|  |  |
| --- | --- |
| Company:       | Date:       |
| Address:       |
| Contact:       | Email:       |
| Phone:       | Fax :       |
| **Extruder Mechanical Information** |
| OEM:       | Dia:       | X | L/D:       |
|  |
| Drive Motor Power:      | AC [ ]  or DC [ ]  ?: Motor RPM:       | Gearbox ratio: **: 1** | Max Screw RPM:**0 to**        Max | Max Motor Amps:      |
|  |
| Melt Pump?Y [ ]  N [ ]  | **→** | If Yes then what is the Suction Bar?      | **→** | If No, then what is the Max Head Bar?      | Screen Changer?Y [ ]  N [ ]  | Screw Cooling?Y [ ]  N [ ]  |
|  |
| Grooved Feed?Y [ ]  N [ ]  | **→** | If Yes, please describe the Groove Details.# of grooves:      W       x D       x L        | Does the barrel insert through the Feed Block? Y [ ]  or N [ ]  |
|  |
| Vented Barrel?Y [ ]  N [ ]   | If Yes, then location from back of Feed Opening to centerline of vent hole?      mm |
|  |
| Feed Hole SizeW       x L       or Diameter       | Feed MechanismHopper [ ]  Crammer [ ]  Stuffer [ ]  |
|  |
| Barrel Cooling – Water [ ]  or Air [ ]  Please submit current Barrel Zone Temperature Settings:1:       2:       3:       4:       5:       6:       Die:       |

Feed End Discharge End

**Current Screw Design:**

Conventional [ ]  Mixing [ ]  Barrier [ ]  Other [ ]



|  |  |  |
| --- | --- | --- |
| Feed Length:       | Feed Depth:       | Transition Length:       |
| Metering Length:       | Metering Depth:       | Screw OAL:       |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sheet [ ]  | Pipe [ ]  | Blowmoulding [ ]  | Profile [ ]  | Wire & Cable [ ]  | Pelletizing [ ]  |
| Compounding [ ]  | Cast Film [ ]  | Blown Film [ ]  | Fiber [ ]  | Other:       |

**Resin Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Application 1** |  | **Application 2** |  | **Application 3** |
| Materials Used: |       |       |       |
| Resin Numbers \*\* |       |       |       |
| \*\* *If resin numbers are unknown, please provide samples of materials to be processed. See attached document for details.* |
| Manufacturer: |       |  |       |  |       |
| Regrind % |       |       |       |
| Regrind Bulk Density |       |       |       |
| Additives Detail(Type, % etc) |       |       |       |
|  | \* If Colour, is it Liquid [ ]  / Concentrate [ ]  ? |
| Resin Drying? |       °C/Hrs |  |        °C/Hrs |  |        °C/Hrs |

**Current Performance (Process Snapshot)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Current Output? |        Kg / Hr |  |       Kg / Hr |  |       Kg / Hr |
| @ Melt Temp? |       °C |       °C |       °C |
| @ Screw RPM? | RPM |       RPM |       RPM |
| @ Motor Amp? | Amps |       Amps |       Amps |
| @ Head Pressure | Bar |       Bar |       Bar |

|  |
| --- |
| **Desired Performance Requirements** |
| Desired Output Range |       Kg/Hr |  |       Kg/Hr |  |       Kg/Hr |
| @ Melt Temperature |       +/- 10 °C |  |       +/- 10 °C |  |       +/- 10 °C |
| @ Pressure Stability |       +/- BAR |  |       +/- BAR |  |       +/- BAR |

What problems brought about the need for this new screw design? (Throughput. Melt Temperature, Stability, Mixing etc)

How will you measure the Melt Temperature?

Hand Held Melt Pyrometer [ ]  Melt Probe Instrumentation [ ]  Are they calibrated? Y [ ]  N [ ]

Where will the measurements be taken?

Before Screen Changer [ ]  After the Die [ ]  Other, please specify:

What goals do you need to achieve with this new screw design?

Thank you for completing our Extruder Screw Design Questionnaire. Please email to neil@coopertech.com.