Lift Stations
PRODUCT GUIDE & TECHNICAL REFERENCE MANUAL

Providing the right solutions.
LIFT STATIONS

Shaw Precast Solutions manufactures a variety of precast lift station configurations to suit project requirements, ranging from small capacity pump chambers using 1200mm manhole sections, to large volume lift stations using 3660mm x 3660mm rectangular box sections.

A Shaw Precast Solutions precast concrete lift station is a high quality, low maintenance structure, produced to project specifications in a controlled plant environment to ensure a durable and economic product. Precast elements can be designed to meet almost any configuration required for the project. On-site installation will be quicker and easier, allowing equipment installation and commissioning of the system sooner than cast-in-place designs.

Lift stations units can be fabricated using standard manhole sections, standard box culvert sections, or utility vault sections. Interior walls, baffles, and balconies can be cast into the standard sections where design requirements call for such. Access hatches, lifting davit sockets and vent stacks can be cast into the concrete covers to match design needs.

Pipe openings are cast into the lift station sections to suit the pipe configurations, utilizing either A-Lok gaskets, Link-Seal connections or grouted openings. Other connection types are available upon request.

Our design team is available to provide assistance with your project needs, and discuss possible options and their feasibility.
TYPICAL LIFT STATION CONFIGURATION FOR LARGE DIAMETER MANHOLE SECTIONS

**TYPICAL COVER LAYOUT**

- Access Frame and Cover (as supplied or specified)
- Lifting Davit Insert (as supplied or specified)

**TYPICAL PIPING LAYOUT**

- A-Lok Gasket Connections
- Standard Hole (offset pipe configuration) cored openings for link seal gaskets

**TYPICAL SECTION**

- Lifting Davit Insert
- Access Frame and Cover
- Flat Top Cover
- Overflow Pipe
- Inlet Pipe
- 1050mm to 3000mm Diameter
- Forcemain Outlet
- Intermediate Sections
- Lift Station Mono Base or Standard Manhole Base Unit

Refer to Manhole Section for information on sizes and section dimensions.
2100mm, 2400mm & 3000mm DIAMETER LIFT STATION MONO BASE

TYPICAL PLAN VIEW

TYPICAL SECTION - QBS 300

TYPICAL SECTION - QBS 300 MONO

TYPICAL SECTION - TBS 300 MONO

SECTION A - WBS 300
MONOLITHIC BASE WITH TIE DOWN SLAB

PLAN VIEW

SECTION A MONO BASE

2896mmØ PRECAST MONO-BASE

1050mm - 4400mm as required

1050mm - 4400mm as required

229 TYP

305 300

1050mm - 4400mm as required

SECTION A MONO BASE
TYPICAL LIFT STATION CONFIGURATION UTILIZING BOX CULVERT SECTIONS

TYPICAL SECTION

Lifting Davit Insert (as supplied or specified)
Access Frame and Cover (as supplied or specified)
Cover Section
Overflow Pipe
Intermediate Sections
Forcemain Outlet
Double Ram-Nek Joint
Base Section
300 Typ.

Refer to the Box Culvert Section for standard sizes available.
TYPICAL LIFT STATION CONFIGURATION UTILIZING BOX CULVERT SECTIONS

TYPICAL COVER LAYOUT

Lifting Davit Insert (as supplied or specified)
Access Frame and Cover (as supplied or specified)

TYPICAL PIPING LAYOUT

A-Lok Gasket or Standard Hole (as required)
SHAW 097 CONTROL MOUNTING STRUCTURE

NOTE: MOUNTING STRUCTURES ARE DELIVERED IN SEPARATE PIECES FOR ASSEMBLY ON SITE.
SHAW 097 CONTROL MOUNTING STRUCTURE

PROFILE VIEW PANEL UNIT

PLAN VIEW PANEL UNIT

PLAN VIEW BASE UNIT

OPTIONAL PANEL CAP

Stainless steel connection bolts cast into base unit
AVAILABLE BOX CULVERT SIZES:

<table>
<thead>
<tr>
<th>SPAN</th>
<th>2ft</th>
<th>3ft</th>
<th>4ft</th>
<th>5ft</th>
<th>6ft</th>
<th>7ft</th>
<th>8ft</th>
<th>9ft</th>
<th>10ft</th>
<th>11ft</th>
<th>12ft</th>
<th>13ft</th>
<th>14ft</th>
<th>15ft</th>
<th>16ft</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>610 mm</td>
<td>914 mm</td>
<td>1219 mm</td>
<td>1524 mm</td>
<td>1829 mm</td>
<td>2134 mm</td>
<td>2438 mm</td>
<td>2743 mm</td>
<td>3048 mm</td>
<td>3353 mm</td>
<td>3658 mm</td>
<td>3962 mm</td>
<td>4267 mm</td>
<td>4572 mm</td>
<td>4877 mm</td>
</tr>
</tbody>
</table>

IMPORTANT NOTES:
Available Haunch Sizes are: 6 inch (152mm), 8 inch (203mm) and 12 inch (305mm)

Span and Rise are available in increments of 4 inches (102mm)
For example, 6 ft 8 inch x 8 ft 4 inch (2032mm x 2540mm)

Wall thicknesses are available in 2 inch (51mm) increments
For example, 2 inch, 4 inch, 6 inch, etc...

<table>
<thead>
<tr>
<th>Haunch Size</th>
<th>Min. Rise</th>
<th>Min. Span</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 inch</td>
<td>2 ft</td>
<td>3 ft</td>
</tr>
<tr>
<td>8 inch</td>
<td>3 ft</td>
<td>3 ft</td>
</tr>
<tr>
<td>12 inch</td>
<td>4 ft</td>
<td>4 ft</td>
</tr>
</tbody>
</table>