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Young's Double Slit

\$78.90 – \$278.90

SLIT WIDTH 100µ ± 10 / 300µ Separation

\$78.90

1 **ADD TO CART**

SKU: Y-SLIT-3/8-DISC-100

All products are fully customizable including materials, please [contact us](#) with requests.

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Description

Named for Thomas Young's classic proof of the wave theory of light in 1803. While Young's original experiment used sunlight and calculated the average wavelength to be 550 nm, today using monochromatic and coherent light one can calculate wavelength with the following formula:

- In which, λ is the wavelength of the light
- d is the separation of the slits
- n is the order of maximum observed (for first order $n=1$)
- x is the distance between the bands of light and the central maximum (also called fringe distance)
- L is the distance from the slits to the screen centerpoint

These elements may be used to demonstrate Young's Interference Fringes, Michelson's Stellar Interferometer (for measuring the separation between double stars) or other applications requiring measurement of the separation between point sources.

Contact us for Custom Quoted Slit Width and Spacing

Specifications

Diameter	9.5mm +0.025 / -0.050mm (0.374in +0.000984 / -0.00197in)
Center Spacing	3 µm slits : 9 µm Spacing (Center to center) 50 µm slits : 150 µm Spacing (Center to Center) 100 µm slits : 300 µm Spacing (Center to Center)

Slit Tolerances

Diameter	Tolerance +/-
3 µm	± 1µm
50 µm	± 5µm

Orders will be shipped within **5-7 business days** (estimated shipping time not included).

Need Custom Performances?
If a desired product or option(s) is not listed, please contact us for quotes, orders or questions.
(410) 592-3106

Please [Contact Us](#) if you have any questions or to discuss other terms.

Unit Conversion Calculator

Microns

to Inches (i)

Please enter a value to calculate.

[+ Unit Conversion Chart](#)

Thickness	0.013mm (0.000512")
Material	Stainless Steel (SS-304)

100 μm+	± 10μm
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