

Inquiry and Contact...

Marketing Department

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URL: http://www.yama-ph.co.jp/index_e.html (inquiry Form)

1 Outline

YAMAMURA Photonics have been developing many products since our establishment in 1949 with our core technology GTMS (Glass to Metal Seal) under the keyword "High quality hermetic sealing". We provide various glass products mainly for industrial equipment in the infrastructure and medical field based on extensive knowledge on glasses and advanced technical skills of manufacturing glass products. For example, package components for optical elements, products with graded sealing, gas reference cells, and electron tubes are our main products. YAMAMURA Photonics will continue to support further development of the infrastructure and medical field in the future.

2 Features and Application

<Main Products and Applications>

○ GTMS Products

- Materials: Glass and Metal(Kovar, Fe-Ni alloy, etc.)
- Sealing Type: Direct Sealing, Frit Glass Sealing
- Hermeticity: Helium leak rate, under 1×10^{-11} Pa·m³/s
- Applications: Vacuum Circuit Breakers, X-ray Image Intensifiers, Ultra-High Vacuum Chamber, etc.

○ Products with Graded Sealing

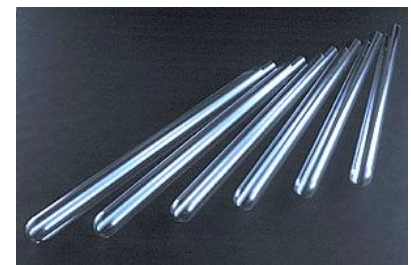
- Method: Hermetically connecting glass tubes and metal parts having different CTE by using several middle glasses with graded CTE. (CTE: Coefficient of Thermal Expansion)
- Diameter: $\phi 4 - \phi 50$ mm
- Applications: Photomultiplier Tubes, High Powered Lamps and the other electron tubes.

○ Glass Tubes with High Accurate Dimensions

- Diameter: $\phi 30 - \phi 90$ mm (The tolerance is ± 0.08 mm)
- Length: max. 1,300mm
- Applications: Discharge Tube for Ozone Generator, Glass Tube for Office Automation Equipment, etc.

○ Gas Reference Cells

- Material: Borosilicate glass, Silica Glass, Sapphire, etc.
- Gas: Inert Gas and Activate Gas are available
- Filling Pressure: High accurate gas filling technology enables the gas pressure within cells to be finely tuned in 1 Torr (= 133 Pa) increment.
- Diameter: $\phi 6$ mm - $\phi 100$ mm
- Applications: Absorption Analyzers, Disciplined Oscillator and the other analytical instruments.



This products information is subject to changed or updated without notice.