



# Pylon™

3D PRINTED EXPANDABLE SPACER SYSTEM  
WITH SURFACE DIAL TECHNOLOGY



EXPANDING  
SOLUTIONS

CONFIDENTIAL INFORMATION – NOT TO BE COPIED OR DISTRIBUTED  
Not FDA Approved | Patent Pending

[neurostructures.com](http://neurostructures.com)

© 2021 NeuroStructures, Inc. All Rights Reserved.



# NeuroStructures

NeuroStructures is a medical device company focused on designing, developing, manufacturing and marketing proprietary, high-quality medical device systems. All of our products provide comprehensive medical solutions to improve and enhance the quality of life for patients. NeuroStructures is dedicated to exceeding expectations in product quality, customer service, and product cost. The company is led by a team of experienced marketing, engineering, and sales individuals with extensive knowledge and training in the domestic and international spine surgery device markets.

NeuroStructures is ISO 13485 and FDA registered.

# Pylon™

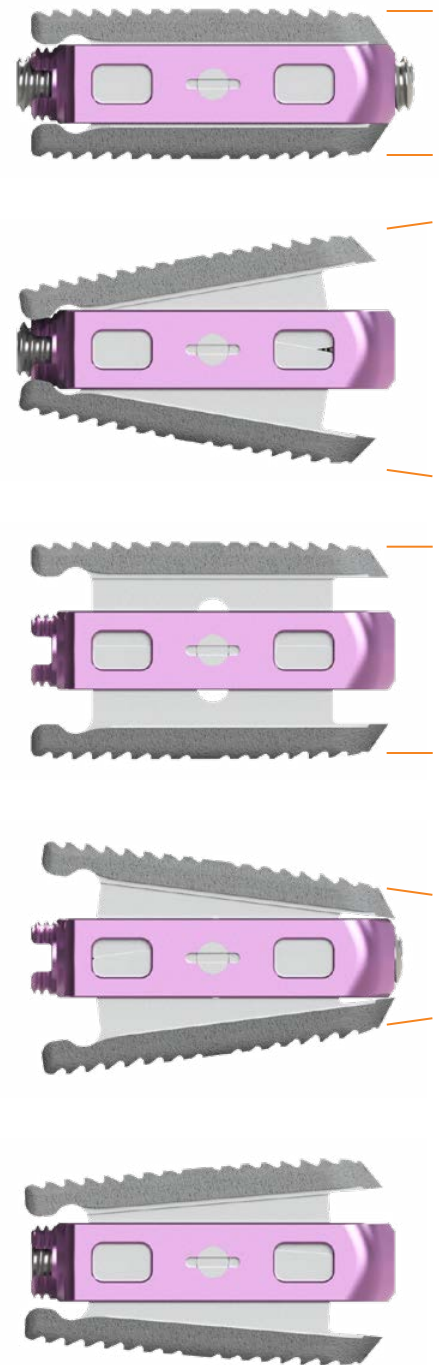
The Pylon 3D Printed Expandable Spacer System is a titanium alloy market-leading solution that is inserted through conventional Posterior Lumbar Interbody Fusion (PLIF) and Transforaminal Lumbar Interbody Fusion (TLIF) approaches. Once inserted into the disc space, the Pylon expandable cage, with tactile sensitivity, can be expanded continuously with minimal turns of the distraction mechanism. The implant height can increase to restore disc space height and reduce subsidence.



Pylon implants can be placed seamlessly into the disc space due to their low profile and bulleted design. The implant can be inserted, expanded, and rapidly post packed through a proprietary inserter, optimizing surgical efficiency. The Pylon interbody system provides restoration of sagittal alignment with customizable degrees of lordosis and was designed to induce lordosis in an anatomical fashion, unique to what is currently on the market.

The Pylon Expandable Spacer System represents the next generation of expandable technology.

*One Device,  
Endless Possibilities*

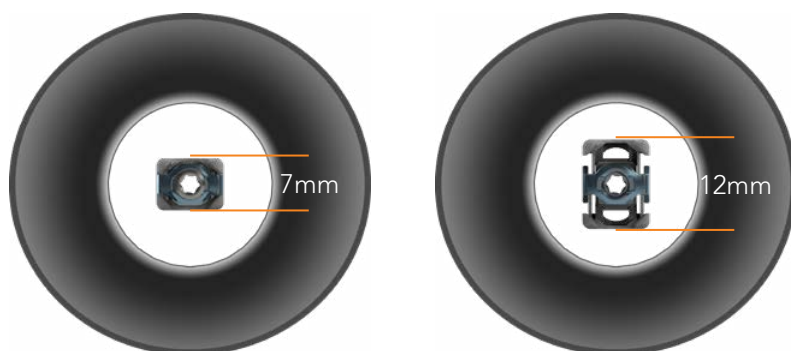


CONFIDENTIAL INFORMATION – NOT TO BE COPIED OR DISTRIBUTED  
Not FDA Approved | Patent Pending

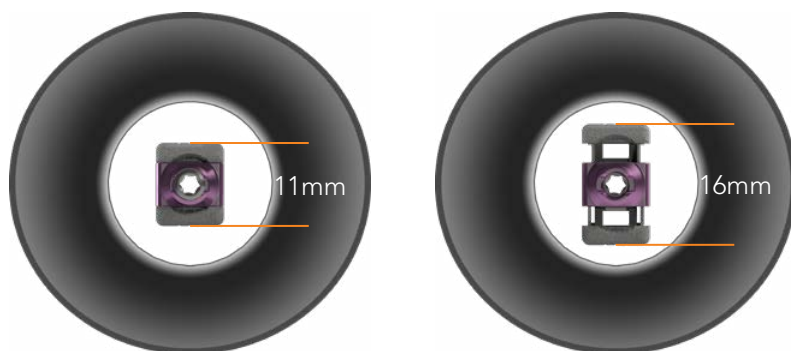
## Value Proposition

The Pylon Expandable Spacer System provides a robust expandable titanium cage with instrumentation that delivers control and performance to clinicians through tactile feedback and reliable graft delivery for the PLIF/TLIF approach.

Its unique design minimizes both neural retraction and insertion force, accommodates a larger graft channel, and provides controlled expansion to restore disc height.



AP view of the largest and smallest Pylon  
Cage through the Access Tube  
(22mm Outside Diameter)



The wide array of implant options and expansive instrumentation delivers a streamlined, efficient procedural sequence that can address even the most difficult pathologies.



## System Features & Benefits

- Titanium Alloy Implant with Proprietary 3D Printed Textured Titanium Endplates Promotes Immediate Mechanical Fixation & Potentially Upregulating the Production of Osteogenic Factors that are Critical for Bone Growth & Fusion
- Inserted at a Reduced Height to Minimize Impaction & Preserve Endplate Integrity
- Automatic Locking Once Desired Expansion Height is Achieved Without Loss of Height Restoration Helps to Streamline Procedure
- Large Graft Window with the Ability to Pack Bone Graft After Being Expanded, Assists with Sentinel & Columnar Fusion Through the Implant
- There is No Loss of Length When the Implant is Fully Expanded – Length is Not Compromised
- Controlled & Continuous In Situ Expansion Allows for Foraminal & Disc Height Restoration
- When Expanded in the Disc Space, the Implant Optimizes Endplate-to-Endplate Fit to Assist in the Restoration of Normal Alignment
- Bulleted Tip Simplifies Insertion in Collapsed Degenerative Discs Without Compromising the Apophyseal Ring
- Adjustable Trials Reduces Trailing Steps & Accurately Determines Optimal Implant & Disc Height
- Multiple Footprints With Effective Sizing Allows for Minimally Invasive Surgery (MIS) Approach & Optimal Fit for Larger Patient Anatomies
- Streamlined Instrumentation Provides the Surgeon Minimal Tissue Disruption & Nerve Retraction While Restoring Patient Alignment



CONFIDENTIAL INFORMATION – NOT TO BE COPIED OR DISTRIBUTED  
Not FDA Approved | Patent Pending

## *Pylon Expandable Spacer System*

The platform will provide a robust expandable titanium interbody device with instrumentation that delivers control and performance to clinicians through tactile feedback and reliable graft delivery producing a true procedural solution for the PLIF/TLIF approach.

The device expands by utilization of a threaded actuator shaft that when rotated clockwise, forces the wedges of the Pylon Expandable Spacer System to move inward thereby expanding the upper and lower plates.

The surgeon should use their discretion on whether or not the Pylon Expandable Spacer System needs to be expanded to its limit. In many cases the Pylon Expandable Spacer System does not need to be expanded to its maximum limit, to reduce the likelihood of endplate fracture and/or subsidence. It is mandatory to always utilize the Torque-Limiting Handle, which limits the expansion force.

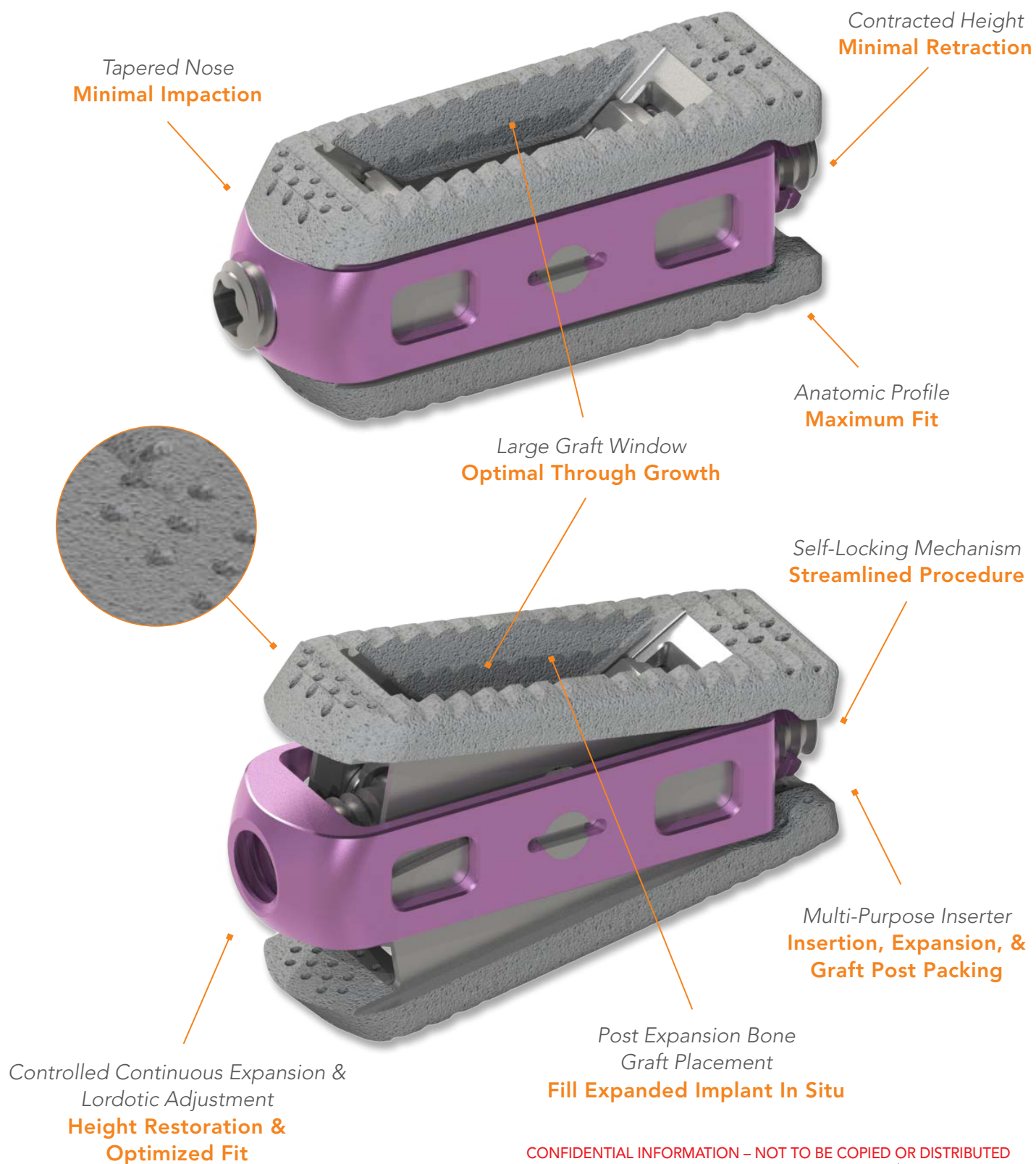


COLLAPSED

EXPANDED



## Surface Dial Technology FOR OPTIMIZED FIT & HEIGHT RESTORATION



CONFIDENTIAL INFORMATION – NOT TO BE COPIED OR DISTRIBUTED  
Not FDA Approved | Patent Pending

## WIDTHS



9mm



10.5mm



12mm

## LENGTHS



23mm



27mm



31mm

## ANGULAR LORDOTIC PROFILE



# HEIGHT RANGE

7mm – 16mm



Implant Sizes		
Heights (mm)	Widths (mm)	Lengths (mm)
7 – 12	9, 10.5, & 12	23, 27, & 31
11 – 16	9, 10.5, & 12	23, 27, & 31

# Pylon™

3D PRINTED EXPANDABLE SPACER SYSTEM  
WITH SURFACE DIAL TECHNOLOGY



EXPANDING  
SOLUTIONS

MINIMAL DISRUPTION | OPTIMAL RESTORATION

## Notes

CONFIDENTIAL INFORMATION – NOT TO BE COPIED OR DISTRIBUTED  
Not FDA Approved | Patent Pending



[neurostructures.com](http://neurostructures.com)

199 Technology Drive, Suite 110 | Irvine, CA 92618 | Ph/Fax: 800.352.6103

**CONFIDENTIAL INFORMATION – NOT TO BE COPIED OR DISTRIBUTED**

Not FDA Approved | Patent Pending

09/21 Rev. 004

---

All content herein is protected by copyright, trademarks, and other intellectual property rights owned by or licensed to NeuroStructures, Inc. or one of its affiliates, unless otherwise indicated, and must not be redistributed, duplicated or disclosed, in whole or in part, without the express written consent of NeuroStructures, Inc. This material is intended for the NeuroStructures, Inc. sales force and healthcare professionals. Distribution to any other recipient is prohibited.