PROTECT AND DEFEND









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ECS Case was founded in 1954 and has since evolved into an internationally respected designer and manufacturer of reusable containers and enclosures for equipment of all kinds. The company is also an experienced custom molder of thermoplastic and thermoset composite parts and boasts the possession of one of the nation's largest compression molding presses. Other techniques for molding thermoplastic materials and fabricating metal products add diversity to the core capabilities at ECS. The company's reputation for on-time delivery of high quality products is maintained by the efficient use of sophisticated manufacturing management system and by a dedicated team of employees. We are located in Grants Pass, Oregon, and the company has maintained strict compliance with environmental quality regulations and is recognized for its service to community and country.



ECS Headquarters - Grants Pass, Oregon



Capabilities Statement

Small Business, HUB Zone Classifications & Codes

ECS is classified as a small business through the United States Small Business Administration. The company is located in a Hub Zone certified substantial labor surplus area and has received Hub Zone certification from the SBA as well. The local work force is of high quality and is important to the success and growth of the company.

NAICS Code: 326199 DUNS #: 059497768 CAGE Code: 24995 SBA #: PO121064 Hub Zone Cert #: 4157

ITAR Certified ISO 9000 Compliant

Capabilities Overview

Products

At ECS we feature four products lines; Thermostamp Composite (TSC), Fiberglass Reinforced Polyesther (FRP), Rotomold (RTM) and Vacuum Infused Process (VIP). We offer a full line of factory direct shipping products as well as the most advanced custom packaging solutions available today. Commercial-off-the-shelf products include rackmount enclosures, medical cases, weapons solutions, shipping, storage, drawer, and footlocker cases available on demand. Transportable Military rackmount cases were invented and patented by ECS in 1969, and we continue to set the bar for rackmount usability, compact design, and high performance.

Loadmaster® Rackmount Cases now stack with all previously fielded standard model rackmounts and all Loadmaster® Shipping Cases. Loadmaster® rotationally molded shipping cases are completely modular in all dimensions. Cases of different sizes securely stack and interlock together for maximum stacking efficiency. Loadmaster® cases are ideal for use on 463L military pallets. We manufacture all of our tooling, molds and cushions for all the cases we build.

Facilities and Location

ECS is located in Grants Pass, Oregon. The Grants Pass facility is located on a 10 acre site and includes 100,000-SqFt of factory and office space. It serves as the ECS manufacturing, operations and corporate headquarters. It is served by major air and surface carriers.

Transportation

Our headquarters are located along Interstate Highway 5 (I-5) in Southwestern Oregon. The interstate highway system provides many surface freight carriers for the shipment of ECS products throughout the United States and Canada. The area is also serviced by major airlines, UPS and Federal Express offer services from an excellent airport in Medford, Oregon, approximately twenty-five miles from our location. ECS regularly ships internationally via a well-developed network of carriers. Shipments to Asia, Europe, South America and the Middle East are commonplace and handled by experienced shipping personnel.

Becklin Holdings, Inc. ECSCASE protect

Capabilities Statement

Contract Management

ECS maintains a full contract management department. The company utilizes a sophisticated cost accounting system to record and analyze every job related expense, including labor by task, by lot, and by work station. This cost data is then rolled into learning curve altered labor estimates for quotation purposes. The ECS manufacturing management system utilizes IBM MAPICS software to provide detailed material cost data and the ability to fully document support contract cost estimates. ECS regularly participates in fact finding, quotation analysis and negotiations of contracts which are subject to the requirements of the US Federal Acquisition Regulations (FAR).

Engineering & Testing

The ECS engineering and design team offers sophisticated modeling using Solid Works, Finite Element Analysis and rapid prototyping for scalable models. ECS offers custom engineering services to meet customers' needs and required MIL specs. We also have an onsite testing lab for environmental, vibration and drop testing.

Past Performance

ECS has participated in and supported numerous government programs, and has earned an unparalleled, extremely positive past performance record. ECS is the recipient of the highly prized Star Supplier Award from Lockheed Martin Corporation, the Exceptional Quality Award from AAI Textron, the Key Supplier Award from L3 Communications and many others.

International Scope

All ECS products are shipped to a blue ribbon group of customers in the United States and around the world. Domestic USA sales are handled through direct ECS sales personnel, and sales representatives. ECS products are also sold internationally through a network of representatives located in the Americas, Europe, Asia, and the Mid-East.

ECS Advantage

ECS invented and patented the 19", field portable, shock isolated rackmount case in 1969 and has provided the leading rackmount solutions ever since. The first portable rackmount cases were Fiberglass Reinforced Polyester (FRP) rackmount cases. Our innovation of rackmount cases continued when we introduced our compression molded Glass Mat material line of Thermo Stamped Composite (TSC) products. In 1985, ECS offered the original Legacy rackmount cases which remain unmatched in the industry and proudly offered in support of existing programs.

Beginning in 2006 we put state of the art improvements into our TSC rackmount cases and introduced the ECS Loadmaster® rackmount series. This rackmount case offers the best in class 21st Century design that is a marked improvement to the original Legacy rackmount case with added ergonomic enhancements, improved stacking features, molded in features and standardized options that allow for quick delivery. Our Loadmaster® rackmount cases stack compatibly with our standard Legacy Line. Our product is far superior in design, quality and performance to our competitors' rackmount cases. Some highlights of key features include:

- 1. ECS uses molded-in threaded inserts, which prevent potential leak paths. Elimination of rivets has quelled more than 80 potential leak paths.
- 2. ECS offers stainless steel, field replaceable hardware that can be installed with a screwdriver. Our competitors do not.
- 3. Loadmaster® patented stacking feature allows our product to be stacked with all Loadmaster® rackmount sizes, Loadmaster® transit cases and same depth Legacy rackmount cases.
- 4. Loadmaster® rackmount cases use molded-in, threaded inserts for field replaceable hardware with no use of POP-rivets. The use of POP-rivets creates significant areas of entrapment for Chemical, Biological and Radiological Warfare Agents.
- 5. Loadmaster® rugged design allows the end user to "Use and Abuse" ECS cases over and over, while still benefiting from unmatched performance and durability resulting in the best value and highest quality of any cases available anywhere.
- 6. Since ECS is the point of contact, case manufacturer, and have our own machine shop to custom manufacture all tooling, we control the quality of our cases from "Start to Ship" providing the consistency expected from any product purchased.

Proven In The Field

ECS invented portable rackmount cases in 1969 and has continued to set the bar for rackmount usability, compact design and innovation.

Loadmaster®
Rackmount Cases
provide unbeatable
durability for
valuable payloads.
Cases are
manufactured from
Thermo Stamped
Composite (TSC)
materials.

Loadmaster®
Rackmount Cases,
with standardized
options, are
available for
immediate delivery.



Loadmaster® Rackmount Cases are the toughest, lightest, most protective, portable military electronic enclosures anywhere. They are extremely durable in any environment. The slide-out rack can be unlatched and removed from the outer case when the rack is empty or when it is filled with electronic equipment. Slide-out 19-inch racks allow unlimited access to electronic equipment during installation, integration, and maintenance. Ruggedized ECS Rackmount Cases have been the choice of American warfighters for more than 40-years.

Rackmount cases are manufactured from ECS' incredibly strong TSC composite material. Using compression molding presses up to 1,200-tons in capacity, ECS manufactures these cases of the same composite materials used for car bumpers and military truck components. TSC case shells provide extraordinary impact resistance and rugged durability at temperatures which exceed a range of -53° C to +85° C.



The patented Loadmaster® stacking feature allows cases to securely interlock with all previous standard rackmount models, as well as any size Loadmaster® Shipping Case.





Performance Tested accordance with MIL-STD-810G

High and Low Temperature

Proven performance in temperature extremes ranging from -53 $^{\circ}$ C to +85 $^{\circ}$ C.

Drop Testing

Able to withstand the rigors of deployment – drop tested from a height of 24 to 48 inches. Impacts conducted on all corners, flat surfaces and edges for a total of 26 drops.

Basic Transportation Vibration

Built to move, ECS cases show no damage when exposed to vibration environments for a duration of 30 minutes per mutually perpendicular axis.

Loose Cargo Bounce

Upright and with the covers in place, ECS cases show no damage and/or degradation when exposed to Loose Cargo Transportation environments for 30 minutes.

Water Submersion/ Wind Blown Rain

ECS cases show no evidence of water intrusion and/or damage as a result of exposure to 40 mph wind blown rain conditions.

Wind Blown Sand and Dust

ECS cases are desert ready and show no evidence of damage and/or sand or dust intrusion.

Fungus Growth

ECS case materials will not support fungus growth.

Low Pressure

ECS cases show no damage and/or degraded when exposed to low pressure environments.

The Loadmaster® Rackmount Case features the Center Grip Handle with casters

Loadmaster®
Rackmount Cases
Provide excellent shock
and vibration protection
for electronic equipment of
all types. TSC composite materials are
very rigid under heavy stacking loads and
resilient during impacts. Approximately one third of all impact energy
is absorbed by the deflection of the TSC enclosure walls before impact

forces are transferred to the shock mounts. Final shock and vibration

attenuation is then provided by installed shock mounts.



Loadmaster® Rackmount Cases come with 3" or 5" lids

Standard Colors

Desert Tan Olive Drab Gray Black
FS-33446 FS-34094 FS-36463

CEA-310-E compliant shock mounted interior racks are manufactured from all aluminum components and precision machined aluminum extrusions. Riveted aluminum vertical rails on these 19" racks provide multiple equipment mounting capabilities. Racks have equipment mounting holes in front and rear vertical members and interior vertical rails for attachment of slides and brackets. Two rackmount fastener types are available - Thread locking 10-32 clip nuts or stainless steel nut bars with 10-32 tapped holes.

ECS Rackmount Cases optimize sway space inside the smallest, lightest, toughest rackmount enclosures available anywhere. Enhanced sway space for the rack allows shock mounts to provide maximum shock and vibration protection for the equipment. The 19" all aluminum racks optimize volume utilization inside the case and to reduce total case weight. Rackmount cases provide maximum attenuation of impact energy and unequaled shock and vibration protection for enclosed equipment.

Rackmount case sizes are available from 3U-20U in rack height and front-to-back rack depths of 20", 24" and 30". TSC covers are available in two different depths (3" and 5").





Rackmount Frame Depth



20" Frame Depth



24" Frame Depth



30" Frame Depth

7000 Series (Fixed Frame) Rackmount Case Sizes

Weights are approximate depending on case options selected.

ECS Case Part No.	Rack Height (Units)	Rack Height Inside (Inch)	Flange to Flange Depth (Inch)	Outside Case Height (Inch)	Outside Case Width (Inch)	Front Cover Depth (Inch)	Center Body Depth (Inch)	Rear Cover Depth (Inch)	Overall Outside Depth (Inch)	Case Weight (Lbs)
7303 7304 7305 7306 7307 7308 7309 7310 7311 7312 7313 7314 7315 7316 7317 7318 7319 7320	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	5.25 7.00 8.75 10.50 12.25 14.00 15.75 17.50 19.25 21.00 22.75 24.50 26.25 28.00 29.75 31.50 33.25 35.00	20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00	9.34 11.09 12.84 14.59 16.34 18.09 19.84 21.59 23.34 25.09 26.84 28.59 30.34 32.09 33.84 35.59 37.34 39.09	22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00	34.9 37.0 38.9 42.3 44.3 46.7 48.6 50.5 51.0 52.9 54.9 56.8 59.7 61.6 63.5 65.4 67.3 69.2
ECS Case Part No.	Rack Height (Units)	Rack Height Inside (Inch)	Flange to Flange Depth (Inch)	Outside Case Height (Inch)	Outside Case Width (Inch)	Front Cover Depth (Inch)	Center Body Depth (Inch)	Rear Cover Depth (Inch)	Overall Outside Depth (Inch)	Case Weight (Lbs)
7503 7504 7505 7506 7507 7508 7509 7510 7511 7512 7513 7514 7515 7516 7517 7518 7519 7520	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	5.25 7.00 8.75 10.50 12.25 14.00 15.75 17.50 19.25 21.00 22.75 24.50 26.25 28.00 29.75 31.50 33.25 35.00	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	9.34 11.09 12.84 14.59 16.34 18.09 19.84 21.59 23.34 25.09 26.84 28.59 30.34 32.09 33.84 35.59 37.34 39.09	22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50	38.6 40.7 42.8 46.3 48.4 50.9 52.9 54.9 55.6 57.6 59.7 61.7 66.7 68.7 70.7 72.7 74.9

ECS Case Part No.	Rack Height (Units)	Rack Height Inside (Inch)	Flange to Flange Depth (Inch)	Outside Case Height (Inch)	Outside Case Width (Inch)	Front Cover Depth (Inch)	Center Body Depth (Inch)	Rear Cover Depth (Inch)	Overall Outside Depth (Inch)	Case Weight (Lbs)
7903	3	5.25	30.00	9.34	22.47	3.00	34.00	3.00	40.00	42.8
7904	4	7.00	30.00	11.09	22.47	3.00	34.00	3.00	40.00	45.1
7905	5	8.75	30.00	12.84	22.47	3.00	34.00	3.00	40.00	47.3
7906	6	10.50	30.00	14.59	22.47	3.00	34.00	3.00	40.00	50.9
7907	7	12.25	30.00	16.34	22.47	3.00	34.00	3.00	40.00	53.2
7908	8	14.00	30.00	18.09	22.47	3.00	34.00	3.00	40.00	55.9
7909	9	15.75	30.00	19.84	22.47	3.00	34.00	3.00	40.00	58.0
7910	10	17.50	30.00	21.59	22.47	3.00	34.00	3.00	40.00	60.2
7911	11	19.25	30.00	23.34	22.47	3.00	34.00	3.00	40.00	61.0
7912	12	21.00	30.00	25.09	22.47	3.00	34.00	3.00	40.00	63.2
7913	13	22.75	30.00	26.84	22.47	3.00	34.00	3.00	40.00	65.4
7914	14	24.50	30.00	28.59	22.47	3.00	34.00	3.00	40.00	67.6
7915	15	26.25	30.00	30.34	22.47	3.00	34.00	3.00	40.00	70.8
7916	16	28.00	30.00	32.09	22.47	3.00	34.00	3.00	40.00	73.0
7917	17	29.75	30.00	33.84	22.47	3.00	34.00	3.00	40.00	75.1
7918	18	31.50	30.00	35.59	22.47	3.00	34.00	3.00	40.00	77.3
7919	19	33.25	30.00	37.34	22.47	3.00	34.00	3.00	40.00	79.4
7920	20	35.00	30.00	39.09	22.47	3.00	34.00	3.00	40.00	81.6

8000 Series (Slide-Out Frame) Rackmount Case Sizes Weights are approximate depending on case options selected.

ECS Case Part No.	Rack Height (Units)	Rack Height Inside (Inch)	Flange to Flange Depth (Inch)	Outside Case Height (Inch)	Outside Case Width (Inch)	Front Cover Depth (Inch)	Center Body Depth (Inch)	Rear Cover Depth (Inch)	Overall Outside Depth (Inch)	Case Weight (Lbs)	
8303	3	5.25	20.00	9.34	22.47	3.00	24.00	3.00	30.00	36.8	
8304	4	7.00	20.00	11.09	22.47	3.00	24.00	3.00	30.00	38.9	
8305	5	8.75	20.00	12.84	22.47	3.00	24.00	3.00	30.00	40.8	
8306	6	10.50	20.00	14.59	22.47	3.00	24.00	3.00	30.00	44.2	
8307	7	12.25	20.00	16.34	22.47	3.00	24.00	3.00	30.00	46.2	
8308	8	14.00	20.00	18.09	22.47	3.00	24.00	3.00	30.00	48.6	
8309	9	15.75	20.00	19.84	22.47	3.00	24.00	3.00	30.00	50.5	
8310	10	17.50	20.00	21.59	22.47	3.00	24.00	3.00	30.00	52.4	
8311	11	19.25	20.00	23.34	22.47	3.00	24.00	3.00	30.00	52.9	
8312	12	21.00	20.00	25.09	22.47	3.00	24.00	3.00	30.00	54.8	
8313	13	22.75	20.00	26.84	22.47	3.00	24.00	3.00	30.00	56.9	
8314	14	24.50	20.00	28.59	22.47	3.00	24.00	3.00	30.00	58.7	
8315	15	26.25	20.00	30.34	22.47	3.00	24.00	3.00	30.00	61.6	2
8316	16	28.00	20.00	32.09	22.47	3.00	24.00	3.00	30.00	63.5	
8317	17	29.75	20.00	33.84	22.47	3.00	24.00	3.00	30.00	66.4	
8318	18	31.50	20.00	35.59	22.47	3.00	24.00	3.00	30.00	67.3	
8319	19	33.25	20.00	37.34	22.47	3.00	24.00	3.00	30.00	69.2	
8320	20	35.00	20.00	39.09	22.47	3.00	24.00	3.00	30.00	71.1	

ECS Case Part No.	Rack Height (Units)	Rack Height Inside (Inch)	Flange to Flange Depth (Inch)	Outside Case Height (Inch)	Outside Case Width (Inch)	Front Cover Depth (Inch)	Center Body Depth (Inch)	Rear Cover Depth (Inch)	Overall Outside Depth (Inch)	Case Weight (Lbs)
8503 8504 8505 8506 8507 8508 8509 8510 8511 8512 8513 8514 8515 8516 8517 8518	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19	5.25 7.00 8.75 10.50 12.25 14.00 15.75 17.50 19.25 21.00 22.75 24.50 26.25 28.00 29.75 31.50 33.25	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	9.34 11.09 12.84 14.59 16.34 18.09 19.84 21.59 23.34 25.09 26.84 28.59 30.34 32.09 33.84 35.59 37.34	22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50 28.50	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50 34.50	40.5 42.7 44.7 48.2 50.3 52.8 54.8 56.8 57.5 61.6 63.6 68.6 70.6 72.6 74.6
ECS Case Part No.	20 Rack Height (Units)	35.00 Rack Height Inside (Inch)	24.00 Flange to Flange Depth (Inch)	39.09 Outside Case Height (Inch)	22.47 Outside Case Width (Inch)	3.00 Front Cover Depth (Inch)	28.50 Center Body Depth (Inch)	3.00 Rear Cover Depth (Inch)	34.50 Overall Outside Depth (Inch)	76.8 Case Weight (Lbs)
8903 8904 8905 8906 8907 8908 8909 8910 8911 8912 8913 8914 8915 8916 8917 8918 8919	3 4 5 6 7 8 9 10 11 13 14 15 16 17 18 19 20	5.25 7.00 8.75 10.50 12.25 14.00 15.75 17.50 19.25 21.00 22.75 24.50 26.25 28.00 29.75 31.50 33.25	30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00 30.00	9.34 11.09 12.84 14.59 16.34 18.09 19.84 21.59 23.34 25.09 26.84 28.59 30.34 32.09 33.84 35.59 37.34 39.09	22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47 22.47	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00 34.00	3.00 3.00 3.00 3.00 3.00 3.00 3.00 3.00	40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00 40.00	46.3 48.6 50.8 54.5 56.7 59.4 61.6 63.7 64.6 66.7 69.0 71.1 74.4 76.6 78.7 80.8



The patented Loadmaster® stacking feature allows cases to securely interlock with all previous standard rackmount models, as well as any size Loadmaster® Shipping Case.

Cases Stack Up

Loadmaster®
rotationally molded
shipping cases are
completely modular
in all

dimensions.

Cases of different sizes securely stack and interlock in any

grouping for maximum stacking efficiency. Loadmaster® cases are ideal for use on

463L military pallets.

All cases have field replaceable hard-ware attached to molded-in inserts and are built with zero draft angle for maximum interior volume.



Patented Loadmaster® Shipping Cases are completely modular in all dimensions. Shipping cases of different sizes securely stack and interlock in any grouping for maximum stacking efficiency. Case dimensions change length and width in 4.2-inch increments and height in 4-inch increments.

For the first time a truly user-friendly set of case sizes is available for military and commercial users. Rugged, cutting edge and built of high quality materials for lasting performance. We manufacture all of our tooling, molds and cushions for cases we build.





Standard Loadmaster® shipping cases are ideal on 463L military pallets and JMIC shipping containers.







Loadmaster® transit cases are ideal for military applications which require uncompromised protection from moisture, dust, sand and battlefield contaminants. Water tight cases provide protection from moisture, salt spray, sand and dust throughout the world's climate extremes. Each case has a water-proof gasket and an automatic air pressure relief valve. Impervious to fuels, oils and solvents, they can also be decontaminated if exposed to chemical warfare agents.



Part Number	r Series	Outside Dimensions	Inside Dimensions	Weight
Fait Nullibei	e denes	Length x Width x Height	Length x Width x Height	(Lbs)
320000	LM1717-12	16.6" x 16.6" x 12.0"	13.6" x 13.6" x 10.50"	16
321000	LM2117-12	20.8" x 16.6" x 12.0"	17.8" x 13.6" x 10.50"	19
321100	LM2117-16	20.8" x 16.6" x 16.0"	17.8" x 13.6" x 14.50"	21
321200	LM2117-20	20.8" x 16.6" x 20.0"	17.8" x 13.6" x 18.50"	23
322000	LM2121-12	20.8" x 20.8" x 12.0"	17.8" x 17.8" x 10.50"	21
323000	LM2517-12	25.0" x 16.6" x 12.0"	22.0" x 13.6" x 10.50"	25
323100	LM2517-16	25.0" x 16.6" x 16.0"	22.0" x 13.6" x 14.50"	27
323200	LM2517-20	25.0" x 16.6" x 20.0"	22.0" x 13.6" x 18.50"	29
324000	LM2521-12	25.0" x 20.8" x 12.0"	22.0" x 17.8" x 10.50"	24
324100	LM2521-16	25.0" x 20.8" x 16.0"	22.0" x 17.8" x 14.50"	27
324200	LM2521-20	25.0" x 20.8" x 20.0"	22.0" x 17.8" x 18.50"	29
324300	LM2521-24	25.0" x 20.8" x 24.0"	22.0" x 17.8" x 22.50"	32
325000	LM2525-12	25.0" x 25.0" x 12.0"	22.0" x 22.0" x 10.50"	27
325100	LM2525-16	25.0" x 25.0" x 16.0"	22.0" x 22.0" x 14.50"	30
325200	LM2525-20	25.0" x 25.0" x 20.0"	22.0" x 22.0" x 18.50"	33
327100	LM2921-16	29.2" x 20.8" x 16.0"	26.2" x 17.8" x 14.50"	30
327200	LM2921-20	29.2" x 20.8" x 20.0"	26.2" x 17.8" x 18.50"	34
328000	LM2925-12	29.2" x 25.0" x 12.0"	26.2" x 22.0" x 10.50"	31
328100	LM2925-16	29.2" x 25.0" x 16.0"	26.2" x 22.0" x 14.50"	34
328200	LM2925-20	29.2" x 25.0" x 20.0"	26.2" x 22.0" x 18.50"	37
328300	LM2925-24	29.2" x 25.0" x 24.0"	26.2" x 22.0" x 22.50"	40
328400	LM2925-28	29.2" x 25.0" x 28.0"	26.2" x 22.0" x 26.50"	43
329100	LM2929-16	29.2" x 29.2" x 16.0"	26.2" x 26.2" x 14.50"	38
329200	LM2929-20	29.2" x 29.2" x 20.0"	26.2" x 26.2" x 18.50"	42
329300	LM2929-24	29.2" x 29.2" x 24.0"	26.2" x 26.2" x 22.50"	45
331000	LM3321-12	33.4" x 20.8" x 12.0"	30.4" x 17.8" x 10.50"	30
331100	LM3321-16	33.4" x 20.8" x 16.0"	30.4" x 17.8" x 14.50"	34
331200	LM3321-20	33.4" x 20.8" x 20.0"	30.4" x 17.8" x 18.50"	37
331300	LM3321-24	33.4" x 20.8" x 24.0"	30.4" x 17.8" x 22.50"	40
331400	LM3321-28	33.4" x 20.8" x 28.0"	30.4" x 17.8" x 26.50"	43
332000	LM3325-12	33.4" x 25.0" x 12.0"	30.4" x 22.0" x 10.50"	34
332100	LM3325-16	33.4" x 25.0" x 16.0"	30.4" x 22.0" x 14.50"	38
332200	LM3325-20	33.4" x 25.0" x 20.0"	30.4" x 22.0" x 18.50"	40
332300	LM3325-24	33.4" x 25.0" x 24.0"	30.4" x 22.0" x 22.50"	45
332500	LM3325-28	33.4" x 25.0" x 32.0"	30.4" x 22.0" x 30.50"	54
333000	LM3329-12	33.4" x 29.2" x 12.0"	30.4" x 26.2" x 10.50"	39
333100	LM3329-16	33.4" x 29.2" x 16.0"	30.4" x 26.2" x 14.50"	42
333200	LM3329-20	33.4" x 29.2" x 20.0"	30.4" x 26.2" x 18.50"	46
333400	LM3329-28	33.4" x 29.2" x 28.0"	30.4" x 26.2" x 26.50"	56
333500	LM3329-32	33.4" x 29.2" x 32.0"	30.4" x 26.2" x 30.50"	59
334000	LM3333-12	33.4" x 33.4" x 12.0"	30.4" x 30.4" x 10.50"	43
334200	LM3333-20	33.4" x 33.4" x 20.0"	30.4" x 30.4" x 18.50"	50
334300	LM3333-24	33.4" x 33.4" x 24.0"	30.4" x 30.4" x 22.50"	57
334400	LM3333-28	33.4" x 33.4" x 28.0"	30.4" x 30.4" x 26.50"	61
336100	LM3821-16	37.6" x 20.8" x 16.0"	34.6" x 17.8" x 14.50"	37
336200	LM3821-20	37.6" x 20.8" x 20.0	34.6" x 17.8" x 18.50"	40
337100	LM3825-16	37.6" x 25.0" x 16.0"	34.6" x 22.0" x 14.50"	41
337200	LM3825-20	37.6" x 25.0" x 20.0"	34.6" x 22.0" x 18.50"	45

Length x Width x Height Length x Width 337300	ensions Weight
338200 LM3829-20 37.6" x 29.2" x 24.0" 34.6" x 26.2" x 339100 LM3829-24 37.6" x 29.2" x 24.0" 34.6" x 26.2" x 30.4" x 30.4" x 339200 LM3833-16 37.6" x 33.4" x 16.0" 34.6" x 30.4" x 30.4" x 30.4" x 339300 LM3833-20 37.6" x 33.4" x 24.0" 34.6" x 30.4" x 30.4" x 30.4" x 339400 LM3833-28 37.6" x 33.4" x 28.0" 34.6" x 30.4" x 30.4" x 32.0" 34.6" x 30.4" x 30.4" x 32.0" 34.6" x 30.4" x 30.4" x 32.0" 34.6" x 32.0" x	n x Height (Lbs)
338300 LM3829-24 37.6" x 29.2" x 24.0" 34.6" x 26.2" x 30.4" x 16.0" 339100 LM3833-16 37.6" x 33.4" x 16.0" 34.6" x 30.4" x 30.4" x 30.4" x 30.9" x 30.90 339300 LM3833-20 37.6" x 33.4" x 24.0" 34.6" x 30.4" x 30.5" x 30.4" x 30.4" x 30.4" x 30.5" x 30.4" x 30.0" 34.6" x 30.4" x 30.4" x 30.4" x 30.0" 34.6" x 30.4" x 30.6" x 30.0" 34.6" x 30.4" x 30.0" x 30.6" x 30.0" 34.6" x 30.4" x 30.0" x 30.6" x 30.0" 34.6" x 30.4" x 30.0" x 30.0" x 30.6" x 30.0" 34.6" x 30.4" x 30.0" x 30.0" x 30.0" x 30.4" x 30.0" x 30.0" x 30.0" x 30.4" x 30.0" x 30.0	< 22.50" 48
339100 LM3833-16 37.6" x 33.4" x 16.0" 34.6" x 30.4" x 30.4" x 339200 LM3833-20 37.6" x 33.4" x 20.0" 34.6" x 30.4" x 30.4" x 339300 LM3833-24 37.6" x 33.4" x 24.0" 34.6" x 30.4" x 30.4" x 339400 LM3833-28 37.6" x 33.4" x 28.0" 34.6" x 30.4" x 30.4" x 32.0" 34.6" x 30.4" x 30.4" x 32.0" 34.6" x 34.6	x 18.50" 50
339200 LM3833-20 37.6" x 33.4" x 20.0" 34.6" x 30.4" x 30.4" x 33.4" x 24.0" 339300 LM3833-24 37.6" x 33.4" x 24.0" 34.6" x 30.4" x 30.4" x 33.9500 339500 LM3833-32 37.6" x 37.6" x 12.0" 34.6" x 3	(22.50"
339300 LM3833-24 37.6" x 33.4" x 24.0" 34.6" x 30.4" x 33.4" x 28.0" 339400 LM3833-28 37.6" x 33.4" x 28.0" 34.6" x 30.4" x 34.0" x 34.6" x 30.4" x 340000 340000 LM3838-12 37.6" x 37.6" x 12.0" 34.6" x 37.6" x 24.0" 34.6" x 34.0" x 34.6" x 34.6" x 34.0" x 34.6" x 34.6" x 34.0" x 34.0" x 34.0" x 34.0"	< 14.50" 51
339400 LM3833-28 37.6" x 33.4" x 28.0" 34.6" x 30.4" x 30.4" x 34.000 340000 LM3838-12 37.6" x 37.6" x 12.0" 34.6" x 34.6" x 34.6" x 34.6" x 34.000 340200 LM3838-20 37.6" x 37.6" x 20.0" 34.6" x 34.6" x 34.6" x 34.00 x 3	< 18.50" 58
339500 LM3833-32 37.6" x 33.4" x 32.0" 34.6" x 30.4" x 34.6" x 34.000 340200 LM3838-20 37.6" x 37.6" x 20.0" 34.6" x 34.6" x 34.6" x 34.6" x 34.6" x 34.100 341000 LM4217-12 41.8" x 16.6" x 12.0" 38.8" x 22.0" x 34.6" x 34.6" x 34.6" x 34.60 x 3	< 22.50" 62
340000 LM3838-12 37.6" x 37.6" x 12.0" 34.6" x 34.60 x 34.60 u LM4217-12 41.8" x 16.6" x 12.0" 38.8" x 13.6" x 34.6" x 34.6" x 34.6" x 34.60 x 34.60 u LM4238-20 41.8" x 25.0" x 20.0" 38.8" x 34.6" x 34.6" x 34.6" x 34.60 x 34.60 u LM4238-28 41.8" x 37.6" x 24.0" 38.8" x 34.6" x 34.6" x 34.6" x 34.6" x 34.60 u LM4242-12 41.8" x 37.6" x 28.0" 38.8" x 34.6" x 34.6" x 34.6" x 34.6" x 34.60 u LM4242-32 41.8" x 41.8" x 12.0" 38.8" x 38.8" x 34.6" x 34.6" x 34.60 u LM4647-12 46.0" x 16.6" x 12.0" 43.0" x 30.4" x 30.4" x 35.2100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 30.4" x 35.200 u LM4646-20 46.0" x 33.4" x 28.0" 43.0" x 30.4" x 30.4" x 35.200 u LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 43.0" x 35.500 43.0" x 43.0" x 43.0" x 35.500 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43	< 26.50" 66
340200 LM3838-20 37.6" x 37.6" x 20.0" 34.6" x 34.6" x 34.6" x 34.6" x 34.6" x 34.6" x 34.00 341000 LM4217-12 41.8" x 16.6" x 12.0" 38.8" x 13.6" x 34.6" x 34.6" x 34.20 343200 LM4225-20 41.8" x 25.0" x 20.0" 38.8" x 22.0" x 38.8" x 34.6" x 34.60 x 34.	k 30.75" 70
340300 LM3838-24 37.6" x 37.6" x 24.0" 34.6" x 34.6" x 341000 LM4217-12 41.8" x 16.6" x 12.0" 38.8" x 13.6" x 343200 LM4225-20 41.8" x 25.0" x 20.0" 38.8" x 22.0" x 346200 LM4238-20 41.8" x 37.6" x 20.0" 38.8" x 34.6" x 346300 LM4238-24 41.8" x 37.6" x 28.0" 38.8" x 34.6" x 347000 LM4238-28 41.8" x 41.8" x 12.0" 38.8" x 38.8" x 347500 LM4242-12 41.8" x 41.8" x 32.0" 38.8" x 38.8" x 348000 LM4617-12 46.0" x 16.6" x 12.0" 43.0" x 13.6" x 352100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 43.0" x 355200 LM4646-20 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 355300 LM4646-24 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	< 10.50" 52
341000 LM4217-12 41.8" x 16.6" x 12.0" 38.8" x 13.6" x 343200 LM4238-20 41.8" x 25.0" x 20.0" 38.8" x 22.0" x 346200 LM4238-20 41.8" x 37.6" x 20.0" 38.8" x 34.6" x 346300 LM4238-24 41.8" x 37.6" x 24.0" 38.8" x 34.6" x 346400 LM4238-28 41.8" x 37.6" x 28.0" 38.8" x 34.6" x 347000 LM4242-12 41.8" x 41.8" x 12.0" 38.8" x 38.8" x 347500 LM4242-32 41.8" x 41.8" x 32.0" 38.8" x 38.8" x 348000 LM4617-12 46.0" x 16.6" x 12.0" 43.0" x 13.6" x 352100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 43.0" x 355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 43.0" x 355300 LM4646-24 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	
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346300 LM4238-24 41.8" x 37.6" x 24.0" 38.8" x 34.6" x 34.6" x 34.60 x 34.	< 18.50" 48
346400 LM4238-28 41.8" x 37.6" x 28.0" 38.8" x 34.6" x 347000 LM4242-12 41.8" x 41.8" x 12.0" 38.8" x 38.8" x 347500 LM4242-32 41.8" x 41.8" x 32.0" 38.8" x 38.8" x 348000 LM4617-12 46.0" x 16.6" x 12.0" 43.0" x 13.6" x 352100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 43.0" x 355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 43.0" x 355300 LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 355400 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	
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347500 LM4242-32 41.8" x 41.8" x 32.0" 38.8" x 38.8" x 348000 LM4617-12 46.0" x 16.6" x 12.0" 43.0" x 13.6" x 352100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 30.4" x 355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 43.0" x 355300 LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 355400 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	< 26.50" 77
348000 LM4617-12 46.0" x 16.6" x 12.0" 43.0" x 13.6" x 352100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 30.4" x 355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 43.0" x 355300 LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 355400 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	k 10.50" 60
352100 LM4633-16 46.0" x 33.4" x 16.0" 43.0" x 30.4" x 352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 30.4" x 355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 43.0" x 355300 LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 355400 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	k 30.50" 92
352400 LM4633-28 46.0" x 33.4" x 28.0" 43.0" x 30.4" x 25.0" 355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 45.0" x 24.0" 355300 LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.	x 10.50" 35
355200 LM4646-20 46.0" x 46.0" x 20.0" 43.0" x 43.	
355300 LM4646-24 46.0" x 46.0" x 24.0" 43.0" x 43.0" x 355400 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43.0" x 355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	< 26.50" 75
355400 LM4646-28 46.0" x 46.0" x 28.0" 43.0" x 43.	
355500 LM4646-32 46.0" x 46.0" x 32.0" 43.0" x 43.0" x 355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	
355600 LM4646-36 46.0" x 46.0" x 36.0" 43.0" x 43.0" x	
356000 IM5017-12 50 2" x 16 6" x 12 0" 47 2" x 13 6" x	
365000 LM5417-12 54.4" x 16.6" x 12.0" 51.4" x 13.6" x	
368000 LM5429-12 54.4" x 29.2" x 12.0" 51.4" x 26.2" x	
368100 LM5429-16 54.4" x 29.2" x 16.0" 51.4" x 26.2" x	
368300 LM5429-24 54.4" x 29.2" x 24.0" 51.4" x 26.2" x	
386000 LM6317-12 62.8" x 16.6" x 12.0" 59.8" x 13.6" x	
386100 LM6317-16 62.8" x 16.6" x 16.0" 59.8" x 13.6" x	
401000 LM6729-12 67.0" x 29.2" x 12.0" 64.0" x 26.2" x	
401100 LM6729-16 67.0" x 29.2" x 16.0" 64.0" x 26.2" x	
401400 LM6729-28 67.0" x 29.2" x 28.0" 64.0" x 26.2" x	
426000 LM7521-12 75.4" x 20.8" x 12.0" 72.4" x 17.8" x	
427200 LM7525-20 75.4" x 25.0" x 20.0" 72.4" x 22.0" x	
429400 LM7533-28 75.4" x 33.4" x 28.0" 72.4" x 30.4" x	
456000 LM8417-12 83.8" x 16.6" x 12.0" 80.8" x 13.6" x	
458100 LM8425-16 83.8" x 25.0" x 16.0" 80.8" x 22.0" x	× 14.50" 83





The Loadmaster® Footlocker is perfect for organizing and transporting gear. This rugged case is ideal for shipping, storing, and securing personal items.



Removable Storage Lids

Each Loadmaster® Footlocker comes with a pair of removable storage trays. The trays lock in place when the lid is closed and offer superior protection for personal items.



ECS Loadmaster® Footlockers







ries	Outside Dimensions	Inside dimensions	Weight
	Length ${\bf x}$ Width ${\bf x}$ Height	Length x Width x Height	lbs
rae Footlocker			

Large Footlocker

LMFL3321-12	33.4" x 20.8" x 12"	30.4" x 17.8" x 10.5"	36.6
LMFL3321-16	33.4" x 20.8" x 16"	30.4" x 17.8" x 14.5"	39.6
LMFL3321-20	33.4" x 20.8" x 20"	30.4" x 17.8" x 18.5"	42.7

Medium Footlocker

LMFL2214-12	25" x 16.6" x 12"	22" x 13.6" x 10.5"	25
LMFL2214-16	25" x 16.6" x 16"	22" x 13.6" x 14.5"	27
LMFL2214-20	25" x 16.6" x 20"	22" x 13.6" x 18.5"	30

Loadmaster® Footlocker cases are ideal for applications which require uncompromising protection from moisture, dust, sand and contaminants. Watertight cases provide protection from moisture, salt spray, sand and dust throughout the world's climate extremes. Like all Loadmaster® products, the Footlocker is impervious to fuels, oils and solvents.



Designs Without Limits

Custom Cases are available in unlimited sizes and configurations.

FRP, Fiberglass
Reinforced
Polyester, allow
total design
flexibility for
military and
industrial transit
cases and reusable
containers.

FRP composite cases are the most durable custom military transit cases and enclosures anywhere.

FRP containers have protected valuable military, industrial and commercial equipment from the world's most challenging conditions.



ECS uses a proprietary compression molding process to create cases with unparalleled structural rigidity. High impact, lightweight, FRP composite components are epoxy bonded to heavy-duty aluminum extrusions. This fabrication method allows ECS to create cases in a huge range of sizes and configurations. The proprietary ECS process results in FRP composites which are 10-15% lighter than metallic products, have an unbeatable tensile strength and tensile modulus combination and will not corrode or oxidize.

Since 1961 ECS has used FRP composites for shipping solutions ranging from portable test sets, to EMI shielded workstations to one-of-a-kind oversized enclosures for special equipment. ECS made FRP case shells have exceptional impact and puncture resistance. They are extremely durable to extreme temperatures which exceed a range of -65° F to 185° F. They are available with an endless combination of latches, external hardware and internal shock absorbing systems, engineered to protect the contents.

Custom FRP Shipping Containers



Watertight FRP composite cases provide protection from moisture, salt spray, sand and dust throughout the world's climate extremes. Impervious to fuels, oils and solvents, they can also be decontaminated if exposed to chemical warfare agents.

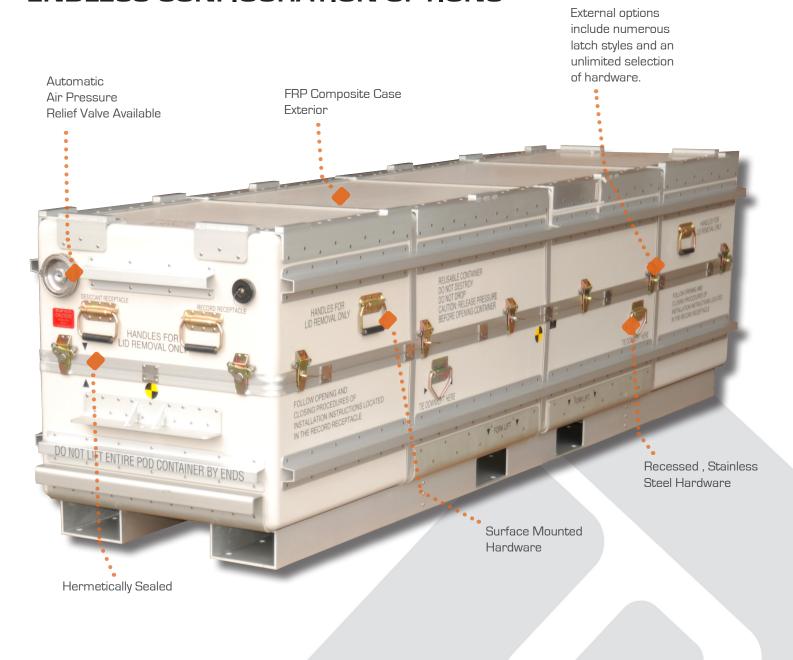


Advantages of FRP Material

- Better strength to weight ratios in heavy commercial and industrial applications.
 Cases are 10-15% lighter than metallic products.
- FRP has an unbeatable tensile strength and tensile modulus combination, making it the most ruggedized transit case material available.
- Exhibits unrivaled puncture resistance compared to non-composite materials.
- A textured internal surface gives FRP superior heat dissipation.
- Does not dent or permanently deform.
- Does not corrode or oxidize.



ENDLESS CONFIGURATION OPTIONS



Custom FRP Shipping Containers

Carbon Fiber Cases

ECS manufactures these lightweight cases by compression molding carbon fiber reinforcement materials with enhanced thermoset resins. Carbon Fiber Cases are ultra lightweight and demonstrate exceptional structural rigidity. Carbon Fiber Cases can be compression molded by us in a variety of wall thicknesses to meet unique performance/weight requirements for military equipment. Additional layers of carbon







FRP RACKMOUNT SERIES

2000 Rigid Rack The smallest, non-shock isolated rackmount case. Optional latching drawer.

3000 Unlimited Rack Perfect for large payloads and is available in unlimited sizes. Optional 1U sliding equipment shelf and work surface.

4000 Compact Rack The smallest shock isolated envelope. Riveted aluminum rack with eight multi-axis shock mounts.

5000 Standard Rack For equipment with normal fragility. Riveted aluminum rack with eight diagonally attached shock mounts.

6000 High Fragility Rack Has increased sway space for equipment with high fragility. Riveted aluminum rack with eight diagonally attached shock mounts.



ECS Case invented the 19" rackmount case in 1969 and has provided the leading rackmount solutions since. The first rackmounts were FRP composite, and to this day FRP Rackmount Cases remain the ideal balance of rugged durability, sizing options and effective shock and vibration protection.

FRP Rackmount cases provide unparalleled design flexibility and generous sway space for shock and vibration attenuation. These versatile rackmount cases can be configured to enclose an wide range of equipment sizes, weights and special features.

- · FRP Composite material
- · Hermetically sealed
- Recessed, stainless steel hardware
- Two removable covers to allow electronic equipment to be accessed from front or back

Options

- EMI Shielding
- Case-to-case stacking rails
- Custom shock systems
- Fan assisted cooling
- Shelves
- **Custom patterns**
- Deck mounting plate
- D-Ring lift
- Dust boots

Our Real VIP

Vacuum Infusion
Process (VIP) is the
newest
innovation from ECS.
VIP containers are
very large, uniquely
crafted systems
designed to provide
the ultimate
protection for
storing and shipping
oversized equipment.

The process is a technique used to manufacture high performance, void free composites.

This new product line is especially suited for container systems that are 4'x4'x4' and larger for use in markets including UAV, aerospace, military, mining and construction.



VIP products are very large and uniquely crafted closure systems designed to provide the ultimate protection supporting oversized equipment for storage and shipping. Our VIP containers are custom engineered vacuum assisted resin transfer molded composites designed with unparalleled attention to detail. The process is a technique used to manufacture high performance, void free composites and is especially suitable for large or complicated molds.

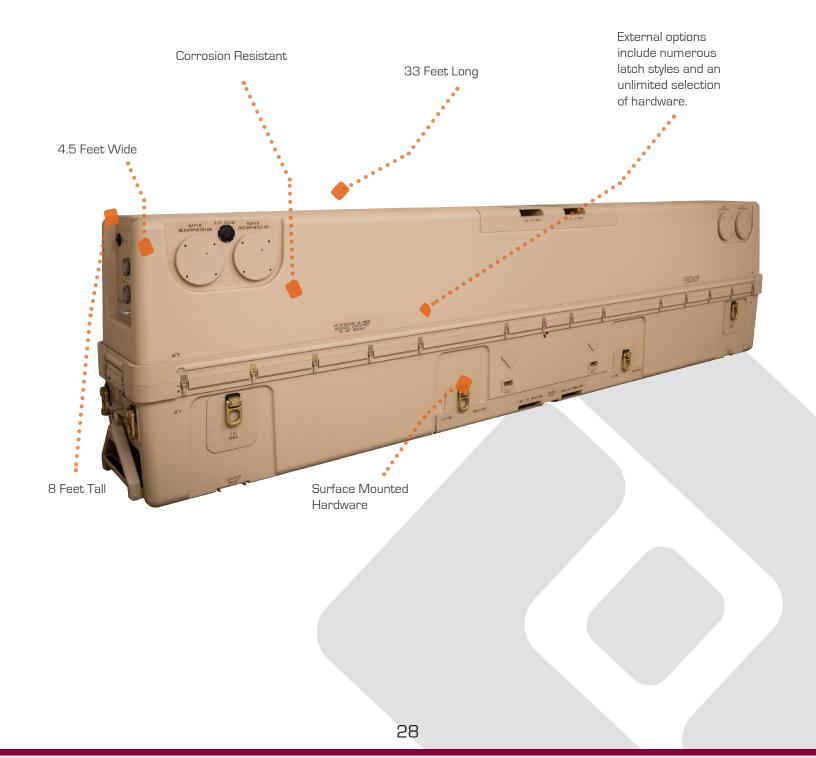


Like all ECS products, these container systems are uniquely designed to meet specific needs of customers and meet or exceed rigorous standards including military standards. With the addition of the VIP line, ECS has a new solution to design and build ruggedized packaging able to house and ship items including unmanned vehicles, weaponry, missiles, sensitive communications equipment, engines, propellers and much more.

VIP Standards and Specifications Data

- Strong Laminate vacuum removes air, excess resin and volatiles
- Light high glass ratio, reduced excess resin
- Thickness Control increased laminate compression during cure
- Void Free Vacuum process removes excess air in composite shells
- Thickness Wall thickness up to 1/2"
- Flexibility More flexible than aluminum
- Reinforced Reinforcement features can be molded into shells
- Custom Pigment Shells can be pigmented and silkscreened to customer specifications
- · Field repairable
- · Transportability/Dual point lifting
- · Hermetically sealed
- Corrosion, chemical, fuel and UV resistant
- CONUS/OCONUS
- MTMCTEA







All hardware is recessed for maximum protection. Latches, custom brackets and rivets are stainless steel. Ergonomic acetal copolymer handles with UV inhibitor have comparable strength to steel at half the weight. An automatic air pressure relief valve protects the case and enclosed electronic equipment from rapid compression and decompression during transportation.

ECS VIP Cases are available in military colors, earth, desert tan, black, olive drab and gray. Options are available including everything imaginable...from casters, slides, drawers, and work surfaces, ventilation systems, and exterior plug receptacles.



ECS Case Testing



The testing of containers and enclosures is intended to simulate real-life conditions that will be faced during the effective life of the container and its enclosed equipment. Simulation necessitates that those real-life hazards are known, that they are capable of being repeated in a laboratory environment, and that the results of the testing are verifiable with the results of actual field trials conducted under real-life conditions. None of these prerequisites should be negotiable or compromised in order to allow the use of materials that are known to fail under real-life conditions. If the testing is not representative of real-life conditions, then those products that have been qualified to lesser test conditions are far more likely to fail during use.

The free fall drop test, left, measures the ability of the container to withstand impacts onto hard surfaces, such as concrete or steel, or onto compacted soil or plywood surfaces. Drop testing is the most common method of testing the durability and rough handling resistance of reusable containers. This testing method also provides great insight into the effectiveness of shock and vibration attenuation systems that may be part of the design of the container or enclosure.



Water tests for hermetically sealed containers are conducted by a variety of test methods, but the objective of all of these methods is to determine the ability of the container to resist the ingress of moisture. Hot water immersion testing is a quick and inexpensive method to determine the ability of the container to hold interior air pressure while the container is submerged. The presumption is that an air tight container will also be a water tight container. Pneumatic pressure testing also determines the ability of a container to hold interior air pressure while submerged. MIL-STD-810 Method 512.1 Procedure 1 testing requires that the container be submerged under 36 inches of water and that a vacuum differential of 2.0 inches of mercury be drawn on the container and retained for one hour to determine if water will penetrate the container.

Performance Tested Accordance With MIL-STD-810G

High and Low Temperature

Proven performance in temperature extremes ranging from -53° C to +85° C.

Drop Testing

Able to withstand the rigors of deployment – drop tested from a height of 61 to 121 centimeters. Impacts conducted on all corners, flat surfaces and edges for a total of 26 drops.

Basic Transportation Vibration

Built to move, ECS cases show no damage when exposed to vibration environments for a duration of 30 minutes per mutually perpendicular axis.

Loose Cargo Bounce

Upright and with the covers in place, ECS cases show no damage and/or degradation when exposed to Loose Cargo Transportation environments for 30 minutes.

Water Submersion/ Wind Blown Rain

ECS cases show no evidence of water intrusion and/or damage as a result of exposure to 40 mph wind blown rain conditions.

Wind Blown Sand and Dust

ECS cases are desert ready and show no evidence of damage and/or sand or dust intrusion.

Fungus Growth

ECS case materials will not support fungus growth.

Low Pressure

ECS cases show no damage and/or degraded when exposed to low pressure environments.

Loadmaster® Rackmount Case Options



Lid Pouch
Accessory pouch
for cables and other
loose items for
secure storage in
rackmount lid.



Edge Casters
Field replaceable
edge casters attach
to lids.



Lid HandleRuggedized
ergonomic polymer
handle.



Center Grip
Sturdy Ergonomic
Center Grip Handle
Kit.



Drawers
Medium duty
slide-mounted rackmount drawers in
2U or 4U sizes.



Rain Shield Keep rain and sun off your equipment.

Loadmaster® Single Lid & Footlocker Options



Lid Hinges Lid hinges allow tops to stay with cases.



Edge Casters
Heavy duty, two-inch
wheels provide easy
transport.



Foam Liner
Two-inch liner provides extra cushion.



Locking HaspsSecure cases with padlockable hasps.



Handles
All single lid cases
come with Ergonomic handles.



Field Replacable Latches and handles are field replacable.

FRP Options



CastersAre selected to match the weight of the loaded case.



Hinges
Fabricated hinges
for many different
applications.



Skid RailsProvide a wear surface for the bottom of case.



Stacking Include aluminum stacking feet mounted on the top.



Cushions
Satisfy the shock
and vibration
requirements.

VIP Options



Casters Heavy-duty to support weight.



Lifting Rings
Heavy duty, two-inch
wheels provide easy
transport.



Cushions
Satisfies the shock
and vibration
requirements.



Latches Latches and handles are field replacable.



BrandingCompany names
or logos can be
molded in.





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