

# Front End Components

## Consistency

- Repeatability
- Improved Wear Life

## Cost Effectiveness

- Peak Performance
- Up Front Where It Means The Most!

can design and manufacture a complete line of front end components for injection units from a variety of abrasion and corrosion resistant steels including: Hastelloy, Inconel, M390, H13, D2, S7, CPM and 174PH stainless steel.

### Components include:

- End Caps
  - Nozzle Tips
  - Nozzle Bodies
  - Shut-off Valves
- 's comprehensive line of front end components are made to OEM original specifications with improved wear and corrosion resistance.

Select from a broad range of materials of construction and top that with fast delivery, maximizing your up time.



### Auto-Shut™ Valves

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. Free fowing, positive shut-off, self-cleaning</li> <li>2. Most consistent shot-to-shot repeatability in the industry</li> <li>3. Shut-off mechanism operates independent of screw travel</li> <li>4. Poppet style design eliminates problems associated with retainer wear</li> <li>5. Generous poppet stroke for reduced pressure drop</li> <li>6. Spring-actuated, instantaneous closing, independent of resin viscosity</li> </ol> | <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>▪ Best shot repeatability in the industry</li> <li>▪ Mechanical shut off</li> <li>▪ Reduced splay and silver streaking</li> <li>▪ Eliminates retainer wear</li> <li>▪ Free fowing</li> </ul> <p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>▪ Consistent performance</li> <li>▪ Superior shot control</li> <li>▪ Less scrap produced</li> <li>▪ Extended service life</li> <li>▪ Reduced shear and black specks</li> </ul> |
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### Applications:

1. PC and ABS alloys
2. Acrylic
3. Polyolefns with 10 mi or less
4. Not for use with nylons and glass-filled materials

### FTR™ Valves

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Three-piece non-return valve</li> <li>2. Free fow design with zero restriction</li> <li>3. Greater contact area for reduced wear</li> <li>4. Self-cleaning design</li> <li>5. Economical</li> </ol> <p><b>Applications:</b></p> <ol style="list-style-type: none"> <li>1. RPVC</li> </ol> <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>▪ Free fow design</li> <li>▪ Excellent shot repeatability</li> <li>▪ Self-cleaning</li> <li>▪ Greater contact area</li> <li>▪ Low shear design</li> </ul> | <p><b>Benefits:</b></p> <ul style="list-style-type: none"> <li>▪ Improved wear</li> <li>▪ Eliminates burning and black specks</li> <li>▪ Longer service life</li> <li>▪ Greater processing flexibility</li> <li>▪ Low part weight deviation</li> <li>▪ The best RPVC 3-piece valve available</li> </ul> |
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# Front End Components



## Sliding Ring Valves

1. Industry standard design
2. Flow path design can be tailored to wide range of resins
3. Materials of construction range from standard H13 and D2 tool steels to high performance CPM grades
4. Available in three and four-piece configurations
5. Economical

### Applications:

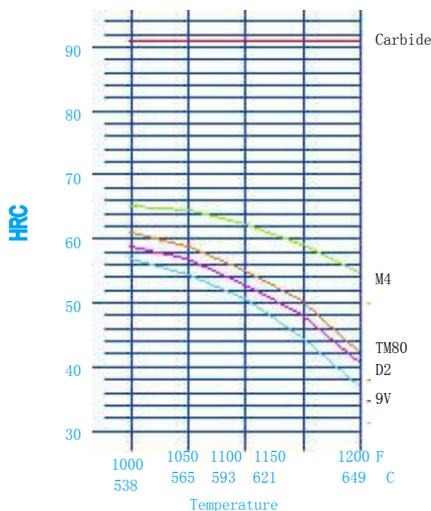
1. General purpose
2. Special four-piece “shear eliminating” designs for fluoropolymer materials

### Advantages:

- Wide range of resins
- Variety of construction materials
- Durability
- Versatile three and four-piece configurations
- Low cost

### Benefits:

- General purpose design
- User-selectable levels of wear performance
- Good for custom molding applications
- Replaceable components
- Low investment



## Locking Ring Valves

1. Zero relative velocity ring/retainer interface
2. Streamlined design for smooth lock-up
3. Flow paths can be tailored to a wide range of resins
4. Reduced valve wear with abrasive resin compounds

### Applications:

1. General purpose with abrasive fillers

### Advantages:

- Zero velocity between ring and retainer
- Variety of construction materials
- Good shot repeatability
- Flow paths can be tailored to accommodate a wide range of resins

### Benefits:

- Resists ring/retainer wear
- Improved wear life in abrasive applications
- General purpose three-piece design
- Consistent part weights
- Good in custom molding applications



## Poly-Check® Valves

1. Ball check with optimized flow path design
2. Self-cleaning configuration
3. Simple front discharge, no inserts or thread-on components
4. Superior shot repeatability
5. Simple one-piece design adds to durability and promotes longer wear life with standard materials of construction

### Applications:

1. All polyolefin-based materials with greater than 8 mi
2. Polystyrene
3. LSR

### Advantages:

- Dependable design
- Self-cleaning
- Superior shot repeatability
- Ball seat is easily resurfaced
- Few moving parts
- Low cost
- Reduced wear in larger diameters

### Benefits:

- Easy to maintain
- Low part weight deviation
- Good wear performance
- Can be rebuilt by re-seating and installing new ball
- Low investment

## Eliminator® Nozzle Tips

### Advantages:

- Eliminates stringing, drooling, cold slugs
- Hardened steel, easy installation, universal design

### Benefits:

- Eliminates costly mold repair caused by strings pulling across mold face
- Works on highly crystalline, semi-crystalline and shear-

