

PACKAGING SOLUTIONS

WE CONTAIN YOUR WORLD



 **Thermodyne**[®]
PACKAGING SOLUTIONS

Thermodyne is much more than a manufacturer of first-class transport containers.

WE CONTAIN YOUR WORLD – this philosophy stands for the development of tailor-made, customer-specific special solutions for a variety of industries.

Organisation

Workflow – from initial consultation right through to delivery



With powerful project management, clearly defined processes and personal order processing from the first minute to the last of the project, we offer our customers a unique 360° service. Resulting in unparalleled solutions providing professional function and efficiency.

WE CONTAIN YOUR WORLD

CAPACITY



Capacity At Your Disposal



Thermodyne is proud to offer state of the art production and storage facilities for the efficient order fulfillment. We have the flexibility to complete orders from a single unit right through to larger requirements of several thousand pieces. Upon request, we can store completed orders without extra charge.

Service

No matter how good the product – more often than not it's the quality of service that enables maximization to the full potential.

Thermodyne has both the experience to understand your requirements and the range of skills and resources to make it happen.



Measurement of component parts

- software controlled
- maximum precision
- in house and locally



Assembly

- component placement
- mounting
- procurement



Solution development

- creative
- customised
- individual



Design

- Layout – advice & consultation
- calculations
- CAD design
- material selection



Drop tests

- Modern testing machinery
- In house
- Testing under laboratory conditions
- Validation of residual acceleration (peak deceleration) using sensors



Logistics

- shipping completion
- customs clearance
- contracts
- stocking
- RFID labelling



Certifications such as

- MIL-STD-810
- STANAG 4280
- DEF STAN 81-41
- ATA300, CAT 1
- HM224B/DOT31FP
- ASTM D 6179
- UN-approval for dangerous goods

Custom solutions

Any individual solution is determined entirely by the requirements. The type of foam insert, special internal fixtures, fitted electronics for functionality, corporate branding and solutions for OEMs – Thermodyne will provide the optimum solution to ensure safety and protection for secure storage and transportation.



Container reinforcement

- Aluminium strengthening
- for an increased stacking load
- strengthens the lid
- for heavy contents



Electronic installations

- fan
- plugs
- switches
- installation



OEM-solutions

- development by Corporate Design
- embossed logo
- OEM-colours



Forklift truck transportation

- feet or runners
- reinforced base
- optional: strengthened lid for stackability



Foam interiors

- individual solutions
- variety of densities, colours and properties (such as antistatic, flame retardant, etc.)
- precision manufacturing



Configuration

- For example:
- range of handles and catches
 - locks
 - wheels and feet
 - document pockets
 - additional handles
 - humidity indicators



Labelling

- ID labels & stickers
- moulded-in ID and logos
- silk screen printing
- hot stamping
- laser lettering



Mechanical hardware

- steel rope springs
- panel frames
- component receptacles
- thermoformed inserts
- chamfered inserts



Removable lid

- Lift-off lid



Stainless steel hardware

- corrosion resistant fittings
- ideal for marine/saltwater environments



Ingress Protection

- IP54 (dust protection, water splash)
- IP65 (dustproof, strong water jet)
- IP67 (dustproof, temporary immersion)



ATA300

- Manufactured to comply with ATA300, Cat. I

WE CONTAIN YOUR WORLD



Product overview

Variety for every application

Shipping Cases



- Ideal for safe shipping and transit
- 350+ standard sizes
- individual special formats
- low weight, high strength

Trolley Cases



- specially developed for rough industrial use
- robust pull-out handle, recessed
- easy-roll wheels
- low weight, high strength
- 100+ standard sizes

Peli™



- Full range of all Peli products
- Customisation options include foam interior, labelling, printed logo etc.

19" Rack Mount Cases



- For 19" instrumentation and equipment
- Equipment depths 280 - 1080 mm
- with and without anti-vibration mounted frame

Carrying Cases



- User friendly with single handle
- 150+ standard sizes

AppliCase



- eye-catching design
- 50+ standard sizes
- Also available with wheels and/or handles fitted at each end

Containers for hazardous goods



- standard products for NiCd and Li-Ion batteries, oxygen cylinders or oxygen generators
- hazardous goods specific, individual solutions

Foams



- range of materials offering different properties
- contract manufacturing
- converted to specific requirements
- plain sheets
- TCS Mats

With more than 50 years of project experience, we understand there are a multitude of products that all need the same thing: protective packaging. To satisfy this requirement, we have developed a uniquely extensive product range offering 800+ sizes. There is virtually no limit to the special designs we can provide. Trust us with your products and we will develop the optimum packaging solution. WE CONTAIN YOUR WORLD! And that starts with a quantity of just 1!

Products

Shipping Cases



customisation options

stackable

protective bumps
(protected fittings)

sizes (internal)
from L 130 x W 154 x H 165 mm
to L 2020 x W 875 x H 560 mm

All Thermodyne Shipping Cases are made of high-impact polyethylene (PE-HD) withstanding even the most extreme physical stresses. The solid-coloured shells are also resistant to chemicals. As such, colour and shape are retained even under extreme conditions and meet even the toughest industry-specific standards. Depending on the version, our Shipping Cases also meet special civil and military packaging standards, such as the rigorous aerospace certification, ATA300 (Category II), which states that a container must still be functional even after 280 drop tests.

hinged or removable lid
(several options)

high impact shell

ergonomic, rubberised handles

low weight, high strength

versatile selection of standard colours



Products

Carrying Cases

The virtually unbreakable PE-HD shell and high chemical resistance ensure that this unbeatable, lightweight case delivers the protection demanded under the harshest conditions.



customisation options

ergonomic, rubberised handle

sizes (internal)
from L 350 x W 240 x H 140 mm
to L 2000 x W 240 x H 140 mm

moulded-in feet for stability

lightweight - almost indestructible

stackable



versatile selection of standard colours



Products

Trolley Cases

Trolley Cases from Thermodyne are versatile, reliable & functional for the busy professional, offering user-friendly, precision handling. Like our Shipping Cases, Trolley Cases are manufactured in high-impact polyethylene (PE-HD) to withstand even the most extreme conditions. Easy handling whether at the airport or in the factory.

robust pull-out handle,
recessed



customisation options

recessed, easy-roll
wheels

stackable

Shipping Cases and Carrying Cases can
be supplied with wheels as a Trolley Case.
Please contact us for more details.

versatile selection of standard colours



Products

AppliCase



customisation options

AppliCases - your company's calling card for your professionals on site. The eye-catching design is reflected across the range. These robust cases are designed for the most demanding usage, regularly passing the test in situations that require nothing but the best. Style & function - a winning partnership.

ergonomic, soft-grip handle

smooth surface for
branding & labelling

sizes (internal)
from L 429 x W 298 x H 155 mm
to L 725 x W 550 x H 780 mm.
Also available with wheels and/or
handles fitted at each end.



lockable catches
(optional TSA or combination lock)

corner bumpers protect from scratching
while providing stackability

At the heart of the AppliCase is its wide ranging versatility. With the right equipment, they are the perfect partner in multiple fields including technical, medical and instrumentation.

versatile selection of standard colours



Products

Containers for hazardous goods

At Thermodyne, hazardous goods are in safe hands. Accredited by the Federal Institute for Materials Research and Testing (BAM) we design and manufacture standardised hazardous goods containers in either plastic, stainless steel or aluminium.



metal container

plastic container

tested safety

Sizes (internal)
from L 400 x W 335 x H 160 mm
to L 1185 x W 607 x H 355 mm

Individual containers for hazardous goods

We are able to develop and certify an approved container for your hazardous goods.
Contact us to discuss your requirement.

Available directly from stock:

- Dangerous goods packaging for Li-Ion and NiCd batteries in acc. with UN 3480/UN 2795
- oxygen cylinders acc. HM224B/DOT31FP and/or 49 CFR 173.168
- oxygen generators in accordance with UN 3356

versatile selection of standard colours



SOLUTIONS

Aviation & Logistics



Thermodyne has many years of industry experience in the production of transportation containers for aviation and logistics customers.

Precision Measurement Technology and Electronics



At Thermodyne, the development of packaging solutions for sensitive electronic equipment and components is in good hands.

Project examples

Solutions for many industries

Thermodyne has years of experience in the production of individual, industry-specific solutions. Especially certified products for applications in the military, medical and clean room, aviation, logistics or electronics sectors are among our core competencies. As a result, our customers noticeably gain in efficiency, safety and reliability when transporting their specialized components, equipment and goods. Meet the challenges of special logistics with the qualified expertise of Thermodyne. We make your world transportable.

Cleanroom, Laboratory and Medical Technology



For many years, Thermodyne has been developing and producing top quality transportation containers for medical accessories and for use in cleanroom environments.

Military



Thermodyne designs and manufactures transportation containers that meet international military standards and regulations in every detail.

AVIATION AND LOGISTICS



Aviation, Logistics and Aerospace

We protect your delicate equipment

Stackable. Robust. Lightweight. Space-saving. Waterproof. Fireproof. The requirements for the transportation of sensitive goods for spare parts, production and supply chains can be very specific. Freight transportation containers from Thermodyne are in use worldwide - in the air, on the road and on the high seas. Our containers pass even the toughest testing procedures and are therefore certifiable in accordance with ATA300, CAT 1.

A few examples:

Dangerous goods container according to statutory specifications



Trolley Case for maintenance technology



Torsion rigid Shipping Case with feet for forklift transport



PRECISION MEASUREMENT TECHNOLOGY AND ELECTRONICS



Precision Measurement Technology and Electronics We contain your electronics

Highly sensitive technology for taking measurements and electronic products demand sophisticated solutions for safe transport and optimum packaging. In particular, OEMs trust the individual products from Thermodyne. It often makes sense to integrate the electronics securely in the transportation container. This way, our customers take advantage of both security and functionality, united in one product.

A few examples:

Shipping Case for measurement technology



Carrying case for built-in electrical components



Trolley Case with active ventilation and power supply



CLEANROOM, LABORATORY AND MEDICAL TECHNOLOGY



Cleanroom, Laboratory and Medical Technology

We protect your medical values

Medical products, surgical equipment, endoscopes, mobile X-ray technology - in some cases, these goods are of considerable value requiring reliable packaging. Products for industrial cleanroom conditions often have to meet significantly higher standards. Thermodyne develops and supplies individual solution packages specifically for these purposes.

A few examples:

Shipping with insulation



Special container for medical technology



AppliCase for doctor's instruments



MILITARY



Military

We contain your military equipment

Whether reconnaissance technology, drone and radar technology or weapon systems: The requirements for the safe transportation of military equipment are almost limitless. Depending on the standard required, our containers meet the toughest military standards, such as MIL-STD-810, MIL-PRF-28800F, MIL-C-4150J, STANAG 4280 and DEF STAN 81-41.

A few examples:

19" Rack Mount Cases for rough terrain



Special solution for high-tech products



Shipping Case for military goods



CORPORATE RESPONSIBILITY

Dr.-Ing. Daniel Bätzel,
Managing Director



Thermodyne's intelligent and long-term usable solutions are produced in a climate-friendly setting. In addition, they are fully recyclable and therefore an important part of the recovered substance cycle.



Sustainability

Reusable and recyclable solutions

Thermodyne's manufacturing process use "regrind", reconditioned granular plastics, as well as plastics made from naturally renewable resources on customer request. We return our waste to our suppliers, who use it to produce new materials for our production process. This creates a closed cycle, which characterises the special sustainability of our products and solutions.



Environment

Modern and climate-friendly production

Our production and storage facilities were designed and constructed purposely for low energy consumption and sustainability. The buildings have an air well that draws in air from the ground to provide cooling in summer and heating in winter. In addition, we have equipped the roof with a state-of-the-art photovoltaic system, producing a large part of our energy requirements. This - together with energy-efficient production facilities - turns an industrial building into a climate-neutral production environment.

