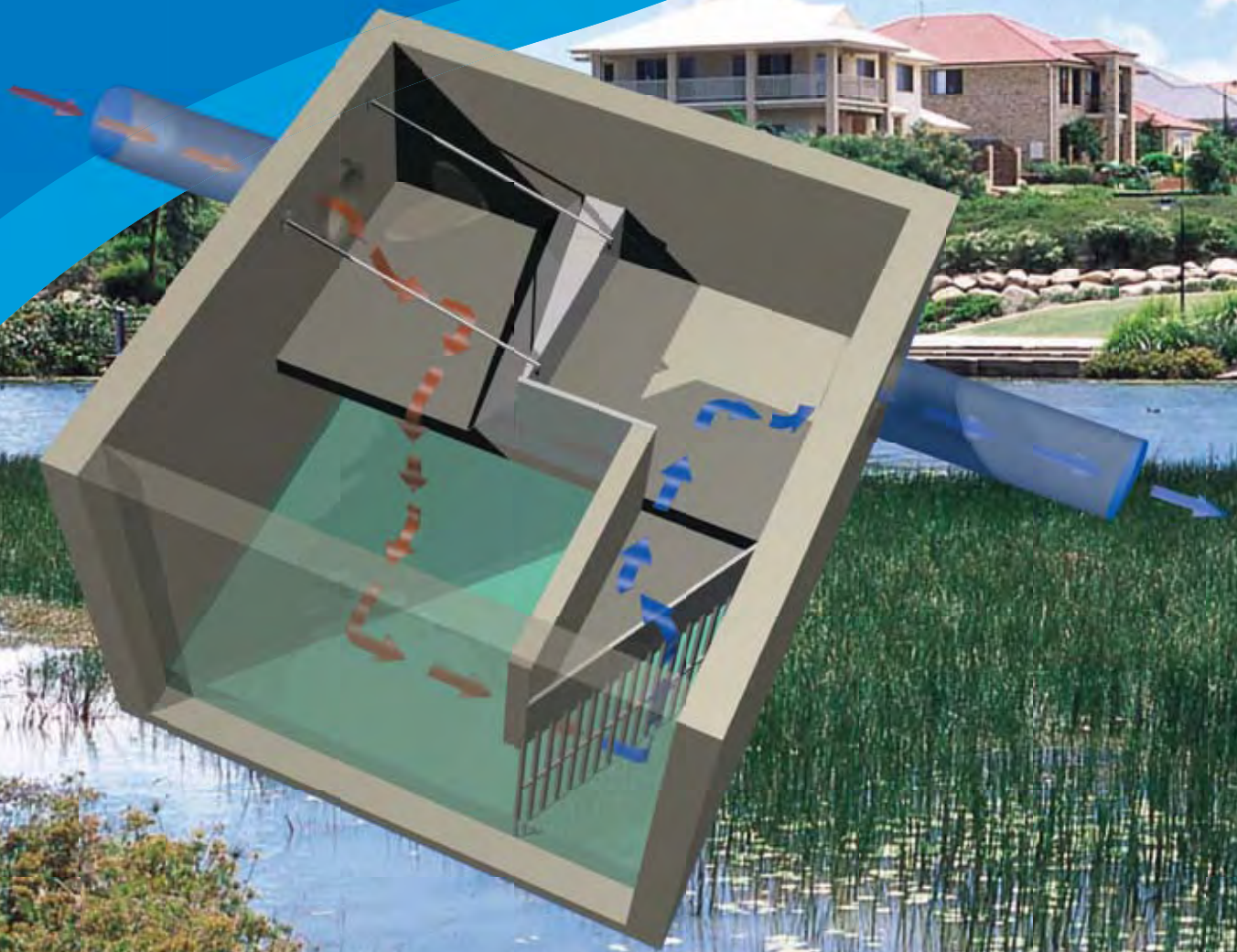


Humegard™

Gross Pollutant Trap



*Water Solutions for
a sustainable future*



Humegard™ - Gross pollutant trap

Why a Gross Pollutant Trap (GPT) ?

Water sensitive urban design (WSUD) has been recognised by most state agencies and local authorities as “best practice” for the management of urban stormwater. WSUD relies upon a “treatment train” to progressively remove pollutants. Gross pollutant traps such as **Humegard™** are the first, integral, part of the WSUD treatment train as they capture the visible litter and coarse sediment (>150 micron). Gross pollutant traps are designed to capture pollutants over 2mm but may capture pollutants down to 150 micron. They are not designed to capture fine sediment (<150 micron), dissolved pollutants (eg nutrients) or hydrocarbons.



Rubbish and debris captured and retained inside a **Humegard™** unit

Key Benefits/Features

Effectively Captures and Retains Gross Pollutants

- The unique floating boom allows **Humegard™** to continue capturing floating litter, even during peak flows.
- The boom is designed to control the treatment flow entering the storage chamber, ensuring previously captured materials are retained.

Performs in Tidal Zones

- The floating boom remains in the optimal position to capture unsightly floating litter, even during high tides.

Low Head Loss

- K value of 0.2. (Minor Loss = $0.2V^2 / 2g$)
- Ideal for retrofit applications and flat grades.

Proven Effectiveness

- **Humegard™** has been independently proven in laboratory and field tests.

Parameter	Performance	Description
Litter	85 - 100%	Anthropogenic and organic
TSS	>85%	>150µm particles
Flow	up to 90%	of total annual flow

Fast to Install

- Precast concrete construction means total construction time can be a matter of hours.

Easy, Low Cost Maintenance

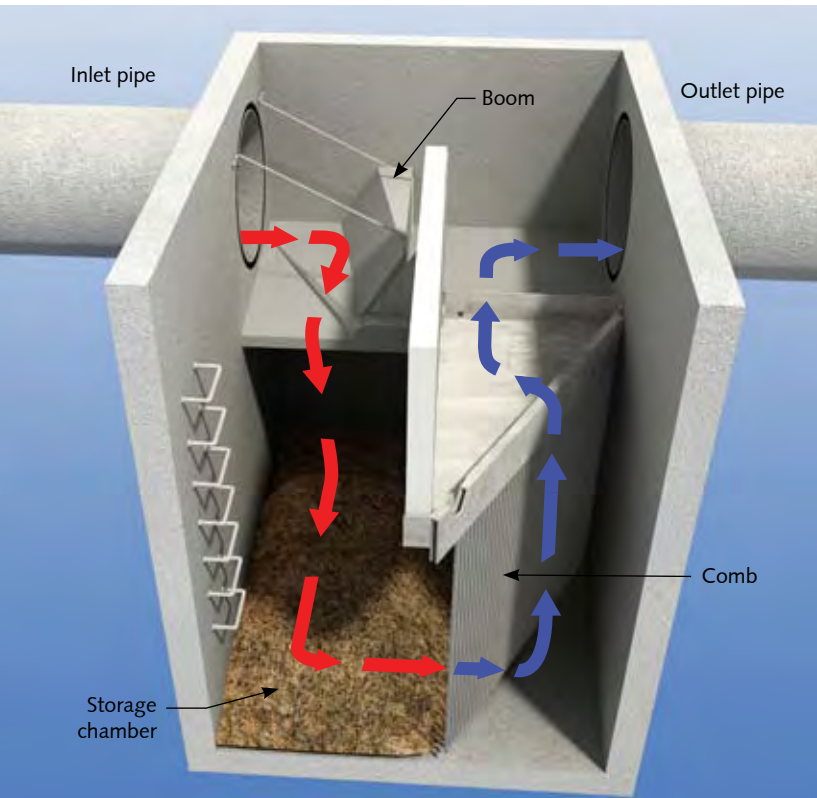
- **Humegard™** is easy to maintain using a vacuum truck.
- Designed for 6 to 12 monthly clean outs - based on average litter loadings.
- Durable precast and stainless steel metal components designed for long life performance.

Quality assured

- All Precast Humes Water Solutions products are constructed under the Humes-Rinker ISO 9001 Certified QA system.

Flexible

- Can accommodate a variety of pipe and box culvert sizes.



Operation

During normal flows the angled boom directs all flows into the storage/treatment chamber where the gross pollutants are separated and stored.

During peak flows, or under tidal influence, the angled boom floats and continues to direct all floating litter into the storage/treatment chamber. The regulated flow ensures previously trapped materials are retained. Velocity through the device is controlled to prevent blockage of the comb.

Applications

- Shopping centres
- Residential subdivisions
- Industrial operations (packaging, manufacturing)
- Theme parks
- Any application where litter is anticipated

Maintenance

Maintenance is an important and often overlooked aspect of storm water quality and can be a considerable cost when frequency is taken into account.

The maintenance of **Humegard™** is simple and cost-effective. The storage chamber is sized to minimise clean out frequency with expected maintenance required every 6 to 12 months. This will vary depending on the level of pollution being generated in the catchment. Humes Water Solutions recommends quarterly inspections initially until a site specific program can be established.

Vacuum trucks are a safe and effective method of undertaking maintenance.

Design and Sizing

Each design is specific to the site and we recommend that customers contact Humes Water Solutions for detailed sizing, however for preliminary purposes the table below contains indicative sizes.

Humegard™ model	Pipe diameter or culvert width
HG 12	300 - 375
HG 15	450 - 525
HG 18	525 - 600
HG 24	600
HG 27, 30	750
HG 30A, 35, 40	900
HG 35A, 40A	1050
HG 40B, 45	1200
HG 45A	1350
HG 50 and larger	>1500*

* contact Humes Water Solutions

Alternate Configurations

Multiple outlet pipes



Outlet pipe at 90°



Outlet pipe at 45°



Humegard™ - Gross Pollutant Trap



Placing the lid on a Humegard™ installation



HG 18



Humegard™ unit designed to accomodate box culverts



HG 70

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