

MIL-DTL-38999 Series III Type

Series 77 Full Nelson® Heat Shrink boots

BACKSHELLS AND ACCESSORIES

HEAT SHRINK BOOTS

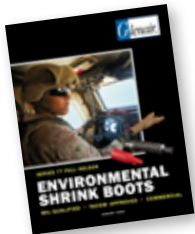


About User-Installed Adhesive

Heat-shrink boots are not watertight unless equipped with pre-coated or user-installed adhesives. When heat is applied to the boot, the adhesive melts and fixes the boot to the adapter and cable jacket to provide the necessary sealing as well as mechanical strain-relief. For maximum performance Glenair recommends Type U user-installed two-part epoxy adhesive which offers reduced boot installation time and easier installation. Pre-coated boots require additional care to install because the boot must be heated sufficiently to activate the epoxy, at the risk of overheating the overall assembly. A single 50 ml duo syringe can coat many boots. The duo syringe can be re-capped for re-use. Inexpensive mixing nozzles must be discarded after each use.

NOTE: Glenair high-performance two part epoxy meets VG95343 part 15.

See next page for ordering information on user-installed two part epoxy adhesive.



Series 77 "Full Nelson" Shrink Boot Catalog has additional boot styles, materials and adhesives, installation instructions and other heatshrink products. Contact Glenair or go to www.glenair.com.

Full Nelson Heat Shrink boots provide mechanical and environmental protection. Shape-memory polymer returns to as-molded shape when heat is applied. Use with 310-045 composite shrink boot adapter. Boot lip fits adapter groove for precise fit. Semi-rigid high performance elastomer resists high temperature and withstands exposure to petroleum-based fluids and fuels. Also available with non-halogenated flame-retardant polyolefin for use where limited fire hazard is required.

MATERIAL SELECTION GUIDE

- 1 High-Performance Elastomer** -75°C to +150°C. Semi-rigid high performance elastomer combines excellent resistance to fuels, oils, and solvents with superior performance at extreme temperatures. Material meets the requirements of VG95343 Type 6, BSG 198-5-DE, EN62329-102 and SAE AS5258 Type H. These boots are recommended for demanding applications such as military vehicles and petrochemical exploration.
- 2 Zero Halogen Polyolefin** -40°C to +130°C. Low Smoke Zero Halogen (LSZH) polyolefin boots meet low smoke and toxicity requirements of shipboard, transit and aircraft systems. Oxygen index greater than 30%, smoke index less than 20, and toxicity index under 3 per 100 grams. Material meets requirements of NAVSEA 5617649, VG95343 Part 28 and 29, BSG 198-5-DF, EN62329-101 and SAE AS5258 Type G. Good resistance to oils, fuels and solvents.

PRE-COATED ADHESIVE SELECTION GUIDE

- W1 Low Smoke Zero halogen (LSZH) polyamide hot melt adhesive Coating.** Bonds well to a variety of substrates. Good creep resistance at elevated temperatures. Excellent bond strength at low temperature. Good resistance to fuels and oils. -55°C to +125°C. Compatible with Type 1 and Type 2 boot materials.
- R High Temperature Epoxy Adhesive Coating.** Glenair's highest performance pre-coated adhesive. The material requires careful installation using trained operators. -75°C to 150°C. Withstands prolonged high temperature immersion in fuels and oils. Excellent peel adhesion on a wide range of materials.

| Part Number Development | | | | | | | |
|---|---|-----------|---|------------------|-----------|-----------|-----------|
| Series | Material | Boot Size | Adhesive Lining | | | | |
| 770-003S Heat Shrink Boot; Lipped, Straight | 1 High Performance Semi-Rigid Elastomer, -75°C to +150°C 2 Low Smoke, Zero Halogen; Semi-Rigid Polyolefin; -30°C to +135°C | | Omit for no adhesive lining. W1 Hot Melt Adhesive Low Smoke, Zero Halogen -55°C to +125°C R High Temperature Epoxy Adhesive -75°C to +150°C. | | | | |
| | | | | Adapter Diameter | | | |
| | | Boot Size | | Inches | | mm. | |
| | | 03 | | Min. .450 | Max. .850 | Min. 11.4 | Max. 21.6 |
| | | 04 | | .600 | 1.000 | 15.2 | 25.4 |
| | | 05 | | .750 | 1.200 | 19.1 | 30.5 |
| | | 06 | | .900 | 1.350 | 22.9 | 34.3 |
| 07 | 1.250 | 1.650 | 31.8 | 41.9 | | | |
| Sample Part Number | | | | | | | |
| 770-003S | 2 | 06 | R | | | | |

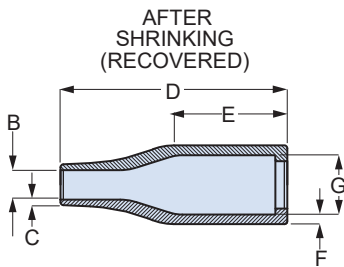
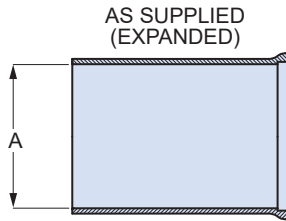
SuperNine® Backshells and accessories

MIL-DTL-38999 Series III Type

Series 77 Full Nelson® heat shrink boots



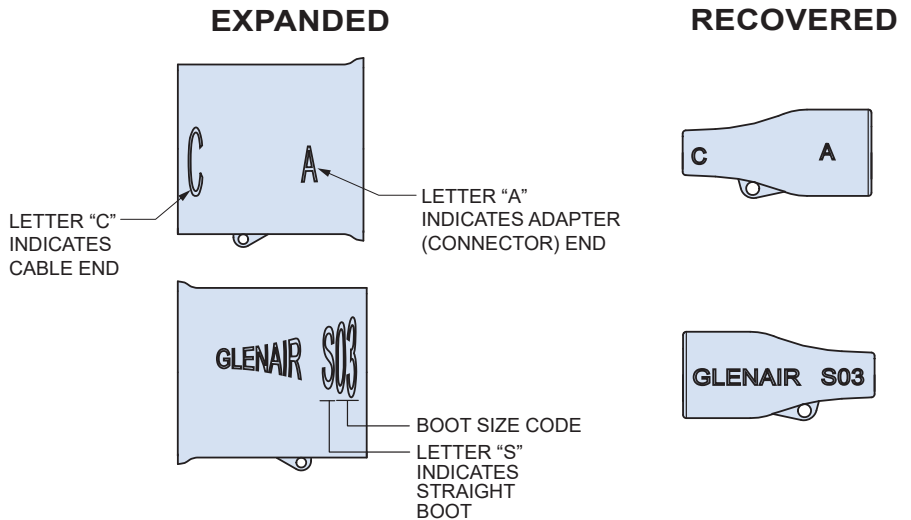
HEATSHRINK BOOT DIMENSIONS



| Boot Size | A Min. | | B Max. | | C ± 20% | | D ± 10% | | E Ref. | | F ± 30% | | G Max. | |
|-----------|--------|------|--------|------|---------|-----|---------|------|--------|------|---------|-----|--------|------|
| | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. | In. | mm. |
| 03 | .945 | 24.0 | .197 | 5.0 | .035 | 0.9 | 1.496 | 38.0 | .748 | 19.0 | .063 | 1.6 | .413 | 10.5 |
| 04 | 1.181 | 30.0 | .236 | 6.0 | .039 | 1.0 | 2.165 | 55.0 | 1.181 | 30.0 | .071 | 1.8 | .551 | 14.0 |
| 05 | 1.260 | 32.0 | .276 | 7.0 | .047 | 1.2 | 2.638 | 67.0 | 1.299 | 33.0 | .071 | 1.8 | .709 | 18.0 |
| 06 | 1.417 | 36.0 | .335 | 8.5 | .047 | 1.2 | 3.150 | 80.0 | 1.575 | 40.0 | .079 | 2.0 | .866 | 22.0 |
| 07 | 1.693 | 43.0 | .394 | 10.0 | .051 | 1.3 | 3.898 | 99.0 | 2.165 | 55.0 | .087 | 2.2 | 1.102 | 28.0 |

BOOT IDENTIFICATION MARKING

Heatshrink boots are identified with molded-in lettering. This lettering shows the boot type, boot size and orientation. Position the boot so that the lipped "A" end is toward the adapter and the "C" end is toward the cable. Assembly instructions are in the **Series 77 "Full Nelson" Environmental Shrink Boots** catalog, available at www.glenair.com.



USER-INSTALLED BOOT ADHESIVE, DISPENSING GUN AND MIXING NOZZLE



| Part Number |
|----------------|
| 779-001 |

High performance flexible two part thermoset epoxy provides high strength flexible bond from -55° to 150°C. 50 ml duo syringe fits standard dispensing guns. Use with square green mixing nozzle sold separately. 12 hour cure time at 20°C, 1 hour at 85°C, 30 minutes at 150°C. Apply to inside of boot with wooden spatula. 18 month shelf life.



| Part Number |
|----------------|
| 779-002 |

Twin push-rod 1:1 ratio epoxy dispensing gun for use with duo syringe epoxy and mixing nozzle sold separately. Durable heavy-duty plastic. Gun type hand grip with ratcheting trigger to advance push-rods.



| Part Number | Count Per Pack |
|----------------|----------------|
| 779-003 | 12 |

1:1 ratio mixing nozzle attaches to duo syringe with 1/2 turn and locks into place. Nozzle provides consistent mixing of resin and hardener. Kit consists of (12) nozzles.