**RESULTS**

- Achieved superior pressure control
- Improved oil extraction yields
- Simplified maintenance and servicing
- Changed hand knob color for better OEM product aesthetics
- Reduced OEM inventory

**APPLICATION**
Back-pressure regulation for cannabis oil extraction

**CUSTOMER**
CO₂ extraction equipment manufacturer

**CHALLENGE**
A manufacturer of supercritical CO₂ extraction machines was designing a cannabis oil extraction system for processors selling into medical and recreational markets. The use of supercritical fluid technology is replacing organic solvents in a wide range of industrial and laboratory processes. The manufacturer’s new system required a highly precise pressure regulator to optimize the oil extraction process and improve yields. It also needed a pressure control device that was easy to maintain in the field.

**SOLUTION**
After evaluating several suppliers, the manufacturer chose an Emerson TESCOM™ back-pressure regulator for its new oil extraction system. Emerson’s technical team modified a standard TESCOM 26-1700 regulator to provide the customer with significantly better pressure control and improved process yields. Emerson adjusted the regulator’s bonnet torque to permit repair from the front panel. This eliminated the need to remove the regulator for troubleshooting and greatly simplified maintenance. The regulator hand knob’s color was changed to match the aesthetics of the OEM equipment. Plus, one TESCOM part number could handle three process pressure ranges, reducing the OEM’s inventory. The customer was pleased with Emerson’s capability to modify the TESCOM product to their equipment’s unique requirements.

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