

BECKER Fitted Furnishings for Hospitals and Clinics

Cabinet systems made of steel and stainless steel Certified in accordance with DIN EN ISO 9001

INFORMATION





Becker Steel Furniture

Becker steel furniture items are assembled from single components and are thus especially well protected against corrosion. The construction, form, manufacture and coating of all components have been carried out with heavy duty use and a long service life in mind.

We supply this furniture in double-walled cabinet versions with attached fronts. All corners of the front elements have been carefully welded and ground. The doors, drawer panels and movable fronts are all furnished with continuous rubber seals.

Model series - B -

Made of highest-quality steel which has been galvanized, phosphated and chromated in an electrolytic process. As the finishing touch, an impact-resistant and scratch-resistant melted-on plastic coating has been applied to all surfaces.

This plastic coating satisfies the stringent requirements for use in hospitals. It displays excellent elasticity paired with high surface hardness. Its chemical composition makes it fungistatic, easy to clean, and resistant to commonly used disinfectant solutions. Becker furnishings are custom made and the colouring (Becker colour list) is selected together with the customer.

Model series - V -

Made of chromium-nickel steel, material no. AISI 304 (1.4301).

Chromium-nickel steel is one of the highest-quality and enduring materials known. In addition to being extremely resilient and hygienic, it is stainless, corrosion-resistant as well as anti-magnetic. The surfaces are polished to grain size 320.

Combination of model series - B - and - V -

Model series – M –	Model series – B – cabinet body, front from model series – V –	
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Model series – N – Model series – V – cabinet body, front from model series – B –



General Information on Cabinet Types

Base cabinets

Sturdy, self-supporting cabinet body. 1-part inner body (up to 1200 x 670 mm/WxD). Double-walled and resonance-damped side walls and floors. Material thickness: 1.00 mm.

High cabinets

Sturdy self-supporting multi-part cabinet body. Double-walled and resonance-damped side walls, floor and ceiling. Material thickness: 1.00 mm.

Wall cabinets and top cabinets

Sturdy, self-supporting cabinet body. 1-part inner body (up to 1200 x 670 mm/WxD). Double-walled and resonance-damped side walls, floor and ceiling. Material thickness: 1.00 mm.

Detailed Information on Components

Side panels, floors and ceilings

Double-walled and resonance-damped. Material thickness: 1 mm. Special-purpose cabinets may be reinforced if required by their size and expected heavy duty use.

Rear panels

Usually of single-walled construction. Delivery is also possible in double-walled version or with attractive rear panel attached with concealed fasteners. Material thickness: 1.00 mm. Special-purpose cabinets may be reinforced if required by their size and expected heavy duty usage.

Base

Sturdy continuous folded-over base frame as an assembly base or finished base for each cabinet, 100 mm high as standard, with integrated levelling fixture, adjustment range: + 25 mm, material thickness: 1.25 mm or 1.5 mm. Base premounting optional. Assembly bases are furnished with system base panels. Material thickness: 1.00 mm. Traversable cabinets are furnished with a movable base-panel.

The meticulous multiple folded edges afford ideal protection for the floor coverings. This is especially important during assembly work.

Fitting and adjustment panels

Made-to-measure as distance panels, ceiling panels or other types of adjustment panels. Usually flush with the cabinet body. Flush with the cabinet front is also possible. Material thickness. 1.00 mm.

Rear panel cladding

Available in powder-coated sheet steel or chromium-nickel steel. Pre-fitted and with resonance damping; can be supplied with pre-drilled holes and cut-outs as required. Sheet steel panel (powder-coated) for use with magnetic accessories.

Swinging, folding and pullout doors

Double-walled, resonance-damped, attached doors with continuous rubber seals (EPDM sealing profile). Material thickness: 1.00 mm.

Swinging and folding doors with self-holding feature. Maintenance-free, precision wide-angle hinges, adjustable in 2 dimensions, max. opening angle: 270°. With this hinge the cabinet (including the hinge area) is already fully accessible when the door is opened by 90°. This permits unimpeded insertion of modules or fitting of telescopic full extension drawer runners at any height. Doors up to 900 mm in height come with two hinges per doorleaf as standard; taller doors come with three or four hinges per leaf. Special-purpose doors can be furnished with additional hinges if necessary. Doors fitted with framed glass are available.

Sliding doors

Double-walled and resonance-damped steel sliding doors (material thickness: 1.00 mm) moving freely in sturdy, low-noise guide rails. Additionally guided on the cabinet floor. The cabinet floor remains smooth and easy to clean. Profile strips fitted to the side of the cabinet serve as door stops, cover the crack between the doors, and prevent the sliding doors from being pressed inward when closed.

Glass sliding doors are mounted in a protective aluminium profile with two nylon castors on the underside. The doors run in an aluminium rail and are guided on the cabinet ceiling. Sliding doors run sideways in concealed panels.

Drawers and modular drawer frames

Steel drawers with double-walled, resonance-damped attached panels, continuous rubber seals (EPDM sealing profile). Material thickness: 1.00 mm. Drawer floor, side panels and rear panel made in one piece. Drawers run smoothly on precision telescopic full-extension runners with end self-retracting mechanism (end retraction; optional soft-close function). Safety stops protect the drawers against being pulled out all the way. See interior fittings for suitable drawer divider systems.

Modular drawer frame without bottom; handhold recesses to facilitate removal of module.

Н	eight of nar	nels in	basic grid (50	l mml	
	50 mm	=	drawer tray	Size	1
	75 mm		drawer	Size	1,5
	100 mm	=	drawer	Size	2
	150 mm	=	drawer	Size	3
	200 mm	=	drawer	Size	4
	250 mm	=	drawer	Size	5
	300 mm	=	drawer	Size	6
	350 mm	=	drawer	Size	7

Handles & recessed grips

- bow-shaped handles: made of chromium-nickel steel AISI 304, brushed.
- plastic recessed grips: easy-to-clean smooth surface.
- ground recessed grips for glass sliding doors.
- other handles (including powder-coated handles) available.

Locks

Lock options for doors and steel sliding doors:

- front-aligned cylinder lock on existing handle.
- rotary rod lock (2-point locking) with a handy lockable rotary olive instead of a handle.
- locking systems tailored to customer's specifications.

Possible lock for glass sliding doors (closes both sliding doors):

center-mounted pressure cylinder lock.

Lock options for drawers:

- front-aligned cylinder lock (for single drawers).
- central lock (for several drawers).
 For this option the lock is built into the middle of a fixed 50-mm-high panel above drawers. Actual locking is carried out on the rear side of the drawer body.

Worktops

Chromium-nickel steel

Material no. AISI 304 (1.4301). Surface polished to about grain 320 (matte finish). Material thickness: approx. 1.25 mm, 40 mm thick, made-to-measure, can be delivered in one piece up to 3800 mm. Front edge designed as a drip nose with an 80-mm-wide CNS sheet metal strip underneath, closed on the side with folded profiles. The special grade of pressboard used as the carrier material is extremely waterproof and highly resistant to disinfectant agents. Can also be supplied with full CNS lining of the bottom surface. Available as a smooth worktop or with a continuous profile, with welded-in sinks and drilled apertures for fixtures. Delivery options include profiled folded-up edges and wall connections. Utility sinks with or without ring flushing.

Mineral material

- CORIAN: made of natural material bound with acrylic, supporting construction made of wood-based material, hygienic, poreless, largely resistant to chemicals, approx. 40 mm thick, made-to-measure. Smooth, deep grinding or with overflow edge, sinks installed without joints using adhesive, wall connections with attached or moulded-on backsplashes. Utility sinks with or without ring flushing.
- VARICOR: made of high-quality natural minerals and resins, polymer bound, supporting structure made of wood-based material, hygienic, poreless, largely resistant to chemicals, approx. 40 mm thick, made-to-measure. Smooth, deep grinding or with overflow edge, sinks installed without joints using adhesive, wall connections with attached or moulded-on backsplashes. Utility sinks with or without ring flushing.
- PLEXICOR and other materials available upon request.

The colouring is selected together with the customer.

High-pressure laminated (HPL) materials

- postforming: pressboard carrier medium covered with an 0.8-mm-thick layer of laminated decorative material (e.g. Duropal or Formica), approx. 40 mm thick, made-to-measure. Single lengths of up to approx. 4000 mm can be supplied. Rounded top edge on the front. Can be supplied with rounded bottom edge, attached or moulded-on upstands. Built-in sinks mainly of chromium-nickel steel, apertures can be drilled for fixtures. Underside and out-of-sight edges covered with foil (laminated material also possible).
- ABS edge: pressboard carrier medium covered with laminated decorative material, 30 or 40 mm thick, made-to-measure. Single lengths of up to approx. 4000 mm can be supplied. Wall connections and built-in sinks (mainly of chromium-nickel steel) can be supplied.

The colouring is selected together with the customer. Standard colour décors in line with Becker colour list.

HPL solid core material

e.g. TRESPA. Made of thermo hardening resins, manufactured homogeneously with cellulose fibres at high pressure and temperatures, with an integrated surface of melamine-impregnated paper, moisture-resistant, largely resistant to chemicals, can be supplied with drilled apertures and built-in sinks (mainly of chromium-nickel steel). Available in different thicknesses and with double thicknesses in edge areas.

Other materials

e.g. stoneware, Cristalite and other materials available.

Equipment and System Accessories

Hygiene station "Hygienepaneel"

Ready-to-install and space-saving panel (tiled wall surface is not required) with fresh-water and waste-water fittings and a dosing device to mix disinfectant solutions. Choice of various (manual/touchless) detergent / disinfectant dispensers. Other accessories are also available. Separation from the public water mains in accordance with DIN1988 part 4 (TRWI)/EN 1717 is ensured.

Dosing device

Microprocessor-controlled device for automatic, precise mixing of concentrates and water to produce ready-to-use detergent and surface-disinfectant solutions. Various models available, depending on installation and design requirements (hygiene station / under-counter / wall-mounting). In cleaning-table systems (surgical instrument preparation), optimum location in the base cabinet; accessed by a special tap on the work-top and operating elements on the front panel.

Ultrasonic cleaner

Generator with oscillating tank integrated into the work-top and base cabinet; operating element built into the basin panels of the base cabinet. Perforated wire tray, drain set and draw-button valve. Different models and tank sizes can be supplied.

Steamer

Device for cleaning with constant hot-water steam supply, optionally delivered with pump and connection to the customer's media supply. Integrated into the base cabinet, with on-off switch in the basin panels of the base cabinet and integrated ready-to-use hand-tool on the table top. Direct connection of hollow instruments possible. Various designs can be supplied.

Pressure-boosting pump

For ring flushing of the sink by means of a storage tank following system separation (in conformance with DIN 1988/DVGW). Normal program with a cleaning volume of 6 I. Short cleaning program and disinfectant programs are options. Pump integrated into the base cabinet. Operating element in the cabinet front.

Sink with plaster trap

Integrated clarification sink system with splash protection and settling basin for sinks in base cabinets – available in several models.

Fittings and cleaning guns

- Compressed air or water jet guns also suitable for autoclave treatment with different nozzle adapters, PVC or metal hose, can be connected above or below the table.
- Hospital fittings, sink basin fittings, one-hand hot & cold water faucets, dishwashing spray heads, thermostat-controlled hot & cold faucets, and laboratory stand pipes available from several manufacturers.
- Special valves and fittings for chemicals (detergents and disinfectants).

Splash-shields

Made of transparent and detergent-resistant material.

- at the sides, to separate unclean and clean sections.
- above the work-top (also height-adjustable), for user protection.

Sealing

Durable single-component silicone sealing compound for sealing wall, floor and ceiling joints; odourless after curing, physiologically harmless and neutral.

Mounted and built-in appliances

Refrigerators & freezers

- Integrated refrigerators (household refrigerators) to be fitted under worktops with automatic defrosting feature, freezer compartment optional.
- Medication refrigerators and medication freezers (DIN 58345 Refrigerators for drugs):
 - <u>integrated models:</u> in various sizes and versions; lockable, with evaporation of defrost water or removable defrost water tank, alarm systems, digital temperature display, port for electronic data processing connection on some models, integrated into base and high cabinets including panels; mostly furnished with door-on-door system.
 - <u>stand-alone models</u>: come in various sizes and versions, lockable, with evaporation of defrost water or removable defrost water tank, alarm systems, digital temperature display, port for electronic data processing connection in some models.
- blood bank refrigerators (DIN 58371/DIN 58375), special-purpose refrigerators or stand-alone models can be supplied upon request.

Safes

Narcotics safes / medicine safes (for cabinet system integration) for storing opiates in accordance with German Federal Institute for Drugs and Medical Devices regulation (BfArM) 4114 - K:

- for the average day's requirement of a partial unit in line with safety level VDMA 24992 B.
- for hospital wards/partial units and doctor's practices in line with resistance grade 0 EN 1143-1.
- for hospital pharmacies and public pharmacies in line with resistance grade 1 EN 1143-1.

Warming cabinets & warming drawer

For heating surgical drapes and infusions. Depending on the cabinet size and the volume to be heated, warming units with 400 watt, 800 watt or 1200 watt are used. Conform to EU Directives 89/336/EEC and 72/23/EEC with CE marking.

Light strips

Glare-free and splash-water-protected aluminium lighting system – precisely matched and adapted to wall cabinet grid. With cover hood and cable duct (designed to match cabinet material and cabinet body colour) and with electronic ballast. Can be operated via integrated switch or light switch supplied on-site by the customer. Also available with fluorescent cold-tone lamp or LED lamp.

Ladder frames / ladders

Ladder frames for attaching or suspending ladders, integrated between the high cabinets and the top cabinets. Normally flush with the cabinet body; flush with cabinet front also available.

Frame in cabinet design (Material thickness: 1.25 mm) with pipe of chromium-nickel steel AISI 304 (1.4301). Frame height: 100 mm for simple ladder, 150 mm for travelling ladder. Other frame heights can be provided after clarification of technical details.

Normally provided with a separate parking position for the ladder.

Ladder construction: aluminium, available as simple or travelling ladder. Made in conformance with BGV D 36 and DIN EN 131. GS-tested.

Interior fittings

Grid ledges

Attached slit ledges with 25 mm grid to accommodate height-adjustable shelves and accessories. Shelf supports of chromium-nickel steel, material no. AISI 304 (1.4301), with rubber buffering.

Shelves

- Steel shelves, coated, 20 mm thick, material thickness: 1.00 mm, available in single-walled or double-walled versions.
- Shelves of chromium-nickel steel, material AISI 304 (1.4301), 20 mm thick, material thickness: 1.00 mm, available in single-walled or double-walled versions.
- Glass shelves with ground edges, raw glass (thickness: 7 mm) or float glass (thickness: 8 mm) can be supplied.
- Shelves of HPL material, 19 mm thick, a 4-sided ABS edge or totally round edge (on the front) with a 3-sided ABS edge can be supplied.
- Shelves of solid core materials, e.g. Trespa, 8 mm or 12 mm thick, other thicknesses available upon request.

Drawer shelves (interior drawers)

With moulded-on handle made out of one piece. Powder-coated sheet steel or chromium-nickel steel. Drawers run smoothly on precision telescopic full-extension runners with end self-retracting mechanism (end retraction; optional soft-close function). Safety stops protect the drawers against being pulled out all the way. Standard heights of 60 mm, 100 mm 150 mm and 185 mm. Becker drawer divider systems can be used in these drawers.

Drawer divider systems

To fit both drawers and drawer shelves. Several variants are available:

- deep-drawn polystyrene inserts, white.
- combined sheet steel/plastic divider Series U21 consisting of grid ledges and plastic dividers, white.
- sheet steel inserts/dividers Series U10, U12 and U13 consisting of inserts and dividers, white.

Modular systems

Carrier wall systems and modules for using the cabinets with "60 x 60" or "60 x 40" modular systems in conformance with DIN 13089-3.

Make to be agreed with user. Additional systems:

- modular drawer frames (see drawers)
- internal modular drawer with moulded front panel and handhold
- pullout frame (M9)

Sterile goods storage

Various systems for storing, transporting and preparing sterile items:

- using support system with wire storage trays (chromium-nickel steel)
- using grid ledges, where necessary with vertical partition walls (powder-coated sheet steel or chromium-nickel steel) with various trays, including precision fully-extending telescopic runners.

Can be reconfigured to suit changing application concepts (M11).

Storage of clinical materials and functional materials

- easier reconfiguration for new application concepts with Series M9/M11
- pull-out medication cabinets
- variants of partition walls: either permanently fixed or can be removed by lifting or pulling
- endoscope holders in various models magnetic versions also available
- multipurpose equipment pull-outs with and without electrical connections – made of powder-coated sheet steel
- catheter holders, instrument holders, special anaesthesia holders, holders for operating table accessories, some of which are pull-out/ retractable designs, made of chromium-nickel steel AISI 304 (1.4301)

Wire baskets / Containers

- baskets available in different sizes, in chromium-nickel steel, for insertion in grid ledge.
- removable plastic containers attached to the inside of the door for holding medications and small items magnetic versions also available.

Material collecting systems

- various plastic containers for recyclable materials, various sizes, integrated into pull-out doors, opened by knee-operation. Pedal (foot-operation) possible.
- built-in waste containers with springless turn&tilt lid for installation on swinging doors.
- magnetic waste containers for installation in any position.
- basket collecting systems and other models.

Hygiene rail / magnetic "Magnes"

Supplementary accessories (e. g. glove dispensers, holder for disposal box) can be individually placed to allow instant accessibility and ensure free work surfaces.

Available in powder-coated sheet steel or chromium-nickel steel.

Labelling

Wide variety of labelling for doors, drawers, drawer shelves, drawer partitions and internal fittings, normally using magnetic signs, inserts, bands and labelling strips.

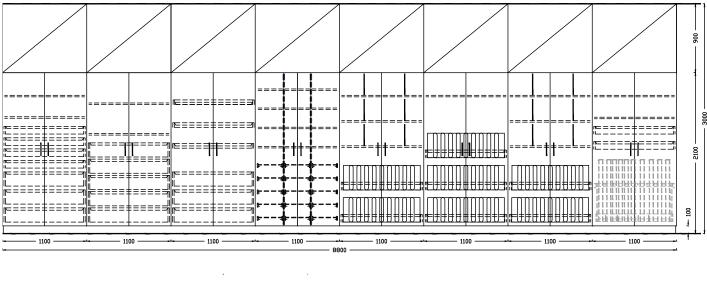


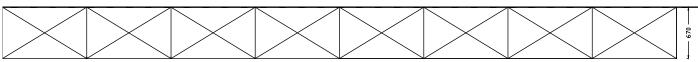
The extensive **Becker** product range extends far beyond the main construction elements described in this brochure. In addition to standard products including desk workplaces, simple and complex table frames (also with additional mounted structures), pass-through cabinets, pass-through sliding windows, documentation terminals and floor-standing / wall-mounted shelvings, individual project-specific solutions will become necessary or useful.

One of our main objectives is to work together with our customers to develop and produce ergonomic and safe workstations and hospital work environments. Our aim is to create user-friendly work sequences which ultimately benefit the patient.

Planning Examples

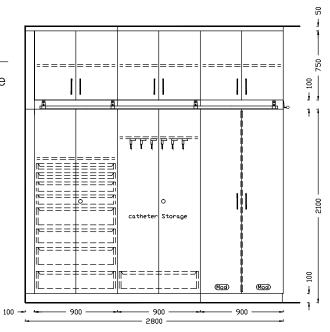
Operating room storage

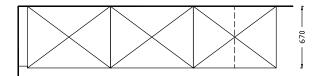




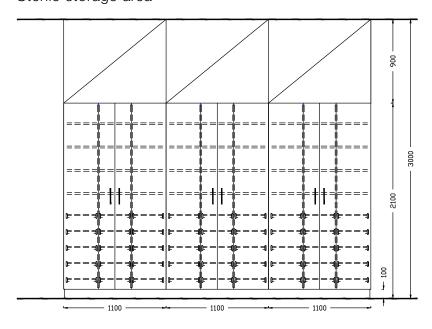
Planning Examples

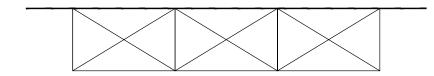
Storage



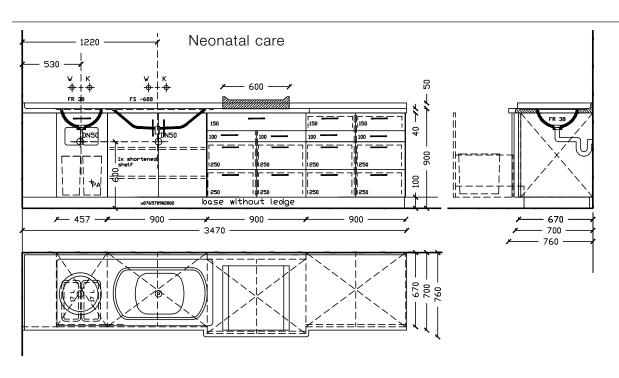


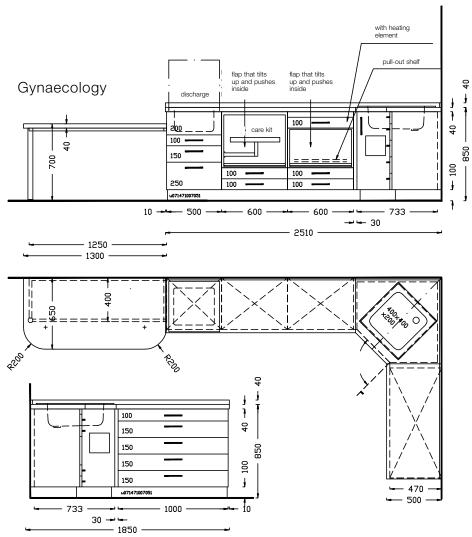
Sterile storage area

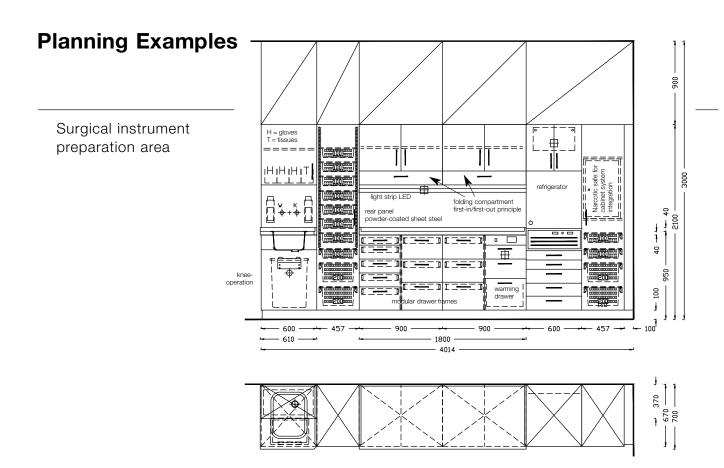




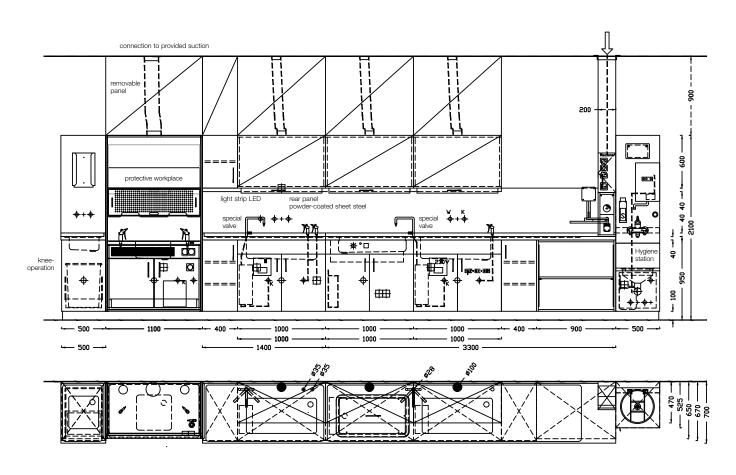
Planning Examples







Instrument adaptation





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