



Enhancing Outcomes for Patients and Their Caregivers...

1. Product Name

Elements® Headwall System

2. Manufacturer

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3. Product Description

Elements® Headwall System is manufactured by Hill-Rom Co., a leading worldwide provider of medical technologies and related services for the health care industry.

BASIC USE

Elements Headwall System combines the beauty and aesthetics of a custom headwall with the ergonomics, durability and clinical attributes of a traditional manufactured system. With integrated communication, electrical and medical gas services, the highly configurable system can be designed to provide maximum functionality within patient hospital rooms, while creating a comforting environment for healing.

Configuration

The Elements Headwall System can be surface mounted to a finished wall or can be in-wall mounted to sit flush with the finished wall surface. The system includes a scalable frame assembly, configurable service and access panels, with a multi-port medical gas manifold or direct connection to facility med-gas systems. Service panels contain medical gas connections, low voltage switches and electrical devices, while access panels are blank, without services. A comprehensive selection of concealment and storage cabinetry options can be built into the initial system or added as requirements change, and a wide selection of clinical/workflow modules are available to meet equipment requirements.

The frame assembly, service panels and access panels include concealed, removable fasteners, in concave or protruding profiles, to facilitate panel replacement or upgrade and seal the spaces between panels.



In-wall full height configuration with clinical workflow module, lift and sling storage cabinets

The system supports electrical capacity needs for normal, emergency/critical power and low voltage. A standard system provides gas capacity in the form of 5 ports and 10 outlets each for oxygen and air, with 6 ports and 6 outlets for vacuum. Use of multiple manifolds can increase this capacity. A med-gas outlet connection to the facility med-gas system is also possible for instrument-air, nitrous oxide, nitrogen and carbon dioxide.

Design

The Elements Headwall System is custom-designed into vertical zones through strategic arrangement of panels and corresponding electrical, gas and technology access points:

- Patient Zone - Located at the center of the system and spaced to accommodate a bed width; includes space for patient light and bed bumpers; can include access points for light switches, normal and emergency power outlets, data and voice nurse call, code blue signal
- Clinical Zones 1 and 2 - Ideally flank both sides of the Patient Zone; Zone 1 is closest to the room entrance and designated for patient access; designed for visibility and ergonomics to limit excessive bending or reaching by nursing staff; can include access points for monitors, oxygen, flow meters, normal and emergency power outlets, data outlets, voice nurse call, light switches and code blue signal

- Staff Zone - Ideally located closest to the room entrance, adjacent to Clinical Zone 1; designed for convenience, it can include cabinetry, bedside computers, clinical modules such as gel and glove modules, glove and needle boxes, waste receptacles and miscellaneous storage
- Family Zone - Ideally located farthest from room entrance, adjacent to Clinical Zone 2; accommodates family needs in the patient room, including cabinetry, shelves, wardrobe, storage and desk surface

COMPOSITION & MATERIALS

- Frame assemblies are 16 gauge, roll-formed galvanized steel channels
- Service panels are 16 gauge steel panels, finished with commercially available high pressure laminate (HPL)
- Access panels are edge banded and made of particle board, with HPL finish and optional glass art
- The service connection can be a single-point center section with junction box and manifold or a two-point connection with two separate units, each with a junction box and manifold
- The gas manifold is a machined aluminum block with D.I.S.S. (Diameter Indexed Safety System) gas specific check valves





Casework cabinetry

TYPES

- Floor-to-ceiling or 3/4 height
- Single vertical or multiple vertical
- On-wall, single-sided
- In-wall, single-sided
- In-wall, back-to-back
- In-wall, sound-rated

SIZES

Frame Assembly

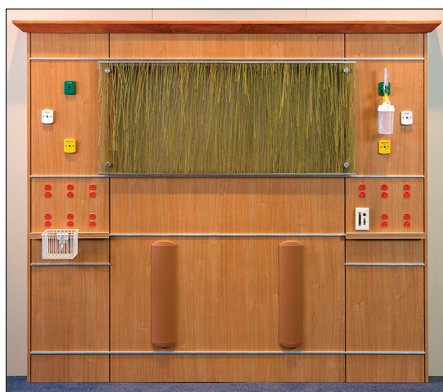
- Height - Minimum 48" (1219 mm); maximum 120" (3048 mm)
- Width - 16", 24" and 32" (406, 610, 813 mm); multiple Elements frames can be joined together to create a desired overall unit width.

Service (Side) Panels

- Width - 16", 24", 32" (406, 610, 813 mm)
- Height - 6" to 36" (152 to 914 mm) in 3" (76 mm) increments

Access (Center) Panels

- Width - 16", 24", 32", 48" (406, 610, 813, 1219 mm)
- Height - 6" to 42" (152 - 1067 mm) in 3" (76 mm) increments



On-wall 3/4 height system with art glass option

COLORS, FINISHES

Panels are available with most commercially available HPL finishes or a selection of art glass options. Cabinetry options are offered in complementary HPL finishes for seamless system integration. A selection of standard HPL finishes is available for short lead-time orders.

Standard flush concave panel reveals have a black or aluminum finish; standard protruding panel reveals have an aluminum finish.

On-wall installations are finished with HPL end caps that match the front panels. In-wall installations have a finished aluminum trim strip between the panels and adjoining drywall.

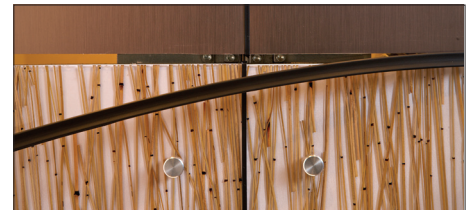
BENEFITS

- Plug-and-play panel and framework system is configured for inpatient care service loading requirements, from ICU to Med-Surg
- On-wall and in-wall configurations offer single point connection
- On-wall configuration is available with pre-ship manifold to streamline installation
- Service panels have a faceplate-free design for easy cleaning and uncluttered appearance
- Easy to remove panels simplify annual inspection and upgrading
- Compatible with any specified medical gas outlet; gas manifold supports 10 oxygen, 10 air and 6 vacuum; a med-gas outlet connection to the facility med-gas system is possible and can include connection to facility system for instrument-air, nitrous oxide, nitrogen, carbon dioxide and WAGD (Waste Anesthetic Gas Disposal)
- Clinical services and nursing features can be designed to maximize functionality and reduce reaching and bending
- Outlets, space and connectivity provisions accommodate diverse clinical technologies
- Range of design configurations, materials and finishes lessen the institutional feel of the hospital room and create a more comforting and healing patient experience

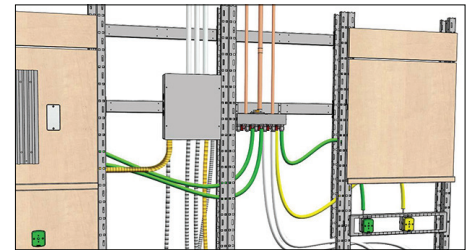
LIMITATIONS

Availability of the Elements® Headwall System can be limited in certain applications by one or more of the following:

- Ceiling height requirements
- Panel width and height requirements
- Maximum 1150 lb (522 kg) wall structure payload per vertical section (load capacity varies with product configuration)
- In-wall option cannot be a load bearing wall, fire- or smoke-rated wall, or a positive or negative pressured room.



Reveal trim allows easy access to panel screws



Single point connection for gas and electric

ACCESSORIES, OPTIONS

Hill-Rom Co. offers a selection of accessories and design options to increase clinical capability and functionality.

Accessories

- Patient light with read, indirect and safety shut-off options
- Monitor unit with maximum 80 lb (36 kg) safe working load
- Rail with a selection of accessories
- Protective horizontal and vertical bumpers
- Bottle slides

Design Options

- Art glass panels are available in 0.118" to 0.345" (2.9 - 8.8 mm) thicknesses. Panels must meet all applicable building and safety codes. Art glass is not available in isolated power applications. Consult a Hill-Rom sales professional for details
- Standard glass panels are NOT an option when designing the Elements Headwall System
- Over 800 cabinetry options support headwall services and provide accommodations for patient, family and visitors. See Table 1
- Workflow/clinical modules, including glove, sphyg, sharps and combinations, are available for added cabinet functionality. See Table 1
- An assortment of accessories can be attached and repositioned along a horizontal accessory rail. See the Hill-Rom Elements Options and Accessories Catalogue for details
- Countertop (requires cabinet support)
- Top cap for 3/4 height headwall
- Valance
- Narrow 1/8" (3.17 mm) insert
- Toe kick
- Top filler

TABLE 1 CABINERY OPTIONS

Cabinet Type	Widths	Heights	Depths	Safe Working Load
Frame-mounted Cabinets				
Concealment ¹	16", 24", 32" (406 mm, 610 mm, 813 mm)	48", 60", 63", 66", 69", 72" (1219 mm, 1524 mm, 1600 mm, 1676 mm, 1752 mm, 1829 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	200
Services cabinet ¹	16", 24", 32" (406 mm, 610 mm, 813 mm)	18", 21", 24", 27", 30", 33", 36", 39", 42" (457 mm, 533 mm, 610 mm, 686 mm, 762 mm, 838 mm, 914 mm, 991 mm, 1067 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	200 ³
Cubby ¹	16", 24", 32" (406 mm, 610 mm, 813 mm)	18", 21", 24", 27", 30", 33", 36", 39", 42" (457 mm, 533 mm, 610 mm, 686 mm, 762 mm, 838 mm, 914 mm, 991 mm, 1067 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	200 ³
Door with shelves ¹	16", 24", 32" (406 mm, 610 mm, 813 mm)	18", 21", 24", 27", 30", 33", 36", 39", 42" (457 mm, 533 mm, 610 mm, 686 mm, 762 mm, 838 mm, 914 mm, 991 mm, 1067 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	200 ³
Drawer/door cabinet ¹	16", 24", 32" (406 mm, 610 mm, 813 mm)	24", 27", 30", 33", 36" (610 mm, 686 mm, 762 mm, 838 mm, 914 mm)	14", 24" (356 mm, 610 mm)	200
Garage cabinet ¹	16", 24", 32" (406 mm, 610 mm, 813 mm)	30", 33", 36", 39", 42" (762 mm, 838 mm, 914 mm, 991 mm, 1067 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	200
Lift motor ¹	24", 32" (610 mm, 813 mm)	24", 27", 30", 33", 36", 39", 42" (610 mm, 686 mm, 762 mm, 838 mm, 914 mm, 991 mm, 1067 mm)	14", 17", 24" (356 mm, 432 mm, 610 mm)	200
Lift sling storage ²	24", 32" (610 mm, 813 mm)	24", 27", 30" (610 mm, 686 mm, 762 mm)	14", 24" (356 mm, 610 mm)	200
Cube cabinet ²	16", 24", 32" (406 mm, 610 mm, 813 mm)	18", 21", 24", 27", 30", 33", 36", 39", 42" (457 mm, 533 mm, 610 mm, 686 mm, 762 mm, 838 mm, 914 mm, 991 mm, 1067 mm)	14", 24" (356 mm, 610 mm)	200 ³
Drawer cabinet ²	16", 24", 32" (406 mm, 610 mm, 813 mm)	24", 27", 30", 33", 36" (610 mm, 686 mm, 762 mm, 838 mm, 914 mm)	14", 24" (356 mm, 610 mm)	200 ³
Wardrobe closet ²	24", 32" (610 mm, 813 mm)	60", 63", 66", 69", 72" (1524 mm, 1600 mm, 1676 mm, 1752 mm, 1829 mm)	14", 24" (356 mm, 610 mm)	200
Countertops, Toe Kick, Top Filler, Valance				
Valance	16" - 128" (406 - 3251 mm) in 8" (203 mm) increments	6", 9", 12", 15", 18" (152 mm, 229 mm, 305 mm, 381 mm, 457 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	
Countertop	16" - 96" (406 - 2438 mm) in 8" (203 mm) increments	6" (152 mm) backsplash	8", 14", 24" (203 mm, 356 mm, 610 mm)	
Toe kick	16", 24", 32" (406, 610, 813 mm)	6" (152 mm)	5", 11", 21" (127 mm, 279 mm, 533 mm)	
Top filler	16", 24", 32" (406 mm, 610 mm, 813 mm)	6", 9" (152 mm, 229 mm)	8", 14", 24" (203 mm, 356 mm, 610 mm)	
Workflow Modules				
Glove	16" (406 mm) 24", 32" (610, 813 mm)	24" (610 mm) 18" (457 mm)	4" (102 mm)	
Sphyg	16" (406 mm) 24, 32 (610 mm, 813 mm)	24 (610 mm) 18" (457 mm)	4" (102 mm)	
Sharps	24", 32" (610 mm, 813 mm)	24", 30 (610 mm, 762 mm)	4" (102 mm)	
Glove/gel combination	24", 32" (610 mm, 813 mm)	24" (610 mm)	4" (102 mm)	
Glove/BP cuff combination	24", 32" (610 mm, 813 mm)	24" (610 mm)	4" (102 mm)	
Glove/Ambu bag combination	24", 32" (610 mm, 813 mm)	24" (610 mm)	4" (102 mm)	
¹ Services are available in the back face of the cabinet. ² Services are not available in the back face of the cabinet. ³ Safe Working Load for 18" (457 mm) heights is 172.5; safe working load for 12" (305 mm) heights is 115. Safe working load for other heights is 200.				
Cabinetry options and workflow modules can be mixed and matched per client requirements. For configuration purposes, ensure that the cabinet width matches that of the Elements® frame; for example, use a 24" Elements frame for 24" cabinets. For details about cabinets and accessories, see the Elements Headwall System Design and Planning Guide .				

4. Technical Data

APPLICABLE STANDARDS

American National Standards Institute (ANSI)/ Underwriters Laboratories (UL) - ANSI/UL 514A Metallic Outlet Boxes

American Society of Mechanical Engineers (ASME) - ASME B16.22 Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

ASTM International

- ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
- ASTM E413 Classification for Rating Sound Transmission

Compressed Gas Association (CGA)

- CGA-G-4.1 Cleaning Equipment for Oxygen Service
- CGA V-5 Diameter Index Safety System (Non-interchangeable Low Pressure Connections for Medical Gas Applications)

National Fire Protection Association (NFPA)

- NFPA 70 National Electrical Code (NEC)
- NFPA 99 Health Care Facilities

Underwriters Laboratories Inc. (UL) - UL 1047 Isolated Power Systems Equipment

APPROVALS

- UL listed by Underwriters Laboratory Inc.

TECHNICAL PROPERTIES

Sound Transmission Class, per ASTM E413:

- In-wall 6" (152 mm) single-sided - 46 STC
- In-wall 3 5/8" (92 mm) single-sided - 45 STC
- In-wall 6" (152 mm) back-to-back - 40 STC
- In-wall 3 5/8" (92 mm) single-sided, back-to-back - 45 STC (drywall by others)

FIRE PERFORMANCE

Meets UL fire performance requirements based on power type used.

ENVIRONMENTAL CONSIDERATIONS

Hill-ROM is committed to environmentally efficient manufacturing practices, designing and offering products with PVC-free decorative panels, PVC-free plastic reveals, recyclable aluminum rails, reusable frames and low-power LED lighting.

5. Installation

PREPARATORY WORK

Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials

protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

METHODS

The Elements® Headwall System is designed to be installed, either in-wall or on-wall, by contractors in accordance with the manufacturer's comprehensive installation instructions. Contractors should make appropriate electrical and gas connections in accordance with all applicable national, state, and local electrical and building codes.

Elements On-Wall electrical J box and gas manifold can be pre-shipped and pre-installed early in the construction process, enabling the plumbing contractor to complete brazing and gas line certification before installation of the headwall.

PRECAUTIONS

The Elements Headwall System must be configured based on the loading of specified services and medical devices that will be connected, taking into consideration an ergonomic reach zone of 18" - 72" (457 - 1828 mm) from the floor.

Headwalls configured with a center section allow for single point connection of gas and electrical. Headwalls with separate individual sections require separate connections.

BUILDING CODES

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Products are available direct from the manufacturer with an average 8-week lead time from order confirmation. Contact Hill-Rom Co. for information concerning local availability.

COST

Detailed cost information may be obtained from the manufacturer.

7. Warranty

Hill-Rom Co. offers a general one year limited warranty against defects in material and workmanship. Complete warranty terms and conditions are available from the manufacturer. For details, consult Hill-Rom Co.

8. Maintenance

The Elements Headwall System requires an effective maintenance program. The manufacturer recommends performance of annual preventive maintenance (PM) and testing for Joint Commission requirements. PM and testing will help ensure a long, operative life for the Elements Headwall System and will minimize downtime due to excessive wear. Complete preventive maintenance instructions are available from the manufacturer. For details, consult Hill-Rom Co.

9. Technical Services

Customer service, technical support and troubleshooting are available through toll-free telephone consultation. Technical assistance, including more detailed information, product literature, test results, project lists, assistance in preparing project specifications and arrangements for application supervision, is available by contacting Hill-Rom Co.

10. Filing Systems

- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.