

BCE APPLICATION NOTE

ELECTRIC HEATING
ELEMENTS

VACUUM
FEEDTHROUGHS

CUSTOM THERMAL
SYSTEMS

Vertex Feedthroughs

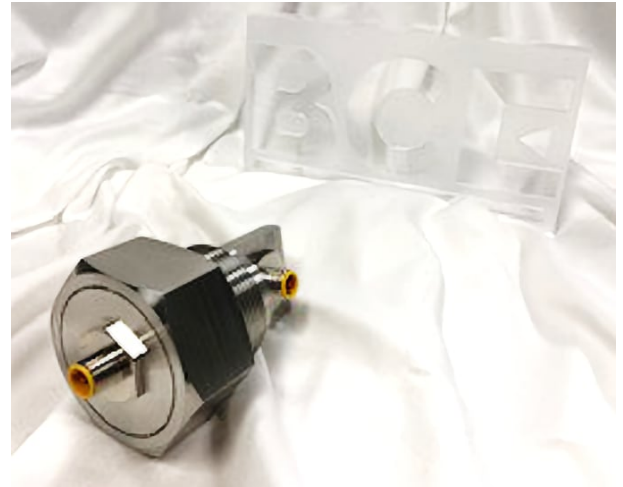
BACKGROUND

The new Vertex line of feedthroughs was born out of the necessity of making a right angle feedthrough that was robust enough to handle the high vacuum requirements, voltage, amperage, and pin dimensions, as well as the challenging space constraints. BCE responded quickly to the application by working tirelessly with the customer to put forth a design.

SCOPE:

VERTEX – Right Angle
Feedthrough requirements:

- Temperature up to 100°C operating temperature
- 10^{-9} CC/S or less He leak rate
- Straight thread, BSPP, with Hex
- 50V 4 Amp
- 304 Stainless Steel Material
- 5-Pin with a 90° angle



OUTCOME

The feedthrough application was solved by utilizing precise beaded welds and multiple cure times of the BCE epoxy. After each cure, a vacuum leak test was performed to spec ensuring that the process was correct. Chemical cleaning was added as per the customer requirements and BCE's standard procedure.

BCE
BELILOVE COMPANY-ENGINEERS

BCE | 21060 Corsair Blvd.
Hayward, CA 94545
Phone: (510) 274-1990
www.bcemfg.com