Double-sided Molding

Lens Arrays/Aspherical Lenses

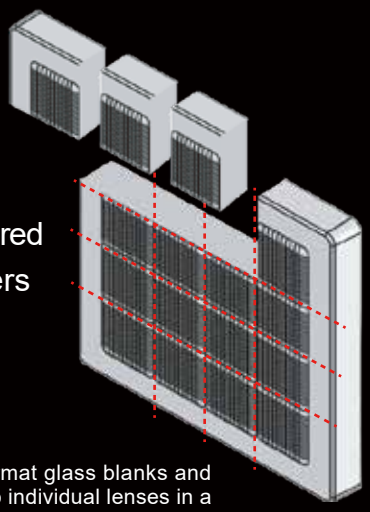
~Double-Sided Lens Press Molding Using Metal Molds~

Previously, due to limitations of our molding equipment, the back surface of lenses could only be formed by post-polishing. As a result, it was difficult to manufacture lenses with arrays or aspherical profiles on both sides, and double-sided shapes were realized by polishing one side flat and then bonding multiple elements together.
Now, we can produce double-sided lenses using precision press molding with metal molds, improving both dimensional accuracy and productivity. Since no bonding is required, these lenses are also suitable for high-power light sources such as lasers. We can support everything from prototyping to mass production.

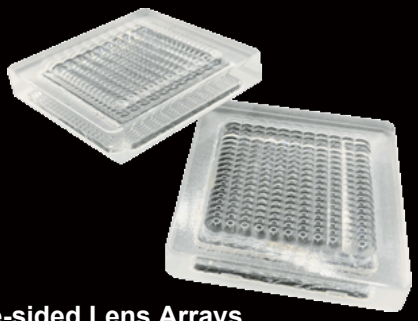
Features

- Double-sided press-molding with metal molds
- Lens axis alignment tolerance within ±0.05 mm
- For uniform illumination, no adjustment of spacing between 2 lenses is required
- Non-bonded structure; suitable for high-power light sources such as lasers
- Various lens cell shapes available

  *Available surface types: spherical, aspherical, cylindrical, free-form, decentered, etc.



By molding large-format glass blanks and then dicing them into individual lenses in a post-processing step, additional cost benefits can be achieved.



Double-sided aspherical lens

	Max	Min
Diameter	φ40 mm	φ20 mm
Center thickness	20 mm	3 mm
Flange thickness	20 mm	5 mm
Radius	R100 mm	Depends on shapes. Please consult seperately.
Decenter	Without decenter 15′	With decenter 10′

*Values here are just examples. Please take as a reference as it will vary depending on specifications and conditions.

Double-sided Lens Arrays

	Max	Min
Diameter	60×60 mm	20×20 mm
Cell size	MAX size within dimension	0.5 mm
Center thickness	15 mm	2.5 mm
Flange thickness	15 mm	2.5 mm
Radius	R100 mm	R0.3 mm
Optical axis tolerance	Optical axis between pitch0.05mm	

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ISUZU GLASS

Head office 1-53, Rinku Ohrai-kita Izumisano, Osaka, 598-0048, Japan
TEL:+81-72-458-6166 FAX:+81-72-458-6166
https://www.isuzuglass.com

CONTACT

WEBSITE