Perfect Synchronization for Pressure Die Assist

With this feature, unlike non-servo controlled motion, there is virtually zero percent chance for collision between the PDA axis and the bend arm axis during bending. When the bend arm moves - the PDA follows. It enables real-time perfect following-synchronization between the bend arm and the PDA axis.

When the bend arm accelerates or decelerates, the PDA actuator also accelerates or decelerates in perfect synchronization. The PDA axis responds to every small change in the bend axis.

Powerful RVG = Real-time Variable Gearing

Use the PDA RVG feature to command PDA-to-Bender Arm gear ratio changes in real-time relative to the position of the bend arm.

Features

- PDA Motion
- Real-time Variable Gearing

Issues

Pressure Die Assist setup can be challenging when performed with manual flow-control valves. With a non-servo directional valve controlling the PDA, there is lack of perfect synchronization with the bend arm motion.

Goals

Provide a control system that perfectly gears the PDA motion with the bend arm every time.

Allow the operator to adjust the ratio of motion at any point during bender in real-time in order to better control the flow of material over the dies.
**RVG Profile Setup Editor**

The RVG profile setup editor screen allows you to enter hundreds of custom RVG setups.

The editor uses a grid interface that can expand to any number of rows of setup data. Each row is an “RVG Profile” that can be assigned to any bend in any row in any bend program.

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**Up to 20 Adjust Points per Bend**

Program up to 20 bend-arm positions per bend to set where the gearing changes. For example, you may want to move the PDA slightly faster at 20 degrees for thin-walled aluminum tubing over mandrel. You could set the PDA gearing at +2% at 20 degrees. This would press more material into the outer section of the bend after 20 degrees of bend.

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**Easy to Use**

It couldn’t be any easier to apply an RVG profile to a bend. Select the PDA-RVG option inside any bend options cell, and then choose the RVG profile you want to use from a list of profiles (that you setup in the RVG Setup Editor). It’s that simple!