

E-LINE

The electronic range
of portable restrooms and much more ...



Armal[®]

Strong. Experienced. Worldwide.

MADE IN ITALY

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With over 30 years of experience in the research and development of innovative products for the Portable Sanitation Industry, Armal S.p.A. has earned a worldwide reputation in over 130 countries for the reliability and value of its products. Extraordinary modern production technology, the combination of meticulously selected raw materials, the quality control system, the compliance with safety and environmental standards, as well as the search for innovative and creative products, are Armal key factors.

E-LINE is Armal's range of electronic products ranging from portable restrooms to trailers and much more! Designed to enhance the end-user experience, E-LINE features an elegant exterior and interior design and many details for maximum comfort.

With the same internal design and electronic mechanism, E-LINE meets the most ambitious demands of the portable sanitation market, since the line includes a single-use portable restroom, a 2-station portable restroom, and a 2-station portable restroom on a trailer.

E-LINE is the perfect solution, ready for use in a variety of environments and occasions: from a small private event to a large festival, from a construction site of any size to an outdoor sports area, or in campsites, beaches, parks and, in general, anywhere there is a need for portable cabins.

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Why E-LINE?

Armal's commitment to designing and researching new requirements for the Portable Sanitation Industry is well expressed by the E-LINE range, a family of products that represents the ambition to enter a new phase of more exclusive product development.

Why "E"? "E" means both "Electronic" and "Easy": electronic because all E-LINE products have an electronic mechanism that represents their essential part, and easy because they are ready-to-use. No need to spend time in their assembly, just pick them up and go!

Over its acquired experience in the production of polyethylene portable cabins, Armal has designed the E-LINE range to ensure its customers the acclaimed added value based on innovative concepts and detailed solutions to make their daily work easier and cost-effectively.

Keeping in mind the end-users too, the E-LINE range is based on the same concept as a home environment: use of high-quality materials that are easy to clean, fresh air coming from the aeration vents or a porthole on the roof, no use of chemical products, good natural light and LED lights that switch on automatically at dusk. Hygiene of a home toilet is also ensured by the E-LINE restrooms thanks to the moulded rim around the restroom bowl, which completely rinses the internal surface with fresh water; moreover, the presence of fresh water inside the bowl and the use of an external tank for gray water collection prevent the formation of unpleasant odors inside the cabins.

Pluses and Core

Operation and technology are the same for all E-LINE products, from the single-use cabin to the 2-stations on a trailer. This line complies with the:

Aesthetics: the use of high-quality materials and the exterior/interior design give a VIP effect to all E-LINE products. All components are durable, water resistant and easy to clean.

Flexibility: Armal new challenge is to offer a product with **multiple operating modes**. Depending on the situation and environment in which they are placed, E-LINE cabins can be used:



Four different operating modes for the same cabin: it can be used as a traditional self-contained unit, or connected to the water and sewage network, or it can be used self-contained by connecting the cabin to one of the external tanks (fresh or gray water indifferently) and jointly to the opposite network.

Functionality: standard features such as the fresh water flushing system, the stylish compact toilet bowl, the hand wash sink, and other accessories guarantee hygiene and cleanness giving the feeling to be at home when using an E-LINE cabin.

Affordability and Environmentally Friendly: long term rental without weekly cleaning, reduced water consumption (*), no cost to purchase sanitary concentrates or other additive liquids, in short ...



(*) Between 1 and 1,20 L/0.26 and 0.31 gal. per flush instead of 7-10 L/1.84-2.64 gal. used by a home bathroom.

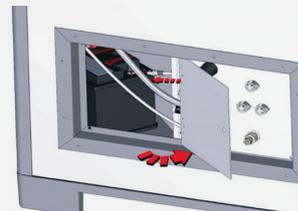
The high technological innovation of E-LINE portable restrooms lies inside the toilet bowl where all the electronic devices are installed, ensuring compactness and portability to the cabins themselves.

The core of all E-LINE portable restrooms lies in its operation, since they:

- are equipped with a CPU to control all functions
- pump unmacerated gray water
- run dry without damage and pump mixtures of air and gray water
- pump up to a maximum of 18 L/4.75 gal. per minute
- are equipped with a self-priming pump that reaches 3 m/118.11" maximum height

Moreover ...

- the system is powered by 12V DC (*)
- the mechanical parts are already assembled, easy to use and maintain
- the high technology of the valve avoids clogging and filters to clean



Application Areas and Use of E-LINE Cabins



E-TOP AND E-CUBE

The Electronic Portable Restrooms

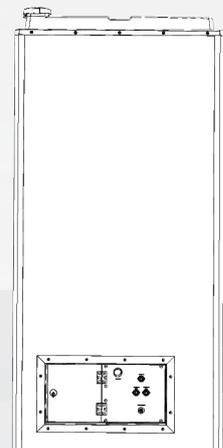
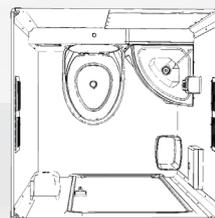
E-TOP and E-CUBE are instantly recognized as non-ordinary portable restrooms, but high-quality cabins that are a pleasure to use. Easy to operate, easy to clean, easy to transport and handle thanks to a special transport dolly (optional), easy to maintain, ideal for even the most remote sites that are difficult to reach with a vacuum service truck as they do not require weekly cleaning: using a portable restroom has never been so exciting!

With the same sanitary wares inside as standard, these cabins can have a **VIP or classic exterior design in UV-threatened high-density polyethylene**. E-TOP and E-CUBE, the customized solutions for every environment: self-contained portable restrooms thanks to the installation of external tanks that can be positioned at a maximum distance of 10 m/393.70" from the cabin, mains connected restrooms to the water and sewage network, or both operating modes simultaneously, small changes can really make the difference ...



Features include:

- One station with toilet and hand wash sink
- Automatic pumps management
- Push buttons to flush the toilet bowl with fresh water and to activate the hand wash sink
- Moulded rim around the top of the bowl to direct fresh water over the entire surface for a complete flush
- External plugs for easy connection to water and sewage networks (the unit can be placed 10 m/393.70" away from the networks)
- Level sensors and automatic stop when the maximum/minimum levels of gray/fresh water in the respective tanks are reached (self-contained use only)
- LED light with integrated presence sensor that switches on automatically at dusk
- Aeration vents built-in on the cabin walls to ensure good aeration and to protect it from rain inside
- Door with return spring and locking system with vacant/occupied indicator
- Sanitary wares in ABS
- OSB (Oriented Strand Board) base with wood-effect PVC floor
- Sheet towel dispenser and soap and sanitizer dispenser
- Sheet toilet paper dispenser and 8 L/2.11 gal. plastic dustbin
- Mirror and coat/tool-belt hook
- Predisposition for No. 1x65Ah battery



E-BLOCK

The 2-Station Portable Restroom

E-BLOCK is a sanitary module with two restrooms and independent entrances to ensure users' privacy. The two cabins are served by a centrally located technical room. Versatile and customizable, E-BLOCK is also functional, comfortable, and aesthetically appealing. It is ideal for events, crowded manifestations, public and sport areas, mining industry facilities, construction sites ... Wherever there is a need to reduce long waiting lines.

E-BLOCK doubles the VIP experience offered by E-TOP. It has the same basic electronic mechanism and all E-TOP standard features with the convenience of having **two cabins together**. The electronic control panels and the fresh and gray water tanks are not visible to the end user, as they are located inside the technical room. A return tank, also located inside the technical compartment, collects the gray water, preventing it from flowing back into the restroom bowl, while the two tank pumps discharge water directly into the sewer system located at a higher level than the cabin, i.e. at a head of 1 m / 39.37" approx.

Like all E-LINE products, E-BLOCK also operates in four modes: **self-contained, connected to the water and sewage network, or alternating the two modes of operation**. The activity of the portable sanitation industry has never been so simple!

E-BLOCK is designed to be easily moved with a forklift or crane and can be effortlessly hooked up to a dedicated trailer. Two roof portholes let in natural light and fresh air. A further advantage is the presence of a solar panel and external LED lights, one per cabin, that illuminate the entrance when it gets dark. The materials used make E-BLOCK both durable and water-resistant.



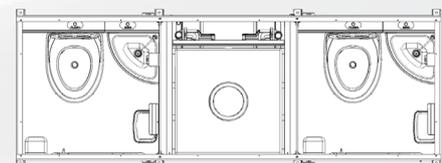
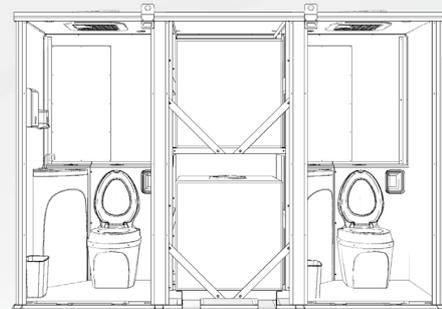
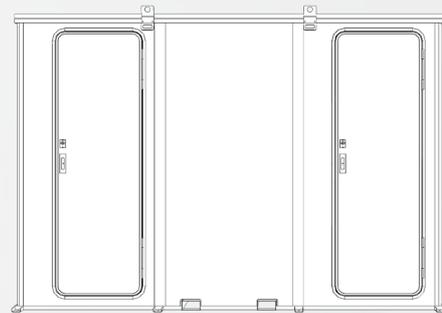
Features include:

- Two stations with toilets, hand wash sinks and a separate technical room
- Two separate fresh water and gray water tanks, each with a capacity of 500 L / 132.08 gal., installed inside the technical room
- A 15 L / 3.96 gal. return tank, including two pumps and two floats, to collect gray water and ensure it does not return to the toilet
- Automatic pumps management
- Solar panel centrally placed on the roof of the technical room
- Push buttons to flush the toilet bowl with fresh water and to activate the hand wash sink
- Moulded rim around the top of the bowl to direct fresh water over the entire surface for a complete flush
- External plugs for an easy connection to water and sewage networks (the unit can be placed 10 m/39.70" away from the networks)
- Level sensors and automatic stop when the maximum/minimum levels of gray/fresh water in the respective tanks are reached (self-contained use only)
- LED light with integrated presence sensor that switches on automatically at dusk
- Natural light inside the cabin coming from a roof porthole that also allows good ventilation inside
- Door with return spring and locking system with vacant/occupied indicator
- Sanitary wares in ABS
- OSB (Oriented Strand Board) base with wood-effect PVC floor
- Sheet towel dispenser and soap and sanitizer dispenser
- Sheet toilet paper dispenser and 8 L/2.11 gal. plastic dustbin
- Mirror and coat/tool-belt hook
- Predisposition for No. 2x65Ah batteries



Specifications:

Height (external)	2.220 mm / 87.40"
Width (external)	1.150 mm / 45.27"
Length (external)	3.100 mm / 122.04"
Internal dimensions (HxWxL) per restroom	2.070x1.010x1.010 mm / 81.49"x39.76"x39.76"
Step height	80 mm / 3.15"
Seat height	450 mm / 17.71"
Weight (empty)	500 kg / 1102.31 lb.
Fresh water capacity (self-contained use only)	500 L / 132.08 gal.
Gray water capacity (self-contained use only)	500 L / 132.08 gal.
Gray water return tank capacity	15 L / 3.96 gal.
Power supply (N. 2 batteries)	12V DC
Fresh water pump (No. 1 per restroom)	from 10 L/min. – 2.64 gal./min.
Gray water discharge pump (No. 1 inside each cabin + No. 2 inside the technical room)	from 18 L/min. – 4.75 gal./min.
Gray water discharge pump pipe diameter	38 mm / 1.50"
Water consumption per each flush	1 L / 0.26 gal. for the toilet bowl and 0,2 L / 0.05 gal. for the hand wash sink
Material used	Structural profiles in extruded aluminium; insulated panels and roof in fiberglass and polystyrene. OSB (Oriented Strand Board) base with wood-effect PVC floor. Sanitary wares in ABS
Colors	Standard ○●



Optional accessories:

- Compact hand towels
- Interleaved toilet paper
- Customized stickers

E-TRAILER

The 2-Station Portable Restroom on a Trailer

Ready, steady, go! E-TRAILER is a practical trailer with 2-station portable restrooms and a technical room. It is essentially an E-BLOCK station equipped with wheels and two folding ladders to access the restrooms. Drawing on many years of experience in trailer manufacturing, Armal designed the E-TRAILER to move E-BLOCK quickly and easily. Compared to the long-term usefulness of E-BLOCK, **E-TRAILER is more suitable for short term requirements.**

Thanks to its reduced size and weight, the trailer **can be towed by any vehicle.** You don't need to do much when you arrive at the place where the E-TRAILER is to be installed: simply unhook the trailer from the vehicle, position the adjustable jack stand to lock the wheels, lock the ladder, and decide whether to use it **self-contained, connected to the water and sewage network, or to use both operating modes at the same time, as for all E-LINE products.**

A return tank, also located inside the technical compartment, collects the gray water, preventing it from flowing back into the restroom bowl, while the two tank pumps discharge water directly into the sewer system located at a higher level than the cabin, i.e. at a head of 1 m / 39.37" approx.

E-TRAILER is equipped with a single-wheel axle that allows the trailer to be towed easily and safely; at the same time, it provides high maneuverability both when attached to the vehicle and when manually positioned. The entrance steps can be folded back against the cabin during transport, while the components used make E-TRAILER durable and water resistant. Easy cleaning and maintenance are additional features of this product.



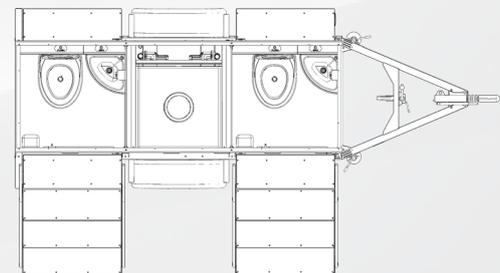
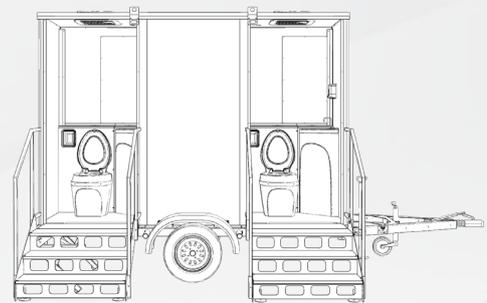
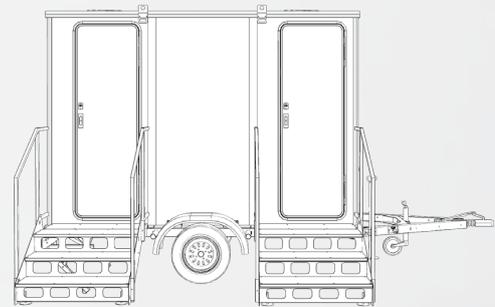
Features include:

- Two stations with toilets, hand wash sinks and a separate technical room
- Integrated access ladder, balcony, and handrail
- Adjustable jack stand to lock the wheels which ensures stability when parked or during loading
- Durable, water-resistant metal support structure
- Two separate fresh water and gray water tanks, each with a capacity of 500 L / 132.08 gal., installed inside the technical room
- A 15 L / 3.96 gal. return tank, including two pumps and two floats, to collect gray water and ensure it does not return to the toilet
- Automatic pumps management
- Solar panel centrally placed on the roof of the technical room
- Push buttons to flush the toilet bowl with fresh water and to activate the hand wash sink
- Moulded rim around the top of the bowl to direct fresh water over the entire surface for a complete flush
- External plugs for an easy connection to water and sewage networks (the unit can be placed 10 m/393.70" away from the networks)
- Level sensors and automatic stop when the maximum/minimum levels of gray/fresh water in the respective tanks are reached (self-contained use only)
- LED light with integrated presence sensor that switches on automatically at dusk
- Natural light inside the cabin coming from a roof porthole that also allows good ventilation inside
- Door with return spring and locking system with vacant/occupied indicator
- Sanitary wares in ABS
- OSB (Oriented Strand Board) base with wood-effect PVC floor
- Sheet towel dispenser and soap and sanitizer dispenser
- Sheet toilet paper dispenser and 8 L/2.11 gal. plastic dustbin
- Mirror and coat/tool-belt hook
- Predisposition for No. 2x65Ah batteries



Specifications:

Height	2.740 mm / 107.87"
Width (overall)	1.720 mm / 67.71"
Length (drawbar included)	4.285 mm / 168.70"
Internal dimensions (HxWxL) per restroom	2.070x1.010x1.010 mm / 81.49"x39.76"x39.76"
Height from the ground	500 mm / 19.68"
Step height	80 mm / 3.15"
Seat height	450 mm / 17.71"
Weight in running order	820 kg / 1807.79 lb.
Fresh water capacity (self-contained use only)	500 L / 132.08 gal.
Gray water capacity (self-contained use only)	500 L / 132.08 gal.
Gray water return tank capacity	15 L / 3.96 gal.
Power supply	12V DC
Fresh water pump (No. 1 per each restroom)	from 10 L/min. – 2.64 gal./min.
Gray water discharge pump (No. 1 per each restroom + No. 2 inside the technical room)	from 18 L/min. – 4.75 gal./min.
Gray water discharge pump pipe diameter	38 mm / 1.50"
Water consumption per each flush	1 L / 0.26 gal. for the toilet bowl and 0,2 L / 0.05 gal. for the hand wash sink
Material used	Trailer's structure made of galvanized steel sheet. Structural profiles in extruded aluminium; insulated panels and roof in fiberglass and polystyrene. OSB (Oriented Strand Board) base with wood-effect PVC floor. Sanitary wares in ABS
Colors	Standard <input type="radio"/> <input checked="" type="radio"/>



Optional accessories:

- Compact hand towels
- Interleaved toilet paper
- Customized stickers

EXTERNAL TANK

To use E-TOP and E-CUBE as self-contained portable cabins, Armal has designed an EXTERNAL TANK, a single unit with two separate tanks for fresh and gray water. This tank, once all the accessories supplied with the cabin are connected, is ready to use, easy to fill and empty, and also easy to move effortlessly thanks to the nicks under the floor that allow both the positioning of a transport dolly and the loading on the flatbed of a vehicle. Two side handles make it easy to grip, while the aluminium lid, lockable with a padlock, hides the battery and the tank caps to prevent theft or vandalism.



Optional accessory:

- Transport dolly

Features include:

- Level sensors and automatic stop when the maximum/minimum levels of the gray/fresh water are reached in the respective tanks
- Inner caps in different colors: red for the fresh water tank and black for the gray water tank
- Handles on both sides of the tank
- All accessories for connection to cabins
- Predisposition for No. 1x65Ah battery

Specifications:

Height	900 mm / 35.43"
Width	1.060 mm / 41.73"
Length	1.060 mm / 41.73"
Weight (empty)	50 kg / 110.23 lb.
Fresh water capacity	300 L / 79.25 gal.
Gray water capacity	400 L / 105.67 gal.
Material used	Tank in polyethylene and support in aluminium
Color	●



TRANSPORT DOLLY

A specific TRANSPORT DOLLY to move all Armal portable restrooms and cabins that helps operators in their daily work activity. It is easy to use thanks to the nicks under the restroom floor that ensure optimum functionality and maneuverability. It can only be used for single-use E-LINE cabins and the EXTERNAL TANK.

LIFT KIT

A useful kit for lifting Armal portable restrooms and cabins has been designed for all companies that operate primarily on high building construction sites, but also for all companies that need safe and practical tools to facilitate the lifting of their portable restrooms and cabins. The Armal LIFT KIT has a unique design: the rings, which protrude from the roof, make it easier to lift the cabins with a crane, while the rods, which are not visible but are mounted inside the walls of the cabin, are fixed at the bottom for a secure grip. Among all E-LINE products, it is uniquely suited for E-CUBE cabin.



COMPACT HAND TOWELS

Compact white 5-ply hand towels to perfectly dry the hands of the end user. The package is ready to be inserted into the specific dispenser provided as standard in all E-LINE portable restrooms.

Specifications:

Sheet size unfolded (L x W)	250 mm / 9.84" x 195 mm / 7.68"
Ply	1
Embossing	Micro-embossed
Wet strength	Yes
Package	No. 100 pieces
Material	Virgin cellulose
Color	White



INTERLEAVED TOILET PAPER

Armal Z-fold interleaved toilet paper is a high-quality single-ply product. With a 2-ply tissue that ensures comfort and practicality, it is a smart solution when combined with the specific dispenser provided as standard in all E-LINE portable restrooms.

Specifications:

Sheet size unfolded mm (L x W)	L 240 mm / 9.45" x W 115 mm / 4.53"
Ply	2
Processing	Microglued
Package	No. 200 pieces
Raw material	Pure cellulose
Color	White



PRODUCTS:



PBETV0B: E-TOP (white)
PBETV0G: E-TOP (grey)



PBETP0...: E-CUBE
(the last letters indicate the panels color)



PEB2B1TB: E-BLOCK (white)
PEB2B1TG: E-BLOCK (grey)



PEB2B1TB + IDM1251:
E-TRAILER (white)
PEB2B1TG + IDM1251:
E-TRAILER (grey)

OPTIONAL ACCESSORIES:



PAETSP00: External Tank



IDA0071:
E-TOP/E-CUBE TRANSPORT DOLLY



IDM1031:
LIFT KIT (for E-CUBE only)



ECB1461V2:
COMPACT HAND TOWELS



ECB1401:
INTERLEAVED TOILET PAPER

Armal®

ARMAL S.p.A. Unipersonale
Società soggetta a direzione e coordinamento di TTD Holding IV GmbH
Via Fiorentina, 109 - 50052 Certaldo (FI - Italy)
Tel. +39 0571 665 305 - Fax. +39 0571 651260
armal@armal.biz - www.armal.biz

