

TECHNICAL SPECIFICATION | MATERIALS | SIZES | BUDGETARY PRICES

Labour Colony

Comprehensive product specification for procurement, design coordination and quotation review.

REFERENCE CONFIGURATION	60x24 ft G+1
COST ESTIMATION INPUT	Flat INR 675 / sq.ft. ex-GST, all sizes
PUBLISHED SIZE OPTIONS	6 workbook-controlled block configurations, 58 to 173 bunks
SPECIFICATION PROFILE	17 product-specific + 13 platform-common lines
TECHNICAL REVIEWER	PENDING - name, designation and date to be entered at technical review
SEO / EDITORIAL REVIEWER	PENDING - name and date to be entered at editorial review
DOCUMENT STATUS	DRAFT - not released until both reviewer fields above are signed

Product overview

Complete worker housing site: dormitory blocks with sanitation, canteen, admin, security and the circulation and services that join them. Category hub for integrated worker accommodation. It coordinates dormitory, sanitation, canteen, supervisor, first-aid, security, laundry/drying, water, drainage and circulation requirements while keeping each child product technically distinct. The page is a selection and planning hub, not a promise that every labour-colony system uses one frame, panel, floor or roof build-up.

Costing status: Approved - inherited SAMAN controlled planning rate

Important: This PDF is generated from the controlled technical workbook and review corrections. It does not replace the approved project drawing, structural design, bill of materials, performance certificate or final commercial quotation.

Specification Overview

Category hub for integrated worker accommodation. It coordinates dormitory, sanitation, canteen, supervisor, first-aid, security, laundry/drying, water, drainage and circulation requirements while keeping each child product technically distinct. The page is a selection and planning hub, not a promise that every labour-colony system uses one frame, panel, floor or roof build-up.

BOTTOM FRAME	IS 2062 or approved equivalent MS channel/RHS/formed sections; exact member sizes and support reactions from the signed structural drawing.
EXTERIOR WALLS	GI/PPGI cladding with liner, or nominal 40-80 mm PUF/EPS/mineral-wool sandwich panel as selected for each block and project fire/climate brief.
ROOF	Insulated PPGI/PPGL sheet or sandwich-panel roof with defined slope, ridge/edge flashing, gutters and maintainable service penetrations.
FLOOR BASE	Dry blocks: steel deck with cement board/marine-ply or slab; kitchen/wash/toilet areas: cementitious/RCC base with waterproofing and drain falls.
WALL INSULATION	Nominal 40-80 mm PUF/EPS/mineral-wool class panel/cavity selected from project climate, fire strategy, occupancy and wet-area needs.
ROOF INSULATION	Insulated roof panel or mineral/glass-wool class build-up with vapour control, ridge/ceiling ventilation and radiant strategy as required.
MAIN DOOR / SERVICE DOOR	MS/insulated/flush doors by dormitory, canteen, wet-block and admin use; secondary/emergency exits added to the approved occupancy/egress design.
LAYOUT / CONFIGURATION	Dormitory blocks plus toilets/baths, canteen/mess, kitchen, supervisor/admin, first aid, security, stores, laundry/drying, waste and circulation arranged to the approved headcount/site.

Selection and scope control

- Use the reference specification to compare quotations line by line, not only by total price.
- Freeze product-specific options in the approved drawing, bill of materials and quotation before manufacture.
- Verify project-controlled performance claims against the exact selected assembly, certificates and test evidence.
- Treat published prices as workbook-controlled budget estimates; final scope, taxes, transport and site conditions govern the order value.

Technical Diagrams

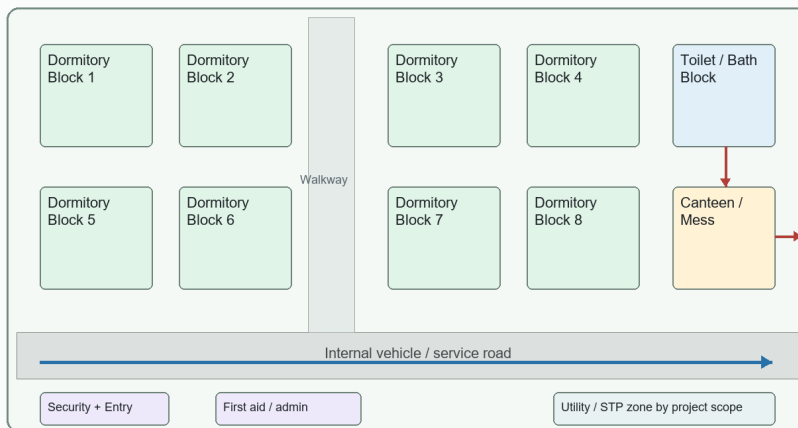
The following 16:9 diagrams are supplied as separate PNG files and embedded here for buyer explanation.


Labour Colony

Diagram 1: integrated labour colony site planning and circulation

SP-LC-HUB-TS-R2

Master Site Arrangement



What this diagram explains

- Sleeping, sanitation and dining are planned as separate functional blocks.
- Road, walkway and emergency/service access are shown before final quotation.
- External utilities are project scope, not silently included in block price.
- Worker capacity must come from approved layout and site rules.

- Accommodation
- Sanitation
- Canteen / food
- External utilities

SAMAN Portable technical diagram | final drawing and quotation govern

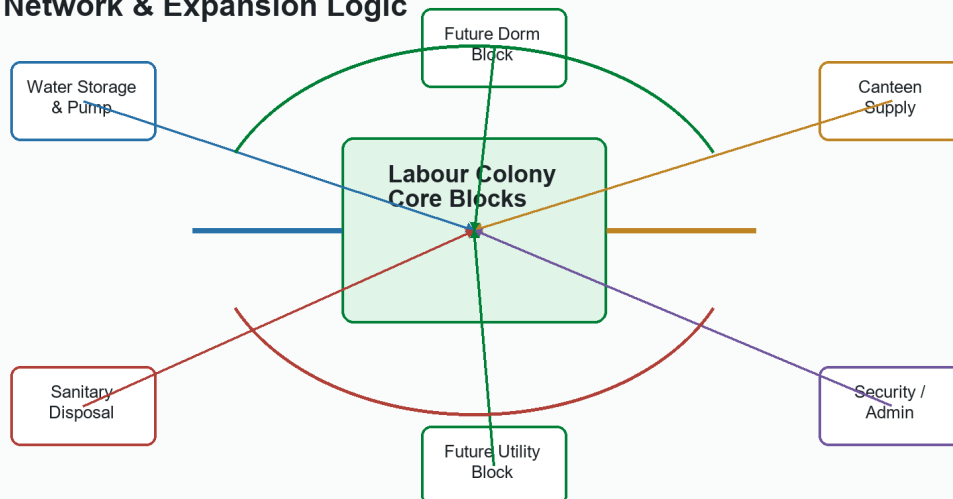
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Labour Colony

Diagram 2: campus utility zoning and expansion control

SP-LC-HUB-TS-R2

Service Network & Expansion Logic



Control: expand the colony by adding blocks to the planned grid, not by mixing sanitation, canteen and sleeping functions into one unclear price.

SAMAN Portable technical diagram | final drawing and quotation govern

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Technical Specification: Steel Structure

Component / scope	Baseline specification	Detailed design and coordination notes
Bottom frame Platform Common	IS 2062 or approved equivalent MS channel/RHS/formed sections; exact member sizes and support reactions from the signed structural drawing.	The base system transfers occupied, service, transport and local equipment loads to defined pads, plinths, slab or skid contact points. Anchor position, corrosion access and allowable bearing are frozen before fabrication; no nominal member is treated as universal across hutments, sheds, wet blocks and camp modules.
Bottom stiffeners Platform Common	RHS/channel/angle stiffeners selected to the approved floor grid, partitions, bunks, wet services and lifting/relocation duty.	Stiffener spacing is coordinated with board edges, bunk posts, cubicle partitions, concentrated equipment and openings. Site cutting, member substitution and service penetrations require approval so the intended load path and corrosion protection are not lost.
Floor frame Product-Specific	Semi-permanent blocks: RCC/plinth or approved slab; relocatable blocks: steel joists with 18-24 mm cement board/marine-ply class deck; wet blocks use an impervious sloped substrate.	The hub forces each child block to declare its actual floor family rather than combining all options. Dormitory, canteen, sanitation and service rooms have different moisture, cleaning and point-load needs; wet-zone set-down and drainage are shown on the GA.
Top frame Platform Common	MS RHS/channel or the documented proprietary upper rail sized for roof reactions, wall restraint and opening headers.	The upper frame closes the structural box, supports roof members and distributes wind and handling loads. Stair, canopy, stacked floor, tank, solar, exhaust or service-platform reactions are added only after project engineering.
Roof stiffeners Product-Specific	Light MS truss/RHS rafters or module roof grid supporting insulated PPGI/PPGL or sandwich-panel roof; span, slope and purlin spacing from the selected block design.	Dormitories prioritize ventilation and heat control, canteens may carry exhaust penetrations, and toilet blocks need condensation/vent-stack coordination. Gutters and downpipes are routed into the site stormwater plan.
Corner posts / walls Product-Specific	Selectable bolted MS/RHS panel frame, container module or light PEB block; final post/header sizes and joints from the approved structural system.	The quotation names one structural family for every block. Stacked dormitories, inter-module openings and external walkways/stairs receive dedicated engineering; a container lifting detail is never applied to a site-built shed.
Lifting / handling Platform Common	Marked lifting lugs, corner fittings, skid points or temporary transport brackets only where shown on the signed GA and lifting drawing.	The lift plan identifies finished weight, centre of gravity, sling geometry, spreader need and support points. One-piece lifting is not assumed for site-assembled sheds or panel camps, and forklift handling is allowed only when pockets and capacity are documented.
Welding & fabrication Platform Common	IS 2062 / IS 1161 class structural steel or approved equivalent; weld sizes, bolt grades, hole tolerances and joint details as the fabrication drawings.	Fabrication checks cover fit-up, weld continuity, distortion, dimensions, bolt tightening, sharp edges and coating repair. IS 800 / project welding requirements are design references; certified WPS/PQR/NDT is supplied only when specified in the contract or QA plan.

Technical Specification: Walls, Roof, Floor & Insulation

Component / scope	Baseline specification	Detailed design and coordination notes
Exterior walls Product-Specific	GI/PPGI cladding with liner, or nominal 40-80 mm PUF/EPS/mineral-wool sandwich panel as selected for each block and project fire/climate brief.	Envelope choices are alternatives. The hub records outer skin, core, inner liner, joint profile, wet-zone protection and impact requirements for dormitory, dining, sanitation and admin blocks rather than publishing one universal panel claim.
Roof Product-Specific	Insulated PPGI/PPGL sheet or sandwich-panel roof with defined slope, ridge/edge flashing, gutters and maintainable service penetrations.	Roof build-up is coordinated with occupancy, monsoon drainage, heat gain and exhaust/vent stacks. No thermal, fire or rain-noise value is claimed without the exact assembly and evidence.
Interior walls Product-Specific	Dry dorm/admin areas: prelaminated/cement board/approved liner; canteen and wet areas: washable moisture-tolerant boards or FRP/PVC/metal liner as scheduled.	Interior materials are selected by cleaning method, humidity and impact risk. Wet and food-service areas are not represented by a decorative dry-room lining specification.
Ceiling Product-Specific	Insulated liner, cement/gypsum board or removable service ceiling by block; access panels at DBs, valves, exhaust and maintenance points.	Ceiling choices preserve finished headroom, air movement and service access. Canteen exhaust, ablation humidity and dormitory fan/light layouts are coordinated independently.
Floor base Product-Specific	Dry blocks: steel deck with cement board/marine-ply or slab; kitchen/wash/toilet areas: cementitious/RCC base with waterproofing and drain falls.	The floor schedule identifies substrate, support spacing, board joints, wet-area membrane/upstand and local reinforcement below bunks, lockers, kitchen equipment or tanks.
Floor finish Product-Specific	Dry sleeping/admin: commercial vinyl, PVC or approved durable finish; wet/food-service areas: slip-resistant tile, safety vinyl or epoxy system compatible with cleaning.	Skirting, thresholds, coved junctions, drain interfaces and replacement method are part of the selected block specification. Finish imagery does not imply the same material across every colony building.
Wall insulation Product-Specific	Nominal 40-80 mm PUF/EPS/mineral-wool class panel/cavity selected from project climate, fire strategy, occupancy and wet-area needs.	Thickness alone is not treated as a whole-wall R-value or fire rating. Thermal bridges, panel joints, posts, openings, vapour movement and block use are reviewed before a performance claim is published.
Roof insulation Product-Specific	Insulated roof panel or mineral/glass-wool class build-up with vapour control, ridge/ceiling ventilation and radiant strategy as required.	Dormitory comfort, monsoon humidity and cooking/wet-block vapour loads are assessed separately. Any fire or thermal rating must match the exact roof build-up and certificate/report.
Decorative / external finish Product-Specific	Roads/walkways, stormwater, fencing/security, site lighting, water tanks, pumps, STP/septic, solid waste, laundry/drying and utility corridors shown as separate site-scope items.	The building price does not silently include civil/site infrastructure. A colony GA coordinates emergency access, pedestrian routes, service vehicles, tanks/drainage and phased expansion.
Fasteners & sealing Platform Common	Corrosion-compatible fasteners, EPDM washers, butyl/PU sealants, closures, flashing, sleeves and isolation tapes matched to the selected wall/roof/floor build-up.	Joints and penetrations are detailed to drain outward, remain cleanable and allow maintenance. Sealant is not used to hide poor laps, unsupported joints or wet-area movement; field drilling is deburred, protected and resealed.

Technical Specification: Doors, Windows, Electrical & Services

Component / scope	Baseline specification	Detailed design and coordination notes
Main door / service door Product-Specific	MS/insulated/flush doors by dormitory, canteen, wet-block and admin use; secondary/emergency exits added to the approved occupancy/egress design.	Door size, swing, privacy, weather seal, lockset and corrosion resistance are frozen in the opening schedule. Wet-block hardware and dormitory exits are not interchangeable.
Windows / service opening Product-Specific	Aluminium/uPVC/steel windows, high-level louvres and screened vents sized by room function, orientation, privacy, security and ventilation requirement.	Opposing openings are used where cross-ventilation is intended. Canteen serving openings, wet-room louvres and sleeping-room windows are separately detailed and structurally framed.
Grills / mosquito mesh Platform Common	Removable mosquito mesh, louvres, restrictors, privacy screens or protected MS grilles only where required by room use and the approved opening schedule.	Accessories maintain ventilation, cleaning access and emergency escape. Sleeping areas, canteens and sanitation blocks use different privacy/security treatments; grille and mesh are not assumed on every opening.
Electrical wiring Platform Common	Typical references: 1.5 sq.mm lighting, 2.5 sq.mm socket circuits and 4 sq.mm AC/high-load circuits; final cable sizing follows connected load, voltage drop and protection coordination.	FR/FRLS copper wiring is routed in approved conduit/trunking with protected metal penetrations and separation from water, waste, LPG/data and flexible module joints. Final cable size and derating are confirmed by the project electrical schedule.
Electrical protection Platform Common	Main isolator, MCB/RCBO or RCCB protection, labelled neutral/earth bars, bonding and surge protection where required by the supply/risk assessment.	Steel frame and exposed conductive parts are bonded to the tested site earth. Wet-area circuits, generator/DG/UPS changeover, fault level and external supply interface follow the approved single-line diagram; this workbook does not certify the installation.
Electrical fittings Platform Common	LED luminaires, fan points, 6A/16A sockets, exhaust points, emergency lighting and dedicated equipment outlets only in quantities shown on the approved room/electrical schedule.	Fixture density follows occupancy and function: sleeper, canteen, wet block, supervisor room and remote camp have different loads. Loose appliances, AC units, kitchen equipment, UPS/DG and data devices are excluded unless itemized.
Ventilation / AC Product-Specific	Natural cross/stack ventilation first where suitable, supplemented by ceiling/wall fans, exhaust and project-selected evaporative/mechanical cooling or split-AC provisions.	Cooling is not standardized at one tonnage. Heat gain, occupant density, cooking moisture, wet-block exhaust, local climate and power availability determine equipment selection.
Plumbing / sanitary Product-Specific	Incoming water, storage tanks, pump set, CPVC/PPR distribution, uPVC soil/waste/vent, block isolation, floor drainage, wash points and site sewer/STP/septic connection as project scope.	The hub coordinates utility zoning and isolation but does not invent worker-to-fixture ratios. Fixture count and sanitation capacity follow the client tender, applicable rules and approved site plan.
Layout / configuration Product-Specific	Dormitory blocks plus toilets/baths, canteen/mess, kitchen, supervisor/admin, first aid, security, stores, laundry/drying, waste and circulation arranged to the approved headcount/site.	Worker capacity is a planning value only. The site plan resolves bed spacing, privacy, separate accommodation where required, safe water, drainage, sanitation, dining and ventilation; ILO/IFC and Indian construction-worker provisions are design references, while jurisdiction-specific approval governs.
Painting / coating Platform Common	Prepared carbon steel with compatible primer/top coats, or galvanized/pre-painted sheet with repaired cut edges; system upgraded for coastal, industrial or wet-service exposure.	The coating schedule records preparation, product, coat sequence, colour and repair method. Skid undersides, roof drains, cut edges, wet-area thresholds and inaccessible crevices receive inspection attention because these locations govern field durability.
Quality checks Platform Common	Dimensional, member, weld/bolt, coating, panel, roof-drainage, opening, electrical and plumbing checks plus product-specific deployment or wet-test checks.	Handover evidence identifies the approved GA/BOM, material schedule, test records, photographs, punch items, lifting/service connection data and maintenance points. Fire, thermal, acoustic, structural or hygiene performance is stated only where supported by the contracted evidence.

Warranty and Contract Controls

Component / scope	Baseline specification	Detailed design and coordination notes
Warranty Platform Common	Warranty period, start date, remedy, relocation conditions, consumables and exclusions exactly as stated in the signed quotation and handover documents.	No universal warranty period is imposed by this workbook because attached and public product sources use different commercial packages. Site foundations, utilities, misuse, unauthorized alteration, poor cleaning, blocked drains, missed seal/coating maintenance and relocation damage remain excluded unless expressly covered.

Warranty period, remedy, exclusions and relocation conditions must follow the signed quotation and handover documents. No universal warranty period is imposed by this PDF.

Published Sizes and Budgetary Pricing

All six blocks price on one flat rate of INR 675 per sq.ft. before GST. Block price excludes GST. Final estimated price includes GST at 18 per cent. Because the rate does not change with block size, cost per bunk stays broadly steady across the range.

Code	Published block size	Built-up area	Bunks	Rooms	Block price excl. GST (INR)	Final price incl. GST (INR)
SZ-01	60x24 ft G+1	2,880 sq ft	58	24	19,44,000	22,93,920
SZ-02	90x24 ft G+1	4,320 sq ft	86	36	29,16,000	34,40,880
SZ-03	90x24 ft G+2	6,480 sq ft	129	54	43,74,000	51,61,320
SZ-04	120x24 ft G+1	5,760 sq ft	115	48	38,88,000	45,87,840
SZ-05	118x30 ft G+1	7,080 sq ft	142	59	47,79,000	56,39,220
SZ-06	120x24 ft G+2	8,640 sq ft	173	72	58,32,000	68,81,760

Pricing notes

- Transport and installation: quoted separately for every block and every site.
- Quantities, openings and services scale with the approved drawing while the product technical framework remains applicable.
- The final written quotation, approved drawing and bill of materials govern the order.
- Bunk figures are the planning capacity for the block and are fixed values, not ranges.

Quotation Scope and Price Controls

1. Cost Estimation Input	INR 675	Controlled flat rate for this product, applied to every published block size.
2. Published size and area	60x24 ft G+1 2,880 sq ft	Area shown in the workbook size schedule.
3. Adjusted rate	INR 675	No area-band factor applies to this product.
4. Block price excl. GST	INR 19,44,000	Published area multiplied by the flat rate.
5. GST at 18%	INR 3,49,920	Added to the block price.
6. Final estimated price	INR 22,93,920	Workbook-published total including 18% GST.

Budget exclusions

- Interior fit-out and loose furniture unless explicitly included.
- Optional add-ons and equipment not shown in the approved scope.
- Transport, offloading, positioning and installation unless quoted.
- Foundations, plinths, supports, anchors and external site utilities.
- Project-specific structural engineering, fire or acoustic tests, specialist certificates and third-party approvals unless quoted.

Price disclaimer

These figures are workbook-controlled budget estimates for the published technical framework. Material selection, custom dimensions, quantity, project location, access, performance requirements, taxes and market conditions can change the final quotation.

Project Coordination and Pre-dispatch Quality

A technically complete quotation depends on the project information below. Freeze these inputs before final drawings and manufacture to reduce variations, field cutting and interface disputes.

Information required for a firm quotation

- Project location, climate or exposure condition and intended service life.
- Selected published size or custom dimensions, quantity and required delivery sequence.
- Intended use, occupancy, room layout, partitions and equipment or storage loads.
- Door, window, service opening, grill, louver and security schedule.
- Electrical supply, connected load, AC or ventilation equipment, socket and lighting schedule.
- Water, waste, sanitary, fire, acoustic or other specialist performance requirements where applicable.
- Transport route, site access, crane or unloading plan, lifting restrictions and final support locations.

Pre-dispatch quality checks

Pre-dispatch QA covers dimensions, member/panel identification, connections, coating, roof drainage, weather sealing, doors, windows, electrical continuity and functional checks; specialist performance certificates are verified where the product requires them.

Handover, Maintenance and Warranty Controls

The following controls support acceptance and continued service. Align them with the final quotation, approved drawings, site risk assessment and any specialist manufacturer instructions.

Recommended owner inspection points

- Keep roof drainage paths, gutters and outlets clear; investigate standing water or leakage promptly.
- Inspect flashings, panel joints, sealants, fasteners, door and window perimeters and service penetrations.
- Repair coating, cut-edge or galvanized-surface damage with the compatible approved system.
- Do not add large openings, equipment supports or unapproved penetrations without design review.
- After transport or relocation, inspect frame alignment, connections, floor, panels, seals, electricals and services before use.
- Arrange electrical testing and specialist fire, acoustic, plumbing or structural inspection where the project requires it.

Approved configuration	Final general arrangement, opening schedule, service layout and selected finish schedule.
Technical schedule	Final bill of materials or approved technical schedule identifying product-specific selections and approved deviations.
Quality records	Pre-dispatch inspection or acceptance record, dimensional checks and functional checks included in the agreed scope.
Care and warranty	Handling, touch-up and maintenance guidance together with final warranty period, scope, exclusions and claim process.

Labour Colony FAQs

What is the intended use of this product?

Category hub for integrated worker accommodation. It coordinates dormitory, sanitation, canteen, supervisor, first-aid, security, laundry/drying, water, drainage and circulation requirements while keeping each child product technically distinct. The page is a selection and planning hub, not a promise that every labour-colony system uses one frame, panel, floor or roof build-up.

What structural base is specified?

The base frame uses MS channel, RHS or formed sections. Exact member sizes and support reactions come from the signed structural drawing for your project, so no nominal section is treated as universal across dormitory, sanitation, canteen and admin blocks.

What wall, roof and insulation system is specified?

Exterior walls use GI or PPGI cladding with a liner, or a nominal 40 to 80 mm PUF, EPS or mineral-wool sandwich panel, selected for each block against the project climate and fire brief. Roofing uses insulated PPGI or PPGL sheet, or a sandwich-panel roof, with a defined slope, ridge and edge flashing and gutters. These are alternatives, not one universal build-up.

How are electrical systems controlled?

Wiring is concealed PVC-insulated copper, typically 1.5 sq.mm for lighting, 2.5 sq.mm for sockets and 4 sq.mm for higher-load circuits. Each block carries a distribution board with MCB and RCCB protection, earthing, and separated lighting, socket and wet-area circuits. Final circuit quantities, load schedule and equipment points follow the approved electrical drawing.

How is the published price calculated?

Built-up area is multiplied by the flat approved rate of INR 675 per sq.ft. ex-GST. GST is added at 18 per cent. The rate does not vary with block size, so you can check any quotation by multiplying area by the rate.

What should be confirmed before ordering?

Confirm size, layout, openings, services, utilities, transport, unloading, foundation/supports, optional items, taxes and final quotation validity.

Document Control and Contact

Document ID	SP-LC-HUB-TS-R2
Document title	Labour Colony - Technical Specification, Sizes and Budgetary Price Guide
Revision	Rev 2 15 August 2026
Technical source	SAMAN Labour Colony controlled technical and pricing workbook; 30 technical lines and six published size configurations.
Commercial basis	Flat INR 675/sq.ft. ex-GST for the six published Labour Colony hub blocks.
Costing status	Approved - inherited SAMAN controlled planning rate
Technical reviewer	PENDING - name, designation, signature and date
SEO / editorial reviewer	PENDING - name and date
Document status	DRAFT - not released until both reviewer fields above are signed
Size ladder basis	SAMAN ruling of 15 August 2026 fixing the six published blocks
Not for construction	Illustrative and budgetary only. Not for construction unless approved.
Supersedes	SP-LC-HUB-TS-R1, withdrawn: incorrect size ladder and rate for this product, missing not-for-construction control and reviewer fields.
Document owner	SAMAN Portable SAMAN POS India Private Limited
Request a project quotation	South / Bengaluru: +91 88616 22859 sales@samanportable.com; North / Greater Noida: +91 87960 39938 ncr@samanportable.com

Final control note

Final drawings, engineering calculations, bill of materials, performance certificates, warranty terms, logistics scope and commercial quotation supersede this selection guide for the specific order. Do not infer a fire, acoustic, structural, corrosion or thermal performance rating unless it is stated and supported for the exact supplied assembly.