

# Injection Moulding Instructions Purging through an Open Mould (Comprehensive (O) Version)

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## Grade Selection

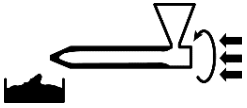
Product	Materials	Instructions
PCP 100	- Polyolefins, TPU's*, TPE's*	- Basic
	- Polyolefins, TPU's*, TPE's*	- Comprehensive (M)
	- POM, PA's*, PBT*, PPO*	- Comprehensive (O)
	- Polyolefins, TPU's*, TPE's*, POM*, PA's*	- Decarbonisation (O)
PCP HME X	- Antistatic (ESD) Polyolefins, PE100, PE80	- Comprehensive (M)
	- POM, PA's*, low MFI Polyolefins	- Comprehensive (O)
	- Polyolefins, POM, PA's*, PBT*, PPO*	- Decarbonisation (O)
PCP CHME X	- HIPS, GPPS	- Basic
	- HIPS, GPPS	- Comprehensive (M)
PCP CFT	- Styrenics, Polyolefins	- Basic
	- Styrenics, Polyolefins	- Comprehensive (M)

**\*May require re-flushing with commodity polymer due to hydrolysis nature of next material**

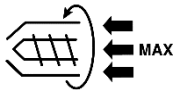
Aquapurge products are not intended to be incorporated in finished plastic goods. In the view of the many factors that may affect processing and application, users should make their own independent determination that the products are suitable for their intended use and can be used safely and legally.

## Colour Change Instructions - Through an Open Mould

### Cleaning Screw and Barrel (A - D)



A) Empty machine of last material



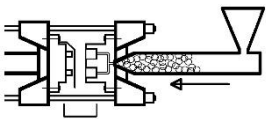
B) Increase Back Pressure to Maximum  
**(Ensure machine shut-off nozzle is in the open position)**



C) Dose **PCP** until purge is white (approx. 1kg per 100 Tonne i.e. 500 Tonne = 5kg)

D) Decrease back pressure to running conditions, return shut-off nozzle to auto and rotate screw and inject until purge is again white

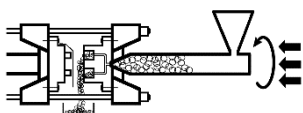
### Cleaning Hot Runner (E - I)



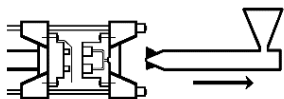
E) Move the carriage forward so the nozzle contacts the sprue bush **(ensure contact pressure and position are set correctly, especially for Magnetic Platens)** and place protection on the moving platen side

F) Ensure sequential valve gates open as one during this procedure

G) Inject through the open mould with short shots ( $\frac{1}{2}$  to  $\frac{1}{4}$  of the metering stroke)



H) Continue purging until all evidence of previous material / colour is removed (purge is white)



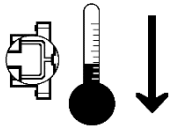
I) Retract carriage, clean around the nozzle and sprue bush and empty screw

## To Complete Just Colour Removal, go to (O)

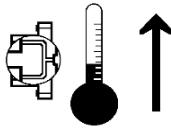
### Remove Carbon in the Hot Runner (J - N)

- J) For materials such as Nylon, PBT or POM let the machine sit for 20 minutes to remove carbon build-up.

OR



- K) Turn the Hot Runner **OFF (all zones)** and leave the cooling water **ON** until all Hot Runner temperatures reach **80°C or lower**.



- L) Turn on the Hot Runner and increase to running temperature. Ensure all temperatures have reached set point prior to continuing the procedure.

- M) Re-dose and flush the screw and barrel with **PCP**

- N) Repeat Steps E - I

## Clearing Screw & Barrel (O - Q)



- O) Decrease back pressure to running conditions, stop feeding **PCP** and screw back and inject until completely empty
- P) **STARVE-FEED** the next production material and colour **5 times** and empty the screw completely  
**(fill the hopper throat and empty the hopper throat until the screw is visible, 5 times)**
- Q) Continue with the next material until all evidence of the **PCP** is clear from the purge

## Clearing Hot Runner (R - S)

- R) Repeat steps E to I with the NEXT PRODUCTION MATERIAL until all purge is cleared from the Hot Runner



- S) Expel air and reseal bag

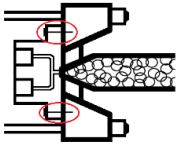
## Safety Precaution



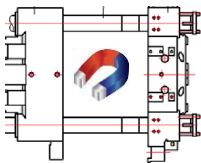
**Do not use PCP** for material with processing temperatures below 160°C



**Do not use PCP** for material with processing temperatures above 290°C



**Ensure Mould / Tool is mounted securely before purging through the open mould**



**“Caution” to be taken if machinery has Magnetic Platens (refer to machine supplier user guide)**  
**If in doubt then use clamps / bolts to secure the fixed side of the mould to the fixed platen**



### PPE

Wear suitable protective clothing when cleaning down equipment, using, handling or viewing the hot or cold **PCP**



If contact with skin occurs, wash with cool water



In case of eye contact, irrigate with plenty of cool water



Do not swallow product



In situations of excessive shear heat place purgings in cool water to eliminate fumes