GATICO®COEX. The economical solution to protecting underground services.

An alternative access system from Gatic.
Gatic COEX is a comprehensive system of single, duct and multi span access covers and frames for use in slow moving traffic situations, where chequer plate, deep steel recessed or concrete slabs might otherwise be installed and a sealing facility is not required. COEX offers the versatility of a galvanised steel frame combined with the rigidity and durability of ductile iron covers. This enables shallower covers to be used which are therefore lighter than deep steel or concrete slabs. Thus offering a competitively priced long-term solution to protecting cables, pipes and underground equipment.

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 lozenege pattern on the surface.

Materials
The components of COEX covers are manufactured from the following materials:
Ductile iron components to BS EN 1563:2011
Side frames and structural steel sections (removable beams) to BS 4-1:2005

Non-rocking
Correctly installed, COEX covers will be non-rocking under slow moving traffic.

Easy removal/replacement
The machined underside seating face of COEX covers allows the sliding out of covers for easy removal or replacement.

Operator control
Jack screw operating keys locate positively and securely into COEX 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.

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

Closed keyways
COEX cover keyways are closed and fitted with plastic plugs to prevent the ingress of dirt.

Loadings
All COEX covers will withstand test load and maximum permanent set criteria specified in BS EN 124: 1994 for each loading category.

Secure support
The clear opening width between supporting frames are at least 79mm greater than the pit/chamber design to allow for minor deviations in pit construction dimensions.

Beam wallbox
Supporting beams in COEX 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
Covers are coated with a black bituminous solution that acts as a temporary protection during transit. Removable supporting steelwork and side frames are galvanised to BS EN ISO 1461:2009.

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

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 ISO 9001:2008) and Environmental (BS EN 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 COEX – Medium Duty

Single Covers and Frames

Suitable for 5 tonne slow moving pneumatic wheel load. Cover test load - 250kN

**Recessed Top Covers**

- Pit clear opening sizes L x S
  - 750 x 300: CDLF
  - 600 x 450: CDLF
  - 750 x 450: CDMR
  - 600 x 600: CDLF
  - 750 x 600: CDLF
  - 900 x 600: CDLF
  - 750 x 750: CDLF
  - 900 x 750: CDLF
  - 900 x 900: CDLS
  - 750 x 1050: CDMS
  - 750 x 1200: CDMS

**Solid Top Covers**

- Pit clear opening sizes L x S
  - 600 x 600: CDLS
  - 750 x 800: CDLS
  - 900 x 600: CDLS
  - 750 x 750: CDLS
  - 900 x 750: CDLS
  - 750 x 1200: CDMS
  - 750 x 1200: CDMS
  - 1000 x 1000: CDMS

Duct & Trench Covers and Frames

Suitable for 5 tonne slow moving pneumatic wheel load. Cover test load - 250kN

**Recessed Top Covers**

- Pit clear opening spans
  - 300: CDLF
  - 450: CDLF
  - 600: CDLF
  - 750: CDLF
  - 900: CDLF
  - 1050: CDM
  - 1200: CDM
  - 1500: CDM/F

**Solid Top Covers**

- Pit clear opening spans
  - 600: CDLS
  - 750: CDLS
  - 900: CDLS
  - 1200: CDMS
  - 1500: CDM/F

**Recessed Covers**

Recessed covers can be supplied to cover ducts or trenches as straight runs or as complex layouts.

**Solid Top Covers**

Solid top covers are usually supplied in straight runs.

*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.
**GATIC COEX – Medium Duty**

**Multispan covers and frames**

Suitable for 5 tonne slow moving pneumatic wheel load. Cover test load - 250kN

**Specification**

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

- **Loading group Gatic C250**
  - 5 tonne wheel load – test load 250 kN.

- **Materials**
  - Covers: Ductile iron components to BS EN 1563:2011.
  - Structural steel removable beams to BS 4-1:2005.
  - Frame bars to BS 4-1:2005.

- **Finishes**
  - Covers coated with black butylaminous solution for protection during transit.
  - Removable supporting steelwork and side frames galvanised to BS EN ISO 1461:2009.
  - Infill and surround concrete by customer.

- **Installation**
  - In accordance with instructions supplied by Gatic.

- **To specify use size and description format as follows:**
  - **COEX Multispan Recessed covers and frames**
    - Cover type: CDLF 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.
    - COEX Type CDLF 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 C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

  - **COEX Multispan Solid Top covers and frames**
    - Cover type: CDLS solid top
    - Multiple solid top access covers with removable beams.
    - ... in no. ... (length) x ... (span) mm pit clear opening multi span cover and frame.
    - COEX Type CDLS 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 C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

- **Materials**
  - 5 tonne wheel load – test load 250 kN.
  - Loading group Gatic C250
  - Suitable for Loading Group C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

  - **Installation**
    - In accordance with instructions supplied by Gatic.

  - **To specify use size and description format as follows:**
    - **COEX Multispan Recessed covers and frames**
      - Cover type: CDLF 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.
      - COEX Type CDLF 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 C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

  - **COEX Multispan Solid Top covers and frames**
    - Cover type: CDLS solid top
    - Multiple solid top access covers with removable beams.
    - ... in no. ... (length) x ... (span) mm pit clear opening multi span cover and frame.
    - COEX Type CDLS 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 C250 – Medium Duty 5 Tonnes Wheel Load (pneumatic tyre).

  - Standard pit clear opening sizes are shown on Page 7.
  - Beam sizes and other dimensions are shown on Pages 8 and 9.

- **Note:** For other pit clear opening sizes please refer to our technical department.
GATIC® COEX – Medium Duty

Multispan covers and frames

- Covers recessed for concrete infill or solid top
- Cover types: CDLF (recessed) CDLS (solid top)

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

Multispan covers and frames

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 37kg/m UC</td>
<td>1800</td>
<td>219</td>
</tr>
<tr>
<td>203 x 152 x 52kg/m RSJ</td>
<td>2350</td>
<td>260</td>
</tr>
<tr>
<td>305 x 165 x 54kg/m UB</td>
<td>3200</td>
<td>368</td>
</tr>
<tr>
<td>356 x 171 x 67kg/m UB</td>
<td>3800</td>
<td>421</td>
</tr>
</tbody>
</table>
**GATIC COEX – Heavy Duty**

**Single Covers and Frames**

Suitable for 11.5 tonne slow moving pneumatic wheel load. Cover test load - 400kN

**Duct & Trench Covers and Frames**

Suitable for 11.5 tonne slow moving pneumatic wheel load. Cover test load - 400kN

### Recessed Top Covers

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>750 x 300</td>
<td>CDLF</td>
</tr>
<tr>
<td>600 x 450</td>
<td>CDMR</td>
</tr>
<tr>
<td>750 x 450</td>
<td>CDMR</td>
</tr>
<tr>
<td>600 x 600</td>
<td>CDMR</td>
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<tr>
<td>750 x 600</td>
<td>CDMR</td>
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<tr>
<td>900 x 600</td>
<td>CDMR</td>
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<td>750 x 750</td>
<td>CDMR</td>
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<tr>
<td>900 x 750</td>
<td>CDMR</td>
</tr>
<tr>
<td>900 x 900</td>
<td>CDMR</td>
</tr>
<tr>
<td>600 x 1050</td>
<td>CDMS</td>
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<td>CDMS</td>
</tr>
<tr>
<td>750 x 1200</td>
<td>CDMS</td>
</tr>
<tr>
<td>1000 x 1200</td>
<td>CDMS</td>
</tr>
</tbody>
</table>

**Solid Top Covers**

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 x 600</td>
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</tr>
<tr>
<td>750 x 600</td>
<td>CDMS</td>
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<tr>
<td>900 x 600</td>
<td>CDMS</td>
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<td>750 x 750</td>
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<td>CDMS</td>
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<td>750 x 1050</td>
<td>CDMS</td>
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<tr>
<td>1000 x 1050</td>
<td>CDMS</td>
</tr>
<tr>
<td>1000 x 1000</td>
<td>CDMS</td>
</tr>
</tbody>
</table>

Recessed covers can be supplied to cover ducts or trenches as straight runs or as complex layouts.

### Solid Top Covers

**Power Stations, Sub Stations, Pumping Stations, Parking Areas for all Types of Vehicle**

**Loading Group: D400**

<table>
<thead>
<tr>
<th>Pit clear opening sizes L x S</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>CDLF</td>
</tr>
<tr>
<td>450</td>
<td>CDMR</td>
</tr>
<tr>
<td>600</td>
<td>CDMR</td>
</tr>
<tr>
<td>750</td>
<td>CDMR</td>
</tr>
<tr>
<td>900</td>
<td>CDMR</td>
</tr>
<tr>
<td>1050</td>
<td>CDMS</td>
</tr>
<tr>
<td>1200</td>
<td>CDMS</td>
</tr>
<tr>
<td>1500</td>
<td>CDMS/F</td>
</tr>
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</table>

**Standard Pit clear opening length**

<table>
<thead>
<tr>
<th>Pit clear opening spans</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>CDLF</td>
</tr>
<tr>
<td>1450</td>
<td>CDLF</td>
</tr>
<tr>
<td>1600</td>
<td>CDLF</td>
</tr>
<tr>
<td>1750</td>
<td>CDLF</td>
</tr>
<tr>
<td>1900</td>
<td>CDLF</td>
</tr>
<tr>
<td>2000</td>
<td>CDLF</td>
</tr>
<tr>
<td>2150</td>
<td>CDLF</td>
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<tr>
<td>2300</td>
<td>CDLF</td>
</tr>
<tr>
<td>2450</td>
<td>CDLF</td>
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<tr>
<td>2600</td>
<td>CDLF</td>
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<tr>
<td>2700</td>
<td>CDLF</td>
</tr>
<tr>
<td>2750</td>
<td>CDLF</td>
</tr>
</tbody>
</table>

**Solid Top Covers**

Solid top covers are usually supplied in straight runs.

<table>
<thead>
<tr>
<th>Pit clear opening spans</th>
<th>Cover type</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>CDMS</td>
</tr>
<tr>
<td>750</td>
<td>CDMS</td>
</tr>
<tr>
<td>900</td>
<td>CDMS</td>
</tr>
<tr>
<td>1200</td>
<td>CDMS</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.
Multispan covers and frames

Suitable for Loading Group D400 – 11.5 Tonnes Slow Moving Wheel Load (pneumatic tyre).

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

COEX Type CDMS Ductile Iron Solid Top Cover in .... parts complete with
.... in no. .... (length) x .... (span) mm pit clear opening multi span cover and frame.

Suitable for Loading Group D400 – 11.5 Tonnes Slow Moving Wheel Load (pneumatic tyre).

Installation

In accordance with instructions supplied by Gatic.

To specify according to the information and notes for Multispan recessed covers and frames.

Materials

Covers: Ductile iron components to BS EN 1563:2011. Structural steel removable beams to BS 4-1:2005

Side Frames: Mild steel.

Infill and surround concrete by customer

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

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

Beam centres mm

<table>
<thead>
<tr>
<th>Beam centres</th>
<th>2 parts</th>
<th>3 parts</th>
<th>4 parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
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<tr>
<td>1370</td>
<td>1520</td>
<td>1670</td>
<td>1820</td>
</tr>
<tr>
<td>2140</td>
<td>2390</td>
<td>2640</td>
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<tr>
<td>3210</td>
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<tr>
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<td>5130</td>
</tr>
<tr>
<td>5440</td>
<td>5590</td>
<td>5740</td>
<td>5890</td>
</tr>
</tbody>
</table>

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

For all types of vehicle

POWER STATIONS, SUB STATIONS - PUMPING STATIONS AND PARKING AREAS FOR ALL TYPES OF VEHICLE

Loading Group | D400

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.

In accordance with instructions supplied by Gatic.

Loading group Gatic D400

11.5 tonne slow moving pneumatic wheel load – test load 400 kN.

Materials

Covers: Ductile iron components to BS EN 1563:2011. Structural steel removable beams to BS 4-1:2005

Side Frames: Mild steel.

Infill and surround concrete by customer

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

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

Finishes

Covers coated with black bitumous solution for protection during transit.

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

In accordance with instructions supplied by Gatic.

To specify according to the information and notes for Multispan recessed covers and frames.

Materials

Covers: Ductile iron components to BS EN 1563:2011. Structural steel removable beams to BS 4-1:2005

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Side Frames: Mild steel.

Infill and surround concrete by customer

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

Removable supporting steelwork and side frames galvanised to BS EN ISO 1461:2009.
Multispan covers and frames

- Covers recessed for concrete infill or solid top
- Cover types: CDMR (recessed) CDMS (solid top)

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

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.

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<td>395 405 435 200</td>
</tr>
<tr>
<td>356 x 171 x 67kg/m UB</td>
<td>2900</td>
<td>448 468 490 300</td>
</tr>
<tr>
<td>457 x 152 x 83kg/m UB</td>
<td>3350</td>
<td>549 559 585 300</td>
</tr>
<tr>
<td>533 x 210 x 122kg/m UB</td>
<td>3800</td>
<td>629 639 665 300</td>
</tr>
</tbody>
</table>

Type CDMR recessed
COEX offers an ideal economical solution for use on all projects where the safe protection of underground services and equipment is required.

- Gas and electricity sites
- Power stations/sub stations
- Sewerage and water treatment works/pumping stations
- Commercial and industrial sites