

Recommendations by the Quality Task Group (58): Requirements for Construction or Conversion of a Hospital Central Sterile Supply Department Part 3 – Technical and Functional Fittings and their Installation

Part 3 of the recommendations on the topic of "Requirements for Construction or Conversion of a Hospital Central Sterile Supply Department", describes the technical and functional fittings and their installation.

Cooperation between all parties concerned is absolutely indispensable. This calls for agreement to be reached between the proprietor/operator, Central Sterile Supply Department (CSSD) management, infection control team, architect/medical technology engineer and the competent authorities.

Below we refer to the schematic layout used in part 2 of these recommendations (published in *Central Service* 6/2007).

Aim

- Process-quality assurance
- Functional capabilities and ergonomics
- Ensuring all surfaces are amenable to cleaning/disinfection
- Material compatibility of surfaces according to use
 - Disinfectants and detergents
 - Heat
 - Solvents
 - etc.
- Use of designs with no, or few, joints
- Protection against insects
- No spread of microorganisms from the unclean to the clean area
- Compliance with general requirements for hospital construction and with the recommendations of the Robert Koch Institute (RKI) in the annexes to Subpara. 4.4.1 (1980), 4.5.4, 4.5.5 (1987), 4.5.2 (1988)

Only special requirements are described.

Basic requirements for fittings and their installation

Sanitary fittings:

- Preference should be given to wall fittings; washbasins should have no overflows and the water jet should not be directed straight into the siphon
- Fittings should preferably be designed such that in the event of sterile filters being incorporated there will be enough space left over for utilisation purposes
- Washbasin facility (for hands) pursuant to the German Technical Regulation TRBA 250, with additionally a mirror
- Exchangeable tubing material

Wall dispenser for hand disinfection/washing: Hands-free operation

Floors:

- Floors should come into contact with the walls, using concave moulding of at least 10 cm in height
- Concave moulding for fitted installations
- Few joints, any joints present because of the manufacturing design must be closed
- Flat/even floors with more stringent requirements addressed to evenness tolerance in the vicinity of equipment

Walls:

- Smooth surfaces
- If necessary, skirting protection

Ceiling:

- Even surfaces
- Smooth, few joints
- Fibre-free insulation materials for the ceiling area

Doors:

- Smooth surfaces
- Door-closing mechanism between the different areas
- All outer doors fitted with mechanisms regulating access

Windows: Must not permit opening

Lighting: Enclosed illumination element

Air vents: Washable covers (includ. on equipment), which should be easy to remove and, ideally, machine washable

IT fittings:

- Fan-free IT fittings
- It must be possible to disinfect operating elements (e.g. keyboards/mouse)

Cabinets, fitted designs:

- With connection panel on all sides to ceiling/floor/equipment
- Doors fitted with seals throughout
- Modular design

Loading, unloading and service zones: Provide enough surface space

Fittings and their installation in the different areas

Staff sluice:

- *Outer staff sluice:* Locker and/or safe for valuables, with shoe storage, washbasin facility, disposal facility for laundry, waste and shoes (from the clean area)
- *Inner staff sluice:* Cabinets for department clothing, storage facility for shoes which does not come into contact with the ground, mirror, wall dispensers for hand disinfectants
- *Unclean staff sluice:* Disposal facility for laundry, waste and shoes (from the unclean area), wall dispensers for hand disinfectants
- *Unclean gown sluice:* Shelf for protective clothing and shoes, mirror, wall dispensers for hand disinfectants, disposal facility for protective clothing and shoes
- *Clean gown sluice:* Wall dispensers for hand disinfectants, provision for assuring compliance with OR personal hygiene requirements

Toilets: No special requirements

Office: Usual fittings with sufficient space for documentation, communication technology, partitions to outer area

Recreation room: Usual fittings (no food preparation) and wall dispensers for hand disinfectants

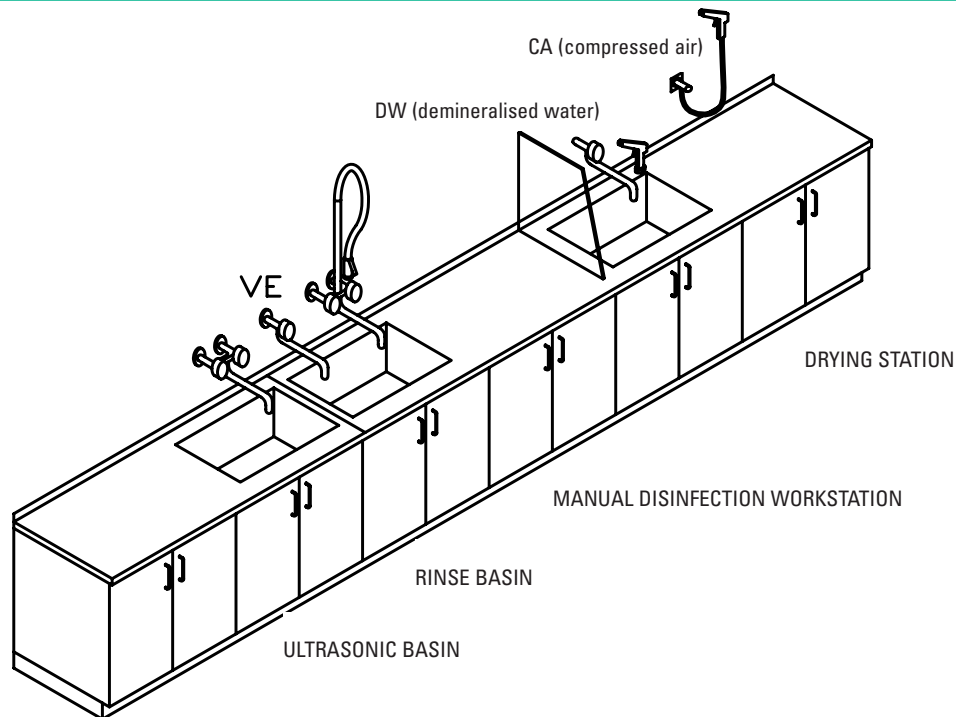
Unclean incoming goods' zone: Sufficient storage space for incoming supplies, wall dispensers for hand disinfectants, documentation workstation, communication facilities (e.g. bell, telephone)

Unclean area:

- Washbasin facility
- Stainless-steel work surface for sorting materials
- Documentation workstation for recording supplies to be reprocessed
- Workstation for manual precleaning/manual reprocessing see "Model setup"
 - Sufficient storage surfaces
 - Basin for precleaning
 - Ultrasonic basin with lid and temperature display, cold water or demineralised water
 - Rinse facility before washer-disinfector (WD) with, if needed, boom shower head / water pistol, cold water and demineralised water, compressed air pistol (compressed air of respiratory air quality)
 - Storage space for protective gloves,
 - Wall dispensers for hand disinfectants
- For manual reprocessing
 - Disinfection bath/basin, cold water or demineralised water
 - Clean washbasin, demineralised water, demineralised- water pistol, separated by means of spray-protection wall
 - Possibly ultrasonic basin
- If a steam pressure cleaner is to be fitted, an isolated workstation with an extractor hood is needed
- Drying workstation, compressed air of respiratory air quality, if necessary with a drying cabinet designed as a load-through cabinet
- Waste containers, container for used pointed and sharp items
- Storage space for loading trolleys/transport trolleys and other accessories needed for WD operation
- Storage space for chemicals
- Storage space for consumables and personal protective gear
- First aid fittings
- Floor in line with occupational safety requirements

WD-related equipment:

- Return of loading trolleys to WD
- Handover of manually reprocessed supplies from the unclean to the clean area



EXAMPLE OF AN UNCLEAN MODEL SETUP
(THIS CAN BE REDUCED DEPENDING ON THE NUMBER OF SUPPLIES TO BE STERILISED)

- Return facility for supplies harbouring residues from the clean to the unclean area
- Service access from the unclean side
- Operating elements on the unclean side
- Readout of process parameters for release on the clean side

Clean area:

- Wall dispensers for hand disinfection (number will depend on size of area)
- Storage space for loading trolleys/transport trolleys for WD and sterilisers
- Documentation workstation for release after decontamination
- Sufficient space for intermediate storage of decontaminated supplies
- Ergonomically designed, glare-free workstations, with sufficient storage space
- Magnifying lamps with magnification factor as required
- Stands
- Sufficient workstation lighting
- Ergonomically designed workstation for packing sealable materials using heat sealing machines
- Roller with cutting mechanism as well as storage surfaces for preformed sterile supply barrier systems
- Generation of packing lists (paper or computer-generated)
- Devices (labels' printer/tongs, etc) for designation of packed sterile supplies
- Compressed air and air-motor connections
- Sufficient number of transport trolleys
- Waste containers
- Storage system for spare instruments
- Storage system for consumables
- Workstation for batch assembly for sterilisation

Steriliser-related equipment:

- Return of loading trolleys
- Return facility for non-released sterile supplies
- Service access from the loading side
- Readout of process parameters for release on the removal side

Wash facility for containers/trolleys:

- Preferably, automated container / trolley washing facility
- Heat-resistant floor (e.g. tiles)

Manual reprocessing: decentralised dosage device for surface disinfection, hand disinfectant dispensers, tiled walls

Sterilisers' unloading and cooling-down zone:

- Wall dispensers for hand disinfection
- Space for unloading and cooling-down sterile supplies, documentation workstation for release of supplies after sterilisation
- Handout and distribution of sterile supplies

Sterile supplies storeroom/commissioning:

- Wall dispensers for hand disinfection
- Space for reprocessed transport trolleys
- Storage space for sterile supplies
- Space for commissioning

Clean cleaning materials' room:

- Wall dispensers for hand disinfection
- Storage space for cleaning trolleys
- Storage space for cleaning detergents
- Drain
- Decentralised dosage device for surface disinfection

Unclean cleaning materials' room:

- Wall dispensers for hand disinfection
- Storage space for cleaning trolleys
- Drain
- Decentralised dosage device for surface disinfection

Waste disposal:

- Collection of waste/laundry
- Collection of cleaning utensils

Central dosage:

- Storage space for chemicals for WD and trolley / container cleaning facilities
- Central dosage facility
- Floor-level basin
- Sufficient surface area for transportation of containers
- Floor and wall tiles
- Eye irrigation facility, first aid fittings
- Storage space for personal protective gear

Materials' sluice:

- Incoming goods' zone
- Consumables' store

The forthcoming publication in this series will focus on the different media required.

