

CPO® Stormwater Pits

CPO® Pits

Rocla CPO® Pits are specifically designed for stormwater use and are suitable for pits up to 10m in depth. The system is supplied complete with precast base slab, riser segments and a range of precast concrete covers and surrounds, grates and lintels suitable for most council applications. All components and shafts have a profiled joint rebate.



RTA Approved

The Rocla CPO® system is approved for use on RTA projects. A complete precast solution is available for most common RTA pit types (see page 29).

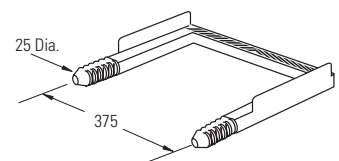
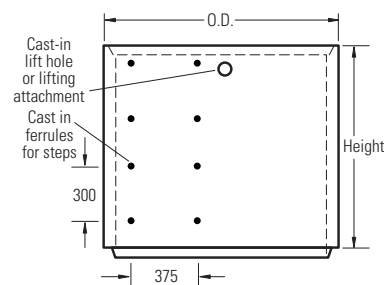
Step Irons

Step irons are spaced at nominal 300mm vertical centres and are generally available on CPO® Pits from 900mm to 1200mm diameter. The plastic-encapsulated step irons can be knocked into position using a 1.5 to 2kg hammer, even after the pit has been backfilled.

The 450mm high shaft with step irons must be placed at the top of the pit structure to maintain step spacing.

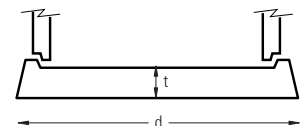
CPO® Pit Shafts

Product Code		CPO Pit Nom Dia (mm)	Shaft Height (mm)	OD (mm)
No Steps	With Steps			
CP450600A	N/A	450	600	535
CP600300A	N/A	600	300	700
CP600450A	N/A	600	450	700
CP600600A	N/A	600	600	700
CP600900A	N/A	600	900	700
CP6001200A	N/A	600	1200	700
CP750300A	N/A	750	300	870
CP750450A	N/A	750	450	870
CP750600A	N/A	750	600	870
CP750900A	N/A	750	900	870
CP7501200A	N/A	750	1200	870
CP900300A	CP900300AS	900	300	1030
CP900450A	CP900450AS	900	450	1030
CP900600A	CP900600AS	900	600	1030
CP900900A	CP900900AS	900	900	1030
CP9001200A	CP9001200AS	900	1200	1030
CP1050300A	CP1050300AS	1050	300	1200
CP1050450A	CP1050450AS	1050	450	1200
CP1050600A	CP1050600AS	1050	600	1200
CP1050900A	CP1050900AS	1050	900	1200
CP10501200A	CP10501200AS	1050	1200	1200
CP1200300A	CP1200300AS	1200	300	1360
CP1200450A	CP1200450AS	1200	450	1360
CP1200600A	CP1200600AS	1200	600	1360
CP1200900A	CP1200900AS	1200	900	1360
CP12001200A	CP12001200AS	1200	1200	1360



CPO® Pit Base

Product Code	CPO Pit Nom Dia (mm)	Diameter (d) (mm)	Thickness (t) (mm)
CPB450	450	605	90
CPB600	600	770	90
CPB750	750	940	90
CPB900	900	1100	90
CPB1050	1050	1265	90
CPB1200	1200	1430	90



CPO® Stormwater Pits

CPO® Pits – Handling & Installation

Key installation points

All work should be conducted from outside the pit.

- Cut the reinforcement only when all holes are punched.
- Punch the smallest possible hole (recommended hole diameter pipe OD plus 50mm).
- Holes should be separated by a minimum space of 200mm.
- At least 40% of the pit wall should remain in any horizontal plane.
- The starter shaft should be high enough to take the biggest pipes.
- Ensure holes do not interfere with step irons.
- Check step irons are in correct alignment.
- If a 450mm high shaft is used, it must be placed at the top of the structure to maintain step spacing.
- With square surrounds, ensure that backfill is placed to the full height and properly compacted under corners.

Handling Guidelines

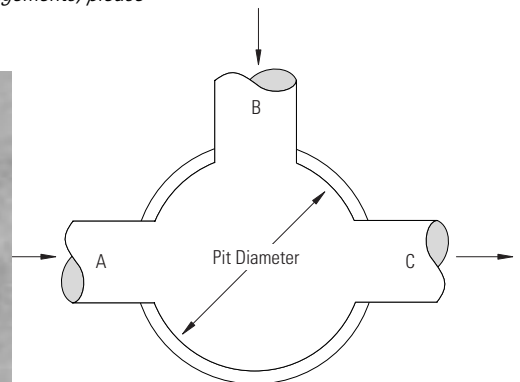
Pit components are provided with cast-in lifting adaptors or lifting holes. Where lifting holes are provided, the pit must be lifted using proprietary lifting attachments, available from specialist lifting equipment suppliers. Lifting should be undertaken strictly in accordance with the equipment supplier's instructions.

Contact Rocla for further information.

CPO® Pits – Pipe accommodation limits

Permissible Concrete Pipe Diameters			
Pit Diameter (mm)	Pipe Diameter (mm)		
	A	B	C
600	375		375
600	300	225	375
750	450		450
750	300	225	450
900	600		600
900	450	225	600
900	450	375	450
1050	750		750
1050	600	225	750
1050	600	450	600
1200	900		900
1200	750	300	900
1200	750	450	750

Note: Pipe B may be increased by one size if all angles between pipe centrelines exceed 100 degrees. For other pipe arrangements, please contact Rocla for advice on pit sizing.



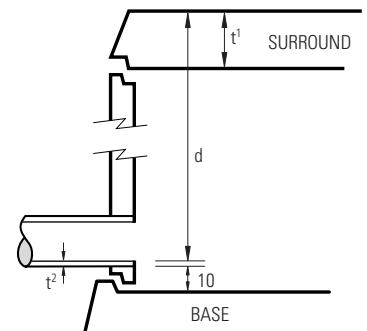
Ordering

To construct a CPO® Pit of the required height, use any combination of shaft heights in the table.

$$\begin{aligned} \text{Total height of shafts} = & \text{Depth to invert outlet pipe (d)} \\ & + \text{outlet pipe wall thickness (t2)} \\ & + 10\text{mm} \\ & - \text{Surround thickness (t1)} \end{aligned}$$

If exact dimensions are required, either:

- Pack joint with mortar (max. 50mm)
- Cut off top of shaft
- Set pit lower for sump of silt trap



CPO® Stormwater Pits

Concrete Lids

600mm diameter CPO® Pits are available with a circular lid. The lids are rebated to provide positive interlock with the shaft.

Covers and Surrounds

Rocla CPO® Pit surrounds are available in circular or square profiles. The underside of the surround is rebated to fit the CPO® Pit shaft. On shaft diameters of 1050mm and above, the cover is offset to facilitate the use of step irons.

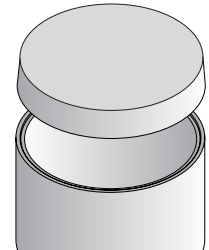


Concrete surrounds are available in Class C (150kN) or Class D (210kN) ultimate load applications in accordance with AS3996. Standard Class C surrounds are shown here. Class D available on special order. For Class D, replace the "M" at the end of the code with "H", e.g., CPS1050SH. Similarly for the cover, e.g., CPCH.

Circular Lid

Product Code	CPO Pit Nom Dia (mm)	Load Class*	Overall Width (mm)	Effective Thickness (mm)
CPL600M	600	C	700	80

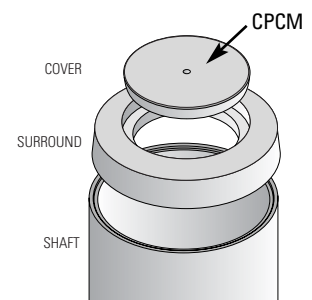
* Class D lids available on order.



Circular Surround

Product Code	CPO Pit Nom Dia (mm)	Load Class*	Overall Width (mm)	Effective Thickness (mm)
CPS750M	750	C	870	150
CPS900M	900	C	1030	150
CPS1050M	1050	C	1200	150
CPS1200M	1200	C	1360	150

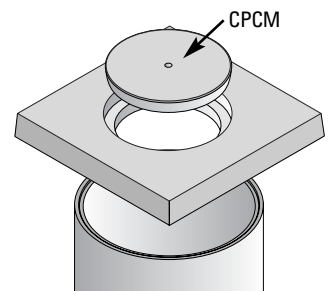
* Class D surrounds available on order.



Square Surround

Product Code	CPO Pit Nom Dia (mm)	Load Class*	Overall Width (mm)	Effective Thickness (mm)
CPS750SM	750	C	870	150
CPS900SM	900	C	1030	150
CPS1050SM	1050	C	1200	150
CPS1200SM	1200	C	1360	150

* Class D surrounds available on order.



CPO® Stormwater Pits

Grated Inlets

Grated inlets are available in circular or square profiles. The underside of the surround is rebated to fit the CPO® Pit shaft. The grate is centrally located to facilitate installation. The surround should be placed so that the main bearing bars are parallel to the traffic flow. The grates are available as drop-in, hinged, or hinged with a lock.

Surrounds are available in Class C (150kN) or Class D (210kN) ultimate load applications in accordance with AS3996. Class C surrounds are shown here. For Class D, replace the "M" at the end of the code with "H", e.g., CPSG1050SDH. Similarly for the cover, e.g., CPCH.

For a hinged grate, replace the "D" in the code with "H", e.g., CPSG1050SHM for Class C or CPSG1050SHH for Class D.



Grated Lids

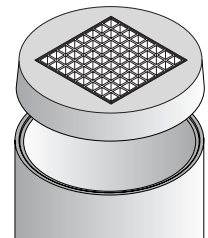
Grated lids are also available with hinge and lock.



Circular Surround with Drop-in Grate

Product Code	CPO Pit Nom Dia (mm)	Load Class*	Overall Width (mm)	Effective Thickness (mm)
CPSG600DM	600	C	700	150
CPSG750DM	750	C	870	150
CPSG900DM	900	C	1030	150
CPSG1050DM	1050	C	1190	150
CPSG1200DM	1200	C	1360	150

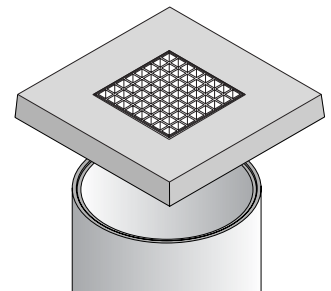
* Class D surrounds available on order.



Square Surround with Drop-in Grate

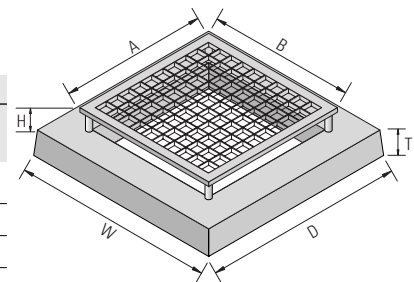
Product Code	CPO Pit Nom Dia (mm)	Load Class*	Overall Width (mm)	Effective Thickness (mm)
CPSG600SDM	600	C	700	150
CPSG750SDM	750	C	870	150
CPSG900SDM	900	C	1030	150
CPSG1050SDM	1050	C	1190	150
CPSG1200SDM	1200	C	1360	150

* Class D surrounds available on order.



Surcharge Pit Grate

Product Code	Surround			Grate		
	W (mm)	D (mm)	T (mm)	A (mm)	B (mm)	H (mm)
CPSG900FM	1030	1030	150	800	800	170
CPSG1050FM	1200	1200	150	800	800	170
CPSG1200FM	1360	1360	150	1100	1100	170



Circular Grated Lid

Product Code	CPO Pit Nom Dia (mm)	Load Class*	Overall Width (mm)	Effective Thickness (mm)
CPGL600DM	600	C	720	65
CPGL750DM	750	C	870	65
CPGL900DM	900	C	1030	75
CPGL1050DM	1050	C	1200	75
CPGL1200DM	1200	C	1360	75

* Class D lids available on order.

