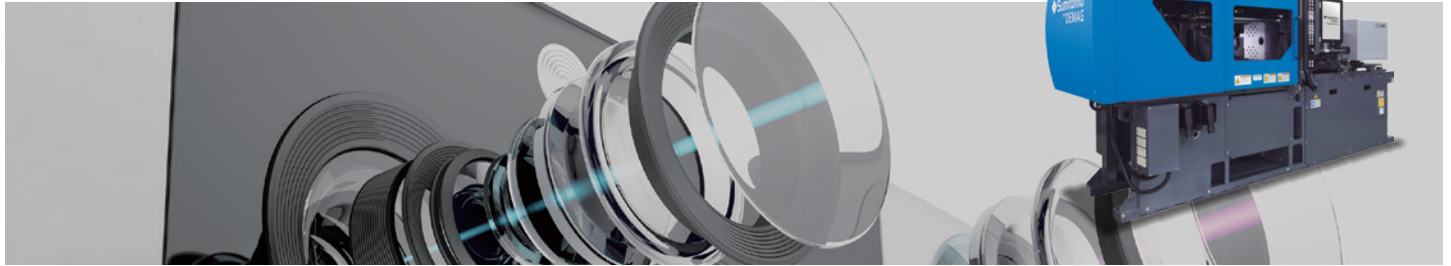


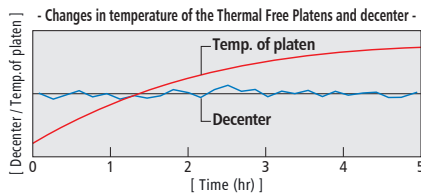
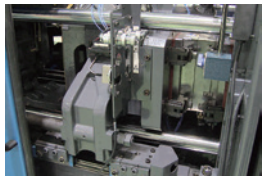
SEEV-A Lens



Platens keep high parallelism

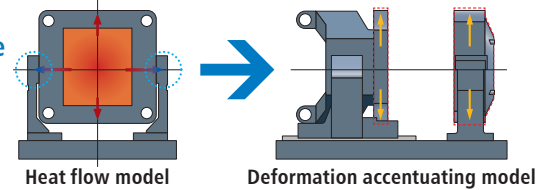
Thermal Free Platens PAT. pend. in Japan

The injection molding machine for lens adopts specially structured Thermal Free Platens that minimize any irregular deformation due to heat, resulting in a platen that keep platen parallelism and straightness.

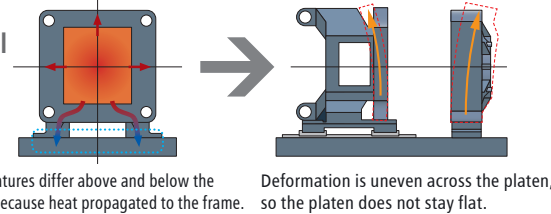


Heat propagates symmetrically upwards/downwards. Upward/Downward deformation is even across the platen, so the platen stays flat. Temperature is the same above and below the platen.

Thermal Free Platens



Conventional Platens



Prevents tilting of fixed platen

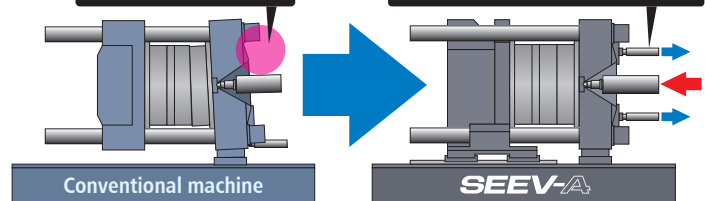
High precision nozzle touch

The 2-axis support mechanism provides a load distribution centered on the nozzle. Thus, it is possible to prevent the fixed platen from tilting during filling and holding pressure.



Fixed platen tilts

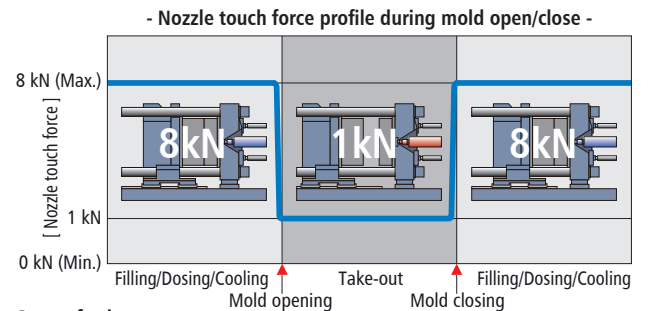
2-axis mechanism realizes axisymmetric load distribution



Prevents misalignment and galling

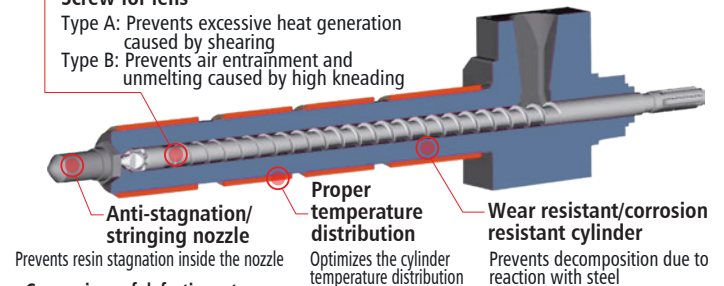
Nozzle touch force feedback control

Nozzle touch pressure-increasing/pressure-release can be controlled along the molding process and set numerically. It suppresses tilting of the fixed platen and deformation of the mold, and prevents misalignment and pin galling.



Screw for lens

- Type A: Prevents excessive heat generation caused by shearing
- Type B: Prevents air entrainment and unmelting caused by high kneading



Optimal design for optical molding

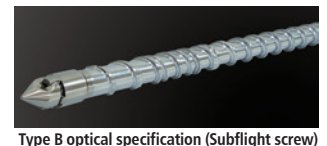
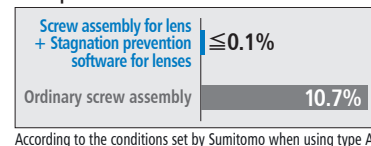
Screw assembly for lens

Sumitomo offers two types of screw assemblies designed specifically for optical molding. Type A keeps shearing force low to prevent resin from carburizing. It works with all optical resins but is particularly effective in COC molding. Type B is configured for extensive kneading (subflight) to prevent air bubbles and incomplete melting. The benefits are seen in molding COP and PC lenses.

Resin	COC		COP, PC	
	Black spots	White spots Air bubbles	Black spots	White spots Air bubbles
Type A	⊙	○	○	○
Type B	○	⊙	○	⊙

⊙ Excellen ○ Good

- Comparison of defective rates -



Type B optical specification (Subflight screw)

