

FlexForce

High pressure coolant system for through-spindle coolant (TSC) applications with variable flow rate options for high-performance adaptability

Increase temperature stability resulting in faster, more consistent, and more accurate cuts for greater productivity



FEATURES

- Standard and variable flow rate options are available in 500 (34.5 bar) or 1,000 (69 bar) PSI configurations
- Improved tool lubrication and heat dissipation in the cutting zone
- Standard units filter to 10 microns; however, 5-to-25-micron filtration is available
- On-board coolant reservoir to continuously feed HP pump
- "Bag Filter Full" sensor and light indication
- Automatic pressure regulator and dump valve
- Multiple electronic sensors to monitor critical levels provide lights out operation
- Machine mating connector with interface

BENEFITS

- Optimized machining speeds and feeds for increased productivity
- Improved surface finishes and part accuracy
- Improved chip evacuation and chip breakage control
- Reduced tool wear
- Breaks through the heat-generated vapor barrier created at the cutting tool and workpiece interface that causes surface deformities and damaged tooling
- Fail-safes and pressure regulation greatly reduce or eliminate system damage
- Safe and efficient operation
- Maintenance friendly design

*Intelligently designed
for fail-safe operation*



HOW IT WORKS

1. A low-pressure suction pump draws coolant out of the existing coolant reservoir.
2. Coolant flows through the bag filter into the FlexForce reservoir.
3. The high-pressure pump draws coolant from the designated reservoir and sends the high-pressure coolant to the machine.
4. Pressurized coolant flows out of the Flex Force unit, through the spindle, and shoots directly at the cutting point.
5. Due to the force generated by high pressure, coolant is able to break the vapor barrier, and directly hit the cutting edge.

APPLICATIONS

- Coolant Filtration
- Central Systems
- Water Filtration
- Fluid Filtration

DESIGN OPTIONS

- Single or duplex bag filters
- 10–25 micron filtration
- 500 (34.5 bar) and 1000 (69 bar) PSI models available
- Fixed flow or variable flow between 2 gpm and 8 gpm

*FlexFiltration design easily fits with
existing coolant management and
filtration systems.*