

Ultra Nozzles

Performance and reliability for every application



THE MOST ADVANCED NOZZLE ON THE MARKET

- Guaranteed leakproof operation with UltraSeal technology
- UltraGuide valve gates provide the highest gate quality and minimize wear
- Optimized thermal tip design provides up to three times wider operating window
- Faster color changes and minimal pressure drops with optimized melt channel diameters and UltraFlow mixing tips
- Able to run at injection pressures up to 3 400 bar (50 000 psi)
- Wear-resistant components can withstand heavily filled resins
- Simplified maintenance with easy-access to all major components while in the machine

We continue to offer a three-year leakproof guarantee along with a three-year warranty on most components, including manifolds, plates, heaters, and nozzle housings.

FLEXIBILITY FOR PERFORMANCE

The Ultra nozzle family meets today's molding demands using new technologies, materials, and designs.

- Four nozzle sizes for parts from less than 1 gram to over 1.6 kg (3.5 lbs)
- Standard melt channel diameters from 4 mm to 16 mm
- Ten gating styles and more than 30 standard nozzle lengths
- Standard gating options for highly abrasive and high-pressure applications

The temperature operating window of Ultra nozzles allows trouble-free operation, making them easy to use with even the most demanding resins.

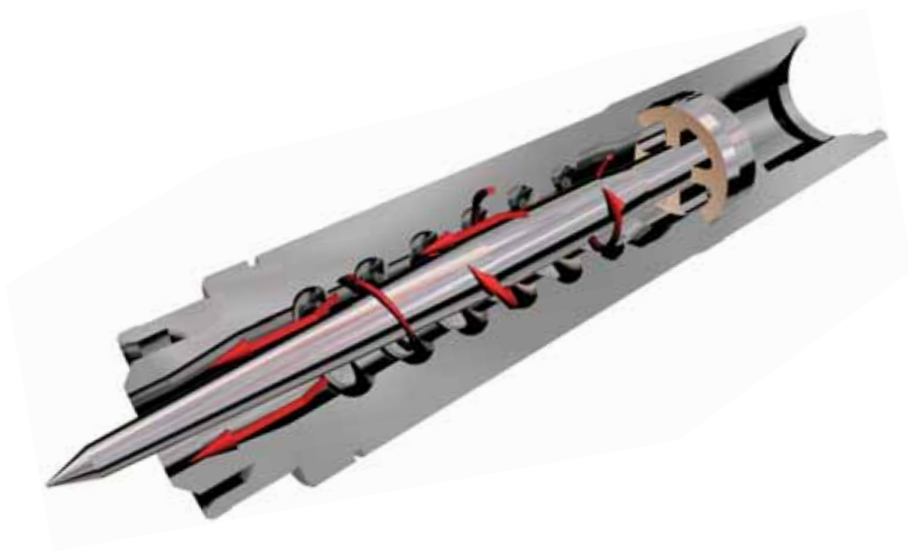
HUSKY

Keeping our customers in the lead

ULTRA NOZZLES – GUARANTEED LEAKPROOF

IMPROVED NOZZLE DESIGN

External threads on the nozzle improve resistance to high injection pressures and make maintenance more convenient. Ultra nozzles offer a wider range of melt channel diameters for optimized color changes and pressure drops. The Ultra thermal tip design provides up to three times the temperature operating window of conventional designs.

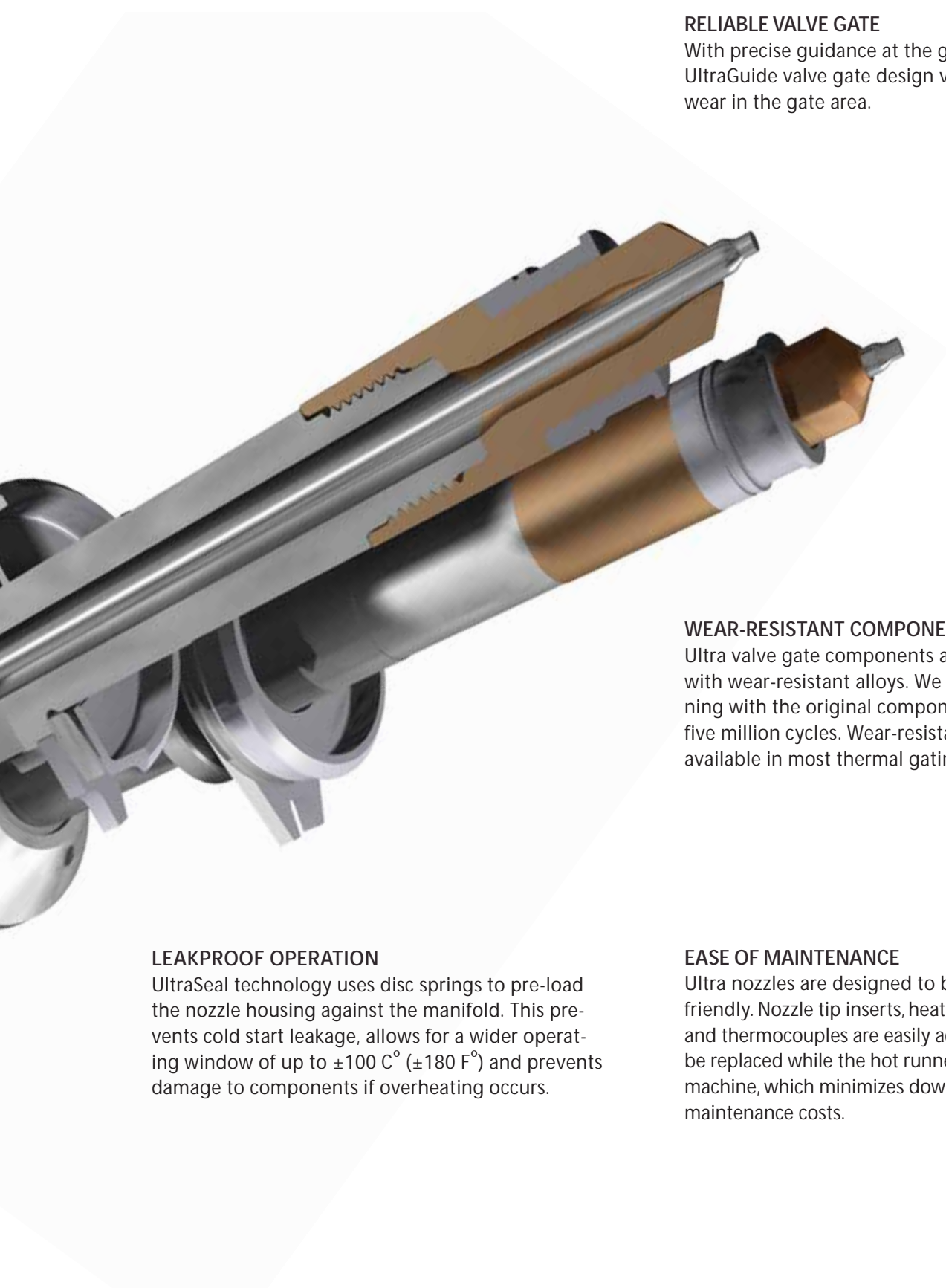


ULTRAFLOW MIXING

UltraFlow helps to produce a more structurally sound part. A uniform resin temperature distribution minimizes shrinkage and warpage, providing tighter part tolerances. UltraFlow can eliminate flow-lines, improve color consistency, and provide a high quality surface finish, even for metallic and pearlescent resins.

Color changes up to 10 times faster can be achieved with the UltraFlow nozzle tip. UltraFlow tips are available for the Ultra 500 and Ultra 750 nozzles.





RELIABLE VALVE GATE

With precise guidance at the gate orifice, the UltraGuide valve gate design virtually eliminates wear in the gate area.

WEAR-RESISTANT COMPONENTS

Ultra valve gate components are manufactured with wear-resistant alloys. We have systems running with the original components after more than five million cycles. Wear-resistant options are also available in most thermal gating configurations.





LEAKPROOF OPERATION

UltraSeal technology uses disc springs to pre-load the nozzle housing against the manifold. This prevents cold start leakage, allows for a wider operating window of up to $\pm 100\text{ C}^{\circ}$ ($\pm 180\text{ F}^{\circ}$) and prevents damage to components if overheating occurs.

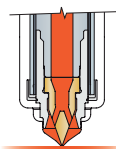
EASE OF MAINTENANCE

Ultra nozzles are designed to be maintenance-friendly. Nozzle tip inserts, heaters, tip insulators, and thermocouples are easily accessible and can be replaced while the hot runner is mounted in the machine, which minimizes down-time and reduces maintenance costs.

PRODUCT SPECIFICATIONS

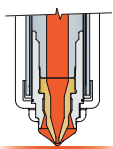
Nozzles	Gating Styles	Throughput g/sec	Design Specifications			Unique Features
				mm	inches	
Ultra 250	 • Hot Tip (HT-D, HT-T, HT-U, HT-X)	Up to 10	Maximum channel ø Nozzle spacing Bore ø Seal-off ø	 4.0 18.0 12.5 7.0	 0.16 0.71 0.45 0.28	• One-piece heater/TC assembly for ease of installation
Ultra 500	 • Hot Tip (HT-D, HT-T, HT-U, HT-X, HT DC) • Valve Gate (VG, VX)	Up to 50	Maximum channel ø Nozzle spacing VGSX VGLX Bore ø Seal-off ø	 8.0 25.4 50.0 25.0 10.0	 0.32 1.00 1.97 0.98 0.39	• Valve gates available in large and small pitch options • Extended tip for improved gate access available
Ultra 750	 • Hot Tip (HT-D, HT-T, HT-U, HT-X, TS, HT DC) • Valve Gate (VG, VX)	Up to 350	Maximum channel ø Nozzle spacing HT VG Bore ø Seal-off ø HT VG	 11.5 44.5 50.0 31.0 14.0 19.0	 0.45 1.75 1.97 1.22 0.55 0.75	• Cylindrical or tapered stem • Extended tip for improved gate access • Cap design available
Ultra 1000	 • Hot Tip (HT-D, TS) • Valve Gate (VG, VX)	Up to 750	Maximum channel ø Nozzle spacing HT VG Bore ø Seal-off ø HT VG	 16.0 65.0 75.0 42.0 18.0 25.4	 0.63 2.55 2.95 1.65 0.71 1.00	• Tapered valve gate shutoff • Single-cavity valve gate and hot sprue

THERMAL GATING OPTIONS



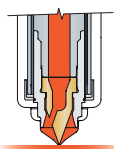
HT-D

Ideal for amorphous resins and general purpose applications. Wear-resistant tip insert for abrasive applications available.



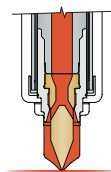
HT-T

For applications that require no flow lines. Wear-resistant tip insert for abrasive applications available.



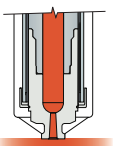
HT-U

Ideal for applications that use a filled resin with a large particle size. Made of wear-resistant material for long life.



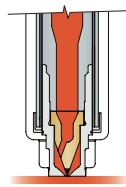
HT-X

Extended tip enables inside or "difficult to access" gating. Wear-resistant tip insert available.



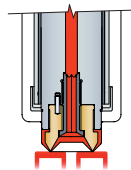
TS

Ideal for hot-to-cold applications. Results in a small sprue vestige. Torpedo insert for specific resins available.



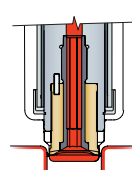
HT-DC

Identical to HT-D, with screw-on caps to simplify gate geometry. Ideal for abrasive applications.



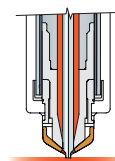
MP

For direct thermal gating on small parts oriented in clusters. Replaceable tip insert. Two nozzle sizes provide flexibility in part spacing.



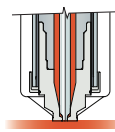
EG

For gating on the edge of a small part. Each nozzle can feed one or two cavities.



VG

For applications that demand no gate vestige. Ideal for both amorphous and semi-crystalline resins. Pneumatically operated valve stem. Cylindrical and angled shut-off available as standard.



VX

For high-temperature and abrasive applications that require VG quality gate. Cylindrical and angled shut-off available as standard.

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