



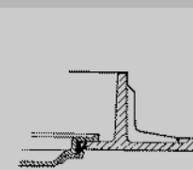
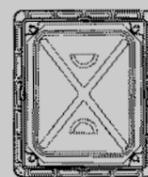
Section 7

Accessories/Glossary

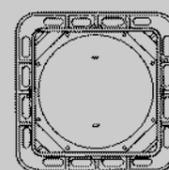
- Seal plates
- Safety grids
- Badging options
- Lifting/opening keys.



Push-fit



Bolt-down



Seal plates and safety grids

A comprehensive range of product accessories is available to enhance, protect and increase safety.

The accessories include:

- Seal plates
 - mild steel galvanised
 - GRP
- Safety grids
- Personalised badging
- Lifting keys.

Bolt-down mild steel galvanised (MSG) seal plates

Under surge conditions, pressure concentration in access shafts can lead to covers being forced out of access covers. In situations where this may occur, Saint-Gobain PAM UK offers a bolt-down MSG seal plate for added security.

MSG seal plates are fixed inside the access frame and secured using eight set screws. MSG seal plates are specially designed to overcome problems of back pressure experienced in sewer shafts up to 0.5 bar (equivalent to pressure of five metres head of water).

Installation (MSG)

When installing the access frame it is important that the bedding mortar does not interfere with the bolt holes used to retain the seal plate. Before installing the seal plate, ensure the sealing gasket and surface of the frame in contact with the gasket are lubricated using a soft soap (the lubricant used for Tyton pipe gaskets is also suitable). Washers should be placed under each set screw head. Set screws, wrapped with thread sealing tape, should then be tightened evenly to avoid possible distortion of the seal plate. We recommend bolting the frame to the chamber.

Note: Bolt-down MSG seal plates cannot be retrospectively fitted.

Push-fit glass reinforced plastic (GRP) seal plates

GRP seal plates act as a protective barrier against the egress of odours and the corrosive properties of sewer gases, notably in countries where the ambient temperature is high. They are also effective in reducing water infiltration.

GRP push-fit seal plates are not capable of performing under conditions of back pressure.

Installation (GRP)

Push-fit GRP seal plates can be easily installed with the frame in-situ, and are readily removable allowing fast access to shafts.

Note: Push-fit GRP seal plates may be retrospectively fitted in appropriate frames.

Safety grids

Specially designed MSG safety grids rest on the frame's internal lip and are designed to prevent the entry of objects into the sewer shaft when work is being carried out.

Safety grids are of drop-in design for ease of location in access frames and can be fitted retrospectively.

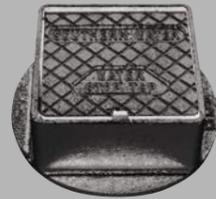
Bar type and mesh type are available in appropriate frames.

Mesh



Bar





Badging, coatings, keys, irons

Badging

The standard badges for manhole and access covers are 'FW' (foul water) or 'SW' (surface water). Not available on all items.

Special badging

Special badging of castings to individual customer requirements is also available, dependent on specific order quantities and suitability of particular designs. Please consult our sales department.

Standard badges

Access covers.
Not available on all items.

Service	Standard badge
Foul water	FW
Surface water	SW

Ductile iron product coating

Saint-Gobain PAM UK access covers and gratings are supplied coated with water-based black bitumen as standard. Castings may be supplied uncoated on request (fine cast).

Bitumen acts to protect casting surfaces whilst in transit and on the stockground. In situations where castings are subjected to regular vehicular traffic, the coating on the top surface of the casting will become worn. This has no adverse effect on the casting's performance.

Step irons

(malleable/
galvanised iron)

Code	SAP code	Shank
RM115 0	190662	115mm
RM230 0	190663	230mm

Lifting keys

Lifting keys are available, individually tailored to suit specific requirements.

Loop-handled keys

Suitable for use with E600, D400 and C250 castings and some surface boxes. See individual product pages. Available in 152mm (6"), 381mm (15"), 457mm (18") and 610mm (24"). The longer lifting keys give ergonomic benefits when lifting heavier covers.

Code	SAP code	Design	Use	Length
RMA62 0	C50	Loop	Heavy duty	152mm
RMA55 0	190666	Loop	Heavy duty	381mm
RMA56 0	190667	Loop	Heavy duty	467mm
RMA57 0	190668	Loop	Heavy duty	610mm
RMA63 0	C51	Tee	Light duty	152mm

'T' handled keys

Suitable for use with B125 covers and some surface boxes. See individual product pages.

Locking/lifting keys

Locking kit comprises assembly instructions; steel hole-punch; turnbuckle lock (plus locking lifting key if required).

Code	SAP code	Keys
RMA41 0	190664	M12 Locking/lifting keys
RMA42 0	190665	M16 Locking/lifting keys

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Bearer bar

Side frame only. Used in pairs on ducts and channel gratings.

Captive hinge

Integral hinge which prevents total removal of cover or grating.

Chequer plate

Raised pattern on top surface of covers.

Clear opening

Nominal unobstructed access opening in a frame neglecting minor incursions.

Corbaling

Staggering of brickwork below frame to reduce final gully/manhole opening size to that of the frame.

Double seal

Traditionally double vertical tongue-in-groove relationship between cover, with double rim, and frame with double groove. Allows double grease seal against egress of odour. Limits ingress of rainwater.

Double triangular

Covers or gratings formed from two triangular sections giving stable seating under load and non-rock performance.

Duct cover

Covers and frames where frame consists of two bearer bars (side frames) enabling units to be fitted end-to-end to cover cable or pipe ducts where access may be required at any point.

End hinged

Hinge at end at 90° to kerb. See LEFT and RIGHT HAND OPENING.

Ergonomically positive (E+)

Features attributed to products that offer health and safety manual handling benefits to the operative and supplier.

Solid top

Single-piece ductile iron cover i.e. non-recessed.

GRP seal plate

Plate acts as a protective barrier against sewer gases.

Kerb hinged

Hinge located adjacent to the kerb.

Keyways (closed)

Sealed lifting holes in covers for lifting keys which prevent ingress of dirt and water.

Keyways (open)

Lifting holes in covers for lifting keys.

Left hand opening

Hinged grating that opens from the left when viewed from the pavement. Standard for the UK on two-way roads.

Load Transfer System (LTS)

Design of frame that reduces the strain in the bedding material, enhancing ironwork installation performance and longevity.

Loosely coupled

The two half covers/gratings of double triangular units are connected together loosely by pins and clips. This helps prevent the covers/gratings being dropped in the shaft during lifting and, being a loose connection, still allows the two half covers/gratings to operate independently and retain their non-rock facility.

MSG seal plate (bolt-down)

Mild steel galvanised plate for fixing inside manhole frame and capable of withstanding 0.5 bar back-pressure.

Non-rock

Cover/grating and frame design which gives quiet stable seating by means of three-point non-rock seating i.e. double triangular. Gasket seatings (Pamrex, Ax-S 400) are further examples of non-rock designs. A requirement of BS EN 124 Class D400.

Pressure-tight

Cover and frame which can withstand internal pressure as in surcharged drain systems. Obtained by use of bolt-down MSG sealplate as in Inter-Ax, or units with sealing rings and bolt-down cover as with Pamtight. Pressure-tight units cannot be sealed retrospectively.

Prising slot

Slot in cover edge or occasionally on inside of frame that allows the use of a crow bar to loosen covers before removal.

Recessed cover

Top of cover recessed to allow infilling with a chosen material, concrete, quarry tiles etc., usually to match the surrounding area. Note most iron covers have a shallow recess and may not be suitable for use with pavior blocks.

Right hand opening

Hinged grating that opens from the right when viewed from the pavement. In the UK would be used on offside of one-way streets, traffic islands etc. as would be closed by oncoming traffic.

Safety grid

A fabricated galvanised mild steel grid, which normally drop-fits onto the frame below the cover to prevent covers and other objects being dropped into the shaft.

Seal plate (bolt-down)

Galvanised mild steel plate, fitted with a gasket, which is bolted to the frame to prevent egress of odours and which may limit the ingress of water. Capable of withstanding a back pressure of 0.5 bar. Cannot be fitted retrospectively.

Seal plate (push-fit)

Glass reinforced plastic (GRP) plate, fitted with a gasket, which is a push-fit into the frame and prevents egress of odours and which may limit the ingress of water and, especially in countries with high ambient temperature, acts as a barrier against the corrosive properties of the sewer gases. Not capable of sealing under back pressure. May be fitted retrospectively on certain products.

Sealed

Covers and frames which are sealed in some way to at least prevent the egress of odours from the sewer. There are different methods of sealing and these give varying standards of performance. See DOUBLE SEAL, SINGLE SEAL, SEAL PLATES and PRESSURE TIGHT.

Seating

Bearing/contact area between cover and frame. Also type or contact: Three-point seating, Non-rock seating; Machined seating; Gasket (rubber) seating.

Single-piece

Cover/grating comprises one piece.

Single seal

Traditionally single vertical tongue-in-groove relationship between cover, with single rim, and frame with single groove. Allows single grease seal against egress of odour. Limits ingress of rainwater. Also see SEAL PLATE.

Slide out

Cover removed by lifting one end then sliding out rather than direct vertical lift. Reduces the effort needed for removal.

Ventilated cover

Openings within cover allow free circulation of air within the shaft and prevent pressure build-up. Minimum vented area is specified in BS EN 124.

Waterway area

Free area of grating which allows the passage of water (ie. total area of slots).