# DuraShock Product Manual

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### Instructions

- Please review the indications, contraindications, and FAQ sections of the manual before use. These instructions should be read prior to fitting and followed to ensure the proper integration of the DuraShock into the patient's prosthetic system.
- The DuraShock stiffness is based on weight and activity level.
  Please provide accurate patient information so that the appropriate product may be selected.
- The DuraShock is not intended for loads over 100 lbs. (45 kg) in tension. Activites such as snowboarding, water skiing, and attempting to remove the prosthesis by pushing on the prosthetic foot can produce these high forces. At no time, should a patient attempt to hang from a prosthesis with a DuraShock, and tension failures are not warrantied.

## Warranty

1 year from date of fitting

The DuraShock has been designed and manufactured for specific patient weights. The warranty will be voided if the weight rating for the pylon is exceeded or the pylon is modified in any way (other than cutting as instructed in the installation section). Evidence of obvious abuse or misuse will also void the warranty.

## **Product Specifications**

#### **DuraShock, Long Pylon**

Moderate Activity	High Activity	Build Height	Torque Setting	Product Number
< 144 lbs. (65 kg)	< 139 lbs. (63 kg)	5.8 – 11.3 in. (146 – 286 mm)	16 N·m	DS003L
145 – 179 lbs. (68 – 81 kg)	140 – 169 lbs. (64 – 76 kg)	5.8 – 11.3 in. (146 – 286 mm)	16 N·m	DS002L
180 – 220 lbs. (82 – 100 kg)	170 – 200 lbs. (77 – 91 kg)	5.8 – 11.3 in. (146 – 286 mm)	16 N·m	DS001L
220 – 250 lbs. (100 – 113 kg)	200 – 250 lbs. (91 – 113 kg)	6.8 – 11.3 in. (171 – 286 mm)	16 N·m	DS004L

#### **DuraShock, Short Pylon**

Moderate Activity	High Activity	Build Height	Torque Setting	Product Number
< 144 lbs. (65 kg)	< 139 lbs. (63 kg)	4.8 – 7.5 in. (114 – 190 mm)	16 N·m	DS003S
145 – 179 lbs. (68 – 81 kg)	140 – 169 lbs. (64 – 76 kg)	4.8 – 7.5 in. (114 – 190 mm)	16 N·m	DS002S
180 – 220 lbs. (82 – 100 kg)	170 – 200 lbs. (77 – 91 kg)	4.8 – 7.5 in. (114 – 190 mm)	16 N·m	DS001S
220 – 250 lbs. (100 – 113 kg)	200 – 250 lbs. (91 – 113 kg)	5 – 7.5 in. (127 – 190 mm)	16 N·m	DS004S

#### **DuraShock, Short**

Moderate Activity	High Activity	Build Height	Torque Setting	Product Number
< 144 lbs. (65 kg)	< 139 lbs. (63 kg)	3.5 in. (89 mm)	16 N·m	DS003SS
145 – 179 lbs. (66 – 81 kg)	140 – 169 lbs. (64 – 76 kg)	3.5 in. (89 mm)	16 N·m	DS002SS
180 – 220 lbs. (82 – 100 kg)	170 – 200 lbs. (77 – 91 kg)	3.5 in. (89 mm)	16 N·m	DS001SS
220 – 300 lbs. (100 -136 kg)	200 – 250 lbs. (91 – 113 kg)	4.3 in. (108 mm)	16 N·m	DS004SS

#### MiniShock

Moderate	High	Build	Torque	Product
Activity	Activity	Height	Setting	Number
132 lbs. (60 kg)	132 lbs. (60 kg)	2.38 in. (6 cm)	7 N·m	MS001SS

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### Installation

Deviating from the installation instructions or modifying the DuraShock in any way will void any product warranty and could lead to product failure and injury to the patient.

#### Orientation

The pylon may be installed with the pyramid receiver in the proximal or distal position (up or down) without effect on the performance. If the DuraShock is frequently exposed to wet environments, it is best to place the pyramid receiver toward the distal end. Adjustments to alignment should be done below the DuraShock to assure that the DuraShock remains in line with the patient's weight at heel strike. Plantar flexing or dorsiflexing the unit will result in premature wear.

#### **Attachment**

Alignment screws should be tightened to 16 N·m for adult versions, 7 N·m for MiniShock.

#### **Damping Ring**

A damping ring is provided with the DuraShock and is used to fine tune the performance of the unit. Use of the damping ring increases general stiffness for vertical shock and rotation. The ring is placed around the elastomer section and tightened down with wide-jaw pliers such as Channel Locks. An additional ring may be ordered and used for extra shock and rotation damping.

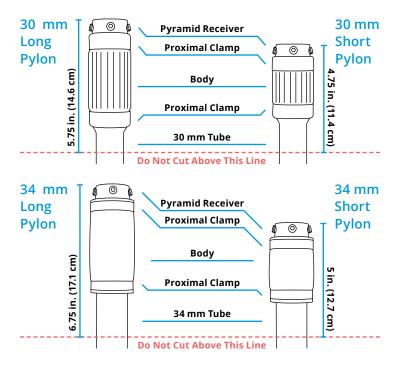
The more the damping ring is tightened, the less rotation and vertical travel the unit will have. In addition, placing the ring more distally will limit vertical travel while allowing more torsion.

Ensure the ring always has some tension on it to keep it from sliding off the shock. The dampener ring is released by sliding the two grooved sections apart.

#### Cutting the 30 mm Pylon

The minimum lengths for the long pylons are 5.75 in. (14.6 cm) for the 30 mm version and 6.75 in. (17.1 cm) for the 34 mm version. The minimum lengths for the short pylons are 4.75 in. (11.4 cm) for the 30 mm version and 5 in. (12.7 cm) for the 34 mm version. The pylon may be cut using a standard tube cutter, hack saw, or band saw. Care should be taken to ensure this valuable pylon is not cut too short. **Pylons are marked with a line indicating minimum cut length.** 

The vertical travel of the DuraShock is designed to be close to that of the natural limb. Therefore, it is not necessary in most cases to compensate for the travel when cutting the pylon.



### Maintenance and Care

The DuraShock pylon is designed to be maintenance free.

#### Lubrication

The DuraShock pylon is filled with a special permanent lubricant that will last the life of the unit. No lubricant should be used on or in the DuraShock as it may cause failure and will void the warranty.

#### **Cap Screw**

The cap screw in the top of the DuraShock pylon is not to be removed. It is the factory lubrication port. Turning this screw does not adjust the function in any way. Tampering with or removing this screw will void the warranty.

#### **Adjustment**

The alignment screws should be checked and torqued to the specifications of  $16 \text{ N} \cdot \text{m}$  at least once per year.

## Troubleshooting

	Possible Cause	Solution	
Too much rotation	Damping ring loose	Secure ring	
	Wear/damage	Replace	
	Damping ring loose	Secure ring	
Too much vertical displacement	Weight limits	Check weight activity rating for model installed. Replace if indicated.	
	Wear/damage	Replace	
Noise	Damping ring loose	Secure ring	
	Wear/damage	Inspect for malfunctioning condition	
	Some semi-rigid covers may rub on pylon, socket or foot shell in rotation	Modify cover/add nylon	

## Frequently Asked Questions

## Can the rotation and shock function be adjusted or fine-tuned?

Yes, using the damping ring, you may fine-tune the performance of the device. See instructions under "Damping Ring" on page 4 of this manual.

## Does it matter which end of the DuraShock attaches to the socket?

No. It may be attached in either orientation—pyramid proximal or distal. If the DuraShock is frequently exposed to wet environments, it is best to place the pyramid receiver toward the distal end.

## Daily Care for the Patient

#### **Changes in Performance**

Any changes in performance or noises that might develop should be reported immediately to the practitioner.

### Cleaning

If the DuraShock is left uncovered, it should be rinsed with fresh water after exposure to corrosive environments. In addition the unit may be cleaned with mild soap and water.

#### Lubrication

Do not attempt to lubricate!

### What if the DuraShock gets wet?

The alignment screws should be checked at least every 6 months if the DuraShock is frequently in contact with water. If the DuraShock is frequently exposed to wet environments, it is best to place the pyramid receiver toward the distal end.



www.fillauer.com

#### Fillauer LLC

2710 Amnicola Highway Chattanooga, TN 37406 423.624.0946

### **Fillauer Europe**

Kung Hans väg 2 192 68 Sollentuna, Sweden +46 (0)8 505 332 00



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