

GEMSTAR  TM
CUSTOM HARD CASES



SENTINEL®
BUILT
FROM THE
INSIDE OUT



VIRTUALLY INDESTRUCTIBLE LIGHTWEIGHT, AIRTIGHT PROTECTION



SENTINEL® is always on-guard in mission-critical challenges.

When leaks occur at industrial plants, the repair kit housed in this SENTINEL case provides the solution before production or safety issues escalate. Designed to organize, protect, and transport this vital equipment, the custom design of this case provides easy access with failsafe performance in urgent conditions. Multiple lift-out trays organize the kit's contents and the closed cell foam enclosures help to resist moisture. Hook-and-loop straps secure a hydraulic hose in the lid. The safety yellow color helps workers easily identify the case in the field.



- Wheels and extension handle for reliable transport in demanding conditions
- Closed-cell, moisture resistant foam with engineered performance
- Multiple quick-access lift out trays with intuitive organization
- Hook-and-loop straps with brackets in case lid for hose storage
- Safety yellow color is easily identified by response workers

Purpose-built. From the inside out.

When it comes to protecting your high-value cargo, equipment, or devices, GEMSTAR looks at technical cases differently. From the inside out. Starting with your valuable assets, our custom-designed hard cases are engineered and built to meet the protection, containment, and transportation requirements specific to your application requirements. GEMSTAR is the only manufacturer to provide three case platforms – SENTINEL[®], STRONGHOLD[®], and VersaPRO[®]. Our decades of custom case design and manufacturing experience, and nearly limitless custom options, makes us the best choice for your custom hard case solution.



SENTINEL[®]

Airtight, waterproof protection that's durable, lightweight, and virtually indestructible.

SENTINEL injection-molded cases are engineered to deliver the ultimate in protection for your most valuable assets—for sleek, lightweight protection that can stand up to any demand, choose SENTINEL.



STRONGHOLD[®]

Extreme durability, interlocking stackability, and airtight protection for heavyweight cargo.

When you need to ensure the protection of larger and heavier equipment, STRONGHOLD delivers. Featuring double-walls, thick corners and rotationally molded polyethylene, you can rely on STRONGHOLD to be the most rugged case available.



VersaPRO[®]

Thousands of sizes, choices, and options for reliable protection.

The number of custom combinations available to you with VersaPRO cases is virtually limitless. From interior layout to case size, from company branding to color, this is the solution for those with distinct needs to protect, contain, and transport equipment.

The GEMSTAR difference.

Making a case for the best cases on the market.

GEMSTAR cases are built to your purpose. We've been doing it that way for over 50 years. We work closely with you to make sure your case performs exactly the way you need it to. We offer the world's broadest offering of case platforms with virtually unlimited configurations and options. And we are committed to offering the fastest turnaround time in the industry. These differences make GEMSTAR the best choice for custom hard cases.



Because of our commitment to quality, use of premium materials and adherence to best practices, we stand behind all of our case products with a lifetime guarantee.

See page 11 for details, or go to GemstarCases.com

The rugged, custom case designed to rise to your challenge.

SENTINEL cases have seen action in all conditions—from front line combat to backwoods research.

Pound for pound, this is one tough case.

Constructed with a proprietary copolymer resin, injection-molded SENTINEL cases are designed to be incredibly rugged. SENTINEL also provides the best strength-to-weight ratio in the industry. This unique combination gives you optimal performance.

Designed to combat any environment.

Waterproof, airtight and dust-proof. The SENTINEL meets or exceeds demanding high standards for durability, including IP67 submersion, MIL-810 and ATA300. Each case comes standard with an automatic pressure relief valve.

SENTINEL®

Standard Features

- *Lightweight – best strength to weight ratio*
- *Airtight, waterproof and dustproof*
- *All hardware mounts to case with stainless steel pins*
- *Injection molded engineered copolymer construction*



Molded-in padlock brackets

Automatic pressure relief valve

Patented easy-to-use, finger-friendly latches

EPDM gasket for airtight, waterproof containment

Custom foam



Available in six standard colors

Custom colors available.
Call for details.



High quality. Guaranteed.

We guarantee SENTINEL cases for life because we ensure your case is built right the first time. If your case breaks or is defective, we will provide replacement parts, repair the case or replace the case at no cost to you. The result is that SENTINEL cases perform to meet the highest standards – yours.

Visit GemstarCases.com/Warranty for details.

**GUARANTEED
FOR LIFE**

*Removable lid
(optional)*

Ergonomic handle

GemstarCases.com

A big job for a small case.

Industrial torque wrenches need frequent calibration, and the equipment housed in this custom-built, airtight, and waterproof SENTINEL case does just that. Designed to protect sensitive on-board calibration devices in the most demanding environments, this densely-packaged small case also provides engineered functionality with integrated exterior IP connectors. To meet commercial certification requiring a fire rating, the case and flange are formed from custom UL V-0 material.

- Customer tooled, two-piece thermoformed mounting panel
- Maximum storage in the base achieved by lifting the top face of the panel into the lid
- Case wall routed to accept IP connectors
- Custom UL V-0 fire-rated material construction

Custom designed. Purpose-built.

At GEMSTAR, customization means that the SENTINEL case we build for you is engineered from the inside out to fit your purpose. We assure your custom case protects, organizes, and safely transports your valuable assets. And we provide custom design services to ensure your SENTINEL case meets all your needs.

The process begins with your GEMSTAR Technical Partner who will work closely with you to collect information. We then calculate to determine the optimal case size and the amount and type of cushioning required.

What goes into the case?

Description, dimensions, weight and fragility of the assets.

How is the case being used?

How the case is handled, transported, and the environmental conditions it will encounter.

What level of protection and containment is required?

Fragility (or "G" Factor) helps determine the protection needed. GEMSTAR builds custom cases to protect a full range of assets, from extremely fragile test instruments to rugged machinery.

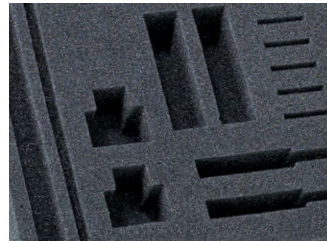
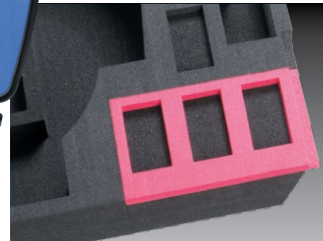
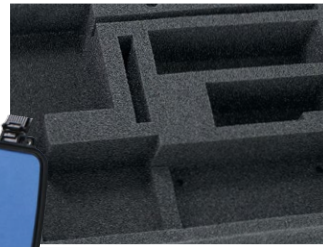
15-25 G	EXTREMELY FRAGILE	<ul style="list-style-type: none">• Special military equipment• Precision aligned test instruments
25-40 G	VERY DELICATE	<ul style="list-style-type: none">• Mechanical instruments and electronic equipment• Shock mounted
40-60 G	DELICATE	<ul style="list-style-type: none">• Aircraft accessories• Computer equipment
60-85 G	MODERATELY DELICATE	<ul style="list-style-type: none">• Video equipment• Video monitor
85-115 G	MODERATELY RUGGED	<ul style="list-style-type: none">• Equipment with minimal electronic controls
115+ G	RUGGED	<ul style="list-style-type: none">• Machinery

Custom Foams

GEMSTAR offers a wide variety of foam options. We determine the foam load your asset requires, which is the amount and density of the foam required to protect it.

Foam types:

- PU (Polyurethane)
- PE (Polyethylene)
- EPE (Expanded Polyethylene)
- EPP (Expanded Polypropylene)
- XLPE (Cross-linked)
- Anti-static



Custom Interiors

There are more options than just foam to protect and organize your equipment inside a case. We can help determine which options are best suited to your application and type of items.

- Shock mounts
- Hook-and-loop straps
- Trays and thermoformed inserts
- Mounting flanges and brackets
- Compartment labeling
- Hinged compartments
- Literature pockets



One solution. A range of options.



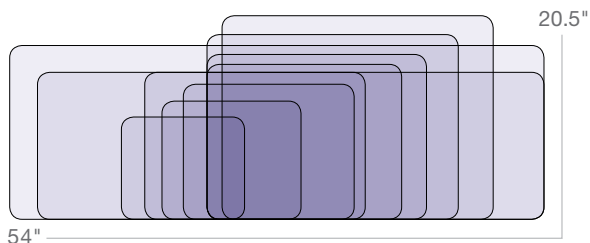
GEMSTAR stocks all standard SENTINEL models in black for quick shipping. You can customize your standard SENTINEL case with labeling, foam inserts, and a wide variety of interior and exterior options, which means you get the case you want, just the way you want it. Standard and custom colors available. And if we don't stock the size, color or configuration that meets your needs, we can custom build your case from scratch.

Smart engineering.

SENTINEL cases are lightweight yet extremely durable. Shape, form, and proprietary copolymer resin add to the integral strength of the SENTINEL case. Smartly designed features such as exterior hardware guards allow your case to withstand any type of abuse and hardware to perform flawlessly for the life of the case.

Precise fitting tongue-and-groove lid enclosures combine with our superior EPDM gasket system, making SENTINEL completely airtight. This ability to securely keep out dust and water adds another layer of protection.

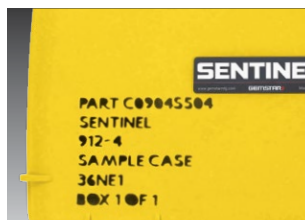
SENTINEL cases cover a wide variety of sizes and are in stock for quick shipment.



Custom Exteriors

The exterior of your SENTINEL case can be equipped with a variety of accessories or graphics.

- Stock and custom color matching
- Retractable extension handles and wheels on select models
- Patented finger-friendly latches
- Automatic pressure relief valve
- Molded-in padlock brackets
- Recessed hardware
- Adhesive logo labels
- Label plates
- Case wall cutouts
- Straps
- Removable lid





How a case can change the game.

When a major medical device OEM launched a new generation of its remote medical diagnostic product, they chose SENTINEL for several reasons. Lightweight and virtually indestructible, the rugged performance of the portable device was enhanced. The unique, curved profile of SENTINEL also allowed the company to distance itself from earlier versions of the device with a sleek, new-and-improved product – one that provides valuable visual differentiation and adds high real and perceived value.

The case features a custom interior which provides mounting for a tablet and camera system with storage space for diagnostic tools. The case exterior is machined to provide electronic access ports and thermal ventilation, and is designed to be both functional and attractive while maintaining a high brand image. The product solution is engineered to be compact and lightweight, but durable as possible for reliable performance in remote operation and transport.

- Royal blue molded case exterior
- Silver latch accents
- Custom silver thermoformed interior with hinged keyboard tray and storage tub and additional machining to allow heat dissipation
- Machining to case exterior to accept exterior electronics ports
- Custom metal logo riveted to the case lid
- Custom locking stay

Tested. Perfected.

Proven tough.

We put SENTINEL cases through rigorous tests meant to emulate real-world conditions. We learn volumes from each test we conduct. Our cases are engineered to provide the ultimate protection.

- Drop and Impact
- Vibration
- Immersion
- Handle Pull
- Salt Fog Chamber
- UV Stability
- Wheel Endurance

Standards exceeded.

SENTINEL will meet or exceed the following standards:

IP67

DEF Stan 81-41 /
STANAG 4280

NATO Standard

MIL-STD-2073-10

MIL-STD-C4150 J

ATA 300

MIL-STD-810F

- High/low temperatures
- Drop
- Basic transportation vibration
- Loose cargo
- Water submersion
- Wind blown rain
- Fungus growth
- Low pressure
- Wind blown sand and dust



The GEMSTAR difference.

Dedicated to Superior Product and Service.

GEMSTAR is proud of the level of service, quality, and value we provide to our customers. Our ability to meet their wide ranging needs lies with the dedication, loyalty, and experience of our employees, many of whom have been with us since our inception.

Every case we manufacture is designed and built in Cannon Falls, Minnesota, USA, and each one represents the caliber of our entire organization. Our commitment to quality encompasses design, production and the way we conduct business, and is a testament to our Midwestern values and work ethic. Each member of our talented GEMSTAR staff is vital to the excellence we strive to deliver.

We put this dedication into action with the world's widest selection of cases, design engineering and support, unlimited customization options, and the fastest turnaround time in the industry. Please contact us with any questions and to get your custom case project started.

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We stand behind our cases. For life.



GEMSTAR is committed to the highest quality and backs that commitment with a lifetime guarantee. We are able to offer this industry-leading protection because we work with premium materials, use the best processes for your application, and help you from design all the way through production and rollout to assure the best overall solution. If your case breaks or is defective, GEMSTAR Manufacturing will provide replacement parts or repair or replace the case. This warranty extends only to the case itself, covering any defects in materials or workmanship as described in our warranty statement. For additional information, please visit GemstarCases.com

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