

Recommendations by the Committee for Hygiene, Construction and Technology

# Requirements for construction or reconstruction of a Reprocessing Unit for Medical Devices (RUMED)

## Part 5 – Room furnishings and equipment for a RUMED: One-room solution

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### I Introduction

Part 5 of the publication "Requirements for construction or reconstruction of a Reprocessing Unit for Medical Devices (RUMED)" focuses on equipping and furnishing the RUMED – one-room solution – and is a continuation of Parts 1, 2 and 3 of this series of publications. Based on experiences from everyday practice, it summarizes and characterizes by way of example the limited number of rather unspecific provisions given in the pertinent recommendations/guidelines/standards on furnishing and equipping a RUMED.

No information is provided on fire protection, structural physics, structural engineering or the various utility installations (e.g. gas, water and electricity connections, etc.) The "RUMED one-room solution" concept gives details of how to equip and furnish a RUMED in medical institutions which reprocess a limited number and type of medical devices.

Note: The floor plans are not a planning template but rather give an example of a "one-room solution".

*RUMED – one-room solution  
Planning aids for equipment*

*General requirements*

### I Basic requirements

#### *Structural aspects*

- General requirements
  - Surfaces
    - Resistant to detergents and disinfectants
    - Accessible for cleaning and disinfection
  - Transport trolley wheels – resistant to detergents and disinfectants
  - Cabinets with veneer finish to the ceiling
  - Cabinets/drawers dustproof (for closed storage)
  - Doors, possibly with automatic drive
  - Shut-off devices for media supply (nearby)
  - Non-opening windows, make provision for ventilation or supply/exhaust air of interior rooms
- Wall surfaces/floors/surfaces/joints
  - If possible, smooth and even
  - R10 anti-slip treatment for floors in the cleaning/disinfection area (ASR A1.5/1,2); following risk assessment R9 may be suitable
  - Few joints
  - Joint sealing
  - Chamfered skirting board
  - Ramming protection (height tailored to transport trolleys)
  - Accessible for cleaning/disinfection
  - Easy to clean/disinfect

*Room equipment – observe details*

- Resistant to
  - Detergents and disinfectants and other chemicals used in the relevant areas (written evidence of material compatibility)
  - Humidity/heat
  - Mechanical stress tailored to use
- Wall/ceiling paint and coating tailored to expected use
  - Wet abrasion resistance
    - ♦ As per standards and technical regulations
- Lighting (ASR A3.4 lighting)
  - Workstation 1000 lx
- Cables concealed or enclosed in ductwork; outer surface amenable to wet disinfection
- Ductwork and shafts with close-fitting access openings
- Avoid condensate formation (appropriate insulation)
- For new projects and reconstruction close cooperation with the infection control team
- If necessary, position dosing equipment such that contamination from pathogenic liquids from the outlet is prevented
- All furnishings must be installed such that escape routes are not impeded

#### *Changing rooms*

- Outside the RUMED one-room solution

#### *Staff recreation rooms*

- Outside the RUMED one-room solution

### *Hygiene requirements*

#### *Hand washing facilities*

- In the entrance area, before the cleaning/disinfection area
- Non-touch fittings
- Hot/cold water
- Disposable towels from dispensers
- Dispensers for wash lotion
- Facility for skin-protection and skin-care products

#### *Hygienic hand disinfection*

- Hand disinfectant dispensers installed in the packing area and at the entrance/exit

#### *Departmental clothing (only in the department, if necessary worn outside the RUMED)*

### *Departmental clothing*

- Based on establishment's risk assessment
  - Closed storage facilities for departmental clothing (cabinet or enclosed in packaging on a shelf)
  - Shoes on racks or shelves

### *Personal protective equipment*

#### *Personal protective equipment (PPE)*

- Storage facilities for clean PPE
- Contamination-proof automatic door drive
- Disposable gloves (in original box) on wall-mounted fittings
- Facility for depositing used PPE
- Possibly, storage facility for reusable, waterproof gowns that are not visibly contaminated (specify in infection control policy)

### *Documentation*

#### *Documentation*

- Preferably IT-based
  - Preferably wall-mounted facilities (free worktops)
- Alternatively, manual documentation

#### *IT hardware*

- Enclosed IT components, including cabling

- Wireless IT accessories (e.g. scanner, printers)
- Surfaces amenable to wipe disinfection

## I Room furnishings and equipment

### *Access and incoming zone*

- If possible, automatic door drive
- Handwashing facility, possibly with splash guard
- Cabinet/shelf for PPE
- Space for storage of deliveries at ergonomic height
- Wall dispensers for hand disinfectant
- Wall-mounted facility for gloves (in original box)
- Waste containers with non-touch lid

### *Cleaning and disinfection area*

- Worktop for sorting and preparations
- Worktops, if necessary with elevation/overflow edge
- Manual cleaning and disinfection zone, if necessary (see "Guideline for validation of manual cleaning and manual chemical disinfection of medical devices", Annex 2, for example of worktables see Page 17).
  - The fittings must be tailored to the order in which procedural steps are executed (process-oriented)
- Only for precleaning/subsequent cleaning
- Or for manual cleaning and disinfection, incl. rinsing/drying
- Possibly, splash guard between the adjacent packing zone
- Ultrasonic cleaning (flush-mounted or tabletop device with temperature display and lid, with preferably non-touch operation)
- Possibly, magnifying lamp suitable for wet rooms
- Possibly, dosing equipment for surface/instrument disinfectants
- Space for depositing and storing work materials
- Possibly, water pistol (amenable to automated reprocessing) for precleaning
- In case of manual reprocessing – water pistol for final rinse after disinfection, demineralized water with sterile filter
- Storage space/shelf for
  - Loading trolley/racks (standard/MIS/anaesthesia, etc.) as needed
  - Accessories for loading the WDs (e.g. for special MDs, small-items baskets, etc.)
- WD (heat-resistant MDs)/EWD (endoscopes) as per standard
- Loading zone for washer/disinfectors (WDs)
  - Loading trolleys/racks
  - Access for servicing/repairs

### *Packing area (clean)*

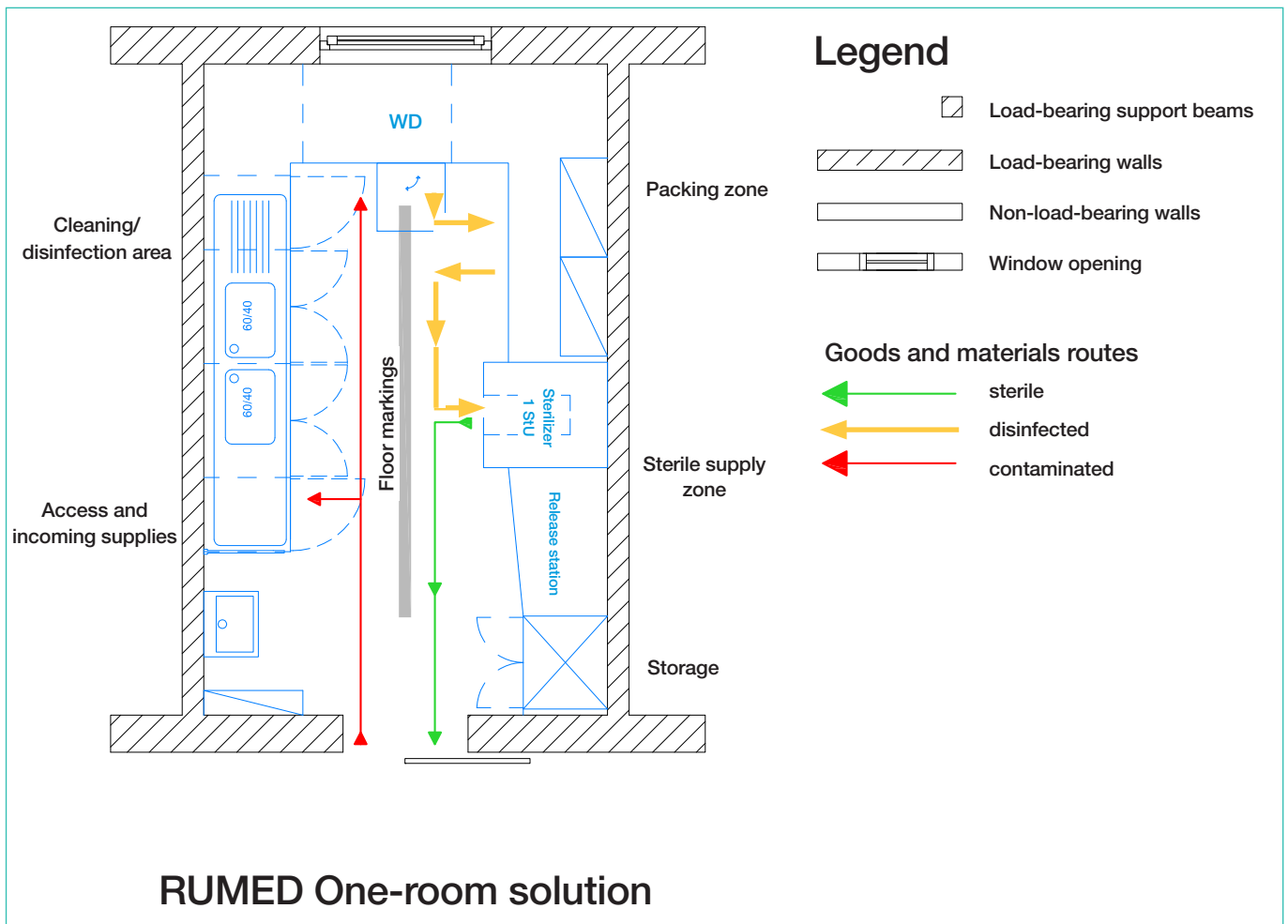
- Unloading WDs
  - Withdrawal of MDs
  - Storage area for reprocessed MDs
  - Release/documentation of reprocessed MDs
    - Possibly, scanner
- Packing zone
  - Hand disinfectant dispenser – no dripping/splashing at packing workstation
  - Work tables
    - Anti-glare work surfaces
    - Possibly, IT facilities
    - Possibly, facilities for standing/sitting
    - Chamfered base cabinet to floor/or ground clearance of at least 30 cm
    - Enough sockets

### *Room furnishings and equipment*

### *Manual reprocessing required?*

### *Avoid recontamination*

### *Packaging concept*



- Magnifying lamp 500 lux, ASR A3.4 Workplace Regulation
- Possibly, compressed air pistol (medical compressed air) amenable to automated reprocessing
- Possibly, equipment/materials for functional testing of MDs as per the manufacturer's instructions
- Racks for soft packaging
  - Reels, pouches, sheets
- Heat sealer as per standard
- Closed storage facilities for accessories (maintenance/assembly/consumables/packaging)
  - Zone for loading sterilizer
    - Space for depositing packed MDs before sterilization

#### *Sterilizer*

#### *Sterilizer*

- Sterilizer as per standard
  - For packed supplies
  - If necessary, for non-packed supplies (only semi-critical A MDs)
- Loading racks
- Access for servicing/repairs

***Sterile supplies area***

- Place for cooling down
- Sterile supply release station
- If possible, with IT facilities

***Sterile supply storage***

- Storage cabinet, dustproof
- Possibly, cabinet system for handing out supplies, with mutual inter-locking system, dustproof

***Storage***

*Optional areas not featured in the drawing will be addressed in the next report on technical prerequisites*

**I RUMED Drawing – One-room solution**

Organizational separation of zones

*References please see p. 392*