

MILEX STANEX PORTEX KOOLEX



COMPANY BROCHURE



DESAPRO
INNOVATE TO PROTECT

Founded 1959, DESAPRO is an international leader in the engineering & manufacture of transit, rack mount & equipment cases, as well as heat & cool exchange solutions for the aeronautics, defense, security, IT, medical, energy and the oil & gas industries.

The company is globally active with sites in the US, located in Melbourne, Florida near Cape Canaveral and in Thayngen Switzerland, north of Zurich.

DESAPRO is certified to ISO 9001:2015 and operates through a global sales network.

- 1959** Incorporation of the company in Dachsen, Switzerland as EDAK
- 1971** 1st Milex 19" rack system is shipped
- 1986** Incorporation of the US manufacturing site Melbourne, FL
- 2015** EDAK Packaging Solutions AG is acquired by DESAPRO AG

MISSION

DESAPRO manufactures high quality cases engineered to endure the severe conditions of field operations, military and commercial transport. The cases are built to withstand and to protect their content against shock, vibration, water damage, dust, corrosion and EMI. DESAPRO is focused on meeting and exceeding customer requirements, producing high quality products and continuously introducing new features.

VISION – INNOVATE TO PROTECT

It is our vision to be the leader in customized premium rack mounts, transit and equipment cases. We provide our customers with innovative solutions to safeguard and protect their valuable goods during transport or operation worldwide.

- We assist customers world wide
- We cater to different industries
- We manufacture high quality and reliable products

VALUES

Reliability and Dependability

- We take responsibility for our work
- We can rely on each other and do what we say
- DESAPRO honors commitments to customers, co-workers and suppliers

Ownership and Accountability

- We take pride in our work
- We are accountable to each other and meet our promises
- DESAPRO invests for the future

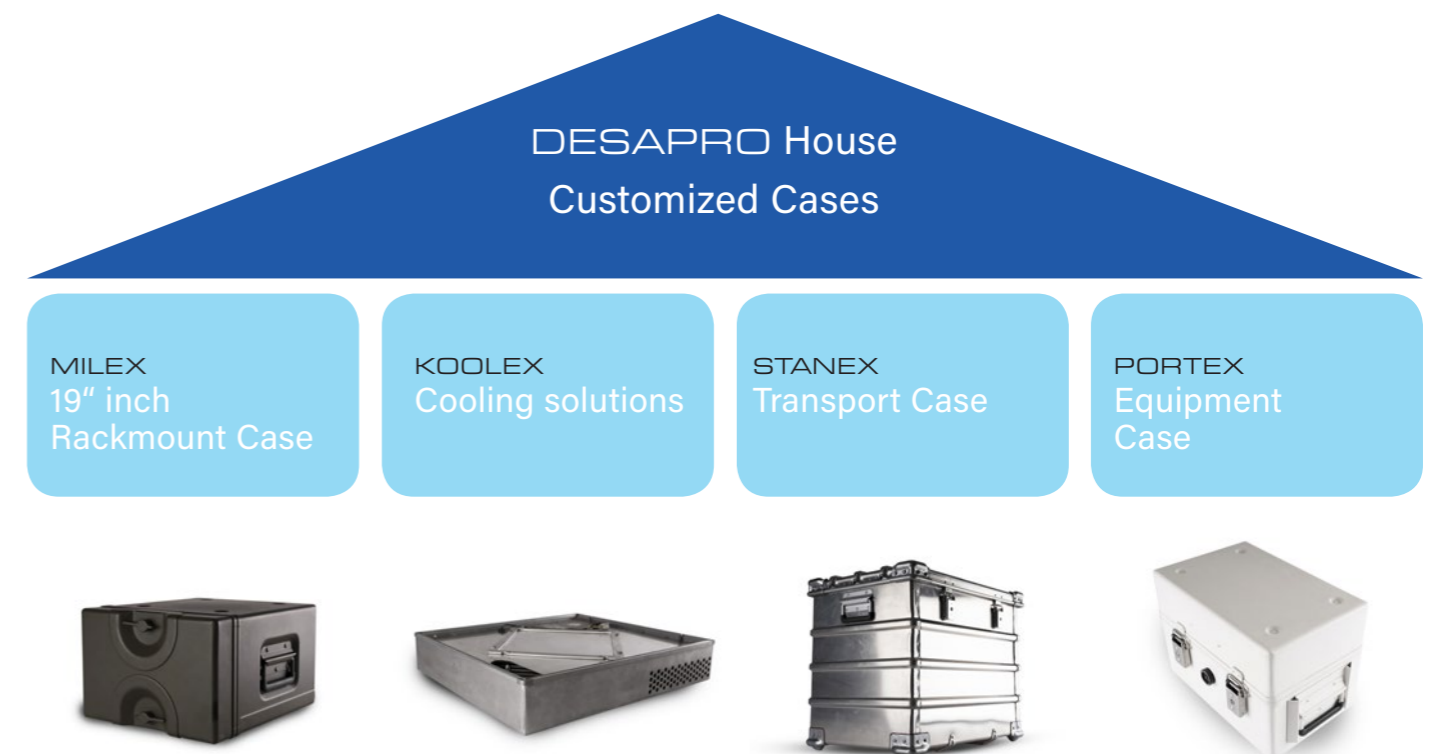
Partnership and Trust

- We work as a team
- We trust and support each other
- DESAPRO promotes continuous education within the organization

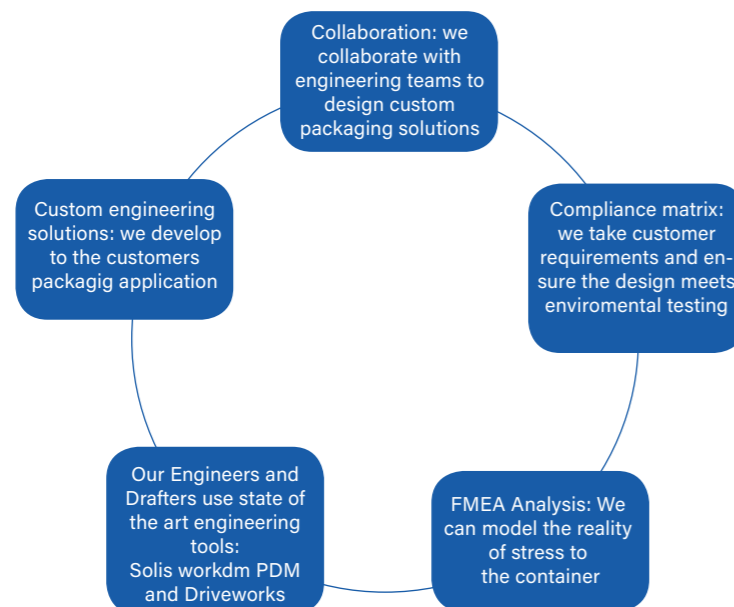


DESAPRO BENEFITS AS ENGINEERING SOLUTIONS PROVIDER:

- **Engineering center for customized solutions:** We focus on finding innovative solutions to our customers packaging challenges and adding value with our expertise. Our knowledgeable engineers are using state of the art CAD tools to develop design concepts
- **Material competence:** A high degree of mobility requires lightweight packaging solutions. At DESAPRO, we focus on developing cases out of strong, high quality material and offer the flexibility of smaller or larger production lots
- **Profound technical Know How:** With sixty years of customized engineering experience, DESAPRO can offer high precision packaging solutions that can meet the highest protection level for our customer. On-site Customer qualification and quality testing is available
- **Long term commitment:** The success of DESAPRO is based on a proven formula and long heritage. DESAPRO will remain a committed packaging solution partner for many years to come. We strive to build long term relationships on trust and quality



DESAPRO's Engineering Center is a versatile and creative team, with the ability to support the specific design needs of our customers. Our engineers work with state of the art SOLIDWORKS Software and modeling tools. Our Engineers are experienced working with a variety of different materials. This enables DESAPRO to custom design products in a short period of time to meet customer requirements.



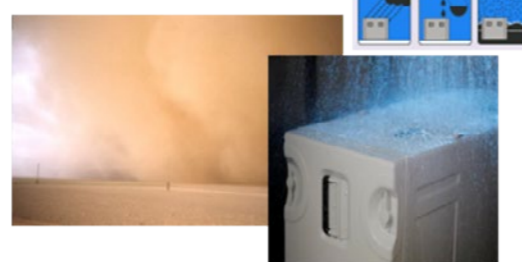
DESAPRO has an excellent rapport with local test laboratories for a wide variety of environmental testing according to MIL-STD-810 standards:

- Blowing Rain / Sand & Dust / IP
- Long Duration Shock and Vibration
- Transit Drop
- Thermal Testing
- Water Submersion
- Material Tensile Testing
- Salt Fog Testing
- EMI Testing

SHOCK AND VIBRATION



WATER & DUST IP



TEMPERATURE



EMI



DESAPRO CASES COMPLY WITH STANDARDS IN ACCORDANCE WITH MIL-STD810

Vibration:

- MIL-STD-810F, Minimum Integrity, Figure 514.5C-17, one hour/axis
- MIL-STD-810G, Minimum Integrity, Figure 514.6E-1, one hour/axis
- MIL-STD-810F, US highway, Figure 514.5C-1, one hour/axis
- MIL-STD-810G, US highway, Figure 514.6C-1, one hour/axis
- MIL-STD-810F, Composite wheeled vehicle trailer, Figure 514.5C-2, two hours/axis (Enhanced)
- MIL-STD-810F, Composite wheeled vehicle, Figure 514.5C-3, one hour/axis (Enhanced)
- MIL-STD-810G, Composite wheeled vehicle, Figure 514.6C-3, one hours/axis (Enhanced)
- MIL-STD-810G, Composite wheeled vehicle, Figure 514.6C-3, two hours/axis (Robust)

Transit Drop:

- MIL-STD-810F, Table 516.5-VI, Notes A and/or B
- MIL-STD-810G, Table 516.6-VI, Notes A and/or B

Functional Shock:

- MIL-STD-810F, Method 516.5, up to 40g/20ms, \pm three half-sine or saw-tooth pulses
- MIL-STD-810G, Method 516.6, up to 40g/20ms, \pm three half-sine or saw-tooth pulses

Rain:

- MIL-STD-810F, Method 506.4, Procedure I, Rain and Blowing Rain, 4-inches/hour at 40 miles/hour, 30 minutes face
- MIL-STD-810G, Method 506.5, Procedure I, Rain and Blowing Rain, 4-inches/hour at 40 miles/hour, 30 minutes face
- MIL-STD-810F, Method 506.4, Procedure II, Exaggerated Rain, 40 minutes/face
- MIL-STD-810G, Method 506.5, Procedure II, Exaggerated Rain, 40 minutes/face

Salt Fog:

- MIL-STD-810F, Method 509.4, 96-hours, 5% NaCl, ph factor 6.5 to 7.2
- MIL-STD-810G, Method 509.5, 96-hours, 5% NaCl, ph factor 6.5 to 7.2

High Temperature:

- MIL-STD-810F, Method 501.4, 48-hours at 160°F exposure, case component functional checks at 125°F and at 75°F
- MIL-STD-810G, Method 501.5, 48-hours at 160°F exposure, case component functional checks at 125°F and at 75°F

High Temperature

- MIL-STD-810F Method 501.4 held for 48 hours at 71 C, followed by functional test at 53 C and at room temperature

Low Temperature:

- MIL-STD-810F, Method 502.4, 48-hours at -60°F exposure, case component functional checks at 35°F and at 75°F
- MIL-STD-810G, Method 502.5, 48-hours at -60°F exposure, case component functional checks at 35°F and at 75°F

Temperature Shock:

- MIL-STD-810F, Method 503.4, 4-hours at 185°F exposure, temperature lowered within 5 minutes to -45°F and held for 4-hours, then raised within 5-minutes to 185°F for three-cycles. Case component functional checks at 75°F

Sand and Dust

- MIL-STD-810F, Method 510.4 Test procedure I, dust load 10g/m3, airspeed 1,5m7s, duration 6h

Low pressure (altitude)

- MIL-STD-810F, Method 500.4 Test procedure I, pressure 57,2kPa (= 4572m), duration 1 h

Humidity

- MIL-STD.810F, Method 507.4 held at 60 degrees C and 95% rH, 2 cycles 48h each

EMI:

- MIL-STD-461F, CE102, Conducted Emissions, Power Leads, 10kHz to 10MHz
- MIL-STD-461F, CS101, Conducted Susceptibility, Power Leads, 10kHz to 50kHz
- MIL-STD-810F, RE102, Radiated Emissions, Electric Field, 10kHz to 18GHz
- MIL-STD-810F, RS103, Radiated Susceptibility, Electric Field, 10kHz to 100kHz

MILEX 19 INCH RACKMOUNT CASES

The MILEX case is a water and dust proof transit case for 19" electronics that includes shock and vibration absorption features. MILEX transit cases are NATO approved and are designed to meet the rigid requirements of U.S. MIL specifications in addition to most international specification requirements. MILEX transit cases represent the most comprehensive line available today for the safe packaging of mobile electronics made exactly to customer's specifications. DESAPRO has developed a unique expertise in designing and custom manufacturing to deliver the right quality for your application on time.

MILEX cases are designed and manufactured to the specific requirements of environmental protection required by the equipment being contained and transported. This provides the maximum protection while also affording other essential and desirable features.

The size of the MILEX case is determined by the size of the equipment demands. However, due to the positioning of the DESAPRO shock mounts the space between the inner chassis and outer shell is minimized with equal or better shock and vibration properties. This feature means that the overall dimension of MILEX cases is as small as it can be without sacrificing protective characteristics.

Protection against environmental stress: extreme on the outside and safe on the inside!

Undesirable influences from various sources which occur during transport, storage or operations can have a damaging effect on sensitive goods and therefore present a considerable risk. These risks are mitigated by using DESAPRO cases. DESAPRO cases protect against many environment stresses:

Protection against climatic stress such as

- Extreme temperatures in tropical or arctic regions
- Temperature shock in airborne situations
- High humidity in tropical regions
- Aggressive atmospheric conditions such as salt fog at sea
- Sand and wind in deserts or industrial settings
- Water damage by rain or transport by sea
- Sun radiation (UV rays)
- Rain, snow, hail

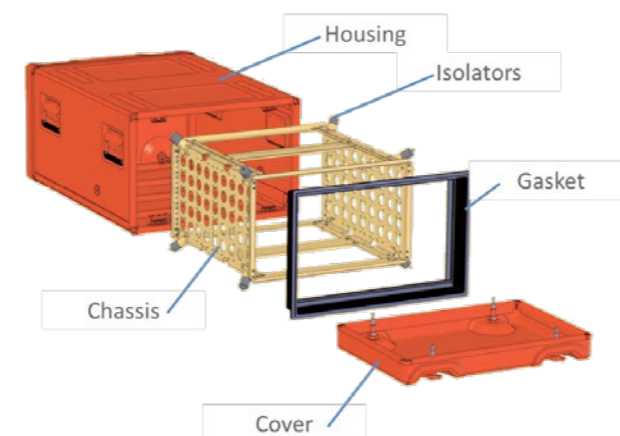
Protection against electrical stress by direct or random high frequency interference

- Jamming transition
- Switching operations
- Electromagnetic interference (EMI), RFI

Protection against internally produced stress

- Dissipated heat
- High voltage components
- Radio frequency radiation

MAIN COMPONENTS OF THE DESAPRO MILEX CASE



THE MILEX CASES CONSIST ESSENTIALLY OF THREE MAIN PARTS:

Self-supporting housing

A rigid welded construction forms a self-supporting shell that is both light and rugged. The entire aluminum construction is shock proof and resistant to extreme temperature change, conductive and fully recyclable. Stacking feet on the bottom and indentations on the top of the housing provide stable stacking of the cases. The standard equipped cases include a pressure equalization valve, case connections and securing the cases to any bolting pattern are available for specific applications.

Shock mounted chassis

The core of the case is a shock mounted chassis. Depending on them model and size, equipment can be fitted either from the front or the rear of the case. In order to keep the weight down and allow for optimal ventilation, the chassis is designed with large holes. The chassis is connected to the housing shell by an electrical ground strap.

Cover

All MILEX cases are protected against outside influences through a bolted cover with gasket. Easily operated closures are recessed in the housing cover and ensure a solid seal. The cover space can be used for I/O panel, windows, cable pouches, ventilation louvres etc.

THERE ARE FOUR TYPES OF MILEX 19" TRANSIT CASES

Shock mounted

The MILEX 19" Transit Cases is intended for use in extreme conditions. The electronics are attached to a shock mounted chassis, not directly to the shell. A minimum of 8 shock and vibration absorbers serve to deflect any mechanical stress on the housing. After attachment of the chassis the case is securely sealed with a cover to protect the contents against dust, sand and water.



Hard mounted

The MILEX Hard mounted transit case is a standard 19" Case without a shock mounted chassis. It is intended for applications where vibration protection is not critical. All other protective features and outer dimensions are equivalent to the Shock mounted case.

**Wire Rope (WR)**

The MILEX WR transit case is a 19" Transit case with the chassis mounted on stainless steel spiral with wire rope shock absorbers. These types of shock absorbers are used where sensitive electronics have to be protected from vibration and particularly against severe shock. The wire rope shock absorbers ensure the proper abatement not provided by the shock absorbers in the shock mounted transit cases. Typical applications would be for protection on ship, submarines, helicopters or other aircrafts.

MILEXPRO

MILEXPRO is the newest generation of robust transit cases for the transport of sensitive electronics, information and measuring systems. Benefits include shortening the integration time of your hardware with easier access during transport and/or in operations. The system is unique and supported by a revolving frame system, which is guided in the X & Y axis automatically centralizing the cover. The proven, original features of the MILEX remain and guarantee stacking compatibility with other MILEX cases.

**THE MAIN ADVANTAGES OF THE MILEXPRO ARE:****Endurance**

Lifetime expectancy of the integrated product is increased by improved and innovative mechanical features of the MILEXPRO. The design is supported by years of experience in the manufacturing of aluminum transport cases where sensitive goods must be protected in extreme environmental conditions.

Optimal protection and flexibility

In operation the goods enjoy maximum protection through a fundamentally improved case construction guarding even better against shock and vibration. Individual selection of shock mount grades enhance the MILEXPRO feature list. The shock mounts can be changed easily during operation should a different payload need to be mounted. Our shock mounts easily attach to the profile enforced shock mount carrier plate. The separate sealing and HF-shielding system provide environmental protection. The HF-shielding can also be added as an option later if needed.

Cost savings

The enormous integration time reduction and resulting cost savings are due to the entire removal of the internal chassis. The possibility to warehouse cases and chassis separately also reduce the amount of storage space and, as a plus, help prevent scratching of the case during the integration phase. Easy access to all parts of the chassis ensures optimal cable management and guarantees time savings during the integration process.

MILEX DESIGN CHARACTERISTICS AND FEATURES

- Superior volume/weight ratio compared to plastic, composite or wood cases
- Compact and rugged aluminum construction
- Superior use of space due to tight radius of shell and minimal space between shell and chassis compared to plastic, composite or wood cases
- Fully recessed handles and closures
- Positive stacking provisions even for housings of different outer dimensions
- Compliant to MIL-STD-4150 and MIL-STD-28800
- Calibration of shock mounts corresponding to equipment weight and/or environmental specifications
- Specially selected aluminum alloys

**Variety of Standard Sizes (DIN41494 / IEC297)**

- 2 U to 24 U height (1 U = 44.45 mm or 1 3/4in)
- 19" chassis and half 19" chassis
- Housing standard depths – 219, 350, 480, 610, 762 mm
- Covers standard depths – 63, 103, 153 mm
- Custom sizes available and easily accommodated

MAXIMUM FLEXIBILITY THROUGH A VARIETY OF MILEX OPTIONS AVAILABLE**A large selection of standard accessories are available**

- Drawers and trays with or without telescopic slides
- Special covers providing extra space for pouches, cable coils, windows, louvres and connector trays
- Castors or dollies for desired mobility
- Special gaskets or skirt seal to provide weatherproofing
- EMI protection with covers removed
- Variety of latches and closure devices
- Skirt seals: Standard and EMI conductive Skirt seals available

EMI and RFI shielding options

The MILEX transit case is made of aluminum as opposed to a non-conducting material such as plastic or composite, it can be designed to screen electronics in the housing against the effects of EMI and RFI with the installation of some special features. Protection is in accordance with VG 95 373.

EMI Gasket

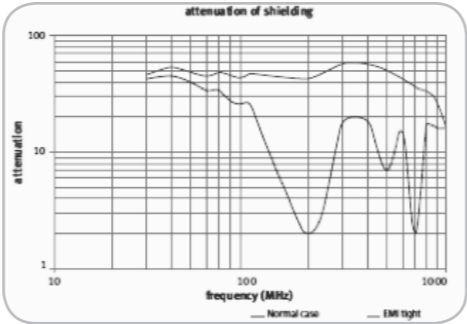
Electronically conductive gasket installed in the housing provides electrical contact between the covers and the housing. This gasket also provides water protection to the case when the covers are mounted.

EMI Frame

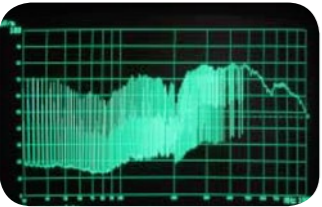
A special EMI tight fame manufactured of alodine aluminum can be used to provide additional EMI protection for maximum protection of the electronics. In order to dissipate heat produced by the electronics, the walls of the frame have 3mm (0,12") holes, average distance between holes in 4mm (0,14").

ATTENUATION AT VARIOUS FREQUENCY BAND (IEEE299)

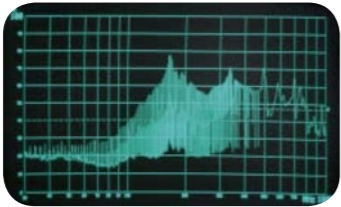
Frequencies	Average	Screen extreme max.	
30-200 MHz	80-90 db	106 db	51 db
200-500 MHz	70-90 db	95 db	50 db
500-1000 MHz	50-60 db	70 db	50 db



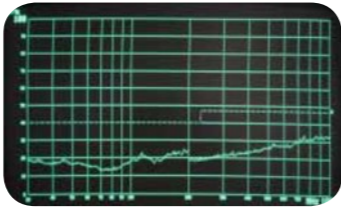
MEASURING SHIELDING EFFECTIVENESS OF HOUSING (SAMPLE)



HF Source

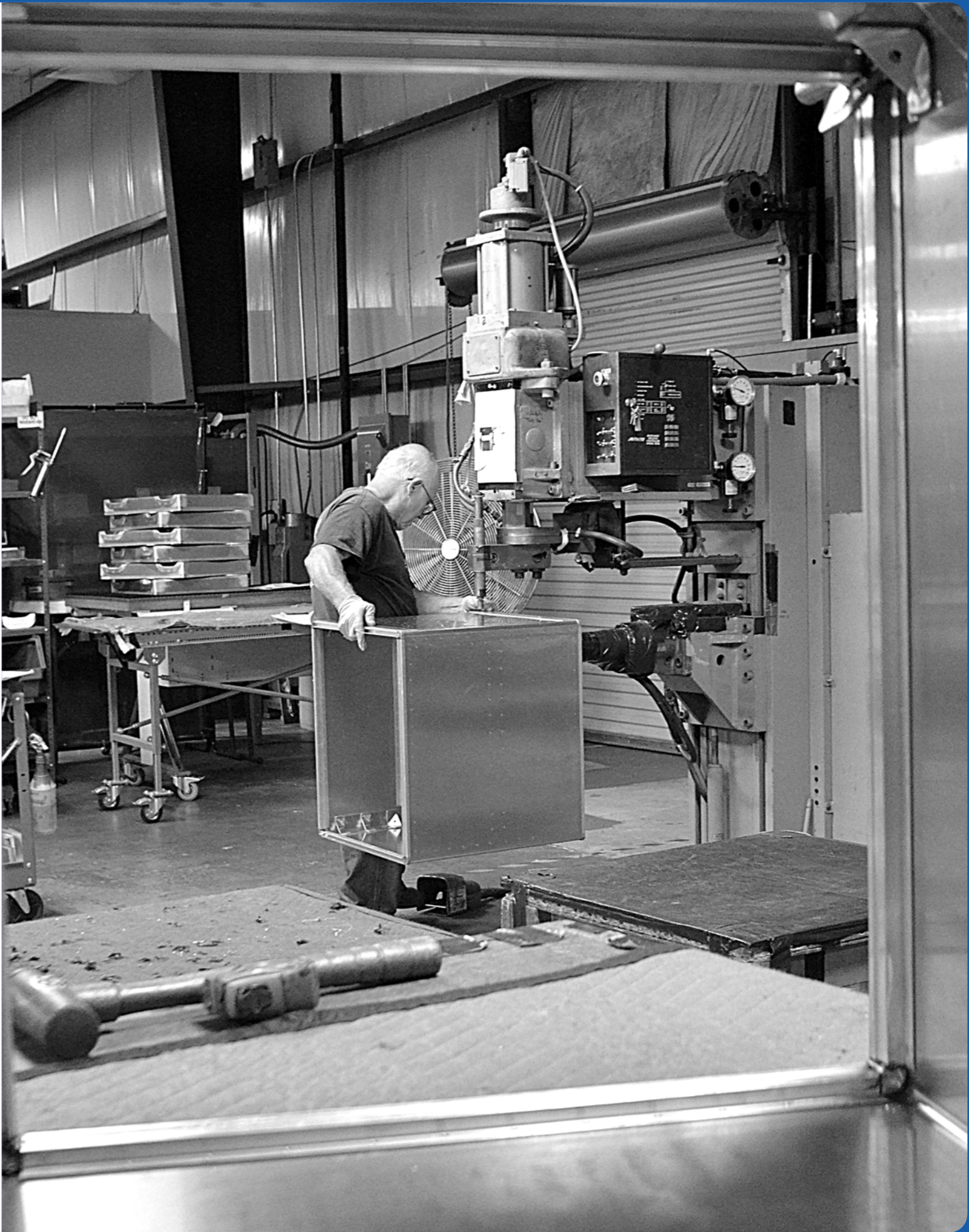


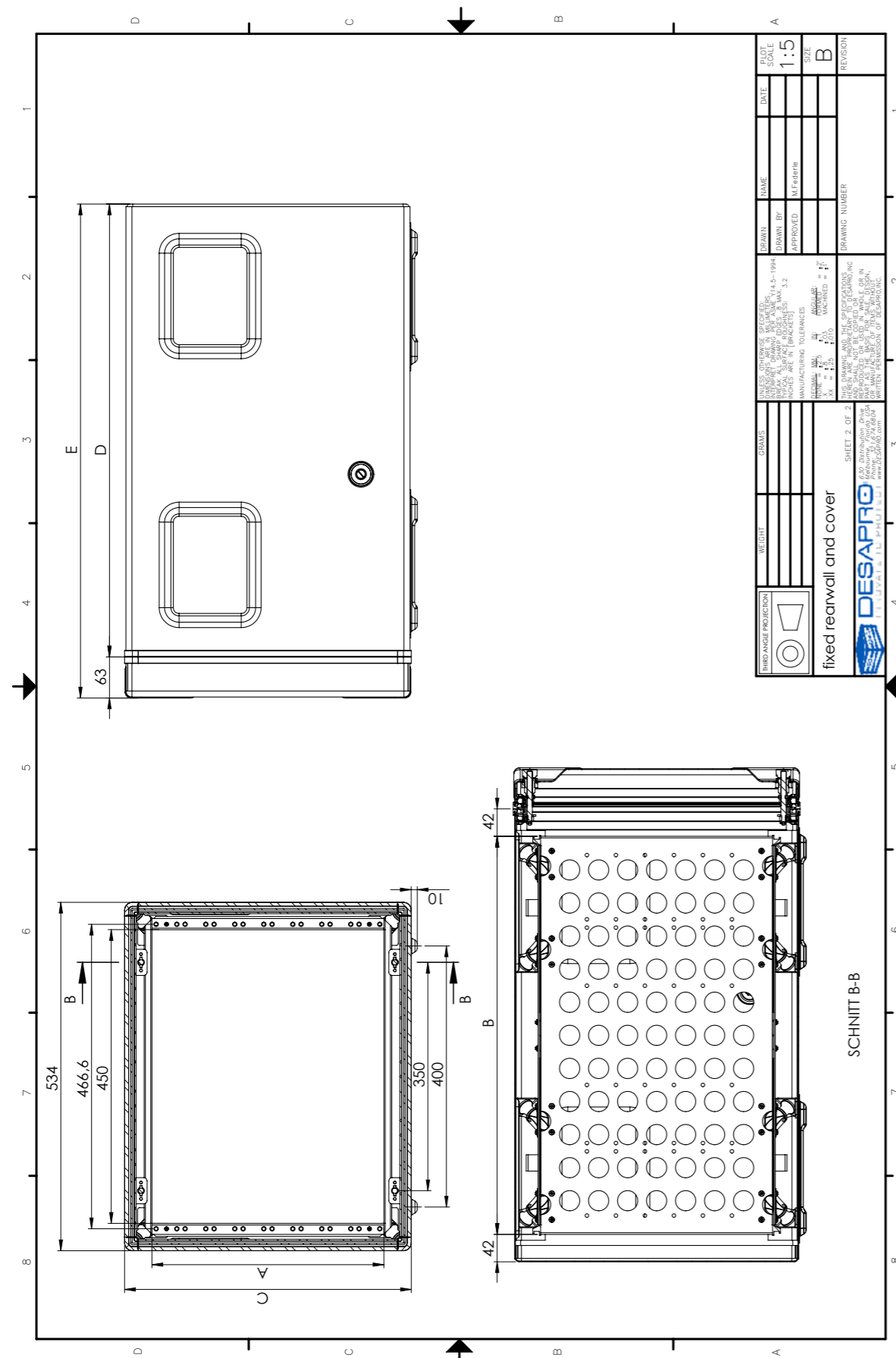
HF shielding without



HF shielding with EMI preparation

MILEX case performance is dependent on a wide-variety of variables such as payload weight, payload center-of-gravity, payload fragility, payload mounting, payload fastening, test durations, test sequencing, customer pass/fail criteria and other specifications. Please talk to our Engineering experts to have your case tailored to meet your requirements.





MILEX – 19" TRANSIT CASE SHOCK MOUNTED

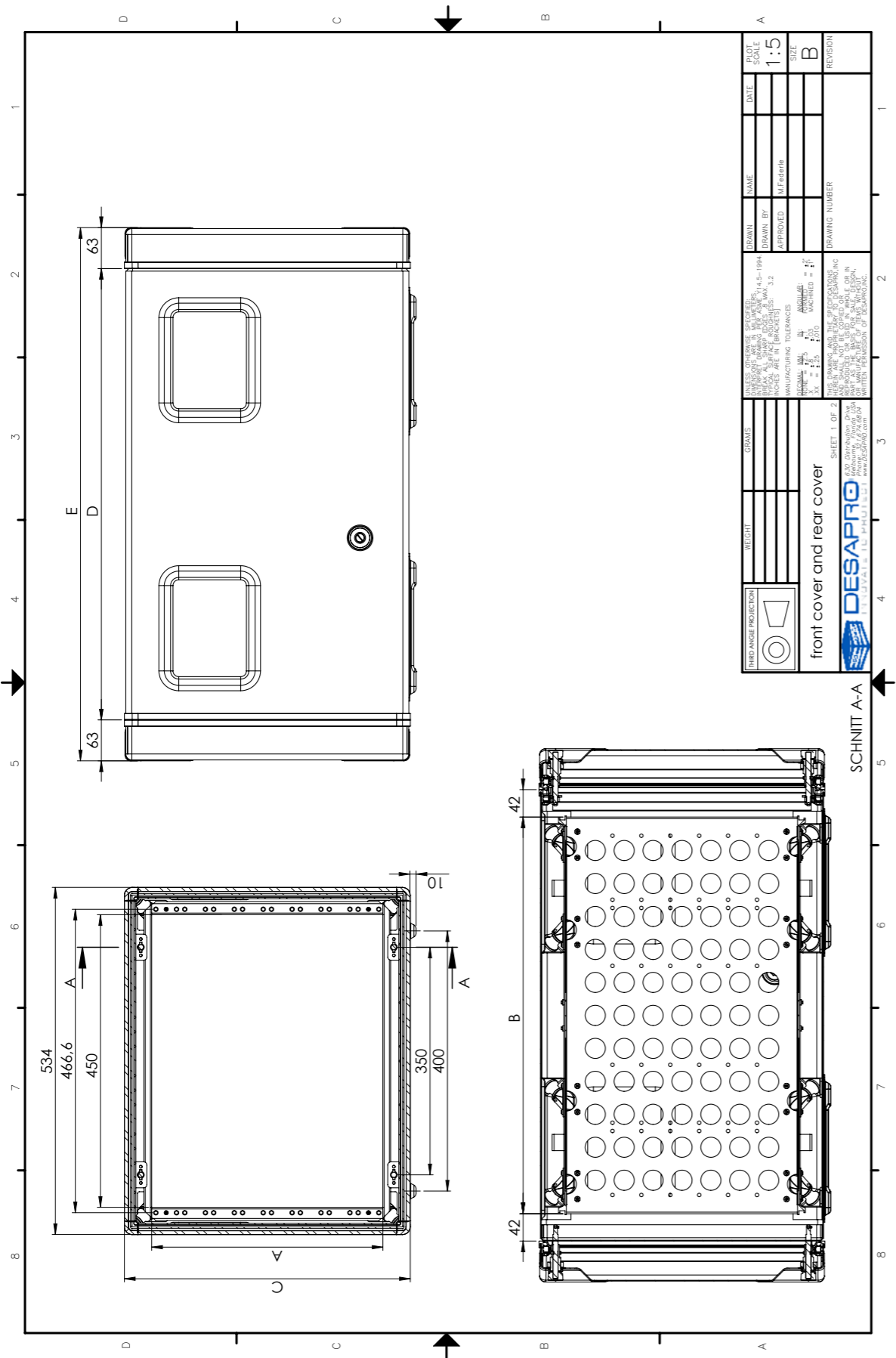
STANDARD WEIGHTS AND DIMENSIONS WITH ONE COVER AND FIXED REAR WALL

U	A	B	C	D	E	kg
2	89	219 350	171.5	303 434	366 497	8 8
3	133,5	219 350	216,5	303 434	366 497	8 9
4	178	219 350	260.5	303 434	366 497	8 10
5	222,5	219 350 480	305.5	303 434 564	366 497 627	9 10 12
6	267	219 350 480	349.5	303 434 564	366 497 627	9 11 13
7	311,5	219 350 480	394.5	303 434 564	366 497 627	9 11 14
8	356	219 350 480 610	438.5	303 434 564 694	366 497 627 757	10 12 14 16
9	400.5	219 350 480 610	483.5	303 434 564 694	366 497 627 757	10 12 15 18
10	445	219 350 480 610	527.5	303 434 564 694	366 497 627 757	11 13 15 18
11	489.5	219 350 480 610	572.5	303 434 564 694	366 497 627 757	11 13 16 19
12	534	219 350 480 610	616.5	303 434 564 694	366 497 627 757	12 14 16 19
13	578.5	219 350 480 610	661.5	303 434 564 694	366 497 627 757	12 15 16 19
14	623	219 350 480 610	705.5	303 434 564 694	366 497 627 757	13 15 17 20
15	667.5	219 350 480 610	750.5	303 434 564 694	366 497 627 757	13 16 18 21

1 U = 44.45 mm (1 3/4 in) Other sizes are available upon request

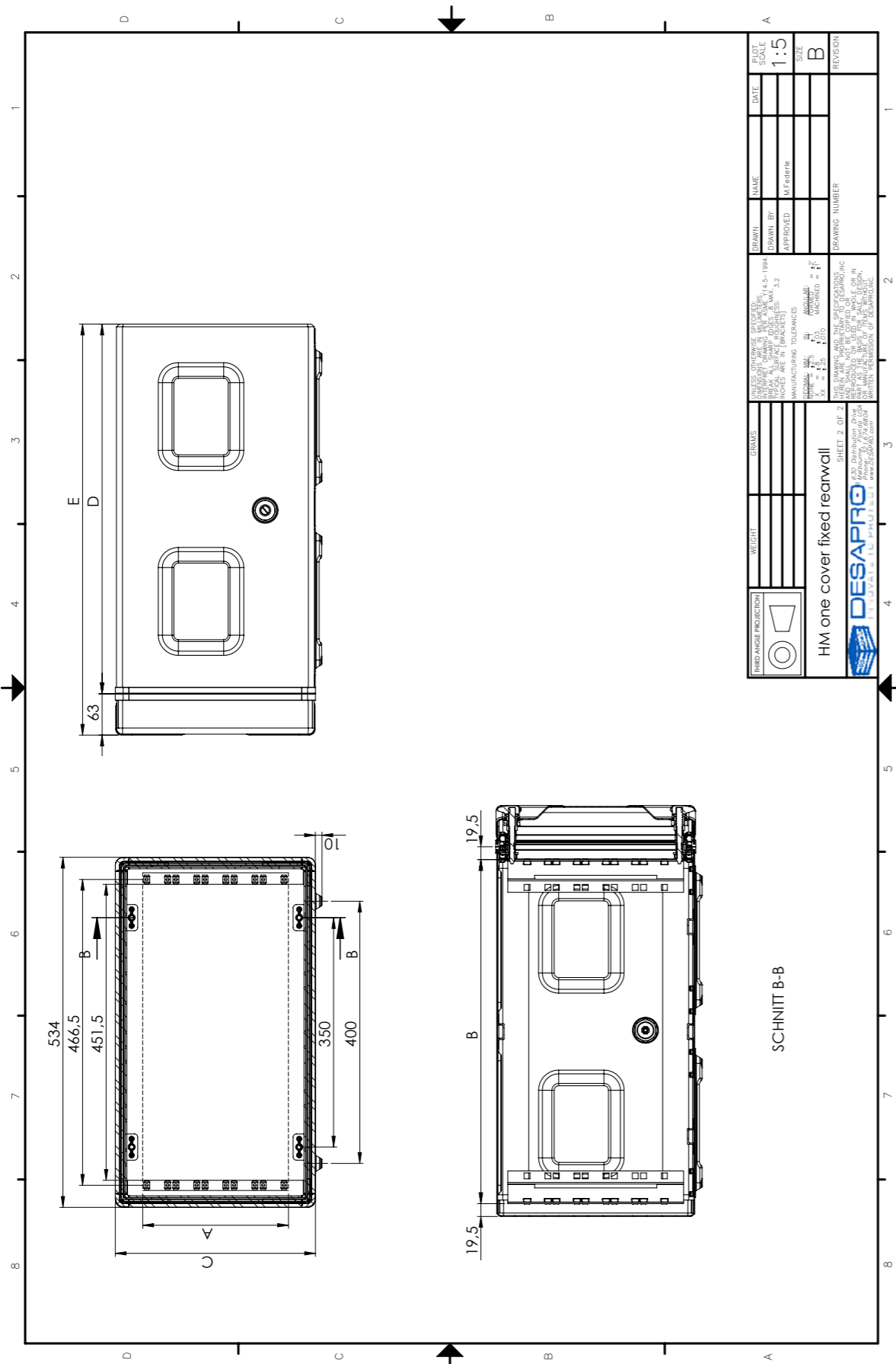
U = nominal height A = height of frame B = depth of frame C = overall height (without stacking feet)

D = overall depth (covers removed) E = overall depth (covers attached) Kg = case weight



STANDARD WEIGHTS AND DIMENSIONS WITH FRONT AND REAR COVER

U	A	B	C	D	E	kg
2	89	219 350 480 610	171.5	303 434 564 694	429 560 690 820	10 11 13 15
3	133,5	219 350 480 610 762	216,5	303 434 564 694 846	429 560 690 820 972	10 11 13 13 15
4	178	219 350 480 610 762	260.5	303 434 564 694 846	429 560 690 820 972	10 12 14 14 16
5	222,5	219 350 480 610 762	305.5	303 434 564 694 846	429 560 690 820 972	11 12 14 15 17
6	267	219 350 480 610 762	349.5	303 434 564 694 846	429 560 690 820 972	11 13 15 16 18
7	311,5	219 350 480 610 762	394.5	303 434 564 694 846	429 560 690 820 972	12 14 16 17 19
8	356	219 350 480 610 762	438.5	303 434 564 694 846	429 560 690 820 972	12 14 17 18 20
9	400.5	219 350 480 610 762	483.5	303 434 564 694 846	429 560 690 820 972	13 15 17 18 20
10	445	219 350 480 610 762	527.5	303 434 564 694 846	429 560 690 820 972	14 16 19 19 21
11	489.5	219 350 480 610 762	572.5	303 434 564 694 846	429 560 690 820 972	14 16 19 20 21
12	534	219 350 480 610 762	616.5	303 434 564 694 846	429 560 690 820 972	14 16 19 20 22
13	578.5	219 350 480 610 762	661.5	303 434 564 694 846	429 560 690 820 972	15 18 20 22 24
14	623	219 350 480 610 762	705.5	303 434 564 694 846	429 560 690 820 972	16 18 21 22 24
15	667.5	219 350 480 610 762	750.5	303 434 564 694 846	429 560 690 820 972	16 19 22 22 24



MILEX – 19" HM TRANSIT CASE HARD MOUNTED

STANDARD WEIGHTS AND DIMENSIONS WITH ONE COVER AND FIXED REAR WALL

U	A	B	C	D	E	kg
3	133,5	264 395	216,5	303 434	366 497	8 9
4	178	264 395	260,5	303 434	366 497	8 10
5	222,5	264 395 525	305,5	303 434 564	366 497 627	9 10 12
6	267	264 395 525	349,5	303 434 564	366 497 627	9 11 13
7	311,5	219 350 480	394,5	303 434 564	366 497 627	9 11 14
8	356	264 395 525 655	438,5	303 434 564 694	366 497 627 757	9 11 14 16
9	400,5	264 395 525 655	483,5	303 434 564 694	366 497 627 757	10 12 15 17
10	445	264 395 525 655	527,5	303 434 564 694	366 497 627 757	10 12 15 18
11	489,5	264 395 525 655	572,5	303 434 564 694	366 497 627 757	11 13 15 17
12	534	264 395 525 655	616,5	303 434 564 694	366 497 627 757	12 15 16 19
13	578,5	264 395 525 655	661,5	303 434 564 694	366 497 627 757	12 14 16 19
14	623	264 395 525 655	705,5	303 434 564 694	366 497 627 757	13 15 17 20
15	667,5	264 395 525 655	750,5	303 434 564 694	366 497 627 757	13 16 18 21

1 U = 44,45 mm (1 3/4 in) Other sizes are available upon request
U = nominal height A = height of frame B = depth of frame C = overall height (without stacking feet)
D = overall depth (covers removed) E = overall depth (covers attached) Kg = case weight



U	A	B	C	D	E	kg
3	133,5	264	216,5	303	429	10
		395		434	560	11
		525		564	690	13
		655		694	820	13
4	178	264	260.5	303	429	10
		395		434	560	12
		525		564	690	14
		655		694	820	14
5	222,5	264	305.5	303	429	11
		395		434	560	12
		525		564	690	14
		655		694	820	15
6	267	264	349.5	303	429	11
		395		434	560	13
		525		564	690	15
		655		694	820	16
7	311,5	264	394.5	303	429	12
		395		434	560	14
		525		564	690	11
		655		694	820	17
8	356	264	438.5	303	429	12
		395		434	560	14
		525		564	690	17
		655		694	820	18
9	400.5	264	483.5	303	429	13
		395		434	560	15
		525		564	690	17
		655		694	820	18
10	445	264	527.5	303	429	14
		395		434	560	16
		525		564	690	19
		655		694	820	19
11	489.5	264	572.5	303	429	11
		395		434	560	16
		525		564	690	19
		655		694	820	20
12	534	264	616.5	303	429	15
		395		434	560	17
		525		564	690	20
		655		694	820	21
13	578.5	264	661.5	303	429	15
		395		434	560	18
		525		564	690	20
		655		694	820	22
14	623	264	705.5	303	429	16
		395		434	560	18
		525		564	690	21
		655		694	820	22
15	667.5	264	750.5	303	429	16
		395		434	560	19
		525		564	690	22
		655		694	820	22



STANEX TRANSPORT CASES

DESAPRO offers individualized case solutions for every storage, transport or operation application. We solve our customers packaging challenges through innovation. We manufacture top quality cases using corrosion resistant materials in state of the art design. DESAPRO cases are built for the highest level of stability and provide protection against all relevant environmental risks. The degree of protection built into STANEX lightweight cases is extremely high. They are exceptionally resistant against drop shock, mechanical shock and vibration. When closed they provide excellent protection against the damaging intrusion of sand and dust, snow, ice and water, meeting the IP54 Standard per EN60529. They are suitable for tropical high humidity locations and are termite proof. DESAPRO STANEX cases meet MIL-STD-810 Rev G blowing rain test.

The ruggedness of the STANEX light metal cases is noticeable at first glance:

- The STANEX are built to endure the toughest loading and stacking demands, even the occasional fall from the back of a truck is not too much for these rugged cases
- The cases have reinforced corners with special castings that tightly connect the case
- All parts are riveted or spot welded resulting in an exceptionally stable construction even for larger size cases
- Corner elements provide not only additional robustness but also positive vertical stacking capability
- Optional Plywood or POM skids add strength and improve handling
- Special rubber grips, spring-loaded drop , each capable of supporting a 110
- Secure closing is provided by specially designed stirrup latches with padlock fittings



The rugged construction ensures protection of your goods for many years to come. Our specific features guarantee the safety and security of your equipment. Your goods are safe when packed in a STANEX transit case. The STANEX transport case is unsurpassed for quality storage and transportation in any environment. STANEX transport cases are used for commercial and military applications around the world.

Foam lining

We offer general foam lining with a thickness of 25mm to 50mm or cushioning configured specifically for your payload based on the fragility and dimension of equipment transported and stored.

Finish

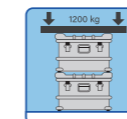
Natural aluminum or painted finishes in any color specified is available.

Sizes

Custom sizes are easily handled since our cases are not molded or deep drawn. We build to your specifications and requirements.

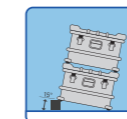


FEATURES OF STANEX



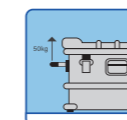
Stacking weight load

STANEX cases can withstand stacked load of 1200kg



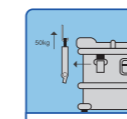
Stacking test

Two cases can be tilted to an angle of 15 degrees without lateral slip



Carrying handles

The number of carrying handles is optional. Load capacity of each handle is 50 kg. A rubber coating is provided for user comfort. the handles are securely mounted with rivets



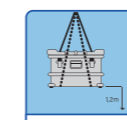
Stirrup latches

The number of carrying handles is optional. Load capacity of each handle is 50 kg. A rubber coating is provided for user comfort. the handles are securely mounted with rivets



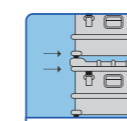
Spray water and dust test

Spray water and dust protection IP54 conforms to test standard EN60529. Optional MIL-STD-810F Method 506.4 (blowing rain)



Drop Test

STANEX lightweight aluminium cases containing a net weight of 100 kg ca withstand a fall from 120 cm onto a hard surface without sustaining damage which impairs normal function



Corner Reinforcements

Galvanized steel corner reinforcements are riveted to the case bottom and covers to provide additional strength, protection and positive stacking

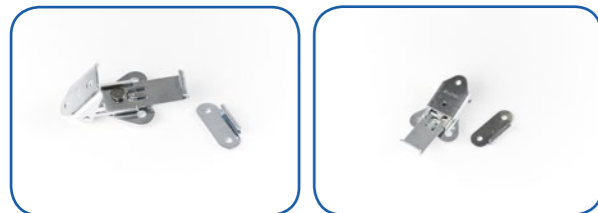
Heavy duty interlocking devices

- For attaching cases to each other



Quarter turn latch

- For attaching cases to each other



Humidity indicator

- Indicates relative humidity inside the case



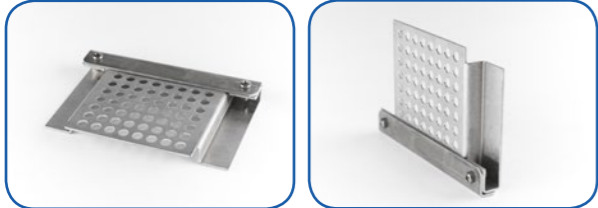
Ventilation slots, louvres

- Ventilation : acrylic glass
- With or without EMI screening



Desiccant enclosure

- 134 x 92 x 17 mm
- 250 x 134 x 36 mm



Manually operated pressure relief valve

- Transmit cases 480 mm and 610 mm have 2 manual pressure relief valves fitted as standard
- Optional item for smaller transit cases



Lifting lugs

- For lifting heavy cases



Spring loaded handle



Breather valve

- Automatic
- EMI version available



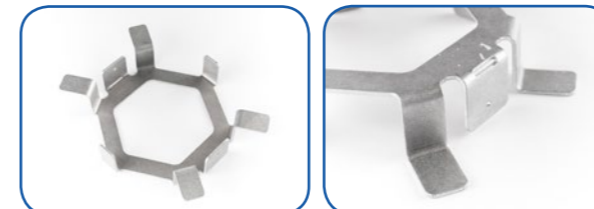
Storage pouch

- Safe storage of small items
- Standard Pouch sizes
- 220 x 125 x 50 mm, 3 U to 5 U
- 260 x 160 x 50 mm, from 6 U
- 410 x 300 x 50 mm, from 10 U



Cable coil

- Fitted to inside of front or rear cover
- For cases from 3 U
- 3 U to 5 U : 0 150 mm
- Above 6 U : 0 200 mm



MILEXPRO closure



Fast lock

- For covers (63, 103, 153 mm)



Dolly & Casters

- With anti-tip design
- Wheel diameter : 125 mm
- Maximum load : 200 kg (appr. 440lb)
- Suitable for cases with depths from 350 mm

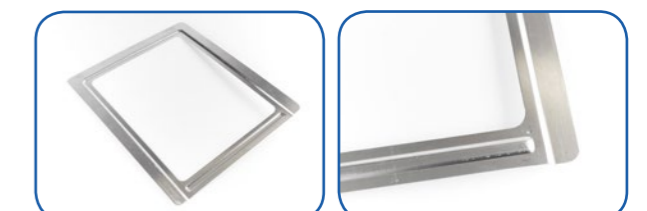


Star knob closure

- For covers (63, 103, 153 mm)



Cardholder



Stirrup latch



PORTEX INSTRUMENT CASES

The PORTEX instrument case is extremely rugged, versatile and waterproof, offering the widest range of sizes and options. They are ideal for the safe transportation and field operation of delicate equipment for commercial, industrial and military use. There are many special features that help ensure the safe delivery of intricate and sensitive instruments in transit and operations in hostile environments.

Design characteristics

- Meet all applicable MIL-29900 performance levels of MIL-STD810F and the watertight requirements of PI65. Also IP68 solutions available
- Protection of latches and hardware is achieved through the use of guarded latches and handles or by incorporating V rails along the perimeter of the case
- A wide range of sizes are available. Cases be configured to the exact size required, unlike deep drawn cases
- Shock and vibration isolation options can be incorporated
- Flanges are available for mounting instruments and electronics
- Stirrup latches are used to insure positive fastening and secure locking of lid

Custom sizes are easily available to your specifications and requirements.





KOOLEX COOLING UNITS

The KOOLEX family provides complete temperature control for the contents of the MILEX case. Our KOOLEX product line starts at the low end of complexity with fans and on the high end with active vapor cycle air conditioning. Depending on the heating or cooling requirements, availability and type of electrical power, we will find the best system for any application.

Heat exchanger

The passive Heat Exchanger Cover operates with two forced air circulations loops that are not connected thereby allowing sealed operations.

This system cycles outside air into the heat exchanger where it passes over fins in the passage reducing the temperature of the fins which remove the heat. On the inside loop, the air in the case is brought into the heat exchanger releasing the temperature through the fins. The heat is passed from the inside loop to the outer loop via the fins (passive connection). The heat dissipation capability depends on the position of the case (stand alone, position against wall, stacked). It works most effectively when there is a temperature differential between the inside and outside of at least 20 C/68 F.

- Cools by air changes
- Air to air heat transfer
- Unit is sealed against spray water, sand and dust
- IP65

Fan cover

Many thermal control solutions can be met with a simple axial fan at one end of the case and an engineered (measured) opening at the opposite end

- Cools by air changes
- Electrical 28VDC (110/220VAC also available)
- Changes air 20x / minute
- Filters may be installed as an option (also EMI Filters available)
- Available in rugged COTS and MIL-STD configuration

KOOLEX COOLING UNITS

Active Cooling Unit

Active cooling units provides complete temperature control for the MILEX rackmount cases. The A/C KOOLEX uses a self- contained R134A vapor cycle air conditioner. The A/C KOOLEX easily mounts to the MILEX rackmount transit case for access to the internal payload. The closed loop air flow pattern eliminates hot spots while maximizing cooling.

Also available with heating option in low environmental temperatures required to bring equipment to operating temperature.

Insulation

There are also methods of thermal insulation as techniques to limit heat/cold transfer.

DESAPRO offers two methods:

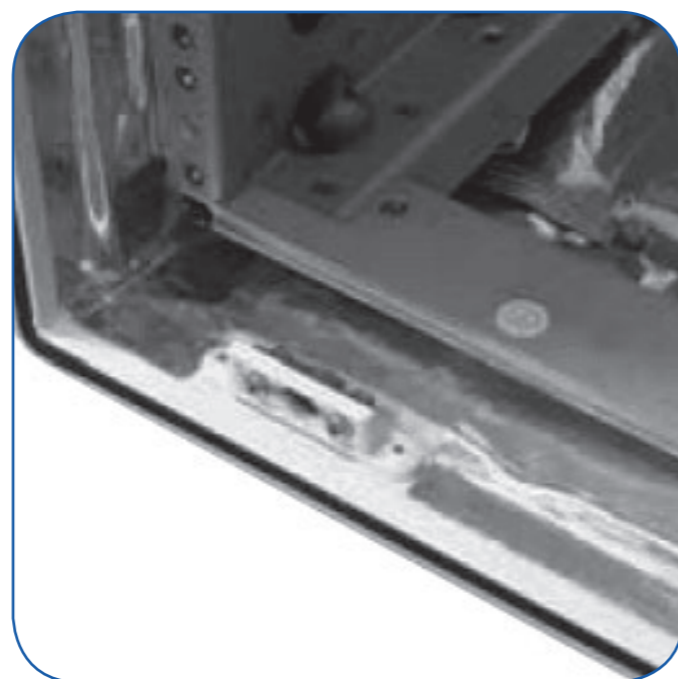
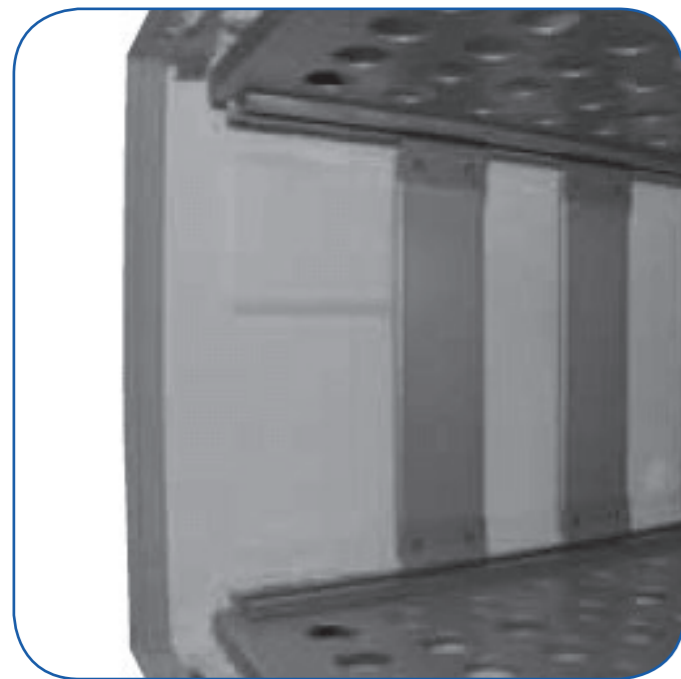
Thermal insulation paint

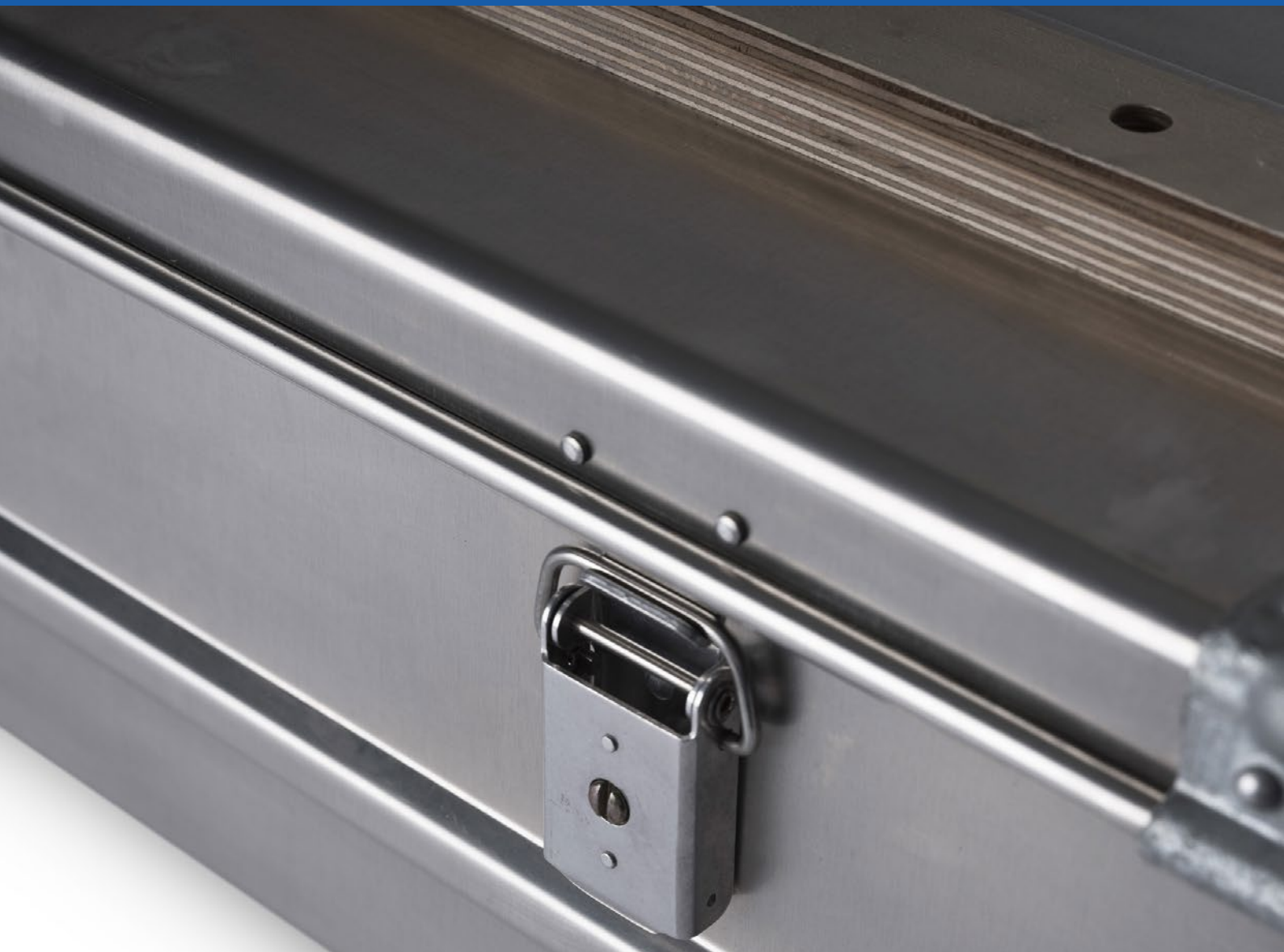
Thermal insulating paint as a coating inside the case is an alternative to conventional insulation materials. It is lighter, less bulky in your structure and requires much less maintenance than conventional insulation.

Thermal insulation pads

Thermal insulating pads as lining inside the case is another way to limit the heat transfer.

DESAPRO can install custom insulation padding to customer specifications.





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