



if it flows,
we go with it

1.800.665.4499
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Belowground Rainwater Harvesting

The Carat S Belowground Tank

The Carat S is a unique plastic tank line that is manufactured to consistent, tight tolerances resulting in a product that is of the highest quality, strength, reliability and versatility. Unlike other below ground plastic tank lines, the Carat tank wall thickness is equal all around and is made from Duralen®, a high-quality food grade polyethylene material that is extremely rigid and impact resistant, therefore ideally suited for producing underground tanks. Carat S Tanks carry a 15 year manufacturers warranty against defect and Duralen® can be easily recycled which reduces waste and its impact on the environment. The Carat S Tank Line can be outfitted with packaged Rainwater, Potable Water and Wastewater systems that are pre-engineered to be easily installed before or after delivery to site.

Use for:

- Residential & Commercial Rainwater Collection
- Stormwater Retention/Detention
- Septic & Sewage Holding
- Wastewater Treatment
- Potable Water Storage
- Pump Chambers
- Fire Protection



The Carat tank consists of two half shells which can be stacked on top of each other, allowing multiple tanks to be stacked on a single pallet for shipping. For example, it is possible to stack five 6,500 L (1700 USG) Carat tanks, or nine 2,700 L (700 USG) Carat tanks on a single pallet. This allows a standard 40 ft. shipping container to house a total tank volume of up to 130,000 Litres (34,000 USG)! The tanks unique stacking feature directly reduces transport costs and environmental impact from vehicle emissions, while making it practical to ship anywhere in the world. No heavy equipment required-two people can easily load and unload tanks into pickup trucks and flat deck trucks and trailers if necessary.



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What Makes This Tank Special

- Suitable for H5 vehicle loading up to 3.5 metric tons or approx. 8000 lbs. per axle.
- Suitable for burial depths up to 1.53 meters or approx. 5 feet – ideal for colder climates.
- Suitable for areas with occasional high water table up to mid tank level when tank is empty.
- Lowest shipping and handling cost of any tank line
- Multiple fitting locations and internal baffle configurations allowing for easy linking of tanks for higher volume and for customized applications.
- Integrated rainwater, stormwater and wastewater system packages available that easily install into carat tanks.
- Multi-adjustable manway assembly with unique telescoping top shaft that allows for vertical height adjustment of approx. 12 inches (0.3 m), and comes with high quality reliable seals. The telescoping shaft is topped off with a durable pp. lid (cast iron for vehicle loading) and outer flange that adjusts to up to a 5 degree slope and sits flush with the finished grade.
- Unlike some other below ground plastic tanks, the carat remains rigid and true including the manway assembly when being back-filled (when installed to guidelines).
- Highly accurate and consistent components provide ease of fit every time.
- 15 year warranty
- Highly competitive with and advantageous over concrete vessels.
- The Carat Tank Dome or manway shaft base section is 24" high and the telescoping dome shaft section can add 12" more height adjustability. Add the extension section to provide for a further 18" - for a max. 54" burial depth



USG	IG	LTR	Part #	L (in)	W (in)	H (in)	Lid/Fill Opening (in)	Weight (lbs)
700	583	2700	372024	82	61	55.1	24	265
1000	833	3750	372025	90	69	62.6	24	331
1250	1041	4800	372026	90	78	71.7	24	408
1700	1416	6500	372027	94	86	82.7	24	485



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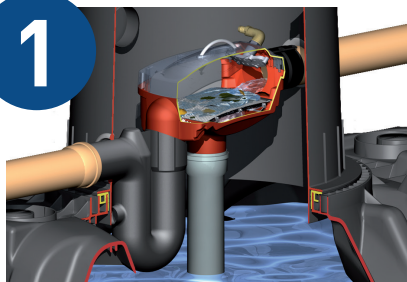
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- Rainwater cleaning and handling components are designed for easy integration and installation into the Carat tank system
- Pre-engineered, cost effective, high quality, components work together to help provide the cleanest rainwater possible with long-lasting reliability.
- Systems suitable for vehicle loading are available
- Automatic pumping and controller systems to manage between rainwater and city water use.
- Unmatched quality, design and functionality from any other system
- GRAF systems can be used with external filtering and First Flush Diverters devices as well - all available from BARR Plastics

Optimum Rainwater Quality in 4 Steps

1

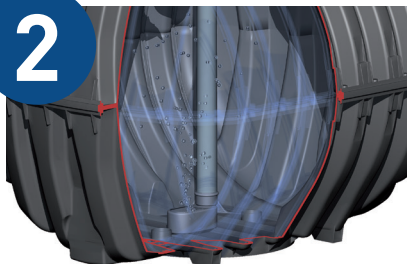


The rainwater is first cleaned by a patented Filter System(s). The cleaned water runs into the tank and dirt particles are rinsed into the sewer system with a small amount of water. BARR offers different filter systems for every installation situation.

4

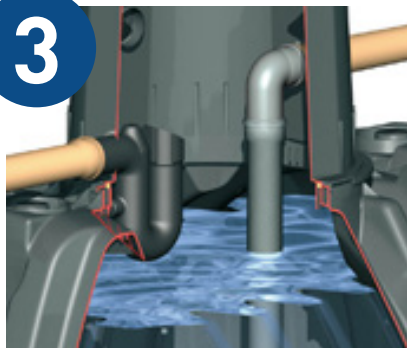


2



The Calming Inlet Assembly allows the finest dirt particles to settle on the bottom of the tank. The assembly prevents swirling and also introduces oxygen to the water keeping the water clear and fresh.

3



Dirt particles that are lighter than water (e.g. pollen) settle on the water surface as a floating layer which is automatically removed when the tanks is full and overflows to the drainage system through the Overflow Siphon Assembly inside the tank. So, regular overflowing of the tank is important for consistent water quality.

The collected rainwater is extracted from the tank using a Floating Suction Assembly that always draws water from just below the surface (approx. 4" or 10 cm) as this is the location of the optimum water quality. The GRAF Rainwater Harvesting System - brilliant design and highly effective - simply providing the best water quality possible prior to treatment.