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With a history of installations dating back more than eighty years, Gatic is without doubt the fully proven International Standard for engineered access covers and drainage gratings.

Original 1928 cover still in use
When we were asked to design our first gas and air tight cover for Shell, back in the 20s, it was to a demanding specification. Our success in meeting this specification can be judged by the fact that one of the first covers supplied can still be seen in use at a Shell garage in Malta where it was originally installed.

Continuous development and refinement
Since that first success we have continued to improve and adapt our range of products to suit the ever increasing and diverse demands of travel, industry and commerce, developing ductile iron, machined access covers in a range of surface finishes and load ratings to cope with the harshest and most punishing of environments.

Future challenges
Despite this huge variety, technology never stands still for long and we are never allowed to rest on our laurels. These days more and more traffic is using our roads, carrying heavier loads at higher speeds. Huge numbers of containers pass through our ports daily and ever bigger and heavier aircraft are rolling down the taxiways and across the aprons of the airports we serve.

The challenges may be daunting but we are confident that we will continue to rise to the occasion and supply products to meet or exceed our customers demands.
Best products. Best advice. Best results.

At Gatic, we know that our reputation is only as good as the performance of our products. So we do our very best to ensure that the product you buy is the right product for the job and that it is installed correctly in order to be able to do its job successfully. That is why we make a point of supplying all the help and technical support that we can.

Manufacturing standards

It all starts with the manufacturing process. All the basic components for Gatic covers are cast to exacting specifications, developed over time. The composition of the ductile iron is tightly controlled and the tolerances of the actual casting process are held to fine and demanding limits. This is because our products will eventually be machined to tight specifications in order to achieve the gas, air-tight and non-rocking fit upon which our reputation is built.

Professional advice on your project

Our design engineers are available to discuss the technical aspects of any project involving Gatic covers, whether large or small. The application of a little expert knowledge often means that what appear to be intractable problems can be overcome with relative ease. You can tap into this expertise either through our website www.gatic.com or by calling +44 (0)1304 203 545. You will find most of the information you need to narrow down the choice of covers for your particular project within the pages of this publication. To see in detail how Gatic covers are constructed and fitted on site, we suggest you go to the website, where much more information is available.

Downloads and tutorials

On the Gatic website, you will find a link to Access Cover Tutorials. Follow this link and you will be taken stage by stage through the assembly and installation process for a multispan engineered access cover, including the preparation of the site and construction of the inspection pit to accept the cover. For more personal, in-depth instruction, you can request CPD training with one of our instructors. Should you need them, you will be able to register here to access and download technical drawings of our current range of covers for more detailed planning purposes. Links to the range of cover specifications by load-bearing criteria, showing typical applications and other considerations influencing the choice of cover for each particular project are also to be found.

Specialist advice and assistance

If your project throws up some particularly challenging problem which needs an in-depth understanding, please don’t hesitate to get in touch since, in all probability, we have encountered a similar challenge before and, even if this is not the case, our 80-plus years of experience in dealing with these issues are sure to help you reach a satisfactory resolution.

Once these choices have been made you can relax, safe in the knowledge that your covers will be delivered to site in a timely manner.

Pre-delivery assembly

All Gatic products are pre-assembled and quality checked prior to dispatch from our factory. This process not only assures us that our cover is up to specification and worthy of the Gatic name, but means that our customers can expect it to perform in service to the high standards they have a right to expect and to continue to do so long into the future.
Gatic covers and frames – for performance and flexibility

Gatic sets the standard for access covers and frames, offering a combination of matchless quality with tried and tested solutions. The secret lies in the closely machined horizontal and vertical seating faces of the cover and frame components, which, when assembled into a complete unit, provide a cover and frame that is seated against dirt and water, and remains completely stable without rocking under traffic loads.

Gatic covers are designed both to protect and give easy access to a diverse range of underground services, examples include:

- Manhole/Pump/Valve/Transformer Chambers
- Pipe and Cable service Trenches
- Cable Draw Pits
- Lighting Pits
- Fuel and Fire Hydrant Pits
- Machinery/Plant Access Chambers
- Combined Sewer/Overflow Chambers

Typical applications can be found in a diverse range of projects including:

- Airports
- Ports/Docks
- Utilities - Gas/Electricity
- Water - Sewerage Treatment Works/Water Treatment Works/Pumping Stations
- Power Stations/Sub-Stations
- Commercial and Industrial Applications
- Highways
- Tunnels

Cover options

Gatic covers are available in a choice of designs to suit different conditions and requirements for appearance.

- Recessed for concrete infill
  Covers are designed with an arrangement of cross-ribs for infilling with concrete. This provides a very strong and hardwearing surface with an attractive appearance.

- Solid top anti-slip surface
  High performance covers that are lighter in weight than those incorporating concrete infill. Solid top covers incorporate a raised lozenge pattern on the surface.

Quality Assurance

The Gatic Quality Management System has been approved to BS EN ISO 9001:2008 Certificate Number LRQ.0860814.

The Gatic Environmental Management System has been approved to ISO 14001:2004 Certificate Number LRQ.4001081.

Our products are manufactured from 100 per cent ductile iron, giving high elasticity, which means Gatic covers and frames are highly resistant to physical forces and shock. Gatic covers comprise ductile iron and structural steel components, all of which are recyclable.

Using this brochure

Gatic covers have been created to suit the widest range of applications and to meet different loading requirements, from relatively light loads (e.g., pedestrian areas and residential roads) to the most heavy (e.g., airports, dockyards, etc).

BS EN 124:1994 classifies covers according to their place of installation as shown below. Where there is any doubt, the stronger class should be selected.

<table>
<thead>
<tr>
<th>Loading description</th>
<th>BS EN 124</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footways, pedestrian areas, etc</td>
<td>A125</td>
</tr>
<tr>
<td>Gully tops in kerbside channels of roads</td>
<td>C250</td>
</tr>
<tr>
<td>Carriageways (area/roads, heavy duty)</td>
<td>D400</td>
</tr>
<tr>
<td>Areas imposing high wheel loads</td>
<td>E600</td>
</tr>
<tr>
<td>Areas imposing particularly high wheel loads</td>
<td>F900</td>
</tr>
</tbody>
</table>

Data from BS EN 124:1994 (Gully tops and manhole tops for vehicular and pedestrian areas. Design requirements, type loading, marking, quality control)

The covers in our brochure are organised according to the BS EN 124 classifications. Please refer to the Loading Group Selector Guide on pages 10-11.
The Gatic range of loading groups is organised according to BS EN 124:1994 (Gully tops and manhole tops for vehicular and pedestrian areas. Design requirements, type testing, marking, quality control).
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Product Features and Benefits

Cover types
Covers are recessed for concrete infill or solid top according to specifier preference.

Concrete infill recessed covers
Recessed covers are designed for filling with concrete as specified in BS EN 124 - C45-45 N/mm² for a test cube of 150mm, or a 40N/mm² for a test cylinder 150mm diameter x 300mm high, using a 10mm coarse aggregate.

Anti-slip surface covers
Concrete infill covers provide a non-slip surface similar to the surrounding areas. Solid top covers incorporate a raised lozenge pattern on the surface.

Materials
The components of Gatic covers are manufactured from the following materials:
Ductile iron components to BS EN 1563:1997
Structural steel sections (removable beams) to BS 4-1:2005

Fine tolerances
The seating faces of Gatic covers and frames are machined to ensure metal-to-metal contact within 0.25mm tolerance.

Non-rocking
Correctly installed, Gatic covers will be non-rocking to ensure metal-to-metal contact within 0.25mm tolerance.

Watertight
A film of graphite grease between the contact faces of Gatic covers and frames, combined with close manufacturing tolerances, provides a monolithic structure that will withstand the dynamic effects of traffic movement and impact.

Vibration resistant
To prevent movement of covers in high density traffic conditions, we recommend the use of a factory-fitted vibration-resistant locking system. Can be fitted to recessed covers only.

Ventilation
Ventilation can be provided by fitting four 25mm diameter ventilation tubes in recessed covers.

Loadings
All Gatic covers will withstand test load, deflection and maximum deformation criteria specified in BS EN 124 for each loading category.

Frame bars
Gatic 140mm deep supporting frames incorporate an ‘I’ beam design profile to provide a robust and rigid frame that will withstand the specified loads, without any concrete infill or backfill.

Rigidity
The robust and rigid design of Gatic D400, E600 and F900 frames, combined with close manufacturing tolerances, provides a monolithic structure that will withstand the dynamic effects of traffic movement and impact.

Secure support
The clear opening width between supporting frames are at least 10mm greater than the pit/chamber design to allow for minor deviations in pit construction dimensions.

Beam wallbox
Supporting beams in Gatic Multispan units are easily removed with appropriate lifting equipment for access to the total chamber area. Beam wallboxes do not project into the chamber opening.

Finishes
Units are coated with a black bituminous solution that acts as a temporary protection during transit. Removable supporting steelwork is galvanised to BS EN ISO 1461:2009. See page 80 for alternative finishes.

Installation
Consignments of Gatic units are accompanied by comprehensive installation instructions.

Leveling bolts
All side frame bars and wallboxes are fitted with bolts to assist in the levelling of the unit during installation.

Ventilation tubes
Ventilation can be provided by fitting four 25mm diameter ventilation tubes in recessed covers.

Operator control
Jack screw operating keys locate positively and securely into Gatic covers and are a necessary tool if the inherent cover seal is to be broken effectively and to allow operator maximum control during operation.

Secure and vandal resistant
Covers are designed to prevent tampering and unauthorised removal. Gatic covers cannot be removed without the correct lifting key, so unauthorised removal is virtually impossible. Locking bolts can be fitted to Gatic cover keyways as an additional security feature.

Safety grids
Hinged lift-out galvanised steel safety grids (with padlock facility if required) can be incorporated into Gatic units. See page 80.

Environmental commitment
Responsibility towards the environment is our primary concern. Our customers often now demand products that are made from recycled and recyclable materials, supplied by companies with robust environmental policies to reduce the environmental impact of their projects for future generations.

To meet these requirements we have an integrated Quality (BS EN 9001:2008) and Environmental (ISO 14001:2004) Management System which encompasses the design, manufacture and management systems within the company and ensures our commitment to continuous environmental improvements regarding the manufacture and design of all our products in the following ways:
- Minimise environmental impact
- Commit organisational resources to energy management
- Reduce energy costs
- Give high priority to energy efficient investments
- Consider life cycle energy costs for all new projects
- Minimise CO2 emissions year on year
- Use energy from sustainable resources wherever possible

To achieve these goals we have put in place the necessary systems and controls to meet demanding environmental targets and to make sure that these are maintained for the future benefit of the environment and our customers alike.

Gatic services
Gatic offers a full support service to specifiers and contractors, including Computer Aided Design, AutoCAD compatible details of all Gatic products are available. Please consult our technical department for assistance.

In view of our commitment to product improvement, we reserve the right to alter designs without notice. Design changes will not adversely affect the performance or loading capability of our products.

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QUALITY 
ASSURANCE
The Gatic Quality Management System has been approved to BS EN ISO 9001:2008 by the Certification Body UKAS QA Limited.

ENVIRONMENTAL 
ASSURANCE
The Gatic Environmental Management System has been approved to ISO 14001:2004 by the Certification Body UKAS QA Limited.
Introduction
This section includes Gatic covers and frames designed for Loading Group B125.

3 tonne wheel load, test load 125kN – Suitable for:
- Footways
- Pedestrian areas
- Car parks
- Driveways
- Internal floors

B125 assemblies are available with a choice of cover designs – recessed or solid top.

Recessed for concrete infill
Recessed covers are available in a choice of designs designated by a "Type" reference. B125 recessed covers are available as Type DL, DLF and DM. Section drawings of the different recessed cover types are shown on the following pages.

Solid top
Solid top cover types are lighter in weight than recessed covers, and feature a figured anti-slip surface. Solid top covers are denoted by the code Type DLS and DMS depicted in section on the following pages.

If you are uncertain as to the adequacy of covers conforming to a particular loading, we recommend specifying covers in a higher loading group. For example, if in doubt about covers in Loading Group B125, we recommend you specify covers in Loading Group C250.
### Single recessed covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DL, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

### Cover types

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 x 300</td>
<td>DLF</td>
<td>900 x 540 x 75</td>
<td>1050 x 600 x 100</td>
</tr>
<tr>
<td>600 x 450</td>
<td>DL</td>
<td>750 x 680 x 75</td>
<td>900 x 750 x 100</td>
</tr>
<tr>
<td>750 x 450</td>
<td>DL</td>
<td>900 x 680 x 75</td>
<td>1050 x 750 x 100</td>
</tr>
<tr>
<td>600 x 600</td>
<td>DL</td>
<td>770 x 840 x 75</td>
<td>900 x 900 x 100</td>
</tr>
<tr>
<td>750 x 600</td>
<td>DL</td>
<td>920 x 840 x 75</td>
<td>1050 x 900 x 100</td>
</tr>
<tr>
<td>900 x 600</td>
<td>DL</td>
<td>1070 x 840 x 75</td>
<td>1200 x 900 x 100</td>
</tr>
<tr>
<td>750 x 750</td>
<td>DL</td>
<td>920 x 990 x 75</td>
<td>1050 x 1050 x 100</td>
</tr>
<tr>
<td>900 x 750</td>
<td>DL</td>
<td>1070 x 990 x 75</td>
<td>1200 x 1050 x 100</td>
</tr>
<tr>
<td>900 x 900</td>
<td>DL</td>
<td>1120 x 1140 x 75</td>
<td>1200 x 1200 x 100</td>
</tr>
<tr>
<td>600 x 1050</td>
<td>DL</td>
<td>850 x 1290 x 75</td>
<td>900 x 1350 x 100</td>
</tr>
<tr>
<td>750 x 1050</td>
<td>DL</td>
<td>1000 x 1390 x 75</td>
<td>1050 x 1350 x 100</td>
</tr>
<tr>
<td>1000 x 1050</td>
<td>DM</td>
<td>1220 x 1420 x 140</td>
<td>1400 x 1450 x 165</td>
</tr>
<tr>
<td>600 x 1200</td>
<td>DM</td>
<td>820 x 1420 x 140</td>
<td>1000 x 1600 x 165</td>
</tr>
<tr>
<td>750 x 1200</td>
<td>DM</td>
<td>970 x 1420 x 140</td>
<td>1150 x 1600 x 165</td>
</tr>
</tbody>
</table>

Plan of recessed single cover

### Single solid top covers and frames

- Covers with solid top
- Cover types: DLS, DMS

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

### Cover types

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 x 600</td>
<td>DLS</td>
<td>770 x 840 x 75</td>
<td>900 x 900 x 100</td>
</tr>
<tr>
<td>750 x 600</td>
<td>DLS</td>
<td>920 x 840 x 75</td>
<td>1050 x 900 x 100</td>
</tr>
<tr>
<td>900 x 600</td>
<td>DLS</td>
<td>1070 x 840 x 75</td>
<td>1200 x 900 x 100</td>
</tr>
<tr>
<td>750 x 750</td>
<td>DLS</td>
<td>920 x 990 x 75</td>
<td>1050 x 1050 x 100</td>
</tr>
<tr>
<td>900 x 750</td>
<td>DLS</td>
<td>1120 x 1140 x 75</td>
<td>1200 x 1200 x 100</td>
</tr>
<tr>
<td>600 x 1200</td>
<td>DMS</td>
<td>750 x 1420 x 140</td>
<td>1000 x 1600 x 165</td>
</tr>
<tr>
<td>750 x 1200</td>
<td>DMS</td>
<td>900 x 1420 x 140</td>
<td>1150 x 1600 x 165</td>
</tr>
<tr>
<td>1000 x 1000</td>
<td>DMS</td>
<td>1220 x 1420 x 140</td>
<td>1400 x 1450 x 165</td>
</tr>
</tbody>
</table>

Plan of solid top single cover

### Notes

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate.
- Full height webs.
- Webs reduced by 23mm.
- Pit clear opening span.

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Recessed duct covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DL, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

Plan of recessed duct cover

<table>
<thead>
<tr>
<th>Pit clear opening span (S)</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
<td>L + 300 x 600 x 100</td>
</tr>
<tr>
<td>450</td>
<td>DL</td>
<td>L + 300 x 750 x 100</td>
</tr>
<tr>
<td>600</td>
<td>DL</td>
<td>L + 300 x 900 x 100</td>
</tr>
<tr>
<td>750</td>
<td>DL</td>
<td>L + 300 x 1050 x 100</td>
</tr>
<tr>
<td>900</td>
<td>DL</td>
<td>L + 300 x 1200 x 100</td>
</tr>
<tr>
<td>1090</td>
<td>DM</td>
<td>L + 300 x 1350 x 100</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
<td>L + 400 x 1600 x 165</td>
</tr>
</tbody>
</table>

* Indicates standard sizes not available. The number shown indicates the quantity of cover parts. Other standard sizes may be available, refer to our technical department.

Plan of solid top duct cover

<table>
<thead>
<tr>
<th>Pit clear opening span (S)</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>660</td>
<td>DLS</td>
<td>L + 300 x 900 x 100</td>
</tr>
<tr>
<td>750</td>
<td>DLS</td>
<td>L + 300 x 1050 x 100</td>
</tr>
<tr>
<td>900</td>
<td>DLS</td>
<td>L + 300 x 1200 x 100</td>
</tr>
<tr>
<td>1200</td>
<td>DMS</td>
<td>L + 400 x 1600 x 165</td>
</tr>
</tbody>
</table>

* Indicates standard sizes not available. The number shown indicates the quantity of cover parts. Other standard sizes may be available, refer to our technical department.

Solid top duct covers and frames

- Covers with solid top
- Cover types: DLS, DMS

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

Plan of solid top duct cover

<table>
<thead>
<tr>
<th>Pit clear opening span (S)</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
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<td>DLS</td>
<td>L + 300 x 900 x 100</td>
</tr>
<tr>
<td>750</td>
<td>DLS</td>
<td>L + 300 x 1050 x 100</td>
</tr>
<tr>
<td>900</td>
<td>DLS</td>
<td>L + 300 x 1200 x 100</td>
</tr>
<tr>
<td>1200</td>
<td>DMS</td>
<td>L + 400 x 1600 x 165</td>
</tr>
</tbody>
</table>

* Indicates standard sizes not available. The number shown indicates the quantity of cover parts. Other standard sizes may be available, refer to our technical department.

Cover types

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

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Loading Group | B125 FOOTWAYS, PEDESTRIAN AREAS, CAR PARKS, DRIVEWAYS AND INTERNAL FLOORS

GATIC COVERS AND FRAMES B125 FOOTWAYS, PEDESTRIAN AREAS, CAR PARKS, DRIVEWAYS AND INTERNAL FLOORS

Loading Group | B125 FOOTWAYS, PEDESTRIAN AREAS, CAR PARKS, DRIVEWAYS AND INTERNAL FLOORS
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Continuous recessed trench covers and frames

- Covers recessed for concrete infill
- Cover types: DL, DLF, DM, DM/F

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below. Construction drawings are required so that Gatic cover layout drawings can be prepared.

Continuous solid top trench covers and frames

- Covers with solid top
- Cover types: DLS, DMS

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

Continuous recessed trench covers and frames

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
</tr>
<tr>
<td>450</td>
<td>DL</td>
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<tr>
<td>600</td>
<td>DL</td>
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<tr>
<td>750</td>
<td>DL</td>
</tr>
<tr>
<td>900</td>
<td>DL</td>
</tr>
<tr>
<td>1150</td>
<td>DL</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
</tr>
<tr>
<td>1350</td>
<td>DM/F</td>
</tr>
<tr>
<td>1500</td>
<td>DM/F</td>
</tr>
</tbody>
</table>

Note: For type DM/F refer to our technical department.

Continuous solid top trench covers and frames

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>DLS</td>
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<tr>
<td>750</td>
<td>DLS</td>
</tr>
<tr>
<td>900</td>
<td>DLS</td>
</tr>
<tr>
<td>1200</td>
<td>DMS</td>
</tr>
</tbody>
</table>

Direction of sliding out covers

End terminations

Cover types

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

Continuous solid top trench covers and frames

<table>
<thead>
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<tbody>
<tr>
<td>600</td>
<td>DLS</td>
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<td>900</td>
<td>DLS</td>
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<tr>
<td>1200</td>
<td>DMS</td>
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Direction of sliding out covers

End terminations

Cover types

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.
Multispan covers and frames

GATIC Multispan Recessed covers and frames

Cover type DL recessed

Multiple access covers recessed for concrete infill with removable beams.

... in no. ... (length) x ... (span) mm pit clear opening multi span cover and frame. Gatic Type DL Ductile Iron Recessed Cover in ..., parts complete with ... in no. ... x ... mm galvanised removable support beam spanning the ... (length) mm way.

Suitable for Loading Group B125 – Medium/Light Duty 3 Tonnes Wheel Load (pneumatic tyre).

Gatic Multispan Solid Top covers and frames

Cover type DLS solid top

Multiple solid top access covers with removable beams.

... in no. ... (length) x ... (span) mm pit clear opening multi span cover and frame. Gatic Type DLS Ductile Iron Solid Top Cover in ..., parts complete with ... in no. ... x ... mm galvanised removable support beam spanning the ... (length) mm way.

Suitable for Loading Group B125 – Medium/Light Duty 3 Tonnes Wheel Load (pneumatic tyre).

Standard pit clear opening sizes are shown on Page 25.

Beam sizes and other dimensions are shown on Pages 26 and 27.

Materials

Ductile iron components to BS EN 1563:1997.
Structural steel removable beams to BS 4-1:2005.

Finishes

Units coated with black bituminous solution for protection during transit.
Removable supporting steelwork galvanised to BS EN ISO 1461:2009.

Infill and surround concrete by customer
Concrete strength, using 10mm coarse aggregate, to be:
Infill and surround concrete by customer

Installation

In accordance with instructions supplied by Gatic.

To specify use size and description format as follows:

<table>
<thead>
<tr>
<th>Loading group</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gatic B125</td>
<td>3 tonne wheel load – test load 125 kN.</td>
</tr>
</tbody>
</table>

To refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S).

Refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S). All dimensions are in millimetres.

**Pit clear opening span (S) mm**

<table>
<thead>
<tr>
<th>L</th>
<th>2 parts</th>
<th>3 parts</th>
<th>4 parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1380</td>
<td>1530</td>
<td>1680</td>
<td>1830</td>
</tr>
<tr>
<td>2160</td>
<td>2310</td>
<td>2460</td>
<td>2610</td>
</tr>
<tr>
<td>3000</td>
<td>3150</td>
<td>3300</td>
<td>3450</td>
</tr>
<tr>
<td>3990</td>
<td>4140</td>
<td>4290</td>
<td>4440</td>
</tr>
<tr>
<td>5070</td>
<td>5220</td>
<td>5370</td>
<td>5520</td>
</tr>
</tbody>
</table>

**Pit clear opening length (L) mm**

<table>
<thead>
<tr>
<th>S</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500</td>
<td>1530</td>
<td>1680</td>
<td>1830</td>
<td>2000</td>
<td>2150</td>
</tr>
<tr>
<td>2100</td>
<td>2250</td>
<td>2400</td>
<td>2550</td>
<td>2700</td>
<td>2850</td>
</tr>
<tr>
<td>3000</td>
<td>3150</td>
<td>3300</td>
<td>3450</td>
<td>3600</td>
<td>3750</td>
</tr>
<tr>
<td>3990</td>
<td>4140</td>
<td>4290</td>
<td>4440</td>
<td>4690</td>
<td>4840</td>
</tr>
<tr>
<td>5070</td>
<td>5220</td>
<td>5370</td>
<td>5520</td>
<td>5670</td>
<td>5820</td>
</tr>
</tbody>
</table>

**Note:** For other pit clear opening sizes please refer to our technical department.
GATIC

Multispan covers and frames

- Covers recessed for concrete infill or solid top
- Cover types: DL (recessed) DLS (solid top)

The details below show plan and sections of a typical recessed/solid top unit.
For selection and specification guidance, refer to pages 24, 25 and 27.

Beam Size

The required beam size for Multispan covers is dependent on the pit clear opening length and the loading group.

The table shows maximum beam length against beam size. The removable support beams are supplied by Gatic.

The table also indicates dimensions of the beam wallbox and rebate to suit different beam sizes. See also the accompanying section details.

Support beam size chart

<table>
<thead>
<tr>
<th>Removable support beam size</th>
<th>Max pit clear opening length (L)</th>
<th>Beam wallbox dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>V</td>
</tr>
<tr>
<td>152 x 152 x 37 kg/m UC</td>
<td>2000</td>
<td>238</td>
</tr>
<tr>
<td>200 x 152 x 52 kg/m RSJ</td>
<td>2750</td>
<td>279</td>
</tr>
<tr>
<td>305 x 165 x 54 kg/m UB</td>
<td>3900</td>
<td>367</td>
</tr>
</tbody>
</table>

Note: Removable support beams are supplied by Gatic.

Covers & rebates to be filled with 45 cubic or 40 cylinder concrete during installation using 10mm coarse aggregate.

Webs reduced by 23mm

Solid top cover

Suggested rebate for beam wallbox

Suggested rebate for side frame

Suggested rebate for end frame

Support beam (supplied by Gatic)
Introduction
This section includes Gatic covers and frames designed for Loading Group C250.

5 tonne wheel load, test load 250kN – Suitable for:
- Minor residential roads
- Cul-de-sacs
- Pedestrian precincts
- Yards, etc

C250 assemblies are available with a choice of cover designs – recessed or solid top.

Recessed for concrete infill
Recessed covers are available in a choice of designs designated by a ‘Type’ reference. C250 recessed covers are available as Type DLF, DM, DM/F and DMR. Section drawings of the different recessed cover types are shown on the following pages.

Solid top
Solid top cover types are lighter in weight than recessed covers, and feature a figured anti-slip surface. Solid top covers are denoted by the code Type DLS and DMS depicted in section on the following pages.

If you are uncertain as to the adequacy of covers conforming to a particular loading, we recommend specifying covers in a higher loading group. For example, if in doubt about covers in Loading Group C250, we recommend you specify covers in Loading Group D400.
GATIC

Single recessed covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 x 300</td>
<td>DLF</td>
<td>900 x 540 x 75</td>
<td>1050 x 600 x 100</td>
</tr>
<tr>
<td>600 x 450</td>
<td>DLF</td>
<td>750 x 660 x 75</td>
<td>900 x 750 x 100</td>
</tr>
<tr>
<td>750 x 450</td>
<td>DMR</td>
<td>900 x 670 x 140</td>
<td>1150 x 850 x 165</td>
</tr>
<tr>
<td>600 x 600</td>
<td>DLF</td>
<td>770 x 840 x 75</td>
<td>900 x 900 x 100</td>
</tr>
<tr>
<td>750 x 600</td>
<td>DLF</td>
<td>920 x 840 x 75</td>
<td>1050 x 900 x 100</td>
</tr>
<tr>
<td>900 x 600</td>
<td>DLF</td>
<td>1070 x 840 x 75</td>
<td>1200 x 900 x 100</td>
</tr>
<tr>
<td>750 x 750</td>
<td>DLF</td>
<td>920 x 990 x 75</td>
<td>1050 x 1050 x 100</td>
</tr>
<tr>
<td>900 x 750</td>
<td>DLF</td>
<td>1070 x 990 x 75</td>
<td>1200 x 1050 x 100</td>
</tr>
<tr>
<td>900 x 900</td>
<td>DLF</td>
<td>1120 x 1140 x 75</td>
<td>1200 x 1200 x 100</td>
</tr>
<tr>
<td>600 x 1050</td>
<td>DM</td>
<td>820 x 1270 x 140</td>
<td>1000 x 1450 x 165</td>
</tr>
<tr>
<td>750 x 1050</td>
<td>DM</td>
<td>970 x 1270 x 140</td>
<td>1150 x 1450 x 165</td>
</tr>
<tr>
<td>1000 x 1050</td>
<td>DM</td>
<td>1220 x 1270 x 140</td>
<td>1400 x 1450 x 165</td>
</tr>
<tr>
<td>600 x 1200</td>
<td>DM</td>
<td>820 x 140 x 140</td>
<td>1000 x 1600 x 165</td>
</tr>
<tr>
<td>750 x 1200</td>
<td>DM</td>
<td>970 x 140 x 140</td>
<td>1150 x 1600 x 165</td>
</tr>
</tbody>
</table>

Cover types

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

- Full height webs

GATIC

Single solid top covers and frames

- Covers with solid top
- Cover types: DLS, DMS

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

Covers with solid top

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 x 600</td>
<td>DLS</td>
<td>770 x 840 x 75</td>
<td>900 x 900 x 100</td>
</tr>
<tr>
<td>750 x 600</td>
<td>DLS</td>
<td>920 x 840 x 75</td>
<td>1050 x 900 x 100</td>
</tr>
<tr>
<td>900 x 600</td>
<td>DLS</td>
<td>1070 x 840 x 75</td>
<td>1200 x 900 x 100</td>
</tr>
<tr>
<td>750 x 750</td>
<td>DLS</td>
<td>920 x 990 x 75</td>
<td>1050 x 1050 x 100</td>
</tr>
<tr>
<td>900 x 750</td>
<td>DLS</td>
<td>1120 x 1040 x 75</td>
<td>1200 x 1050 x 100</td>
</tr>
<tr>
<td>600 x 1200</td>
<td>DMS</td>
<td>750 x 1420 x 140</td>
<td>1000 x 1600 x 165</td>
</tr>
<tr>
<td>750 x 1200</td>
<td>DMS</td>
<td>900 x 1420 x 140</td>
<td>1150 x 1600 x 165</td>
</tr>
<tr>
<td>1000 x 1000</td>
<td>DMS</td>
<td>1220 x 1220 x 140</td>
<td>1400 x 1400 x 165</td>
</tr>
</tbody>
</table>

Cover types

- Covers with solid top

- Full height webs

- Solid top covers

- Solid top covers

- Suggested rebate size length x width x depth

- Plan of recessed single cover

- Plan of solid top single cover
GATIC

Recessed duct covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DM

To specify state:
1. Loading group
2. Pit clear opening size
3. Cover type

<table>
<thead>
<tr>
<th>Pit clear opening span (S)</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
<td>(L + 300) x 600 x 100</td>
</tr>
<tr>
<td>450</td>
<td>DLF</td>
<td>(L + 300) x 750 x 100</td>
</tr>
<tr>
<td>600</td>
<td>DLF</td>
<td>(L + 300) x 900 x 100</td>
</tr>
<tr>
<td>750</td>
<td>CLF</td>
<td>(L + 300) x 1050 x 100</td>
</tr>
<tr>
<td>900</td>
<td>DLF</td>
<td>(L + 300) x 1200 x 100</td>
</tr>
<tr>
<td>1050</td>
<td>DM</td>
<td>(L + 900) x 1400 x 100</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
<td>(L + 900) x 1600 x 100</td>
</tr>
<tr>
<td>1350</td>
<td>DM/F</td>
<td>Refer to our technical department</td>
</tr>
<tr>
<td>1500</td>
<td>DM/F</td>
<td>Refer to our technical department</td>
</tr>
</tbody>
</table>

- Other standard sizes may be available, refer to our technical department

<table>
<thead>
<tr>
<th>Pit clear opening span (S)</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
<td>(L + 300) x 600 x 100</td>
</tr>
<tr>
<td>450</td>
<td>DLF</td>
<td>(L + 300) x 750 x 100</td>
</tr>
<tr>
<td>600</td>
<td>DLF</td>
<td>(L + 300) x 900 x 100</td>
</tr>
<tr>
<td>750</td>
<td>CLF</td>
<td>(L + 300) x 1050 x 100</td>
</tr>
<tr>
<td>900</td>
<td>DLF</td>
<td>(L + 300) x 1200 x 100</td>
</tr>
<tr>
<td>1050</td>
<td>DM</td>
<td>(L + 900) x 1400 x 100</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
<td>(L + 900) x 1600 x 100</td>
</tr>
<tr>
<td>1350</td>
<td>DM/F</td>
<td>Refer to our technical department</td>
</tr>
<tr>
<td>1500</td>
<td>DM/F</td>
<td>Refer to our technical department</td>
</tr>
</tbody>
</table>

- Other standard sizes may be available, refer to our technical department

Cover types

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

- Pit clear opening span

Solid top duct covers and frames

- Covers with solid top
- Cover types: DLS, DMS

To specify state:
1. Loading group
2. Pit clear opening size
3. Cover type

<table>
<thead>
<tr>
<th>Pit clear opening span (S)</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>DLS</td>
<td>(L + 300) x 750 x 100</td>
</tr>
<tr>
<td>750</td>
<td>DLS</td>
<td>(L + 300) x 1050 x 100</td>
</tr>
<tr>
<td>900</td>
<td>DMS</td>
<td>(L + 400) x 1600 x 100</td>
</tr>
<tr>
<td>1050</td>
<td>DMS</td>
<td>(L + 400) x 1600 x 100</td>
</tr>
</tbody>
</table>

- Other standard sizes may be available, refer to our technical department

Cover types

- Rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate
- Solid top covers
- Solid leg covers

- Pit clear opening span

GATIC Tel: +44 (0)1304 203545 Website: www.gatic.com Email: info@gatic.com
GATIC
Continuous recessed trench covers and frames

- Covers recessed for concrete infill
- Cover type DLF, DM

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Continuous solid top trench covers and frames

- Covers with solid top
- Cover type DLS, DMS

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below. Construction drawings are required so that Gatic cover layout drawings can be prepared.

Continuous recessed cover

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
</tr>
<tr>
<td>450</td>
<td>DLF</td>
</tr>
<tr>
<td>600</td>
<td>DLF</td>
</tr>
<tr>
<td>750</td>
<td>DLF</td>
</tr>
<tr>
<td>900</td>
<td>DLF</td>
</tr>
<tr>
<td>1050</td>
<td>DM</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
</tr>
<tr>
<td>1500</td>
<td>DM/F</td>
</tr>
</tbody>
</table>

Note: type DM/F refer to our technical department.

Continuous solid top cover

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>DLS</td>
</tr>
<tr>
<td>750</td>
<td>DLS</td>
</tr>
<tr>
<td>900</td>
<td>DLS</td>
</tr>
<tr>
<td>1200</td>
<td>DMS</td>
</tr>
</tbody>
</table>

End terminations

Covers recessed for concrete infill

Covers with solid top

Cover types

Cover and rebate to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

<table>
<thead>
<tr>
<th>Type</th>
<th>Full height webs</th>
<th>Pit clear opening span</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DM</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below. Construction drawings are required so that Gatic cover layout drawings can be prepared.
**GATIC**

**Multispan covers and frames**

**Specification**

Below is sample specification information and notes for Multispan recessed covers and frames.

For more details on features and benefits of Gatic covers, see pages 14 to 15.

Loading group Gatic C250

5 tonne wheel load – test load 250 kN.

**Materials**

Ductile iron components to BS EN 1563:1997.

Structural steel removable beams to BS 4-1:2005.

**Finishes**

Units coated with black bituminous solution for protection during transit.

Removable supporting steelwork galvanised to BS EN ISO 1461:2009.

Infill and surround concrete by customer

Concrete strength, using 10mm coarse aggregate, to be:

Infill and surround concrete by customer

Removable supporting steelwork galvanised to BS EN ISO 1461:2009.

Units coated with black bituminous solution

**Finishes**

Structural steel removable beams to BS 4-1:2005.

Ductile iron components to BS EN 1563:1997.

**Materials**

For more details on features and benefits of Gatic covers, see pages 14 to 15.

**Installation**

In accordance with instructions supplied by Gatic.

To specify use size and description format as follows:

**Gatic Multispan Recessed covers and frames**

Cover type DLF recessed

Multiple access covers recessed for concrete infill with removable beams.

... in no. ..., (length) x ..., (span) mm pit clear opening multi span cover and frame.

Gatic Type DLF Ductile Iron Recessed Cover in ... parts complete with ...

... in no. ..., (length) x ..., (span) mm galvanised removable support beam spanning the ..., (length) mm way.

Suitable for Loading Group C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

**Gatic Multispan Solid Top covers and frames**

Cover type DLS solid top

Multiple top access covers with removable beams.

... in no. ..., (length) x ..., (span) mm pit clear opening multi span cover and frame.

Gatic Type DLS Ductile Iron Solid Top Cover in ... parts complete with ...

... in no. ..., (length) x ..., (span) mm galvanised removable support beam spanning the ..., (length) mm way.

Suitable for Loading Group C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

Standard pit clear opening sizes are shown on Page 37.

**Product Selection**

Refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S). All dimensions are in millimetres.

**Product Selection**

Refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S). All dimensions are in millimetres.

**Loading Group**

<table>
<thead>
<tr>
<th>Loading Group</th>
<th>C250</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOR ROADS CARRYING RELATIVELY SLOW-MOVING TRAFFIC</strong></td>
<td></td>
</tr>
<tr>
<td>-- EG, MINOR RESIDENTIAL ROADS, CUL-DE-SACS, PEDESTRIAN PRECINCTS, YARDS, ETC</td>
<td></td>
</tr>
</tbody>
</table>

**GATIC COVERS AND FRAMES C250**

---

**Note:** For other pit clear opening sizes please refer to our technical department.
GATIC COVERS AND FRAMES
C250
FOR ROADS CARRYING RELATIVELY SLOW-MOVING TRAFFIC
– EG, MINOR RESIDENTIAL ROADS, CUL-DE-SACS, PEDESTRIAN PRECINCTS, YARDS, ETC.

Multispan covers and frames

- Covers recessed for concrete infill or solid top
- Cover types: DLF (recessed), DLS (solid top)

The details below show plan and sections of a typical recessed/solid top unit. For selection and specification guidance, refer to pages 36, 37 and 39.

Support beam size chart

<table>
<thead>
<tr>
<th>Removable support beam size</th>
<th>Max pit clear opening length (L)</th>
<th>Beam wallbox dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>152 x 152 x 3.7kg/m UC</td>
<td>1750</td>
<td>V 238 W 260 X 300</td>
</tr>
<tr>
<td>203 x 152 x 5.2kg/m R6D</td>
<td>2300</td>
<td>V 279 W 306 X 345</td>
</tr>
<tr>
<td>305 x 165 x 5.6kg/m L6B</td>
<td>3150</td>
<td>V 387 W 410 X 450</td>
</tr>
<tr>
<td>356 x 171 x 6.7kg/m L6B</td>
<td>3900</td>
<td>V 440 W 465 X 505</td>
</tr>
</tbody>
</table>

Note: Removable support beams are supplied by Gatic.

Beam Size

The required beam size for Multispan covers is dependent on the pit clear opening length and the loading group.

The table shows maximum beam length against beam size. The removable support beams are supplied by Gatic.

The table also indicates dimensions of the beam wallbox and rebate to suit different beam sizes. See also the accompanying section details.

Plan showing recessed and solid top cover options
**Introduction**

This section includes Gatic covers and frames designed for Loading Group D400.

- 11.5 tonne wheel load, test load 400kN – Suitable for:
  - Power stations
  - Carriageways
  - Hard shoulders
  - Parking areas for all types of vehicles

**Cover types**

- Single covers and frames
- Duct covers and frames
- Continuous trench covers and frames
- Multispan covers and frames

**D400 assemblies** are available with a choice of cover designs – recessed or solid top.

**Recessed for concrete infill**

Recessed covers are available in a choice of designs designated by a ‘Type’ reference. D400 recessed covers are available as Type DLF, DM, DM/F and DMR. Section drawings of the different recessed cover types are shown on the following pages.

**Solid top**

Solid top cover types are lighter in weight than recessed covers, and feature a figured anti-slip surface. Solid top covers are denoted by the code Type DMS depicted in section on the following pages.

To prevent movement of covers in high traffic conditions, we recommend the use of a factory fitted vibration-resistant locking system. Can be fitted to recessed covers only. See page 14.

If you are uncertain as to the adequacy of covers conforming to a particular loading, we recommend specifying covers in a higher loading group. For example, if in doubt about covers in Loading Group D400, we recommend you specify covers in Loading Group E600.
GATIC

Single recessed covers and frames

- Covers recessed for concrete infill
- Cover type: DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

Plan of recessed single cover

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF</td>
<td>750 x 300 x 75</td>
<td>1050 x 600 x 100</td>
</tr>
<tr>
<td>DMR</td>
<td>750 x 450 x 140</td>
<td>1150 x 850 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>750 x 450 x 140</td>
<td>1150 x 850 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>1050 x 820 x 140</td>
<td>1300 x 1000 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>900 x 820 x 140</td>
<td>1150 x 1000 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>900 x 820 x 140</td>
<td>1150 x 1000 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>1050 x 820 x 140</td>
<td>1300 x 1000 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>750 x 970 x 140</td>
<td>1150 x 1150 x 165</td>
</tr>
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<td>DMR</td>
<td>1120 x 1120 x 140</td>
<td>1300 x 1300 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>820 x 1270 x 140</td>
<td>1000 x 1450 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>970 x 1270 x 140</td>
<td>1150 x 1450 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>1220 x 1220 x 140</td>
<td>1400 x 1400 x 165</td>
</tr>
<tr>
<td>DM</td>
<td>970 x 1420 x 140</td>
<td>1150 x 1600 x 165</td>
</tr>
</tbody>
</table>

For high density traffic conditions refer to page 14.

<table>
<thead>
<tr>
<th>Cover types</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>DLF</td>
<td></td>
</tr>
<tr>
<td>DMR</td>
<td></td>
</tr>
<tr>
<td>DM</td>
<td></td>
</tr>
</tbody>
</table>

GATIC COVERS AND FRAMES D400

For high density traffic conditions refer to page 14.

Plan of solid top single cover

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMS</td>
<td>600 x 600 x 140</td>
<td>1150 x 1000 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>750 x 600 x 140</td>
<td>1150 x 1000 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>900 x 600 x 140</td>
<td>1300 x 1000 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>750 x 750 x 140</td>
<td>1150 x 1150 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>900 x 750 x 140</td>
<td>1300 x 1150 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>600 x 1200 x 140</td>
<td>1000 x 1600 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>750 x 1200 x 140</td>
<td>1150 x 1600 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>1000 x 1000 x 140</td>
<td>1400 x 1400 x 165</td>
</tr>
<tr>
<td>DMS</td>
<td>1220 x 1220 x 140</td>
<td>1400 x 1400 x 165</td>
</tr>
</tbody>
</table>

Rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

Full height webs

Type DLF Type DMR Type DM

Solid top covers

Cover type
GATIC

**Recessed duct covers and frames**

- Covers recessed for concrete infill
- Cover type DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

**Solid top duct covers and frames**

- Covers with solid top
- Cover type DMS

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

---

**Pit clear opening sizes**

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 DLF</td>
<td>(L + 300) x 600 x 100</td>
</tr>
<tr>
<td>450 DMR</td>
<td>(L + 400) x 850 x 165</td>
</tr>
<tr>
<td>600 DMR</td>
<td>(L + 400) x 1000 x 165</td>
</tr>
<tr>
<td>750 DMR</td>
<td>(L + 400) x 1150 x 165</td>
</tr>
<tr>
<td>900 DMR</td>
<td>(L + 400) x 1300 x 165</td>
</tr>
<tr>
<td>1050 DM</td>
<td>(L + 400) x 1450 x 165</td>
</tr>
<tr>
<td>1200 DM</td>
<td>(L + 400) x 1600 x 165</td>
</tr>
<tr>
<td>1300 DMS</td>
<td>Refer to our technical department</td>
</tr>
<tr>
<td>1500 DMS</td>
<td>Refer to our technical department</td>
</tr>
</tbody>
</table>

**Pit clear opening span (S)**

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Standard pit clear opening length (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 DLF</td>
<td>1300 1450 1600 1750 1900 2050 2100 2250 2600 2700 2750</td>
</tr>
<tr>
<td>450 DMR</td>
<td>4 x 4 x 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>600 DMR</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>750 DMR</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>900 DMR</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>1050 DM</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>1200 DM</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>1300 DMS</td>
<td>4 x 4 x 4 4 5 5 5 5 4 4</td>
</tr>
</tbody>
</table>

(S) indicates standard sizes not available. The number shown indicates the quantity of cover parts. Other standard sizes may be available, refer to our technical department.

---

**Pit clear opening spans**

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Standard pit clear opening length (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300 DLF</td>
<td>2850 2900 3000 3150 3300 3400 3500 3750 3900 4000 4150</td>
</tr>
<tr>
<td>450 DMR</td>
<td>4 x 4 x 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>600 DMR</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>750 DMR</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>900 DMR</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>1050 DM</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>1200 DM</td>
<td>4 3 4 4 5 5 5 5 4 4</td>
</tr>
<tr>
<td>1300 DMS</td>
<td>4 x 4 x 4 4 5 5 5 5 4 4</td>
</tr>
</tbody>
</table>

(S) indicates standard sizes not available. The number shown indicates the quantity of cover parts. Other standard sizes may be available, refer to our technical department.

---

**Cover types**

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate
- Type DLF
- Pit clear opening span

---

**Cover type**

- Covers to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate
- Type DMS
- Pit clear opening span

---

GATIC

Tel: +44 (0)1304 203545  Website: www.gatic.com  Email: info@gatic.com
GATIC COVERS AND FRAMES  D400

POWER STATIONS, CARRIAGEWAYS, HARD SHOULDER, AND PARKING AREAS FOR ALL TYPES OF VEHICLE

Continuous recessed trench covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DM, DM/F

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Continuous solid top trench covers and frames

- Covers with solid top
- Cover types: DMS

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
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<tr>
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</tr>
<tr>
<td>750</td>
<td>DMR</td>
</tr>
<tr>
<td>900</td>
<td>DMR</td>
</tr>
<tr>
<td>1050</td>
<td>DM</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
</tr>
<tr>
<td>1350</td>
<td>DM/F</td>
</tr>
<tr>
<td>1500</td>
<td>DM/F</td>
</tr>
</tbody>
</table>

* For type DM/F refer to our technical department

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below.

Construction drawings are required so that Gatic cover layout drawings can be prepared.

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below.

Construction drawings are required so that Gatic cover layout drawings can be prepared.

Continuous solid top cover

- Covers with solid top
- Cover types: DMS

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

For high density traffic conditions refer to page 14.

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

Cover types

- Covers and rebates to be filled with 45 cube or 45 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

For continuous recessed trench covers:

- Type DLF
- Pit clear opening span

For continuous solid top trench covers:

- Type DMS
- Pit clear opening span

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Continuous solid top cover

- Covers with solid top
- Cover types: DMS

To specify state:
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2. Cover type
3. Supply layout drawing of trenches

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Cover types

- Covers and rebates to be filled with 45 cube or 45 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

For continuous recessed trench covers:

- Type DLF
- Pit clear opening span

For continuous solid top trench covers:

- Type DMS
- Pit clear opening span

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- Covers with solid top
- Cover types: DMS

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3. Supply layout drawing of trenches

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Cover types

- Covers and rebates to be filled with 45 cube or 45 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

For continuous recessed trench covers:

- Type DLF
- Pit clear opening span

For continuous solid top trench covers:

- Type DMS
- Pit clear opening span

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Continuous solid top cover

- Covers with solid top
- Cover types: DMS

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2. Cover type
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Cover types

- Covers and rebates to be filled with 45 cube or 45 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

For continuous recessed trench covers:

- Type DLF
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Continuous solid top cover

- Covers with solid top
- Cover types: DMS

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For high density traffic conditions refer to page 14.

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Cover types

- Covers and rebates to be filled with 45 cube or 45 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

For continuous recessed trench covers:

- Type DLF
- Pit clear opening span

For continuous solid top trench covers:

- Type DMS
- Pit clear opening span

* For type DM/F refer to our technical department

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Continuous solid top cover

- Covers with solid top
- Cover types: DMS

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

For high density traffic conditions refer to page 14.

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

Cover types

- Covers and rebates to be filled with 45 cube or 45 cylinder concrete during installation using 10mm coarse aggregate
- Full height webs

For continuous recessed trench covers:

- Type DLF
- Pit clear opening span

For continuous solid top trench covers:

- Type DMS
- Pit clear opening span

* For type DM/F refer to our technical department

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Construction drawings are required so that Gatic cover layout drawings can be prepared.

Continuous solid top cover

- Covers with solid top
- Cover types: DMS

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

For high density traffic conditions refer to page 14.

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.
GATIC Multispan covers and frames

Specification
Below is sample specification information and notes for Multispan recessed covers and frames.
For more details on features and benefits of Gatic covers, see pages 14 to 15.

Loading group Gatic D400
11.5 tonne wheel load – test load 400 kN.

Materials
Ductile iron components to BS EN 1563:1997.
Structural steel removable beams to BS 4-1:2005.

Finishes
Units coated with black bituminous solution for protection during transit.

Infill and surround concrete by customer
Concrete strength, using 10mm coarse aggregate, to be:
45N/mm² for a test cube of 150mm diameter x 300mm high.

Installation
In accordance with instructions supplied by Gatic.

To specify use size and description format as follows:
Gatic Multispan Recessed covers and frames
Cover type DMR recessed
Multiple access covers recessed for concrete infill with removable beams.
... in no. ... (length) x ... (span) mm pit clear opening multi span cover and frame.
Gatic Type DMR Ductile Iron Recessed Cover in ... parts complete with
... in no. ... x ... mm galvanised removable support beam spanning the ... (length) mm way.
Suitable for Loading Group D400 – 11.5 Tonnes Wheel Load (pneumatic tyre).

Gatic Multispan Solid Top covers and frames
Cover type DMS solid top
Multiple solid top access covers with removable beams.
... in no. ... (length) x ... (span) mm pit clear opening multi span cover and frame.
Gatic Type DMS Ductile Iron Solid Top Cover in ... parts complete with
... in no. ... x ... mm galvanised removable support beam spanning the ... (length) mm way.
Suitable for Loading Group D400 – 11.5 Tonnes Wheel Load (pneumatic tyre).

Standard pit clear opening sizes are shown on Pages 49.

Beam sizes and other dimensions are shown on Pages 50 and 51.

For high density traffic conditions refer to page 14.

FOR HIGH DENSITY TRAFFIC CONDITIONS, WE RECOMMEND THE USE OF A VIBRATION-RESISTANT LOCKING SYSTEM

Tel: +44 (0)1304 203545   Website: www.gatic.com   Email: info@gatic.com
**GATIC**

**Multispan covers and frames**

- Covers recessed for concrete infill or solid top
- Cover types: DMR (recessed), DMS (solid top)

The details below show plan and sections of a typical recessed/solid top unit. For selection and specification guidance, refer to pages 48, 49 and 51.

### Beam Size

The required beam size for Multispan covers is dependent on the pit clear opening length and the loading group. The table shows maximum beam length against beam size. The removable support beams are supplied by Gatic.

The table also indicates dimensions of the beam wallbox and rebate to suit different beam sizes. See also the accompanying section details.

**Support beam size chart**

<table>
<thead>
<tr>
<th>Removable support beam size</th>
<th>Max pit clear opening length (L)</th>
<th>Beam wallbox dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V</td>
<td>W</td>
</tr>
<tr>
<td>152 x 152 x 3/74kg/m UC</td>
<td>1300</td>
<td>265</td>
</tr>
<tr>
<td>203 x 152 x 54kg/m RSJ</td>
<td>1750</td>
<td>330</td>
</tr>
<tr>
<td>305 x 165 x 64kg/m UB</td>
<td>2300</td>
<td>414</td>
</tr>
<tr>
<td>356 x 171 x 67kg/m UB</td>
<td>2850</td>
<td>487</td>
</tr>
<tr>
<td>457 x 152 x 80kg/m UB</td>
<td>3450</td>
<td>588</td>
</tr>
<tr>
<td>633 x 210 x 122kg/m UB</td>
<td>3900</td>
<td>648</td>
</tr>
</tbody>
</table>

Note: Removable support beams are supplied by Gatic.
Introduction

This section includes Gatic covers and frames designed for Loading Group E600.

- Some airfield pavements
- Dockyards
- Other areas where single slow moving wheel loads up to 20 tonne may be encountered

20 tonne wheel load, test load 600kN – Suitable for:

- E600 assemblies are available with a choice of cover designs – recessed or solid top.
- Recessed for concrete infill
- Recessed covers are available in a choice of designs designated by a "Type" reference. E600 recessed covers are available as Type DLF, DM and DMR. Section drawings of the different recessed cover types are shown on the following pages.
- Solid top
- Solid top cover types are lighter in weight than recessed covers, and feature a figured anti-slip surface. Solid top covers are denoted by the code Type DMS and STF depicted in section on the following pages.

To prevent movement of covers in high traffic conditions, we recommend the use of a factory fitted vibration-resistant locking system. Can be fitted to recessed covers only. See page 14.

If you are uncertain as to the adequacy of covers conforming to a particular loading, we recommend specifying covers in a higher loading group. For example, if in doubt about covers in Loading Group E600, we recommend you specify covers in Loading Group F900.
**GATIC**

**Single recessed covers and frames**

- Covers recessed for concrete infill
- Cover type: DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size (L x S)
3. Cover type

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 x 300</td>
<td>DLF</td>
<td>900 x 540 x 75</td>
<td>1050 x 600 x 100</td>
</tr>
<tr>
<td>600 x 450</td>
<td>DMR</td>
<td>750 x 670 x 140</td>
<td>1000 x 850 x 165</td>
</tr>
<tr>
<td>750 x 450</td>
<td>DMR</td>
<td>900 x 670 x 140</td>
<td>1150 x 850 x 165</td>
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<tr>
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<td>DMR</td>
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<td>1000 x 1000 x 165</td>
</tr>
<tr>
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<tr>
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<td>DMR</td>
<td>1050 x 820 x 140</td>
<td>1300 x 1000 x 165</td>
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<tr>
<td>750 x 750</td>
<td>DMR</td>
<td>900 x 970 x 140</td>
<td>1150 x 1155 x 165</td>
</tr>
<tr>
<td>900 x 750</td>
<td>DMR</td>
<td>1050 x 970 x 140</td>
<td>1300 x 1155 x 165</td>
</tr>
<tr>
<td>1120 x 1210 x 140</td>
<td>DM</td>
<td>900 x 1120 x 140</td>
<td>1150 x 1300 x 165</td>
</tr>
<tr>
<td>750 x 750</td>
<td>DMR</td>
<td>900 x 1120 x 140</td>
<td>1150 x 1300 x 165</td>
</tr>
</tbody>
</table>

**Plan of recessed single cover**

**Rebates to be filled with 45 cubic or 40 cylinder concrete during installation using 10mm coarse aggregate**

**Single solid top covers and frames**

- Covers with solid top
- Cover type STF, DMS

To specify state:
1. Loading group
2. Pit clear opening size (L x S)
3. Cover type

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 x 600</td>
<td>STF</td>
<td>750 x 820 x 140</td>
<td>1000 x 1000 x 165</td>
</tr>
<tr>
<td>750 x 600</td>
<td>STF</td>
<td>900 x 820 x 140</td>
<td>1150 x 1000 x 165</td>
</tr>
<tr>
<td>750 x 750</td>
<td>STF</td>
<td>1050 x 820 x 140</td>
<td>1300 x 1000 x 165</td>
</tr>
<tr>
<td>700 x 700</td>
<td>STF</td>
<td>850 x 920 x 140</td>
<td>1100 x 1155 x 165</td>
</tr>
<tr>
<td>750 x 750</td>
<td>STF</td>
<td>900 x 970 x 140</td>
<td>1150 x 1155 x 165</td>
</tr>
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<td>900 x 750</td>
<td>STF</td>
<td>1050 x 970 x 140</td>
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<tr>
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<td>STF</td>
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<td>1300 x 1300 x 165</td>
</tr>
<tr>
<td>1000 x 1000</td>
<td>DMS</td>
<td>1220 x 1220 x 140</td>
<td>1400 x 1400 x 165</td>
</tr>
</tbody>
</table>

**Plan of solid top single cover**

For high density traffic conditions refer to page 14.
Recessed duct covers and frames

- Covers recessed for concrete infill
- Cover type DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
<td>1300 x 600 x 100</td>
</tr>
<tr>
<td>450</td>
<td>DMR</td>
<td>1400 x 850 x 165</td>
</tr>
<tr>
<td>600</td>
<td>DMR</td>
<td>1500 x 1000 x 165</td>
</tr>
<tr>
<td>750</td>
<td>DMR</td>
<td>1600 x 1150 x 165</td>
</tr>
<tr>
<td>900</td>
<td>DM</td>
<td>1800 x 1350 x 165</td>
</tr>
<tr>
<td>1200</td>
<td>DM</td>
<td>1900 x 1450 x 165</td>
</tr>
<tr>
<td>1350</td>
<td>DMR/DM</td>
<td>2150 x 1600 x 165</td>
</tr>
<tr>
<td>1650</td>
<td>DMR/DM</td>
<td>2350 x 1750 x 165</td>
</tr>
</tbody>
</table>

For high density traffic conditions refer to page 14.

Loadng Group | E600
AREAS OF HIGH WHEEL LOADS, SOME AIRCRAFT HARDSTANDINGS, DOCKYARDS AND OTHER AREAS WHERE HEAVY DUTY PLANT AND VEHICLES MAY BE USED

Solid top duct covers and frames

- Covers with solid top
- Cover type STF

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>STF</td>
<td>1400 x 900 x 165</td>
</tr>
<tr>
<td>700</td>
<td>STF</td>
<td>1500 x 1000 x 165</td>
</tr>
<tr>
<td>750</td>
<td>STF</td>
<td>1600 x 1150 x 165</td>
</tr>
<tr>
<td>900</td>
<td>STF</td>
<td>1800 x 1350 x 165</td>
</tr>
</tbody>
</table>

Cover types

- Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate
- Type DLF
- Type DMR
- Type DM
- Type STF
GATIC
Continuous recessed trench covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DM, DMR, DM/F

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below.

Construction drawings are required so that Gatic cover layout drawings can be prepared.

For type DMR refer to our technical department.

Continuous solid top trench covers and frames

- Covers with solid top
- Cover types: STF

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Standard solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

For high density traffic conditions refer to page 14.
Multispan covers and frames

**Specification**

Below is a sample specification information and notes for Gatic Multispan recessed covers and frames. For more details on features and benefits of Gatic covers, see pages 14 to 15.

**Loading group Gatic E600**

- **20 tonne wheel load – test load 600 kN.**

**Materials**

- Ductile iron components to BS EN 1563:1997.
- Structural steel removable beams to BS 4-1:2005.

**Finishes**

- Units coated with black bituminous solution for protection during transit.

**Removable supporting steelwork galvanised to BS EN ISO 1461:2009.**

**Infill and surround concrete by customer**

- Concrete strength, using 10mm coarse aggregate, to be: 45N/mm² for a test cube of 150mm or 40N/mm² for a test cylinder of 150mm diameter x 300mm high.

**Installation**

- In accordance with instructions supplied by Gatic.

To specify use size and description format as follows:

**Gatic Multispan Recessed covers and frames**

- **Cover type DMR recessed**
  
  Multiple access covers recessed for concrete infill with removable beams.

  - In no. .... (length) x .... (span) mm pit clear opening multi span cover and frame.
  
  **Gatic Type DMR Ductile Iron Recessed Cover in .... parts complete with .... in no. .... x .... mm galvanised removable support beam spanning the .... (length) mm way.**

  Suitable for Loading Group E600 – 20 Tonnes Wheel Load (pneumatic tyre).

**Gatic Multispan Solid Top covers and frames**

- **Cover type STF solid top**
  
  Multiple solid top access covers with removable beams.

  - In no. .... (length) x .... (span) mm pit clear opening multi span cover and frame.
  
  **Gatic Type STF Ductile Iron Solid Top Cover in .... parts complete with .... in no. .... x .... mm galvanised removable support beamspanning the .... (length) mm way.**

  Suitable for Loading Group E600 – 20 Tonnes Wheel Load (pneumatic tyre).

**Standard pit clear opening sizes are shown on Page 61.**

**Beam sizes and other dimensions are shown on Pages 62 and 63.**

For high density traffic conditions refer to page 14.

---

**Multispan covers and frames**

**Product Selection**

Refer to the table to identify which cover and beam configuration you require against pit clear opening length (L) and pit clear opening span (S). All dimensions are in millimetres.

**Note:** All dimensions shown in red are made up using 700 x 700 solid top covers only.

**For more details on features and benefits of Gatic covers, see pages 14 to 15.**

---

**Gatic Covers and Frames E600**

WHERE HEAVY DUTY PLANT AND VEHICLES MAY BE USED.

**WHERE HEAVY DUTY PLANT AND VEHICLES MAY BE USED.**

**WHERE HEAVY DUTY PLANT AND VEHICLES MAY BE USED.**

**WHERE HEAVY DUTY PLANT AND VEHICLES MAY BE USED.**
GATIC

Multispan covers and frames

- Covers recessed for concrete infill or solid top
- Cover types: DMR (recessed) STF (solid top)

The details below show plan and sections of a typical recessed/solid top unit.

For selection and specification guidance, refer to pages 60, 61 and 63.

Beam Size

The required beam size for Multispan covers is dependent on the pit clear opening length and the loading group.

The table shows maximum beam length against beam size. The removable support beams are supplied by Gatic.

The table also indicates dimensions of the beam wallbox and rebate to suit different beam sizes. See also the accompanying section details.

Support beam size chart

<table>
<thead>
<tr>
<th>Removable support beam size</th>
<th>Max pit clear opening length (L)</th>
<th>V</th>
<th>W</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>203 x 152 x 53kg/m RSJ</td>
<td>1300</td>
<td>306</td>
<td>330</td>
<td>370</td>
<td>230</td>
</tr>
<tr>
<td>356 x 165 x 80kg/m UB</td>
<td>1900</td>
<td>414</td>
<td>440</td>
<td>490</td>
<td>250</td>
</tr>
<tr>
<td>356 x 171 x 81.7kg/m UB</td>
<td>2300</td>
<td>467</td>
<td>490</td>
<td>535</td>
<td>300</td>
</tr>
<tr>
<td>457 x 152 x 82kg/m UB</td>
<td>2900</td>
<td>648</td>
<td>670</td>
<td>715</td>
<td>300</td>
</tr>
</tbody>
</table>

Note: Removable support beams are supplied by Gatic.

Support beam size chart

<table>
<thead>
<tr>
<th>Beam wallbox dimensions</th>
<th>Beam size</th>
</tr>
</thead>
<tbody>
<tr>
<td>V</td>
<td>W</td>
</tr>
<tr>
<td>306</td>
<td>330</td>
</tr>
<tr>
<td>414</td>
<td>440</td>
</tr>
<tr>
<td>467</td>
<td>490</td>
</tr>
<tr>
<td>648</td>
<td>670</td>
</tr>
</tbody>
</table>

- Covers recessed for concrete infill or solid top
- Cover types: DMR (recessed) STF (solid top)

The details below show plan and sections of a typical recessed/solid top unit.

For selection and specification guidance, refer to pages 60, 61 and 63.
Introduction
This section includes Gatic covers and frames designed for Loading Group F900.

In excess of 20 tonne slow moving wheel load, test load 900kN – Suitable for:
- Aircraft hardstandings and taxiways at civil airports
- Container ports and dockyards where individual wheel loadings exceed 20 tonnes

F900 assemblies are available with a choice of cover designs – recessed or solid top.

Recessed for concrete infill
Recessed covers are available in a choice of designs designated by a ‘Type’ reference. F900 recessed covers are available as Type DLF, DM, DMR and DM/F. Section drawings of the different recessed cover types are shown on the following pages.

Solid top
Solid top cover types are lighter in weight than recessed covers, and feature a figured anti-slip surface. Solid top covers are denoted by the code Type STF depicted in section on the following pages.

To prevent movement of covers in high traffic conditions, we recommend the use of a factory fitted vibration-resistant kicking system. Can be fitted to recessed covers only. See page 14.
**GATIC COVERS AND FRAMES F900**

**AREAS OF EXCEPTIONALLY HIGH WHEEL LOADS, AIRCRAFT HARDSTANDINGS, TAXIWAYS AT CIVIL AIRPORTS, CONTAINER PORTS AND DOCKYARDS WHERE INDIVIDUAL WHEEL LOADINGS EXCEED 20 TONNES**

---

### Single recessed covers and frames

- **Covers recessed for concrete infill**
- **Cover type:** DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

---

### Single solid top covers and frames

- **Covers with solid top**
- **Cover type:** STF

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

---

**Covers recessed for concrete infill**

- **Cover types:** DLF, DMR, DM

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

---

**Solid top covers**

- **Cover types:** STF

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

---

For high density traffic conditions refer to page 14.

---

**Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate**

**Full height webs**

**Relates to:** DM, DMR, DLF, STF

---

**Solid top covers**

**Relates to:** DM, DMR, DLF, STF

---

**Contact Information**

- **Tel:** +44 (0)1304 203545
- **Website:** www.gatic.com
- **Email:** info@gatic.com
### GATIC

#### Recessed duct covers and frames

- Covers recessed for concrete infill
- Cover type DLF, DMR, DM/F

**To specify state:**
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

### Solid top duct covers and frames

- Covers with solid top
- Cover type STF

**To specify state:**
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

---

### Covers and rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate

**Cover type**

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>STF</td>
<td>(L + 400) x 1000 x 165</td>
</tr>
<tr>
<td>DLF</td>
<td>(L + 400) x 850 x 165</td>
</tr>
<tr>
<td>DMR</td>
<td>(L + 400) x 1000 x 165</td>
</tr>
<tr>
<td>DM/F</td>
<td>(L + 400) x 1150 x 165</td>
</tr>
</tbody>
</table>

* Indicates standard sizes not available. The number shown indicates the quantity of cover parts. Other standard sizes may be available, refer to our technical department.

---

### Loading Group F900

**AREAS OF EXCEPTIONALLY HIGH WHEEL LOADS, AIRCRAFT HARDSTANDINGS, TAXWAYS AT CIVIL AIRPORTS CONTAINER PORTS AND DOCKYARDS WHERE INDIVIDUAL WHEEL LOADINGS EXCEED 20 TONNES**

---

**Tel:** +44 (0)1304 203545  
**Website:** www.gatic.com  
**Email:** info@gatic.com
GATIC
Continuous recessed trench covers and frames

- Covers recessed for concrete infill
- Cover types: DLF, DMR, DM/F

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Gatic covers can be formed to make continuous trenches or layouts providing total access to services below. Construction drawings are required so that Gatic cover layout drawings can be prepared.

Continuous recessed cover

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DLF</td>
</tr>
<tr>
<td>450</td>
<td>DMR</td>
</tr>
<tr>
<td>600</td>
<td>DMR</td>
</tr>
<tr>
<td>750</td>
<td>DMR</td>
</tr>
<tr>
<td>900</td>
<td>DMR</td>
</tr>
<tr>
<td>1050</td>
<td>DM/R</td>
</tr>
<tr>
<td>1200</td>
<td>DM/R</td>
</tr>
<tr>
<td>1350</td>
<td>DM/R</td>
</tr>
<tr>
<td>1500</td>
<td>DM/R</td>
</tr>
</tbody>
</table>

For Type DM/R 1050, 1200, 1350 and 1500 spans refer to our technical department.

Cover types

- Covers and rebates to be filled with 45 cubic or 40 cylinder concrete during installation using 10mm coarse aggregate

Continuous solid top trench covers and frames

- Covers with solid top
- Cover types: STF

To specify state:
1. Loading group
2. Cover type
3. Supply layout drawing of trenches

Continuous solid top cover

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>STF</td>
</tr>
<tr>
<td>700</td>
<td>STF</td>
</tr>
<tr>
<td>750</td>
<td>STF</td>
</tr>
<tr>
<td>900</td>
<td>STF</td>
</tr>
<tr>
<td>1050</td>
<td>STF</td>
</tr>
<tr>
<td>1200</td>
<td>STF</td>
</tr>
<tr>
<td>1350</td>
<td>STF</td>
</tr>
<tr>
<td>1500</td>
<td>STF</td>
</tr>
</tbody>
</table>

Note: Solid top covers can only be supplied in continuous straight runs.

Standard Solid top covers are supplied in straight runs. Junctions and splays can be achieved by the inclusion of localised recessed covers. Refer to our technical department for more information.

For high density traffic conditions refer to page 14.

Cover types

- Covers to be filled with 45 cubic or 40 cylinder concrete during installation using 10mm coarse aggregate
- Solid top covers

<table>
<thead>
<tr>
<th>Pit clear opening span</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>STF</td>
</tr>
<tr>
<td>700</td>
<td>STF</td>
</tr>
<tr>
<td>750</td>
<td>STF</td>
</tr>
<tr>
<td>900</td>
<td>STF</td>
</tr>
<tr>
<td>1050</td>
<td>STF</td>
</tr>
<tr>
<td>1200</td>
<td>STF</td>
</tr>
<tr>
<td>1350</td>
<td>STF</td>
</tr>
<tr>
<td>1500</td>
<td>STF</td>
</tr>
</tbody>
</table>
**GATIC**

Multispan covers and frames

**Specification**

Below is sample specification information and notes for Multispan recessed covers and frames.

For more details on features and benefits of Gatic covers, see pages 14 to 15.

**Loading group Gatic F900**

In excess of 20 tonne wheel load – test load 900 kN.

**Materials**

Ductile iron components to BS EN 1563:1997.

Structural steel removable beams to BS 4-1:2005.

**Finishes**

Units coated with black bituminous solution for protection during transit.

**Infill and surround concrete by customer**

Concrete strength, using 10mm coarse aggregate, to be: 45N/mm² for a test cube of 150mm or 40N/mm² for a test cylinder of 150mm diameter x 300mm high.

**Installation**

In accordance with instructions supplied by Gatic.

---

To specify use size and description format as follows:

**Gatic Multispan Recessed covers and frames**

Cover type DMR recessed

Multiple solid top access covers with removable beams.

... in no. ... x ... (length) mm pit clear opening multi span cover and frame.

Gatic Type DMR Ductile Iron Recessed Cover in ... parts complete with ... in no. ... x ... (length) mm galvanised removable support beam spanning the ... (length) mm way.

Suitable for Loading Group F900 – In excess of 20 Tonnes Wheel Load (pneumatic tyre).

**Gatic Multispan Solid Top covers and frames**

Cover type STF solid top

Multiple solid top access covers with removable beams.

... in no. ... x ... (length) mm pit clear opening multi span cover and frame.

Gatic Type STF Ductile Iron Solid Top Cover in ... parts complete with ... in no. ... x ... (length) mm galvanised removable support beam spanning the ... (length) mm way.

Suitable for Loading Group F900 – In excess of 20 Tonnes Wheel Load (pneumatic tyre).

**Infill and surround concrete by customer**

For high density traffic conditions refer to page 14.

---

Note: All dimensions shown in red are made up using 700 x 700 solid top covers.
**GATIC COVERS AND FRAMES F900**

**AREAS OF EXCEPTIONALLY HIGH WHEEL LOADS, AIRCRAFT HARDSTANDINGS, TAXIWAYS AT CIVIL AIRPORTS, CONTAINER PORTS AND DOCKYARDS WHERE INDIVIDUAL WHEEL LOADINGS EXCEED 20 TONNES**

---

**Multispan covers and frames**

- Covers recessed for concrete infill or solid top
- Cover types: DMR (recessed) STF (solid top)

The details below show plan and sections of a typical recessed/solid top unit. For selection and specification guidance, refer to pages 72, 73 and 75.

---

**Beam Size**

The required beam size for Multispan covers is dependent on the pit clear opening length and the loading group.

The table shows maximum beam length against beam size. The removable support beams are supplied by Gatic.

The table also indicates dimensions of the beam wallbox and rebate to suit different beam sizes. See also the accompanying section details.

---

**Support beam size chart**

<table>
<thead>
<tr>
<th>Removable support beam size</th>
<th>Max pit clear opening length (L)</th>
<th>V</th>
<th>W</th>
<th>X</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>356 x 171 x 67kg/m UB</td>
<td>1750</td>
<td>467</td>
<td>490</td>
<td>535</td>
<td>300</td>
</tr>
<tr>
<td>485 x 190 x 80kg/m UB</td>
<td>2000</td>
<td>467</td>
<td>500</td>
<td>535</td>
<td>300</td>
</tr>
<tr>
<td>533 x 210 x 122kg/m UB</td>
<td>3300</td>
<td>568</td>
<td>670</td>
<td>715</td>
<td>300</td>
</tr>
<tr>
<td>610 x 229 x 140kg/m UB</td>
<td>3900</td>
<td>720</td>
<td>745</td>
<td>790</td>
<td>300</td>
</tr>
</tbody>
</table>

Note: Removable support beams are supplied by Gatic.
GATIC Special range of access covers and drainage gratings

Introduction
Gatic has developed a specialised range of products suitable for loading groups up to F900.

This section covers:
- Solid top spring assisted covers
- Gas assisted covers
- Hinged hydrant covers
- Circular covers
- Hinged safety grids
- Galvanised covers and gratings
- Gratings and frames
- Plug covers and cut outs

---

GATIC Tel: +44 (0)1304 203545 Website: www.gatic.com Email: info@gatic.com
Special range of access covers

Solid top spring assisted covers

Spring assist lift covers are recommended for use where regular access is required, and are designed for single person operation. The spring assist lift cover has a maximum operating weight of approximately 15kg.

The units are fitted with flush hinges and can be opened from the side of the pit allowing maximum access to equipment.

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 x 750</td>
<td>SSA</td>
<td>970 x 970 x 115</td>
<td>1050 x 1650 x 140</td>
</tr>
<tr>
<td>900 x 900</td>
<td>SSA</td>
<td>1120 x 1120 x 115</td>
<td>1200 x 1200 x 140</td>
</tr>
</tbody>
</table>

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type

Solid and recessed top gas assisted covers

Gas Assist lift covers are recommended for use where regular access is required, and are designed for single person operation. The gas assist lift cover has a Maximum operating weight of approximately 25kg.

The units are fitted with flush hinges and can be fitted within larger units including ducts or multispan units.

For more details or information on other sizes refer to our technical department.

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>900 x 900 (solid)</td>
<td>SGA</td>
<td>1120 x 1120 x 140</td>
<td>1300 x 1300 x 165</td>
</tr>
<tr>
<td>900 x 900 (recessed)</td>
<td>RGA</td>
<td>1120 x 1120 x 140</td>
<td>1300 x 1300 x 165</td>
</tr>
</tbody>
</table>

To specify state:
1. Loading group
2. Pit clear opening size length (L) x span (S)
3. Cover type
Gatic covers can be supplied with mild steel galvanised safety grids when required. Once the cover is removed, the safety grid can be hinged to the vertical position where it will lock safely in place. Safety grids can be locked in a closed position by using customer-supplied padlocks.

Hinged safety grids can be fitted to all Gatic units from single covers to multispan.

**Alternative finish galvanised covers and gratings**

Gatic covers and gratings are supplied painted with black bituminous paint as standard. This acts as temporary protection during transit. Where additional protection is required, Gatic ductile iron covers can be supplied galvanised to BS EN ISO 1461:2009. Refer to Gatic technical department for more information.

**Solid top circular covers**

Suitable for up to F900 loading.

To specify state:
1. Loading group
2. Pit clear opening size (L) x span (S)
3. Cover type

**Pit clear opening sizes**

<table>
<thead>
<tr>
<th>Cover type</th>
<th>Overall frame size length x width x depth</th>
<th>Suggested rebate size length x width x depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>GC 600mm diameter</td>
<td>775 diameter</td>
<td>1000 diameter</td>
</tr>
<tr>
<td>GC 750mm diameter</td>
<td>775 diameter</td>
<td>1150 diameter</td>
</tr>
</tbody>
</table>
GATIC

Special range of drainage gratings

**Single gratings and frames**

Drainage gratings are supplied where surface water drainage is required.

To specify state:
1. Loading group
2. Pit clear opening size
   - length (L) x span (S)
3. Grating type

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Grating type</th>
<th>Overall frame size</th>
<th>Suggested rebate size</th>
<th>Waterway per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>850 x 300</td>
<td>DRG/140</td>
<td>870 x 480 x 140</td>
<td>1000 x 700 x 165</td>
<td>1256cm²</td>
</tr>
<tr>
<td>850 x 450</td>
<td>DRG/140</td>
<td>870 x 630 x 140</td>
<td>1000 x 850 x 165</td>
<td>2215cm²</td>
</tr>
<tr>
<td>850 x 600</td>
<td>DMG</td>
<td>870 x 780 x 140</td>
<td>1000 x 1000 x 165</td>
<td>2768cm²</td>
</tr>
<tr>
<td>700 x 750</td>
<td>DMG</td>
<td>720 x 975 x 140</td>
<td>850 x 1150 x 165</td>
<td>2290cm²</td>
</tr>
</tbody>
</table>

**Single gratings with shutter plates**

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Grating type</th>
<th>Overall frame size</th>
<th>Suggested rebate size</th>
<th>Waterway per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>914 x 310</td>
<td>DRG/140/S</td>
<td>960 x 480 x 140</td>
<td>1065 x 700 x 165</td>
<td>1256cm²</td>
</tr>
<tr>
<td>914 x 457</td>
<td>DRG/140/S</td>
<td>960 x 630 x 140</td>
<td>1065 x 850 x 165</td>
<td>2215cm²</td>
</tr>
<tr>
<td>914 x 610</td>
<td>DMG/S</td>
<td>950 x 780 x 140</td>
<td>1065 x 1000 x 165</td>
<td>2768cm²</td>
</tr>
</tbody>
</table>

**Trench gratings**

Gatic gratings and frames can be manufactured in continuous runs. A layout drawing with enquiries will enable our technical department to design an appropriate layout of gratings.

<table>
<thead>
<tr>
<th>Pit clear opening sizes</th>
<th>Grating type</th>
<th>Overall frame size</th>
<th>Suggested rebate size</th>
<th>Waterway per unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>DRG/100</td>
<td>1000 x 480 x 100</td>
<td>L x 600 x 125</td>
<td>1813cm²</td>
</tr>
<tr>
<td>450</td>
<td>DRG/100</td>
<td>1000 x 630 x 100</td>
<td>L x 750 x 125</td>
<td>2629cm²</td>
</tr>
<tr>
<td>600</td>
<td>DRG/100</td>
<td>1000 x 780 x 100</td>
<td>L x 900 x 125</td>
<td>3449cm²</td>
</tr>
<tr>
<td>750</td>
<td>DRG/100</td>
<td>1000 x 930 x 100</td>
<td>L x 1050 x 125</td>
<td>4329cm²</td>
</tr>
<tr>
<td>810</td>
<td>DRG/100</td>
<td>1000 x 990 x 100</td>
<td>L x 1150 x 125</td>
<td>4466cm²</td>
</tr>
</tbody>
</table>

**Shutter plates**

Rebates to be filled with 45 cube or 40 cylinder concrete during installation using 10mm coarse aggregate.
Installation

**Single cover and frames**

1. Prepare the rebate in accordance with dimensions given in the relevant tables within this publication and/or accompanying drawings.
2. Remove cover from frame and place frame squarely over pit ensuring it does not overhang any edges.
3. Screw down on the frame leveling bolts until the desired height is achieved.
4. Place formwork around inside of pit so that the timber is approximately 10mm above the bottom of the frame. This will prevent spalling of the frame.

**Do not pour concrete at this stage.**

5. Clean off cover and frame sealing faces and replace cover into frame.
6. Adjust the frame level so that the cover is not rocking. Tap down the corners of the covers with a baulk of timber to make sure it is seated fully.
7. If covers are of the recessed design you will need to cover the 4 holes in the cover base with a small metal or slate plate.
8. Insert the plastic keyhole plugs and mask off with tape.
9. Pour concrete in the covers, if of the recessed type, and around the frames making sure that you thoroughly tamp and vibrate as you go.
10. Allow concrete to cure overnight.
11. Remove cover and strike shuttering.
12. Clean faces of covers and frame and apply a thin film of graphite grease to the seating faces.
13. Replace cover into the frame and tap down with a baulk of timber.
14. Allow the concrete to fully mature before any load is applied.
Installation

Ducts and trenches

1. Prepare the rebate in accordance with dimensions given in the relevant tables within this publication and/or accompanying drawings. They are also numbered in sequence.

2. Covers and frames are supplied pre-matched and banded together.

Do not remove banding at this stage.

3. Commence at one end of the pit, or if there is a junction then commence at this point. Identify the relevant covers and frames at this location.

4. Place first assembled section squarely over the pit ensuring it is in alignment with the centre of the pit.

5. Identify the next assembly. This is done by locating the next number in the sequence, offering up to the first portion and loosely bolting the frame together. Numbers are painted on the ends of the covers to correspond with the drawings supplied.

6. Adjust the height of the frames to the required level by using the leveling bolts in the frame.

7. Repeat along the length of the trench making sure the covers are following a straight line.

8. Visually check that your covers are in the correct frames and order by looking for the random grinding nicks around each cover perimeter on the top surface.

9. In sections, remove covers from frames and place formwork around inside of pit so that the timber is approximately 10mm above the bottom of the frame. This will prevent spalling of the frame.

Do not pour concrete at this stage.

10. Clean off covers and frame seating faces and replace cover into the frame.

11. Check that the grinding nicks still correspond.

12. Adjust the frame level so that the cover is not rocking. Tap down the corners of the covers with a balk of timber to make sure it is seated fully.

13. Using the assembly clamps provided, clamp the covers to the frames and across cover to cover joints. This will ensure that the covers are seated properly.

14. Moving round the frame, with the covers in place, tighten the frame bolts making sure you do not damage the lead packers or over-tighten the bolt.

15. If covers are of the recessed design, you will need to cover the small holes in the cover base with a small metal or slate plate.

16. Insert the plastic keyhole plugs and mask off with tape.

17. Pour concrete around the frames to a depth of about 25mm up the back of the frame and tamp or vibrate as you go.

18. Allow to cure overnight then remove the assembly clamps.

19. Pour concrete into the recessed covers, and around the frames, making sure that you thoroughly tamp and vibrate as you go.

20. Allow concrete to cure overnight.

21. Remove cover and strike shuttering.

22. Clean faces of covers and frame and apply a thin film of graphite grease to the seating faces.

23. Replace cover into the frame and tap down with a balk of timber. Once again make sure that the grinding nicks match up.

24. Allow the concrete to fully mature before any load is applied.
Installation

Multispan covers and frames

Form the frame and wallbox rebates around the pit strictly in accordance with Gatic’s drawing. It is important to follow the stated dimensions otherwise the multispan cover will not fit.

The frame is delivered in sections together with beam assemblies and covers. Ensure that the end frames match with the side frame components.

The end frames can be identified as those sections with the beam end wallbox forming part of their construction. Frame sections and beam assemblies are numbered to help locate the cover positions.

Identification numbers are shown on the cover layout drawing supplied. Numbers can be found painted on the ends of covers, beams and outside faces of frames. Number tags are also fixed to the underside of the cover and also to the frame and beams.

The lowest numbers in each row of covers indicate that this is the front end of the unit.

1. Position the front end frames in the wallbox pockets and loosely join the sections together in the middle and at the corners.
2. Locate the side frame assemblies. These are handed so that they only fit on the correct side of the cover, and offer up to the back end frames.
3. Remember that there are a number of small frame pieces that make up a straight frame.
4. Check that lead spacers at the frame joints have not been damaged otherwise the frame will no longer mate with the cover. Again loosely bolt the frames together.
5. Using the large ‘Tommy Bar’ gradually screw down on the levelling bolts on the bottom of the wallboxes until the top of the frame is approximately level with the finished floor level.
6. Now using the small ‘Tommy Bar’ adjust the side frames up to approximate finished level.
7. Locate the correct beam assembly, look for the numbers painted on the beam and corresponding tags on the frame, and lower into the wallboxes.
8. Tap down on the filler block, using a rubber mallet, and then, using the small assembly clamp, clip the end of the beam into the wallbox. (If the filler block is not flush then the beam is not seated correctly in the wallbox and you will need to adjust it accordingly).
9. Dimensionally check the frame is roughly square and not overhanging the edge of the pit.

10. Do not pour concrete at this stage.

9. Clear any debris from the seating faces of the covers and frames and, starting with the middle row, lay the three covers down between the two beams.
10. With the three covers in position, adjust the wallbox levelling bolts to attain the required height, and also to make sure that the covers are seated correctly and not rocking.
11. Position one of the outer rows and this time adjust the levelling bolts until the covers do not rock.
12. Repeat for the other end row.

The covers are now sound enough to walk on to check that they are not rocking.

13. Walk across the covers and tap the corners with a balk of timber to ensure that they are firmly down.
14. Using the assembly clamps provided, you can now pull the covers tightly together and into the frames to ensure the unit is correctly seated.
15. Visually check the top edges of the covers and frames making sure that random grinding marks align with each other.
16. Now go round the frame and tighten all loose connected frame joints, but do not over-tighten. They only need to be nipped up.
17. Remove the covers and carefully stack at the side of the pit.
18. Place timber shuttering around the inside perimeter of the pit and brace as appropriate. The shuttering should sit approximately 10mm higher than the bottom of the frame.
19. Replace the covers, taking care that they are in the correct location, check that there is still no rock, and then clamp the covers in place as before.
Lifting keys

Manual jack screw key operation.
Method of removing Gatic covers using manual lifting keys.
1. Clear all obstructions from key holes.
2. Slacken off jack screw before placing key in position.
3. Insert tee bolt in the key hole, turn clockwise through 90° and tighten lock nut.
4. Jack screw can now be tightened to act on the frame and break seal.
5. Lift front and slide out cover.
6. Slacken off jack screw before replacing cover.

Long handled lifting keys (pair)
Not for use with mechanical or crane lifting.

Mechanical lifting keys
Mechanical lifting keys are designed and tested for use with crane and other mechanical devices.

Gatic tutorial

A Full tutorial on how to install Gatic Covers is shown on our website www.gatic.com