

PRODUCT INFORMATION

Item #: TP250-1, TP250-2, TP250-3, TP250-4, TP250-5



PDE Neuromuscular Adult Spring 250MM

Modular AFO spring for composite & thermoplastic brace designs

5 STIFFNESS CATEGORIES

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PDE™ NEUROMUSCULAR (ADULT) INFOSHEET

Item #: TP250-1, TP250-2, TP250-3, TP250-4, TP250-5

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PDE™ Neuromuscular Spring Adult 250mm



The PDE[™] Neuromuscular Adult spring system is a modular AFO spring for composite & thermoplastic brace designs. This simple 'plug and play' system provides the ability to adjust alignment in both the footplate and upper cuff after the brace has been fabricated. Dynamically adjust external, internal, plantar & dorsiflexion alignments as well as easily change spring stiffness and length.

INDICATIONS FOR USE

PDE[™] Neuromuscular Adult springs are a perfect solution for:

- Any patient who would benefit from a custom posterior leaf spring AFO where pain and offloading of weight are not a key factor.
- Patients with moderate muscle weakness who would benefit from Dorsiflexion & Plantarflexion assistance.
- Nerve/muscle impairment below the knee.
- Soft tissue injury or loss.
- Nerve/muscle loss below knee.
- Deficit or loss of dorsiflexion and/or plantar flexion.
- Patients who desire return to recreational sports.
- Conditions such as: Guillain-Barre Syndrome, Spina Bifida, Spinal Cord Injury, CVA, MS, CMT, CP, Polio, and other conditions

FEATURES AND BENEFITS

- 5 Flex Spring Choices
- Modular Design
- Low Profile
- Post Alignable
- Clinically Proven
- Made in the USA

SPECS

• Length: 250MM

- Width: 30MM
- Stiffness: Categories 1 through 5
- Usage: Composite/Thermoplastic
- Note: *Not designed for offloading*

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CHOOSING SPRING CATEGORY (FIRMNESS)

Because every patient has unique needs there are no specific weight limitations that aid in spring choice. Choose the category based on your patient assessment.



Category number three 3 spring is a good starting point. From here the AFO can be tuned Firmer or Softer based on the patient needs. The simple four-bolt system makes changing the spring quick and easy.

ACCESSORIES AND ORDERING INFORMATION



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FABRICATION INSTRUCTIONS

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INTRODUCTION

PDE[™] Neuromuscular springs designed for thermoplastic & composite brace designs are readily fabricated employing processes commonly used to fabricate custom orthosis.

The following steps will guide you with the important steps for properly mounting & fabricating the PDE™ Neuromuscular springs. Always check our website for up to date instructions or additions.

BRACE FABRICATION

- Using a sharpie marker, mark the Achilles region at the lowest point that could be obtained outside the shoe. Typically, this is approx. 3 1/2" (8.89cm) to 3 3/4" (9.52cm) from the plantar surface of the foot.
- 2. In a horizontal holder, orient the model in a toe-down position and set the toe out per the patient. In this orientation, the line of progression is in a vertical orientation. (fig.2)
- 3. Using Pluseries Adhesive, bond the PDE assembly (fig.1) on the posterior side of the model. The placement should be proximal to the mark created in step 1. The outer face of the PDE spring should be level (perpendicular to the plumb line of progression).
- 4. To ensure easy assembly, fill any undercuts or voids between the anchor and the model.
- 5. Remove screws from the PDE assembly (fig.1), leaving only the anchor plates bonded to the model.
- 6. Cover the model with three sheer pulling nylons.
- 7. Vacuum form ¼" polypropylene or an appropriate thickness depending on patient needs over AFO model using standard techniques.
- 8. While plastic is still formable, press the location of the screw holes of both anchors. This can be done with a Philips screwdriver or ballpoint ink pen tip or any tapered tool.
- 9. Apply trim lines to the model, leaving 3/8" of material proximal of the distal (footplate) anchor and 1/4" distal of the proximal (calf) anchor.
- 10. Remove anchor plates and cured adhesive from the plastic.
- 11. Using a ¼" bit, drill out anchor plate holes marked in STEP 8.
- 12. Reinstall anchor plates.
- Bolt spring system on using supplied hardware and Loctite. Screws must pass completely through the anchor, engaging all threads.
- 14. Screw length must be verified! Make sure screws extend through the anchor!
- 15. The interior surfaces of the anchors can be filled or covered with soft foam if desired.



Figure 2



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PARTS FOR ASSEMBLY



TPAK-1: Anchor Kit*



TPAK-3: Anchor Kit*





TPAK-2: Anchor Kit*



G50: Adhesive Dispenser



C1S: Pluseries[™] Adhesive



TPFK200: Neuromuscular 200mm Fitting Kit

Get it right. Get the Fit Kit.

When building a custom device, it's always nice to have options. That's why we created the PDE Fitting Kit.

The Fitting Kit includes a full range of spring categories and assembly components a which allows you to try different options on your patient until you find the perfect fit!

Then just replace the the parts that get used so you always have a full set of springs & hardware.

Fit Kit Contents: 5 PDE Springs (One each PDE spring category 1 through 5), mounting anchor kit, alignment shim kit, adhesive dispenser and adhesive.

*Using The Right Anchor Kit?

Anchor kits are design for specific material applications. We have created a compatability chart so you know exactly which anchor kit to use. Scan the code below to access.



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