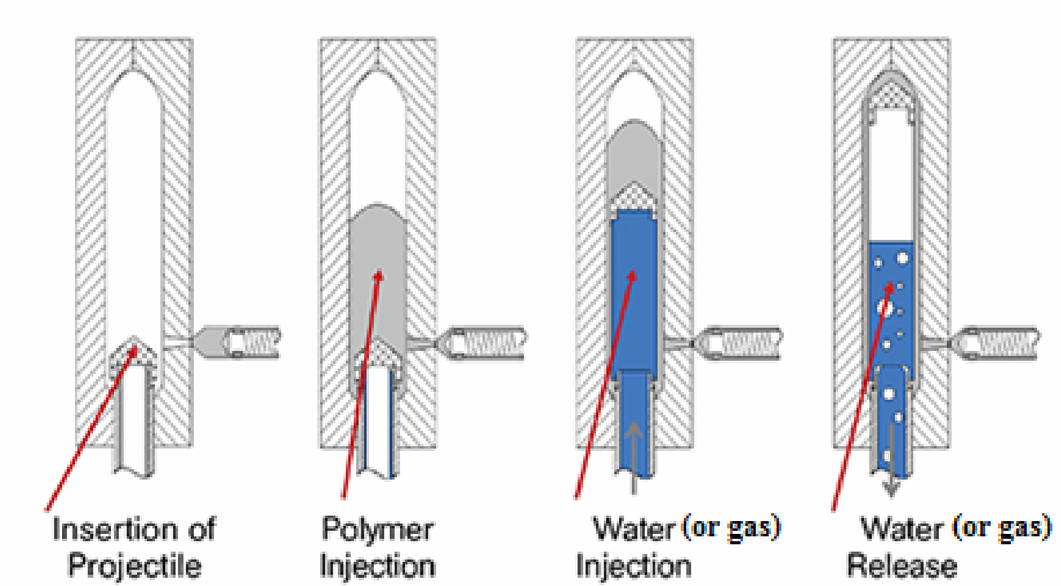
Stampaggio ad iniezione con proiettile

Stampaggio assistito da proiettile (PIT)

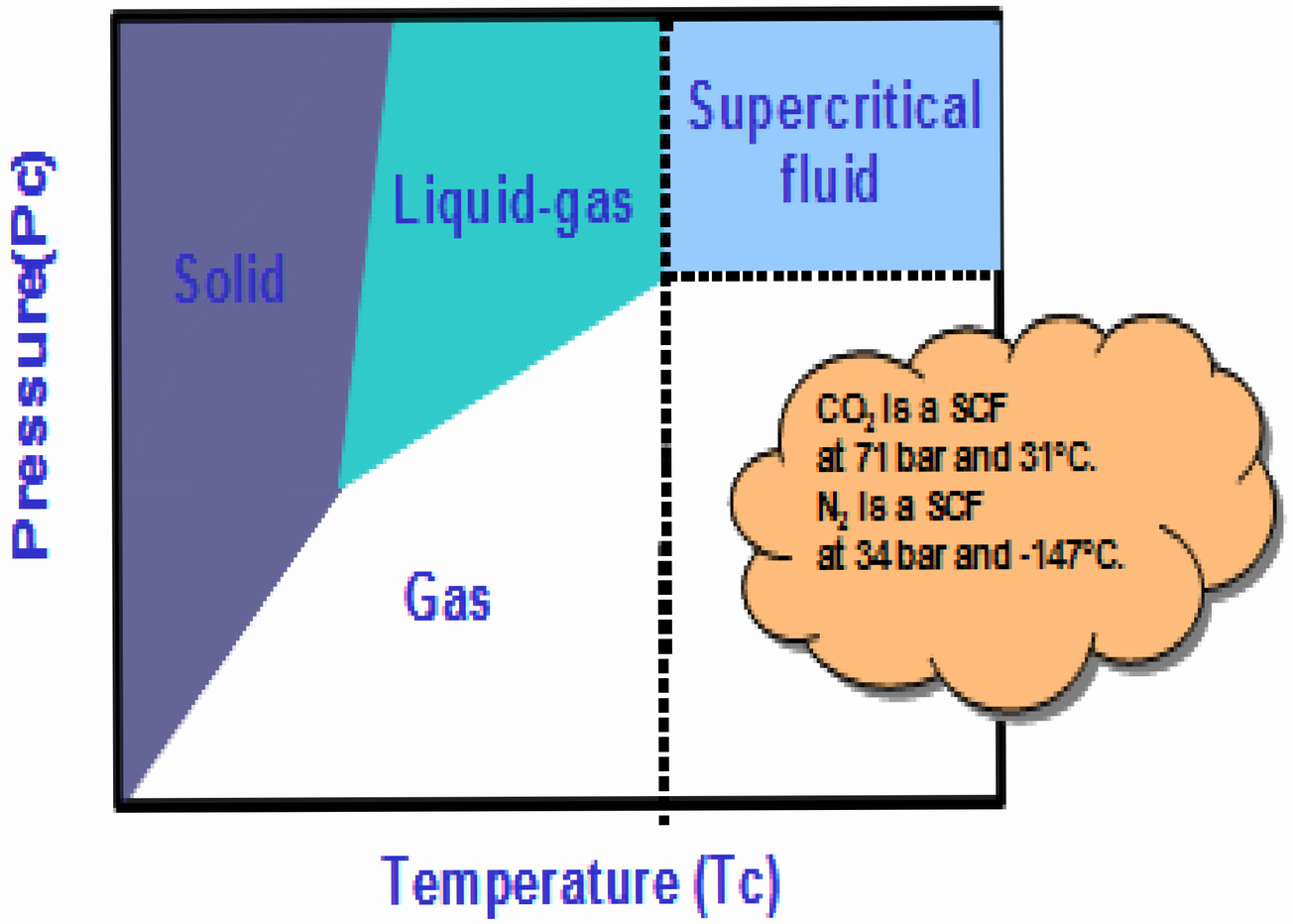


Reference: IKV, Aachen

Questa tecnologia, poco diffusa anche per l'esistenza di brevetti in corso di validità, consiste nello “sparare” nello stampo parzialmente riempito un proiettile che genera la cavità voluta.

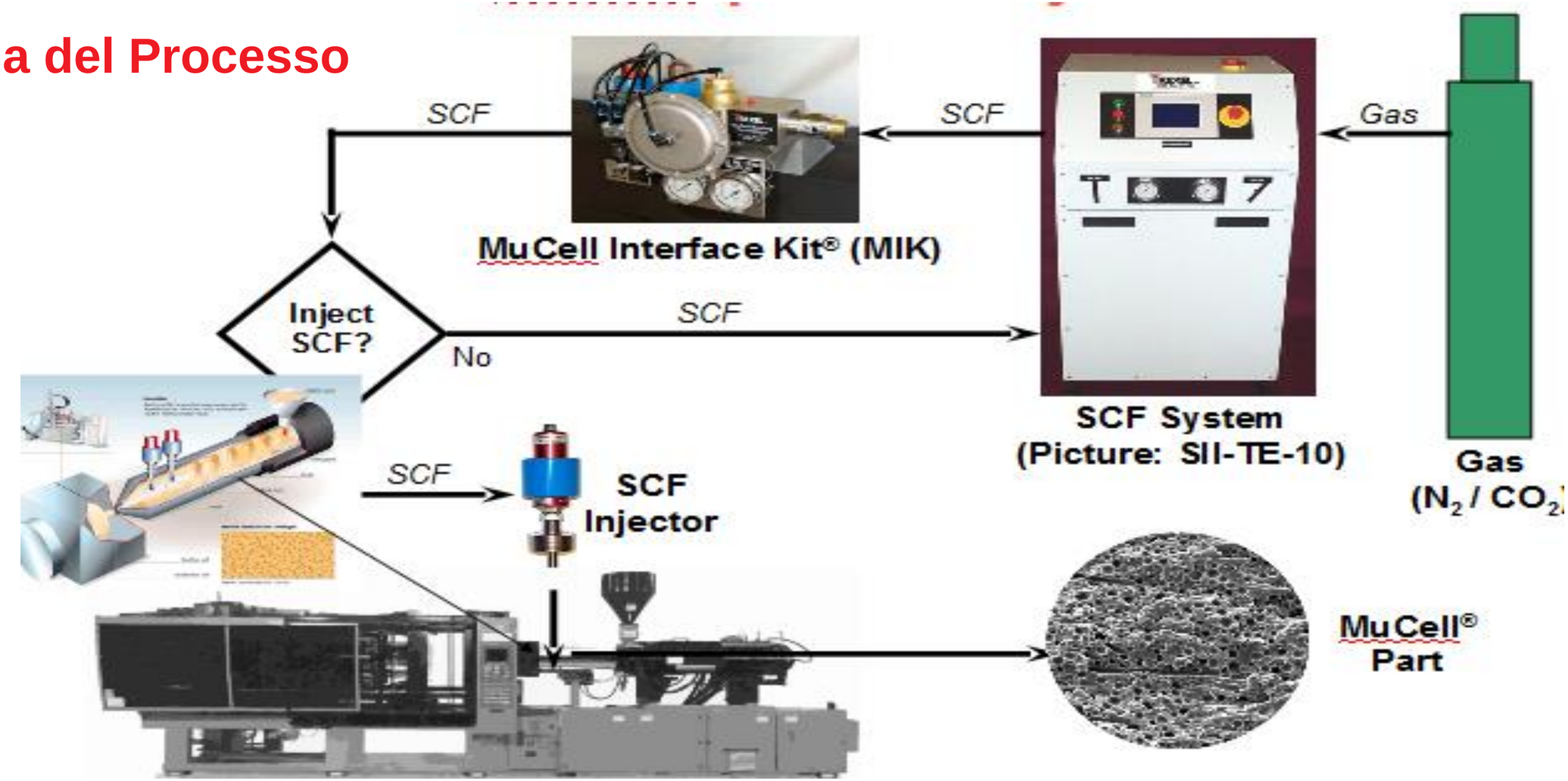
Stampaggio ad iniezione microcellulare

Fluido super critico



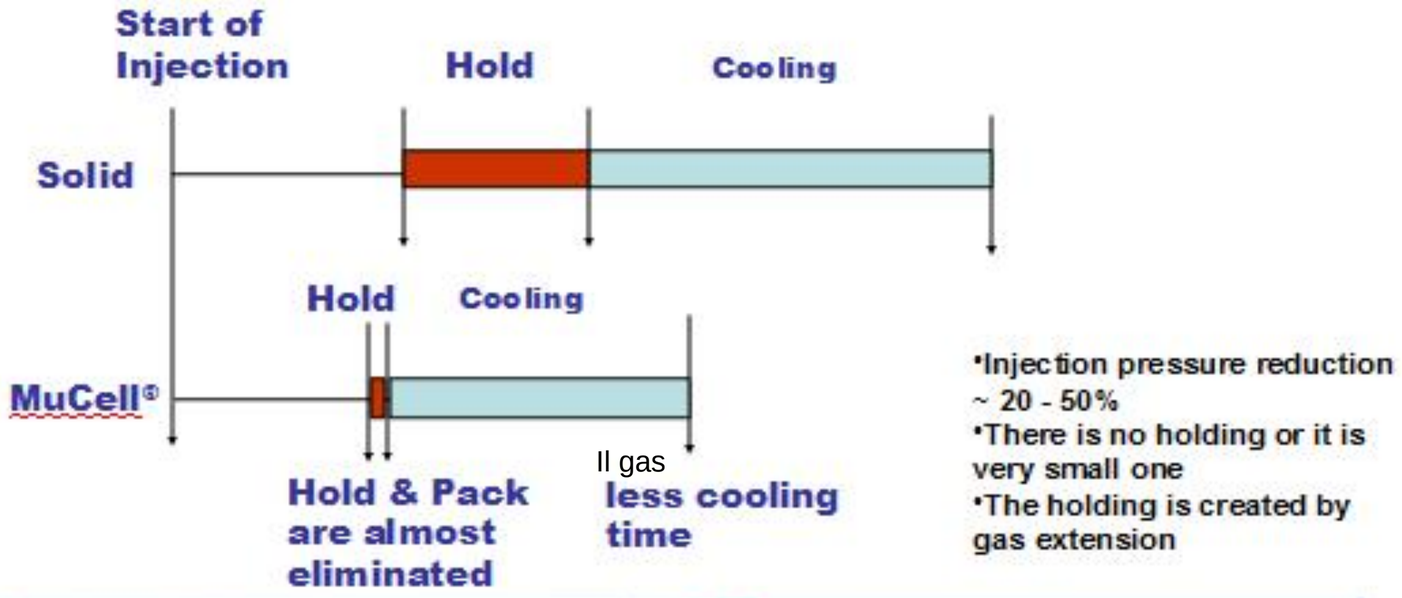
Stampaggio ad iniezione microcellulare

Schema del Processo

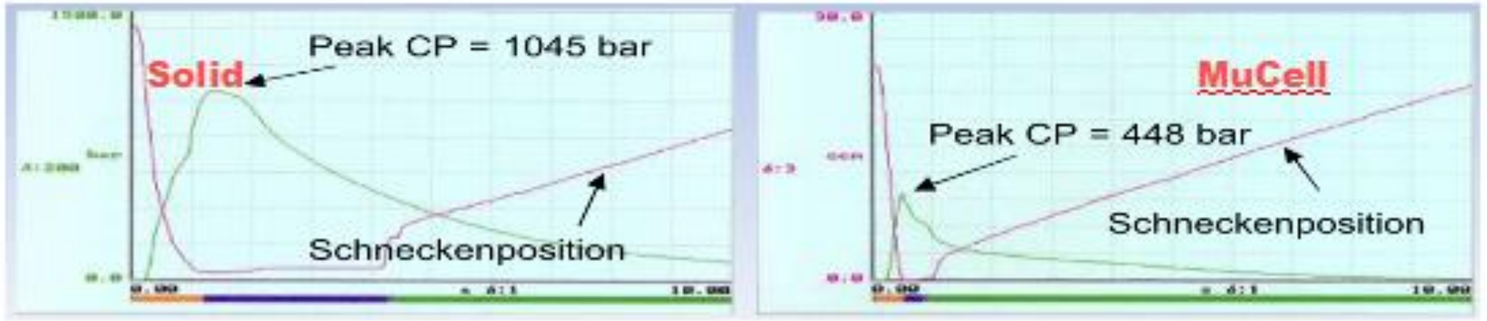


Stampaggio ad iniezione microcellulare

Il ciclo di stampaggio risulta più rapido
Il tempo di compattameneto ridotto, il gas esercita una pressione uniforme

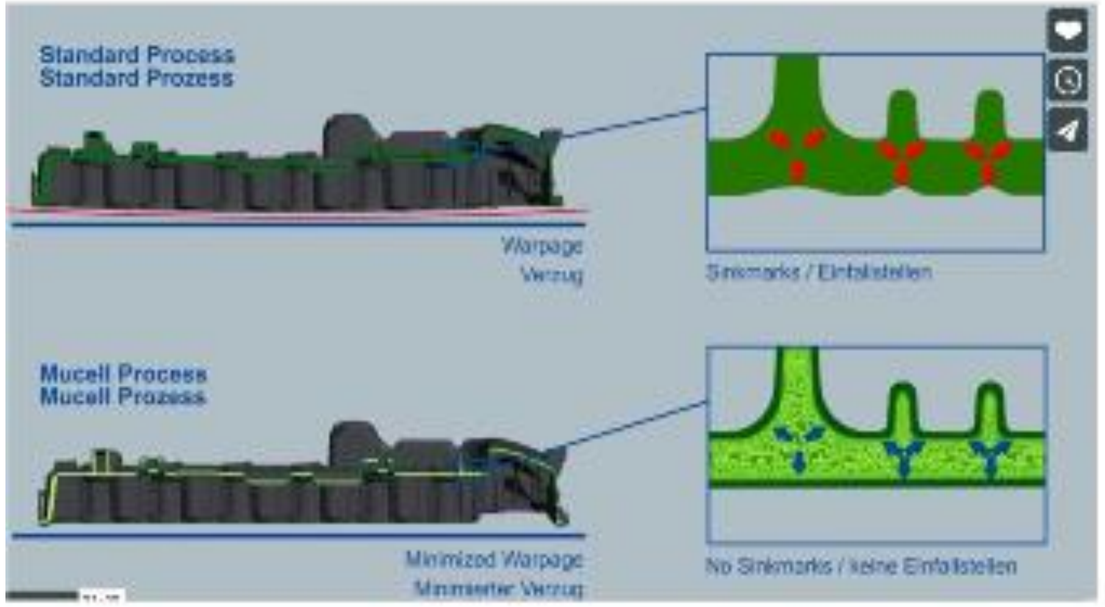


- Injection pressure reduction ~ 20 - 50%
- There is no holding or it is very small one
- The holding is created by gas extension



Stampaggio ad iniezione microcellulare

Il gas trasmette una pressione uniforme riducendo risucchi e deformazione
La presenza di eccessive porosità penalizza le proprietà meccaniche



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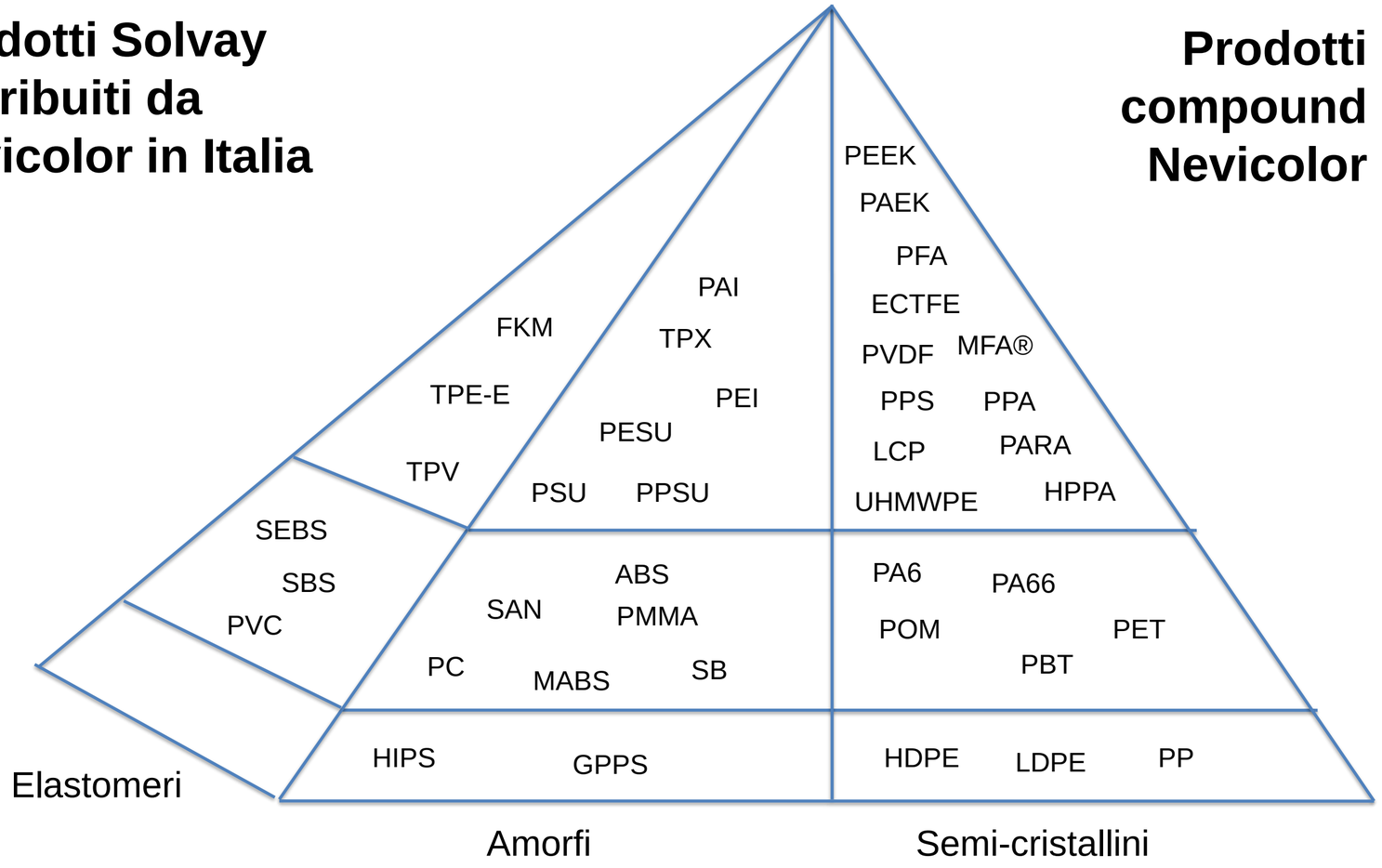
Piramide dei polimeri

- Ixef® PARA
- Ryton® PPS
- Amodel® PPA
- Omnix® HPPA
- Ketaspire® PEEK
- Avaspire® PAEK
- Solef® PVDF
- Halar® ECTFE
- Hyflon® PFA/MFA®
- Tecnoflon® FKM
- Xencor™

Prodotti Solvay distribuiti da Nevicolor in Italia



Prodotti compound Nevicolor

- Nevifood® FDA-EU
- Nevimed® 10993-5
- Nevieco® 10667
- Nevies® ABS
- Neviester® PBT
- Nevi-Flow
- Nevi-Detect
- Nevi-Light
- Nevi-Powder

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Contatti

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