



IF YOUR EQUIPMENT IS USED IN RUGGED ENVIRONMENTS YOU NEED A PELICAN™ CASE. IF YOUR EQUIPMENT IS SENSITIVE OR MISSION CRITICAL YOU ALSO NEED PELICAN™ CUSTOM SOLUTIONS.

WE ARE THE LARGEST CASE MANUFACTURER ON THE PLANET THAT CAN PROVIDE TURNKEY PACKAGING SOLUTUINS.

Case Lines Overview Pelican™ Protector™ Case / Pelican™ Storm Case™/ Pelican-Hardigg™ Case 1-2
Custom Foam Services
Foam Properties
Cut and Weld
Custom Rack Mounts and Electronic Applications
Custom Logo Services
Case Options
Testing and Quality Control

# CASE LINE OVERVIEW



### PELICAN™ PROTECTOR™ CASE



The original Pelican™ Protector™ Case was introduced more than 40 years ago and has since evolved into the global

standard for equipment protection. The ultra-reliable double-throw latches hold tight under extraordinary drops and impact.



#### PELICAN™ AIR CASE

Pelican™ Air cases are the first in a series of remarkable innovations engineered by Pelican. At up to 40% lighter than other polymer cases, Pelican™ Air cases will lighten the loads of the dedicated pros around the world who have set out to change the game.

#### PELICAN™ STORM CASE™



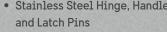
The Pelican™ Storm Case™ has the same legendary DNA as our Pelican™ Protector™ Case, with one primary difference:

SIZES

a unique press and pull latch that locks automatically, but opens with a light touch.

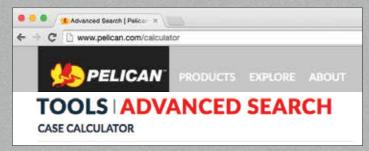
# FEATURES: PELICAN™ PROTECTOR™ CASE / PELICAN™ AIR CASE / PELICAN™ STORM CASE™

- Watertight\*, Crushproof, and Dustproof
- Open Cell Core With Solid Wall Strong, Lightweight Design (Most Pelican™ Protector™ Cases)
- O-ring Gasketed Seal
- Automatic Pressure Equalization Valve - Balances Interior Air Pressure and Keeps Water Out
- Double-throw Latches (Pelican™ Protector™ Case and Pelican™ Air Case)
- Press and Pull Latches (Pelican™ Storm Case™)
- Stainless Steel Hasp Protector **Prevents Cutting**
- Stainless Steel Hinge, Handle
- Rubber Overmold Handles Offer Sure Grip in Wet Weather
- Larger Case Sizes



- · Wheels and Trolley Handles on Many
- Lifetime Guarantee of Excellence

FOR WARRANTY DETAILS ON ALL CASES GO TO WWW.PELICAN.COM/WARRANTY



FOR CASE DIMENSIONS SEE CASE SIZE GUIDE AT PELICAN.COM/CALCULATOR.

\*Pelican™ Protector™ Case and Pelican™ Storm Case™ (injected molded cases) are watertight. Pelican-Hardigg™ Single Lid cases are tested to requirement.
Pelican™ injection molded cases are guaranteed to be watertight to a depth of 3.3 feet (1 meter) for 30 minutes (IP 67) if properly closed with undamaged o-ring in place unless otherwise stated.



### PELICAN-HARDIGG™ SINGLE LID CASES

Watertight\* Single Lid Cases offer 20% more protective material in the edges and corners (where it is needed most) so they are exceptionally durable and reliable. With recessed handles and integrated stacking ribs, these cases can be fitted with a wide range of bolt-on options like document holders, skid runners or casters, tie down rings and even a humidity indicator (see page 11).



### PELICAN-HARDIGG™ RACK MOUNT CASES

For the same toughness as a Single Lid Case but with double ended lid openings, use our sturdy aluminum and steel racks with shock mounts to protect delicate electronics. Seven styles (Classic Rack, SuperMac™, MAC Rack™, Black Box, ProRack™, 33" Classic-V, and 24" Super-V) are available, from ultra sensitive to rugged protection options.



### SHALLOW BASE CONTAINERS

When searching for the right size case, keep in mind that most Single Lid cases can be inverted to make a Shallow Base Container. They are designed to allow easy placement of bulky and heavy items into the container. Shallow Base Containers are

also helpful when accessing tie-down and hoist attachment points on equipment. This container style is ideal when there is a need for your equipment to be exposed when the lid is removed.



# **NEW PELICAN-HARDIGG™** V-SERIES: THE OFF-THE-SHELF RACK **MOUNT CASE WITH PRO-GRADE FEATURES.**

Now you can get pro-grade rack mount cases in days instead of weeks. Only Pelican maintains inventory on both coasts, reducing your freight cost and transit time.

### FEATURES: SINGLE LID/ RACK MOUNT

- Molded-in, Tongue-in-Groove Gasket For a Watertight\* Seal, Even After Impact
- Patented Molded-in Metal Inserts For Catch and Hinge Attachment Points
- Up to 20% More Polymer In Corners and **Edges For Additional Impact Protection**
- Recessed Hardware Keeps Handles and Latches Out of Harm's Way
- Positive Anti-Shear Locks Prevent Lid Separation After Impact and Reduce Stress On Hardware
- Molded-in Ribs and Corrugations for Secure, Non-slip Stacking, Columnar Strength, and Added Protection
- One-piece Construction, Molded from Lightweight, High-impact Polyethylene
- Steel Rack Frames for Secure Electronic Mounting (Rack Mount Case)
- Double End Lid Openings for Front and Back Internal Case Exposure (Rack Mount Case)
- Shock Mounts Isolate Frame from **External Forces for Optimal Protection** (Rack Mount Case)
- 1 Year Limited warranty

CASE LINES OVERVIEW CASE LINES OVERVIEW 2

# **CUSTOM FOAM SERVICES**



#### **CUSTOM CASES ENGINEERED TO PERFECTION**

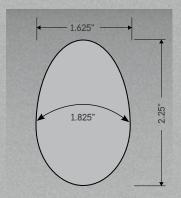
Protecting fragile and vital equipment can often be accomplished using custom-cut foam fitted to your equipment. Our North American Advanced Case Centers located in California and Virginia, and our Massachusetts manufacturing facility are dedicated to providing custom solutions to meet your shipping and packaging requirements. Pelican's designers and engineers will work with you to determine the most effective design and best combination of materials for your specific application. Our facilities specialize in the planning, engineering, manufacturing and quality control needs to produce the world's best custom packaging solutions, whether for a single case or a thousand cases.

Additionally, Pelican's South Deerfield, Massachusetts manufacturing facility is outfitted with a fully equipped test lab. Services include immersion, drop, thermal, leak testing, and more. See page 12 for a range of assessments that can be performed in house. Additionally, outside test labs are available for any test that is outside our internal capacity.

www.pelican.com/custom

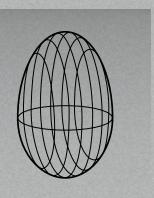
#### FOUR WAYS TO DESIGN

Our customers are as diverse as their case applications- sophisticated engineers, government agencies and tech startups, to name just a few. That's why we've developed a flexible approach to planning your foam design, even if it's a "back of the envelope" sketch. Below are some of the ways we can get your project started:



1. PROVIDE POCKET DIMENSIONS

Customer supplies diagram with foam pocket dimensions.



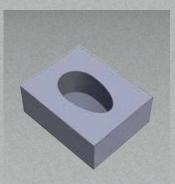
2. SEND PART CAD FILE

Customer provides equipment CAD file.



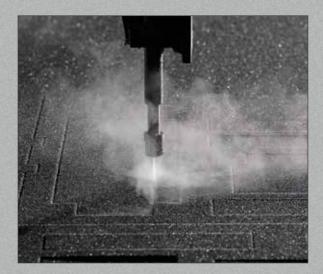
3. SEND PHYSICAL SAMPLE

Customer sends physical equipment or part.



4. CUSTOMER PROVIDED FOAM

Customer produces 3D foam CAD and uploads to Pelican.





#### **FABRICATING FOAM PARTS**

Pelican's Case Centers are equipped with state of the art equipment for reliable, uniform foam parts. Computer controlled high speed water jet cutters rapidly produce precision "gang run" parts from foam sheets up to 8 feet wide. Pelican technicians use a variety of adhesives and raw materials to assemble layered foam parts into a single unit for the ultimate in equipment protection. From 25 foot long helicopter blades to micro-surgery instruments, we've seen it all.



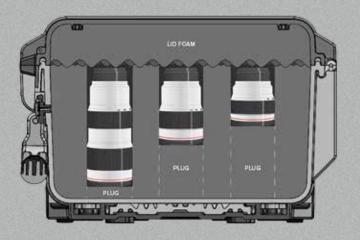


**CNC Foam Routing** 



Foam Die Cutting





After foam parts are cut, plugs are removed and cross cut to create varied pocket depths. This isolates equipment from up/down movement and keeps equipment flush to foam surface.

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# FOAM PROPERTIES



#### **NOT ALL FOAM IS EQUAL**

Pelican is proud to have pioneered many processes for the correct use of foam in technical packaging. More than 40 years ago we developed the original "Fragility Curve" table still in use around the world today. The correct foam must support the mass of the load and still cushion sensitive equipment from impact forces. Provide us with the details and fragility rating — our engineers will select the correct foam and design a solution for the best protection.

> There are numerous other foam properties that influence foam selection, from anti-bacterial foam (helpful for preventing mold growth in humid environments) to anti-static foam (protects delicate electronics).

Endoscope: Anti-bacterial, closed-cell nitrile foam serves as an equipment tray, leaving the case outside the operating room. The foam can be sterilized repeatedly.



Charcoal Ether Foam (Polyurethane)
- Best for delicate objects, like glass, cameras, and other electronic equipment.



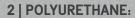


#### **FOAM PROPERTIES**

We offer a wide range of foam types, varying from flame-retardant, conductive, expanded to hundreds of foam styles. The foam below are just a few examples:

### 1 | POLYETHYLENE:

Polyethylene foam is a strong, non-abrasive, water-resistant and resilient closed cell foam. Due to its excellent vibration dampening and insulation properties, it is often used for packaging fragile goods such as communications equipment, power supplies, etc. Available in a variety of densities.



Commonly used, polyurethane is a softer, open cell foam. Best for lighter weight sensitive equipment such as cameras, smart phones and laptops. Available in a variety of densities.

# 3 | CROSS-LINK:

Is a non-porous, non-particulate closed cell foam that is often used in a clean room environment (reduces foreign object debris - FOD). It is aesthetically pleasing and resistant to grease, dirt and water. Available in a variety of densities.

### 4 | ANTI-STATIC **POLYETHYLENE:**

Commonly used for shipping electronic parts, circuit boards and computer chips, anti-static polyethylene foam is a strong, non-abrasive, water-resistant and resilient closed cell foam. The properties of the foam slowly dissipate electrostatic charges given off by other components. Used for shock absorption, it is often used for packaging fragile goods due to its excellent vibration dampening and insulation properties.

# 5 | ANTI-STATIC **POLYURETHANE:**

This special foam inhibits the build up of static electricity and helps dissipate any stray static charge. It is an open cell foam that is used for lightweight items such as sensitive electronic equipment, e.g. circuit boards, computer chips, etc.

Other foam types are available on request. Please see kit for additional foam types.



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# **CUT AND WELD**

#### **CUSTOM CASE SIZES: CUT AND WELD SOLUTION**

Pelican's cut and weld process can be used to build custom dimensions and oversize containers. One or more host cases are cut and rejoined by melting polymer rod, producing a seam that is stronger than adjacent wall panels and guaranteed watertight\*.







Case parts are accurately cut



Polymer seams are welded to form new case size



# DECK CASES AND CRADLE SUSPENSION SYSTEMS

Shock from drops and vibration can be detrimental to electronics and sensitive equipment. Our deck and cradle suspension systems are custom designed to mitigate these harmful forces.

Tools to manage risks during transport include elastomer shock mounts, cradle mounts and wire rope isolators.

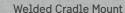
Cradle mounts are also the choice when the equipment can only be supported in precise locations.

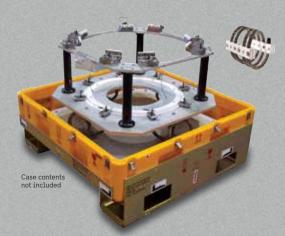
Heavy or extremely fragile equipment sometimes requires fabrication of custom deck mount suspension systems. Pelican's machine shop is world-class, with punch press, metal CNC, certified welders and finishing services demanded by the aerospace, defense and medical industries.

Pelican engineers can design custom solutions to protect equipment from shock and impact down to 15Gs.









Wire Rope Isolator Cradle Mount



Shock Mount Isolators

### ADDITIONAL OPTIONS

Case accessories include stencil service, document holders, desiccant, humidity indicator, bash plates to prevent forklift puncture and many other important options. See page 11 for ideas.







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<sup>\*</sup>Pelican" Protector" Case and Pelican" Storm Case" (injected molded cases) are watertight. Pelican-Hardigg" Single Lid cases are tested to requirement.

Pelican" injection molded cases are guaranteed to be watertight to a depth of 3.3 feet (1 meter) for 30 minutes (IP 67) if properly closed with undamaged o-ring in place unless otherwise stated.

# **CUSTOM RACK MOUNTS**

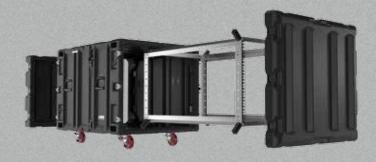
#### **CUSTOM RACK MOUNT CASES**

Our Rack Mount Cases can be turned into a mobile diagnostic center, a video/sound editing bay, or whatever you can imagine. Install a rack slide for quick cable access, or shelves for extra storage space. Keyboard trays, drawers, sliding shelves, bezel plates, are just a few of the many options that can customize our Rack Mount Cases.



# **NEW PELICAN-HARDIGG™ V- SERIES RACK MOUNT CASES**

Pelican-Hardigg™ V-Series Cases are built with a 19" steel rack and industry-standard square hole pattern, so hanging electronics is a snap. These cases also include clip nuts- just attach the clip nut to a square hole and you've got a secure, threaded mount. We even ship the case with your choice of 10-32 Imperial or M6 Metric clip-nuts.



# **ELECTRONIC APPLICATIONS**

# PANEL FRAME AND BEZEL KITS

Many Pelican™ Cases can be adapted for use with electronic interface panels by using a Panel Frame (Pelican™ Pro tector™ Case) or Bezel Kit (Pelican™ Storm Case™) accessory. Interface panels are supplied by the customer and mount flush with the rim of the case.



A polymer o-ring seals the panel so the interior below the interface panel remains watertight\*, even with the lid open. The mounting bracket, fasteners and o-ring are included in the panel frame kit.

### ELECTRONIC **INSTALLATIONS**

Both the Pelican™ Protector™ Case and Pelican™ Storm Case™ allow customization for electronics. Injection molding provides a reliable, durable, ready-to-ship enclosure with consistent dimensions. The copolymer material can be machined, drilled and sanded smooth.



These properties make the Pelican™ Protector™ Case and Pelican™ Storm Case™ suitable for use with bulkhead connectors.

# CUSTOM LOGO SERVICES

#### **CUSTOM LOGO SERVICES**

Personalize the outside of the case with your company logo or have your brand engraved on the nameplate (Pelican™ Protector™ Case). Logos can be applied in multiple colors on most surfaces or as a vibrant fade-resistant, scratch resistant hot-stamped ink.

The options are endless.







Send us your logo and we'll help you design a custom decal. Many of our Pelican™ Protector™ Case and Pelican™ Storm Case™ models take the same size decal. That means one simple decal run for multiple size custom cases.



Make your name stand out. Our vibrant hot stamp imprint process is scratch and fade resistant.



Personalize your case by having your name engraved on the nameplate. For multiple quantities hot stamping is available (100 piece minimum). Just fill out the form and send us the envelope we've included and we'll get it done (Pelican™ Protector™ Case only).

# TESTING AND QUALITY CONTROL

#### SINGLE LID, DECK LID AND RACK MOUNT OPTIONS

Pelican has the widest range of optional configurations in the industry.



0	OPTIONAL COLORS FOR ALL SINGLE LID CASES											
	Gray – 133 Fed Std# 26270	Tan – 250 Fed Std# 20372		Blue – 135(lt) Pantone# 292U		White – 132 Fed Std# 27925		Yellow – 136 Pantone# Ø12U		Green – 138(forest) Fed Std# 24052		Orange – 134 Fed Std# 12197
	Yellow – 131 Fed Std# 23538	Maroon – 197 Pantone# 202U		Blue – 101(dk) Fed Std# 25052		Black – 032 Fed Std# 27040		Red – 130 Fed Std# 21105		Olive Drab – 137 Fed Std# 34096		Purple – 129 Pantone# 245U

Note: Some options are not available on all case sizes and availability is subject to change at manufacturer's discretion Case colors/options may differ slightly from printed versions.

#### OFF-THE-SHELF OPTIONS FOR PELICAN™ PROTECTOR™ CASE AND PELICAN™ STORM CASE™

Organize and protect with one of our standard options. Our easy do-it- yourself Pick N Pluck™ foam gets your equipment organized quickly- just trace your object and pluck away the pre-scored foam cubes.

The new TrekPak™ divider systems are sturdy, lightweight walls 7/16" thick that pack more gear than conventional dividers. They are easy to adjust, cut and customize with steel U-pins and the included double-blade tool.

For extra cushion and versatility go with our durable Padded Divider sets. Velcro® allows you to adjust and re-connect nylon walls for easy adaptability.

Our lid organizers offer zippered, mesh pockets that let you see your gear at a glance and keep everything secure.

Pelican now offers an online solution to design your own foam parts. Go to Pelicanfoam.com to learn more.



Pick N Pluck™ Foam



TrekPak™ Divider System



Padded Divider/ Lid Organizers



Pelicanfoam.com

**Drop Test** 



Vibration Test



Submerge Test

#### **AVAILABLE LAB TESTING**

Military, Aerospace and OEM customers may need to certify the case will perform to specific requirements. Under precise control conditions we subject our cases to a battery of rigorous lab tests including drop, vibration, leak, heat and dust tests (cases are tested per requirement).

#### DROP TESTING

• Six foot cube reaction mass of reinforced concrete. A hoist capable of lifting 1 ton, and a quick release mechanism with a load capacity of ½ ton.

#### **IMPACT TEST**

- Falling dart 84" drop height with darts weighing between 5 and 15 lbs.
- Penetration test for category 1 containers - ATA 300 paragraph B-2-5.

#### THERMAL TEST

• Walk in environmental chamber 6-foot wide by 8 foot high and 8 feet deep with a thermal range of -100°F to 200°F.

#### IMMERSION TEST

- Internal dimension of the chamber is 54" x 30 x 36"H. Able to simulate immersions up to 2 meters.
- Small immersion tank capable of immersions up to 1 meter on small IM cases.
- 80-inch deep large immersion tank

#### RAIN TEST

• Small rain chamber capable of up to 4 inches per hour.

#### **PNEUMATIC** PRESSURE TESTING

• Digital manometer – 10 psi max

#### **VIBRATION TEST**

- L.A.B. servo hydraulic vibration system; 0 – 300 Hz. • Sinusoidal with pre-programmed
- profiles for: - ISTA Integrity test procedures 11800, 14200, 1A, 1B, 1E, 1C,
- -3-50 Hz sweep with 1G constant input.
- 1-inch dwell for loose cargo bounce.

1D, 2A AND 2B.

- Mil-Std-648C; 5.3.2.
- Random Vibration with pre-programmed profiles for: - ASTM D 4169 Air levels 1, 2, and 3.
- ASTM D 4169 Truck levels 1. 2. and 3.

- ASTM D 4169 Rail levels
- 1, 2, and 3.
- ISTA Integrity Test Procedures 1E. 1H. 1C. 1D. 1F. 3C. 3D. and 3E.

#### MITUTOYO HARDNESS TESTER

 Metal evaluation of product used in cases.

#### COMPRESSION AND TENSILE TESTING

- Instron compression tester.
- Load range of 6600 lbs on small items.

#### LEAK TEST

- Rain: Small rain chamber capable of up to 4 in. per hour.
- Digital manometer 10 psi max.





### **QUALITY CONTROL**

We stand behind our products and guarantee their performance. With manufacturing credentials like ISO 2001:2008 certification, Pelican has won numerous awards from the National Institute of Packaging, Handling and Logistics Engineering (NIPHLE).

11 CASE OPTIONS

