Twin Screw Extruder Maintenance Tools
**Wear Limit Gauge:** Also known as a “Go/No Go Gauge, is designed for a quick and easy inspection of excessive wear on your elements, which have been removed from the shaft.

**Description:** The Wear Limit Gauge, is designed with an inside diameter bored to the recommended minimum diameter for your specific twin screw model. If your element is still within wear tolerances, then the element will not slide into the gauge. If the wear has exceeded the wear tolerances, then the element will slide into the gauge and needs to be replaced. It has a length of 1.5 times the extruder diameter, a knurled outside diameter, and engraved with the extruder model. It is machined from our CR5 metallurgy, which allows for excellent wear and corrosion resistance for years of use.
**Wear Limit Gauge, Split Type:** An improvement on the standard “Go/No Go Gauge”.

**Description:** The design utilizes the current Wear Limit Design, but is a two piece design, which allows the user to easily slide this gauge down the shaft to check element wear without removing them from the shafts. If the gauge fully closes, then the elements under the gauge are beyond the wear limit. It has a length of 1.5 times the extruder diameter, a knurled outside diameter, and engraved with the extruder model. It is machined from our CR5 metallurgy, which allows for excellent wear and corrosion resistance for years of use.
**Shaft Cleaning Tool**: Designed to allow easy cleaning of residual polymer from your shaft.

**Description**: The Shaft Cleaning tool is designed to closely match your shaft profile and easily remove any residual or degraded polymer. It is designed with a gentle taper of the cleaning teeth outward, which are made from a hardened steel and the ends are made from brass to prevent damage to your shafts or elements. The tool’s weight allows for the momentum to aide in easily cleaning the shafts, which allows you to remove your stuck elements. A video of the shaft cleaning tool may be found on YouTube at [http://youtu.be/BfWE63ElTTE](http://youtu.be/BfWE63ElTTE).
**Internal Element Cleaning Tool:** Designed to allow easy cleaning of residual polymer inside your elements.

**Description:** The tool allows the element to be slid down the shaft profile and remove the degraded polymer from the element’s internal splines, without the time consuming method of cleaning with wire brushes. It is machined out H13 hardened steel for the cleaning section and a softer EN8 for the base and the tip.
Shaft Rollers: Designed to confirm the twin screw extruder shafts are correctly configured.

Description: The pair of Shaft Rollers allows the shafts to be easily rolled together, maintaining centerline distance and confirm the they are correctly configured with no interference between elements. If the shafts are not checked before the extruder is started, this can cause the extruder shafts to lock up and break elements and/or shafts. A video of the Shaft Rollers may be found on YouTube at http://www.youtube.com/watch?v=egjFwg02jd0.
**Shaft Drive Spline Nut:** Designed to secure the drive spline of a shaft from rotation after being removed from the extruder.

**Description:** After removing the shafts from the extruder, the Shaft Drive Spline Nut is slid over the drive end if the shaft, secured in a vise or a pipe wrench to prevent rotation, then the appropriate torque can be applied to remove the tip studs without damage to the shaft hub or drive spline.
Additional Tools to be offered: These tools are currently in the design stage. They will be quoted when design is completed, tested, and improvements made.

- Manual Element Removal Tool: This tool utilizes a reverse profile of two or three element profiles. It is a split design with a clamping ring that will slide over the two piece reverse profile, which clamps on the screws that might be stuck on the shaft, then allow the operator to provide a horizontal force to the clamping ring to optimize the removal without providing a vertical force directly to the element profile, risking damage to the elements.

For additional information or quotes for any of these tools, please contact your SteerAmerica Regional Sales Manager or info@steeramerica.com.