E-LINE

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



ver 30 years of experience in the research and development of innovative products for the Portable Sanitation Industry, Armal S.p.A. has gained 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, its quality control system, the respect of safety and environmental standards, together with the research of new innovative and creative products, are Armal key factors.

E-LINE is the exclusive Armal range of electronic products which goes from portable restrooms to trailers and much more! Designed to enhance the user experience, Armal E-LINE features a sleek outdoor and indoor design and many details for maximum comfort.

With the same interior design and embedded electronic mechanism, E-LINE responds well to the most ambitious demands of the portable sanitation market as the line includes a single portable restroom, 2 station portable restroom and 2 station portable restroom on a trailer.

E-LINE is the customized solution ready to be used in different 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 generally wherever there is a need for portable restrooms or hand washing facilities.

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Why Armal E-LINE?

Armal commitment to designing and researching new needs for the Portable Sanitation Industry is well expressed in its E-LINE, a family of products that represents its ambition to start a new phase in the development of more upscale products.

Why "E"? "E" stands both for "Electronic" and "Easy": electronic because all E-LINE products have an electronic mechanism which represents their core, and easy because they are ready-to-use. No need to spend time in their assembly, just take and go!

Over its acquired experience in manufacturing polyethylene portable cabins, Armal has designed E-LINE to ensure operators 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, E-LINE portable restrooms are based on the same concept as a home bathroom: the use of high-quality standard materials that are easy to clean, the use of an external gray water tank to avoid bad odors inside the cabins, greater hygiene thanks to the moulded flushing rim all around the toilet bowl so that the entire interior surface is flushed with fresh water, no use of chemical products, fresh water always presents inside the toilet bowl, fresh air coming from the aeration vents or roof portholes (depending on the model), good natural light and LED light at night.

Pluses and Core

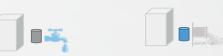
Operation and technology are the same for all Armal E-LINE products, from the single cabin to the 2 stations on a trailer. This line complies with:

Aesthetics: the use of high-quality materials and the outdoor/indoor 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 propose a product with multiple operating modes. Depending on the situation and environment in which your E-LINE cabins are to be placed, they can be used:



sewage system)



Self-contained using an external gray water tank and connected to the water supply

using an external fresh water tank and connected to the sewage system

Four different operating modes for the same restroom as it can have the same characteristics of a traditional self-contained portable restroom, or a cabin connected to the water and sewer system, or alternatively it can also be used self-contained by connecting one of the external tanks (fresh or gray water, it does not matter) 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 while using an E-LINE restroom.

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



Cost Affordability



Low Operating Cost



Energy Saving



Lower Water Consumption



Lower Disposal Cost



No Chemical Cost

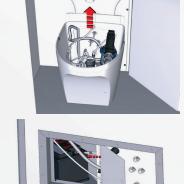
The high technological innovation of E-LINE is inside the toilet bowl where all the electronic parts are installed to grant compactness and portability to the units.

The core of all E-LINE products lies in its operation, since it:

- · has a CPU to control all functions
- pumps non-macerated gray water of the restroom
- runs dry without damage and pumps air and gray water mixtures
- pumps up to a maximum of 18 L/4.75 gal. per minute
- has a self-priming pump that reaches 3 m/118.11" maximum height

Moreover ...

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



Areas of Application and Use of Portable Restrooms



E-TOP AND E-CUBE

The Electronic Portable Restrooms

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

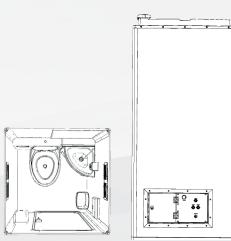
With the same interior sanitary wares and amenities as standard, these Armal cabins can have a VIP exterior design or the classic high-density polyethylene with anti UV treatment. E-TOP and E-CUBE, the customized solutions for every environment: self-contained portable restrooms by installing external tanks that can be positioned at max. 10 m / 393.70" from the cabin, mains connected restrooms to the water and sewage system, 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 activate the toilet bowl flushing with fresh water and the hand wash sink
- Moulded flushing rim around the top of the toilet bowl to allow fresh water to be directed over the entire surface so that it is completely flushed with water
- External plugs for an easy connection to water supply and sewage system (the unit can be positioned at 10 m / 393.70" from the networks)
- Level sensors and automatic stop when the maximum/minimum levels of gray/fresh water are reached in the respective tanks (self-contained use only)
- LED light with integrated presence sensor that turns on automatically at dusk
- Built-in irremovable aeration vents to protect the cabin from rain and ensure good aeration inside the restroom
- · Door with return spring and lock system with red/green occupied/vacant indicator
- · Sanitary wares in ABS
- · Anti-slip PVC mat covered floor
- · Paper hand towel dispenser in foils and soap and sanitizer dispenser
- Toilet paper dispenser in foils and 8 L / 2.11 gal. plastic dustbin
- · Mirror and coat/tool-belt hook
- · Predisposition for No. 1x65Ah car battery





Specifications:



E-TOP



E-CUBE

Hand wash sink pump (No. 1)	from 4 L/min. – 1.05 gal./min.	from 4 L/min. – 1.05 gal./min.
Water consumption per each flush	1L/0.26 gal. for the toilet bowl and 0,2 L / 0.05 gal. for the hand wash sink	1L/0.26 gal. for the toilet bowl and 0,2 L / 0.05 gal. for the hand wash sink
Gray water pump hose diameter	38 mm / 1.50"	38 mm / 1.50"
Gray water flushing pump (No. 1)	from 18 L/min. – 4.75 gal./min .	from 18 L/min. – 4.75 gal./min.
Fresh water pump (No. 1)	from 10 L/min. – 2.64 gal./min.	from 10 L/min. – 2.64 gal./min.
Power supply	DC 12V	DC 12V
Weight (empty)	104 kg / 229.28 lb.	97 kg / 213.84 lb.
Seat height	450 mm / 17.71"	450 mm / 17.71"
Lenght (internal – external)	1.010 – 1.060 mm / 39.76" – 41.73"	1.000 – 1.060 mm / 39.37" – 41.73"
Width (internal – external)	1.010 – 1.060 mm / 39.76" – 41.73"	1.000 – 1.060 mm / 39.37" – 41.73"
Height (internal – external)	2.120 - 2.400 mm / 83.46" - 94.48"	2.070 – 2.330 mm / 81.49" – 91.73"

Optional accessories:

- External fresh and gray water tanks (two units or a single block with two separated tanks)
 Transport dolly
- Lift kit (for E-CUBE only)
- Compact hand towels
- Interleaved toilet paper
- Customized stickers

E-BLOCK

The 2 Station Portable Restroom

E-BLOCK is a 2-station portable restroom with independent entrances, ensuring user privacy, and a technical room conveniently pleasantly located between the two units. Versatile and customizable, E-BLOCK is also functional, comfortable, and visually appealing. It is ideal for events, crowded manifestations, public and sport areas, mining industry facilities, construction sites ... Everywhere there is a need to reduce long waiting lines.

E-BLOCK doubles the VIP experience delivered by E-TOP: it has the same core electronic mechanism, and all E-TOP standard features with the convenience of having two cabins together. The electronic control panels and the two tanks (fresh water and gray water) are not plain visible as they are hidden in the technical room. Just like all the E-Line products, E-BLOCK can operate in four modes: self-contained, mains connected, or both alternating 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 a crane and can be effortlessly hooked to a dedicated trailer. Two portholes on the roof let in natural light and fresh air. A plus is represented by the presence of a solar panel and outdoor LED lights, one per each restroom, that illuminate the entrance when it gets dark. The materials used make E-BLOCK both durable and water resistant.



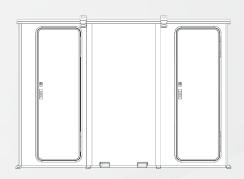
Features include:

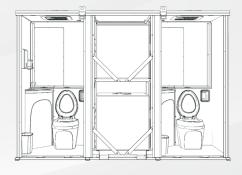
- · Two stations (with toilets and hand wash sinks) and one technical room
- Separate fresh and gray water tanks of 500 L / 132.08 gal. each, located inside the technical room
- · Automatic pumps management
- · Solar panel (centrally located on the roof of the technical room)
- · Push buttons to activate the toilet bowl flushing with fresh water and the hand wash sink
- · Moulded flushing rim around the top of the toilet bowl to allow fresh water to be directed over the entire surface so that it is completely flushed with water
- External plugs for an easy connection to water supply and sewage system (the unit can be positioned at 10 m / 393.70" from the networks)
- · Level sensors and automatic stop when the maximum/minimum levels of gray/fresh water are reached in the respective tanks (self-contained use only)
- Natural light inside the units coming from a porthole on the roof that allows good aeration
- · LED light with integrated presence sensor that turns on automatically at dusk
- Door with return spring and lock system with red/green occupied/vacant indicator
- · Sanitary wares in ABS
- · Anti-slip PVC mat covered floor
- Paper hand towel dispenser in foils and soap and sanitizer dispenser
- Toilet paper dispenser in foils and 8 L / 2.11 gal. plastic dustbin
- · Mirror and coat/tool-belt hook
- Predisposition for No. 2x65Ah car batteries

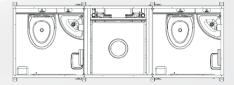


Specifications:

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"
Seat height	450 mm / 17.71"
Fresh water capacity (self-contained use only)	500 L / 132.08 gal.
Gray water capacity (self-contained use only)	500 L / 132.08 gal.
Weight (empty)	500 kg / 1102.31 lb.
Power supply	DC 12V
Fresh water pump (No. 1 per each restroom)	from 10 L/min. – 2.64 gal./min.
Gray water flushing pump (No. 1 per each restroom + No. 2 inside the technical room)	from 18 L/min. – 4.75 gal./min.
Gray water pump hose 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
Hand wash sink pump (No. 1 per each sink)	from 4 L/min. – 1.05 gal./min.
Material used	Structural profiles in extruded aluminum; insulated panels and roof in fiberglass and polystyrene. Anti-slip PVC mat covered floor. Sanitary wares in ABS
Colors	Standard







Optional accessories:

- Forced ventilation and heating systems (ask for availability)
- 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. Essentially it is an E-BLOCK station equipped with wheels and two folding ladders to access each restroom. Backed by many years of trailer manufacturing experience, Armal designed the E-TRAILER to move your E-BLOCK quickly and easily. Compared to the long-term usefulness of E-BLOCK, E-TRAILER is more suited for short term needs.

Due to its small size and low mass, the trailer can be towed by any vehicle. No need to do much when you reach the place your E-TRAILER has to be installed: simply unhook the trailer from the vehicle, proceed with positioning 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 system or alternatively use the two operating modes at the same time, as for all E-LINE products.

E-TRAILER is equipped with a single-wheel axle that allows the trailer to be towed easily and safely; it also provides high maneuverability both when attached to the vehicle and when manually positioned. The entrance steps can be folded against the cab during transport, while its components make E-TRAILER durable and water resistant. Ease of cleaning and maintenance are additional features of Armal E-TRAILER.



Features include:

- · Two stations (with toilets and hand wash sinks) and one technical room
- · Integrated access ladder, balcony, and handrail
- · Adjustable jack stand to lock the wheels which ensures stability when parking or loading
- Metal supporting structure, durable and water resistant
- Separate fresh and gray water tanks of 500 L / 132.08 gal. each, located inside the technical room
- · Automatic pumps management
- Solar panel (centrally located on the roof of the technical room)
- · Push buttons to activate the toilet bowl flushing with fresh water and the hand wash sink
- Moulded flushing rim around the top of the toilet bowl to allow fresh water to be directed over the entire surface so that it is completely flushed with water
- External plugs for an easy connection to water supply and sewage system (the unit can be positioned at 10 m / 393.70" from the networks)
- · Level sensors and automatic stop when the maximum/minimum levels of gray/fresh water are reached in the respective tanks (self-contained use only)
- Natural light inside the units coming from a porthole on the roof that allows good aeration
- · LED light with integrated presence sensor that turns on automatically at dusk
- · Door with return spring and lock system with red/green occupied/vacant indicator
- · Sanitary wares in ABS
- · Anti-slip PVC mat covered floor
- · Paper hand towel dispenser in foils and soap and sanitizer dispenser
- Toilet paper dispenser in foils and 8 L / 2.11 gal. plastic dustbin
- · Mirror and coat/tool-belt hook
- · Predisposition for No. 2x65Ah car 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"
Seat height	450 mm / 17.71"
Fresh water capacity (self-contained use only)	500 L / 132.08 gal.
Gray water capacity (self-contained use only)	500 L / 132.08 gal.
Weight in running order	820 kg / 1807.79 lb.
Power supply	DC 12V
Fresh water pump (No. 1 per each restroom)	from 10 L/min. – 2.64 gal./min.
Gray water flushing pump (No. 1 per each restroom + No. 2 inside the technical room)	from 18 L/min. – 4.75 gal./min.
Gray water pump hose 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
Hand wash sink pump (No. 1 per each sink)	from 4 L/min. – 1.05 gal./min.
Material used	Trailer's structure made of galvanized steel sheet. Structural profiles in extruded aluminum; insulated panels and roof in fiberglass and polystyrene. Anti-slip PVC mat covered floor. Sanitary wares in ABS
Colors	Standard

Optional accessories:

- Forced ventilation and heating systems (ask for availability)
- Compact hand towels
- Interleaved toilet paper
- · Customized stickers

EXTERNAL TANK FOR E-TOP AND E-CUBE

To use your E-TOP and E-CUBE as self-contained portable restrooms, Armal has designed an EXTERNAL TANK, a single block with two separate tanks for fresh and grey water. This tank is ready for use by simply connecting all the supplied accessories to the cabin. It is also easy to fill and empty by unscrewing the special caps. Thanks to its nicks under the base, which allow both the positioning of a transport dolly and the loading on the truck flatbed, it is also easy to move effortlessly. Two lateral handles facilitate its grip while the aluminum lid, lockable with a padlock, hides the battery and the tanks with its caps to prevent possible theft or vandalism.



Optional accessory:

· Transport dolly

Features include:

- Level sensors and automatic stop when the maximum/minimum levels of the gray/ fresh water in the respective tanks are reached (self-contained use only)
- Caps of the internal tanks in different colors: red for the fresh water tank and black for the gray water one
- Handles on both sides of the tank
- All accessories for connection to E-TOP/E-CUBE
- Predisposition for No. 1x65Ah car battery

Specifications:

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



TRANSPORT DOLLY

A specific TRANSPORT DOLLY for all Armal portable restrooms and cabins that helps operators on their daily activity. It is easy to use thanks to the nicks under the restroom floor that guarantee optimal functionality and manoeuvrability. The same can be used for E-TOP and E-CUBE.

LIFT KIT

A useful LIFT KIT for hauling up Armal portable restrooms and cabins has been designed for those companies who focus particularly on high building construction sites, but it is requested too by those who need safe and handy tools to facilitate the lifting of their portable restrooms and cabins. Armal Lift Kit is unique in design: the presence of the rings, which come out from the roof, facilitate the lifting of the cabins with a crane while its hidden core is assembled inside the cabin walls and are fixed at the bottom for a secure hold. Among the E-LINE products, it is only suitable for E-CUBE.



COMPACT HAND TOWELS

White 5-folds compact hand towels to perfectly dry the end user hands. The package is ready to be inserted into the special dispenser that comes standard with all E-LINE products.

Specifications:

Sheet size unfolded mm	L 250 mm / 9.84" x W 195 mm / 7.68"
Ply	1
Embossing	Micro-embossed
Wet strength	Yes
Pack size	120
Raw material	Virgin pulp
Color	White



INTERLEAVED TOILET PAPER

Armal Z-fold interleaved toilet paper is a high-quality, portion-controlled product. With 2-ply tissue for comfort and convenience, it's a smart solution when combined with the dispenser that comes standard with all E-LINE units.

Specifications:

Sheet size unfolded mm	L 240 mm / 9.45" x W 115 mm / 4.53"
Ply	2
Processing	Microglued
Pack size	200
Raw material	Pure cellulose
Color	White



PRODUCTS:



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





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

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



OPTIONAL ACCESSORIES:



PAETSP00: External Tank for E-TOP/E-CUBE



IDA0071: E-TOP/E-CUBE TRANSPORT DOLLY



IDM1031: LIFT KIT (for E-CUBE only)







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