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## CASE CARTS RGEE, STAINLESS STEEL



RGEE9CES60/S

These carts are available in 6 different executions

- With fixed shelves
- With height adjustable shelves
- With height adjustable slides for sterile containers or ISO-Trays
- With welded (fixed) U-slides for ISO-Trays
- With polymer ISO-Tray panels
- As shuttle transport cart designed for shuttle rack

### // SPECIAL FEATURES

- + **Description** Body is watertight-welded, smooth internal construction, double-wall doors with rubber sealing, 4 vertical push handles, 2 of them integrated in the door hinge, the door-side handle swings with the door, lower PE bumper
- + **Casters** 2 swivel casters with brake and 2 fixed casters, Ø 160 mm, caster housing: zinc-chromated, easy roll casters with elastic tire tread and precision ball bearing with dustguard
- + **Alternative casters**  
Casters with double brake or central brakes or directional lock, with stainless steel housing, Ø 200 mm

+ The illustration shows the following accessories:

- + RGEE HS door lock
- + Swivel castors with central brake
- + Swivel castor with directional lock
- + Caster Ø 200 mm
- + Castors with stainless steel housing
- + Seal eyelet RGEE PL
- + Door locking magnet 270° for cart washer RGEE AR260V

*„Sterile goods transport trolley RGEE – Indispensable helper for transport and storage!“*

## CASE CARTS RGEE WITH FIXED SHELVES, STAINLESS STEEL



RGEE9FB

### Casters

- 2 swivel casters with brake and 2 fixed casters
- Ø 160 mm
- Caster housing: zinc-chromated



Fixed shelves



RGEE9FB closed

| OUTSIDE DIMENSIONS |          |           | INSIDE DIMENSIONS |          |           | HEIGHT OF COMPARTMENT |           |          | LOAD RATING | NO. OF SHELVES | ORDER CODE |
|--------------------|----------|-----------|-------------------|----------|-----------|-----------------------|-----------|----------|-------------|----------------|------------|
| WIDTH mm           | DEPTH mm | HEIGHT mm | WIDTH mm          | DEPTH mm | HEIGHT mm | UPPER mm              | CENTER mm | LOWER mm |             |                |            |
| 921                | 721      | 1364      | 695               | 640      | 1080      | 332                   | 332       | 332      | 6 STE       | 2              | RGEE6FB    |
| 1171               | 721      | 1364      | 945               | 640      | 1080      | 332                   | 332       | 332      | 9 STE       | 2              | RGEE9FB    |
| 1171               | 721      | 1614      | 945               | 640      | 1330      | 301                   | 301       | 301      | 12 STE      | 3              | RGEE12FB   |

## CASE CARTS FOR STERILE GOODS RGEE WITH HEIGHT ADJUSTABLE SHELVES



Loose shelves on height-adjustable angle rails  
CES625FBT, height grid 75 mm (can be selected individually!)

! Optional accessories see page 106!

| OUTSIDE DIMENSIONS |             |              | INSIDE DIMENSIONS |             |              | LOAD RATING | NO. OF COMPARTMENTS<br>mm  | ORDER CODE       |
|--------------------|-------------|--------------|-------------------|-------------|--------------|-------------|----------------------------|------------------|
| WIDTH<br>mm        | DEPTH<br>mm | HEIGHT<br>mm | WIDTH<br>mm       | DEPTH<br>mm | HEIGHT<br>mm |             |                            |                  |
| 1026               | 721         | 1364         | 800               | 640         | 1080         | 6 STE       | 3x<br>ca. 740 x 640 x 330  | RGEE6FBCLASSIC   |
| 1301               | 721         | 1364         | 1075              | 640         | 1080         | 9 STE       | 3x<br>ca. 1015 x 640 x 330 | RGEE9FBCLASSIC   |
| 1615               | 806         | 1512         | 1355              | 640         | 1228         | 12 STE      | 3x<br>ca. 1265 x 640 x 380 | RGEE330FBCLASSIC |

## STERILE GOODS TRANSPORT TROLLEY RGEE WITH HEIGHT ADJUSTABLE SLIDES



### Accessories



Wire shelf CES60DF



Extension frame for STE baskets and containers CES60AZ2



Height adjustable slides CES60T for sterile containers

! Optional accessories see page 106!

| OUTSIDE DIMENSIONS |             |              | INSIDE DIMENSIONS |             |              | LOAD RATING | ORDER CODE |
|--------------------|-------------|--------------|-------------------|-------------|--------------|-------------|------------|
| WIDTH<br>mm        | DEPTH<br>mm | HEIGHT<br>mm | WIDTH<br>mm       | DEPTH<br>mm | HEIGHT<br>mm |             |            |
| 921                | 721         | 1364         | 695               | 640         | 1080         | 6 STE       | RGEE6CES60 |
| 1301               | 721         | 1364         | 1075              | 640         | 1080         | 9 STE       | RGEE9CES60 |



# ACCESSORIES FOR CASE CARTS FOR STERILE GOODS



DIN A4 frame for papers CBZ 083



DIN A4 frame for papers CBZ 081



DIN A5 frame for papers CBZ 082



DIN A5 frame for papers CBZ 085

| MODEL                       | DESCRIPTION                               | ORDER CODE  |
|-----------------------------|---|-------------|
| Clamp for papers            | PMEAH                                     | RGEE KL     |
| DIN A5 frame for papers     | portrait                                  | CBZ 081     |
| DIN A5 frame for papers     | landscape                                 | CBZ 082     |
| DIN A4 frame for papers     | portrait                                  | CBZ 083     |
| DIN A5 frame for papers     | Landscape format, for laminated documents | CBZ 085     |
| Color coded indicator plate | green/red for wire frame                  | (on demand) |



Clamp for papers RGEE KL



Identification sign RGEE RU (Red/Green)



Eyelets for seals RGEE PL



2-point locking system with lock RGEE HS + RGEE HSDS



Catch-bolt for added door security, meets the specifications of ADR RGEE HSRR



Square-turnable Lock (RGEE HSES) at RGEE. Recommended for cart wash facilities



Magnet for door fixation in washing tunnel at 270° and 260° RGEE AR260U



Fold-down bow for door fixation in washing tunnel at 260° RGEE AR260



Magnet for door fixation in washing tunnel at 260° RGEE AR260V



Upper bumper for off-site transport by truck RGEE UOA



Joint and hitch KD RGEE



Swivel caster with central brake



Swivel caster with directional lock



Washing tunnel-resistant labelling as per customer specifications



# STERILE GOODS SHUTTLE-SYSTEM



STERILE GOODS LOGISTICS



RGE 9SH + EG STE 9E60  
Shuttle rack and L-slides



RGE 9SH + EG STE 9  
Shuttle rack  
+ height-adjustable wire shelves



RGE 2XISO 1SH + 2 Pieces EG ISO 1  
Shuttle rack for ISO modules  
single row



RGE ISO 2SH + 1 piece EG ISO 2  
Shuttle rack for ISO modules  
double row

## // GENERAL DESCRIPTION

- + Mechanism to accommodate shuttle racks
- + Stable guiders for 1 or 2 racks
- + Automatic, low-noise locking of transfer dolly and shuttle rack
- + Material: stainless steel, fully welded body
- + Roof completely welded, weld seam polished
- + 4 vertical push handles with reinforcement tabs
- + smooth, cuboidal interior cabinet
- + 2-point door lock, lockable
- + Wrap around polymer bumper at the bottom, 1 grounding strip, suitable for car washes

- + Doors dust-protected, doors can be swiveled through 270°
- + Internal dimensions: 1075 x 640 x 1080 mm (WxDxH)
- + External dimensions: 1301 x 721 x 1363 mm (WxDxH)

## // MOBILITY

- + 2 swivel and 2 fixed castors with double stop
- + Wheel Ø 160 mm, with sealed precision ball bearing
- + Smooth-running castors with solid rubber elastic tires
- + **Caster housing** sheet steel, galvanized and chromated

## SHUTTLE-SYSTEM: FUNCTION

### Docking of shuttle cart

With a 2-point linking mechanism the shuttle cart is easily and safely connected to the shuttle transport cart (patent: DBP DE 17 290).

### Unlinking the shuttle cart

For unlinking simply use the locking bar at the handle and swivel the shuttle cart away.

### Passing over the shuttle rack

After docking, the shuttle can be pushed in (without changing the position).

### Removing the shuttle

To get the shuttle out of the cart, the steps have to be performed in reverse order. Simply lift the locking bar again and pull the shuttle rack out until it snaps into place on the shuttle cart automatically.



Approach the cart in angular way...



...until it hits the arrester...



...and shift towards the transport cart. It snaps into place automatically.



Simply lift the locking bar...



...and push...



...until it snaps into place.



## SHUTTLE-SYSTEM: CASE CARTS FOR STERILE GOODS RGEE, STAINLESS STEEL



RGEE9SH

Case cart RGEE9SH with shuttle rack EGSTE9E60



RGEE 9SH + EG STE 9E60  
Shuttle rack and L-lides



RGEE 9SH + EG STE9  
Shuttle rack  
+ height-adjustable wire shelves



RGEE2XISO1SH + 2 Pieces EG ISO1 Shuttle rack for ISO trays, single row



RGEEISO2SH + 1 Piece EG ISO2 Shuttle rack for ISO trays, double row

### Mechanism accomodating shuttle rack

- Silent and stable elements to guide 1 or 2 shuttle racks
- Dolly and shuttle rack snap into place automatically inside the transport cart

### Casters

- 2 fixed and 2 swivel casters with double brake
- Ø 160 mm, with precision ball bearing with dustguard
- Easy roll casters with solid elastic rubber profile
- Caster housing: zinc-chromated

| CAPACITY         | DIMENSION |          |           | ORDER CODE   | MATCHING SHUTTLE RACK | MATCHING DOLLIES |                 |
|------------------|-----------|----------|-----------|--------------|-----------------------|------------------|-----------------|
|                  | WIDTH mm  | DEPTH mm | HEIGHT mm |              |                       |                  |                 |
| 2 x 3 STE        | 1026      | 721      | 1363      | RGEE2x3SH    | EGSTE3E60, EGSTE3     | UEW***STE3       | UEWL***STE3     |
| 6 STE            | 1026      | 721      | 1363      | RGEE6SH      | EGSTE6E60, EGSTE6     | UEW***STE6       | UEWL***STE6     |
| 9 STE            | 1301      | 721      | 1363      | RGEE9SH      | EGSTE9E60, EGSTE9     | UEW***STE9       | UEWL***STE9/E60 |
| 2 x 6 ISO-Trays* | 1301      | 721      | 1363      | RGEE2xISO1SH | EGISO1E60, EGISO1     | UEW***ISO1       | UEWL***ISO1     |
| 12 ISO-Trays*    | 1171      | 721      | 1363      | RGEEISO2SH   | EGISO2E60, EGISO2     | UEW***ISO2       | UEWL***ISO2     |

\*600 x 400 x 100 mm

\*\*\* Working height, depending on the wheel Ø of the transport trolley

## SHUTTLE-SYSTEM: SHUTTLE RACK, STAINLESS STEEL



### Racks made of stainless steel with wire shelves

- Material 1.4301
- Sterilize capable
- 25 mm square-profile tube construction
- Seemlessly welded
- Conductive
- Shelves height adjustable in 75 mm increments
- 4 fixed castors Ø 75 mm



| CAPACITY | DIMENSION  |          |           | ORDER CODE |
|----------|------------|----------|-----------|------------|
|          | WIDTH mm   | DEPTH mm | HEIGHT mm |            |
| 6 STE    | 650        | 600      | 1047      | EGSTE6     |
| 9 STE    | 950        | 600      | 1047      | EGSTE9     |
| 9 STE    | 970        | 600      | 1047      | EGSTE97    |
|          | on request |          |           | EG 2-Wege* |

Accessories: Compartment divider CEGSTEFT

\*for direct autoclave loading

## SHUTTLE-SYSTEM: SHUTTLE RACKS, STAINLESS STEEL



EGSTE9E60

### Shuttle racks

- Material 1.4301/ AISI 304 stainless steel
- 25 mm square-profile tube construction, seamless welded
- Locking bar dimensions in full width of rack, which allows front and side access for handling
- 4 fixed casters, Ø 75 mm, heat-resistant profile
- Autoclavable

„Highest quality workmanship!“

| CAPACITY  | DIMENSIONS |          |           | ORDER CODE |
|-----------|------------|----------|-----------|------------|
|           | WIDTH mm   | DEPTH mm | HEIGHT mm |            |
| 3 x 1 STE | 355        | 600      | 1047      | EGSTE3E60  |
| 6 x 1 STE | 685        | 600      | 1047      | EGSTE6E60  |
| 9 x 1 STE | 1015       | 600      | 1047      | EGSTE9E60  |
|           | on request |          |           | EG 2-way   |

Accessories: Grid shelves 1 STE CES60DF  
Perforated sheet metal shelves 1 STE CES60GF



EGSTE6E60



EGSTE3E60

### Shuttle rack with U-Slides, height adjustable CESU6020

- For ISO trays 400 x 600 mm or with height adjustable slides CES60T for ISO boxes 400 x 600 mm
- Optional with arrester (stop) bar and security bar



EGISO1

| CAPACITY                    | DIMENSIONS |          |           | ORDER CODE |
|-----------------------------|------------|----------|-----------|------------|
|                             | WIDTH mm   | DEPTH mm | HEIGHT mm |            |
| 6 trays<br>400 x 600 x 100  | 455        | 600      | 1047      | EGISO1     |
| 12 trays<br>400 x 600 x 100 | 885        | 600      | 1047      | EGISO2     |
| 3 boxes<br>400 x 600 x 300  | 455        | 600      | 1047      | EGISO1E60  |
| 6 boxes<br>400 x 600 x 300  | 885        | 600      | 1047      | EGISO2E60  |
|                             | on request |          |           | EG 2-way   |

Accessories: Grid shelves CES60ISODF

\*for direct autoclave loading



EGISO2



EGISO1E60



## SHUTTLE-SYSTEM: DOLLIES, STAINLESS STEEL

UEWSTE9



UEWISO1



### UEW Series

- Welded stainless steel body, 1.4301/AISI 304
- With guidance and docking mechanism to accommodate one or two shuttle racks
- The dolly is fitted with a two-point docking mechanism compatible with corresponding transport cart or platform
- Dolly can be easily uncoupled from transport cart using the ergonomically designed release mechanism built into the push handle
- Solid plastic bumpers on three sides
- 4 swivel casters, 2 with double brake, conductive solid rubber profile, Ø 125 mm, with precision ball bearing
- Autoclavable version available

| MATCHING SHUTTLE RACK     | DIMENSIONS |          |           | ORDER CODE  |
|---------------------------|------------|----------|-----------|-------------|
|                           | WIDTH mm   | DEPTH mm | HEIGHT mm |             |
| EGSTE3, EGSTE3E60         | 450        | 637      | 945       | UEW***STE3  |
| EGSTE6, EGSTE6E60         | 780        | 637      | 945       | UEW***STE6  |
| EGSTE9, EGSTE9E60, EGISO2 | 1110       | 637      | 945       | UEW***STE9  |
| EGISO1, EGSTE3, EGSTE3E60 | 550        | 637      | 945       | UEW***ISO1  |
|                           | on request |          |           | UEW***2-way |
| EGISO2                    | 980        | 637      | 945       | UEW***ISO2  |

UEWLSTE9



UEWLSTE3



### UEWL Series

- UEWL series dolly

| MATCHING SHUTTLE RACK     | DIMENSIONS |          |           | ORDER CODE  |
|---------------------------|------------|----------|-----------|-------------|
|                           | WIDTH mm   | DEPTH mm | HEIGHT mm |             |
| EGSTE3, EGSTE3E60         | 450        | 652      | 945       | UEWL***STE3 |
| EGSTE6, EGSTE6E60         | 785        | 652      | 945       | UEWL***STE6 |
| EGSTE9, EGSTE9E60,        | 1115       | 652      | 945       | UEWL***STE9 |
| EGISO1, EGSTE3, EGSTE3E60 | 550        | 652      | 945       | UEWL***ISO1 |
| EGISO2                    | 981        | 652      | 945       | UEWL***ISO2 |

\*\*\* Construction height depends on wheel Ø of the transport cart

## SHUTTLE-SYSTEM: PLATFORMS, STAINLESS STEEL



### Platforms

- Welded stainless steel body, 1.4301/AISI 304
- With a guidance and anchoring mechanism to accommodate one or two shuttle racks
- With docking mechanism for linking to corresponding dolly
- Front and rear bumpers
- Four conductive height-adjustable feet



Platform **9STE** for 2-way system with valance

| MATCHING SHUTTLE RACK | DIMENSIONS |          |           | ORDER CODE  |
|-----------------------|------------|----------|-----------|-------------|
|                       | WIDTH mm   | DEPTH mm | HEIGHT mm |             |
| EGSTE3, EGSTE3E60     | 500        | 667      | 308       | PF***STE3   |
| EGSTE3, EGSTE3E60     | 895        | 667      | 308       | PF***2XSTE3 |
| EGSTE6, EGSTE6E60     | 840        | 667      | 308       | PF***STE6   |
| EGSTE9, EGSTE9E60     | 1170       | 667      | 308       | PF***STE9   |
| EGISO1                | 630        | 667      | 308       | PF***ISO1   |
| EGISO1                | 1176       | 667      | 308       | PF***2XISO1 |
| EGISO2                | 1055       | 667      | 308       | PF***ISO2   |
|                       | on request |          |           | PF***2-Wege |

\*\*\* Construction height depends on caster Ø of the transport cart

## SHUTTLE-SYSTEM: TRANSFER BARRIER CLEAN - UNCLEAN

### Transfer barrier clean – unclean

- Stainless steel 1.4301
- For spatial separation of clean and unclean sections



Transfer barrier



Pass-through cabinet unloading shuttle rack



Pass over window

## SHUTTLE-SYSTEM: DOCKING STATION FOR STERILIZERS

### Docking station for sterilizers

- Stainless steel 1.4301
- For passing over 2-way shuttles from dolly to sterilizer



Sterilizer



Docking a transfer trolley on the sterilizer



Feeding a two-way shuttle rack into the sterilizer

## CUSTOMIZED SOLUTIONS

Case carts RGEE and RGAE, stainless steel



Hammerlit AWT containers



... with all-wheel steering for optimum control



... with all-wheel steering and maneuvering casters



To retain Da Vinci-OT-Robot equipment

### // YOUR BENEFITS

- + Solutions individually tailored to your own wishes
- + Consultancy and optimization based on experience

*„Manufactured in accordance with your specifications! It may be right for many purposes, but not for every one. That's why we also offer you individual solutions if required.“*



Individual inscriptions applied by the glass bead process



AWT containers with inner doors



Sterile goods store with elements of Hammerlit Shuttle systems



Shuttle rack and perforated shelf



AWT containers



AWT containers with universal wire mesh shelves



RGEE9FB with wire shelves





## CUSTOMIZED SOLUTIONS

### Carts for Automated Guided Vehicle Systems (AWT, AGV, EHB)

Hammerlit is your ideal partner if you are looking for transport carts for Automated Guided Vehicle systems (AGV systems). Whatever the application – whether transport of sterile goods, laundry or waste, ISO-Trays or special containers – we offer customized AGV-compatible solutions.



AGV transport cart is collected automatically



AGV transport cart during assembly at the central store in combination with the Hammerlit-Shuttle-System. Pictures taken at the university hospital in Leipzig, Germany



Outgoing goods in the sterilization center



AGV transport units are routed automatically to their destination



AGV shuttle unit in consignment



AGV shuttle unit during distribution at the ward

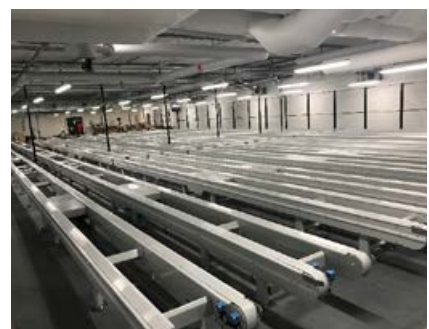
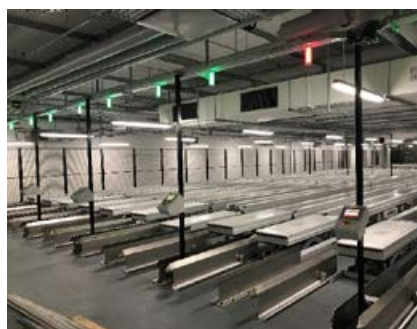


## IMPLEMENTED CUSTOMER PROJECTS / PROJECT SOLUTIONS (EXAMPLE COPENHAGEN)

Case Cart RGEE, Stainless Steel



*„Manufactured in accordance with your specifications! It may be right for many purposes, but not for every one. That’s why we also offer you individual solutions if required“*



## Fully automated sterilization centers guarantee product quality

The reprocessing of surgical instruments from twelve hospitals in Denmark Copenhagen's capital region will be carried out from now on by two new CSSD\*-facilities. Located next to the Rigshospitalet and the Herlev Hospital in Copenhagen. In close collaboration with the consulting company NIRAS, Hammerlit was one of the key suppliers for this project. The target was to rationalize the work flow with the help of robots, automated storage systems, automatic transport systems and IT-Systems.

The supply of the Hammerlit Shuttle System, made of stainless steel, consisting of closed transport trolleys, slide-in racks (shuttle racks), transfer trolleys and platforms, is an important building block of the entire CSSD-Project. For Hammerlit, it became one of the largest projects in the company's history.



Hammerlit won the European tender with the title: "Design, function test and delivery of transport trolleys for sterile products for transport between hospitals and central sterile supply central in the Capitol Region of Denmark". After the production of prototypes, the design of the Shuttle System was finally approved in August 2017, after which production began. The new CSSD building at Rigshospitalet was completed in summer 2020.. The completion of the CSSD building next to Herlev Hospital was followed in summer 2021. The Copenhagen Project is characterized by a fully automated logistic concept with robots, automated guided vehicles (AGV), horizontal and vertical conveyor systems as

well as automated storage units. The concept includes the automation of practically all physically demanding and repetitive work processes. Where employees elsewhere carry sterile containers, robots take over this task here.

## Robots at work

The two shuttle racks in the closed transport trolleys of the Hammerlit Shuttle System have slides for standardized plastic boards, which can accommodate both sterile DIN STU containers as ISO trays, which can be used in such a way as a mobile transportation cart. Loading and unloading of the boards are done by robots. Transport trolleys, adapted to the demanding geometrical requirements of the automatic conveyor technology and the loading and unloading robots, are cleaned in fully automatic washing facilities, together with the racks inside.

After the automated loading, the transport trolleys are forwarded by conveyor belts to the loading dock for external transport to other hospitals or for internal transport connected as a train formation. At point of delivery (e.g. operation rooms), the complete shuttle rack with sterile goods containers is removed. Platforms enable the temporary storage of racks, if necessary.

