



**3P Technik UK**  
WATER MANAGEMENT

STORMWATER TREATMENT  
RAINWATER HARVESTING  
PUMPS & CONTROLLERS  
GARDEN TANKS

## **3P HydroSystem 1500**

Enhanced stormwater filtration



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### Enhanced stormwater treatment



HydroSystem 1500 installed in a concrete shaft.

- Treatment of polluted runoff from roads, car parks, metal roofs and industrial sites. Hard SUDS Treatment device, DiBT approved.
- Underground solution, space saving footprint within Treatment Trains
- Low head loss, from 250mm.
- Easy and safe inspection and maintenance. Certainty of pollutant removal
- Filter media and pollutants retained in easy to handle cartridges
- Cartridge exchange interval 3 to 5 years
- Connectable surface area 1300 to 3200 m<sup>2</sup> and up (MI dependent)

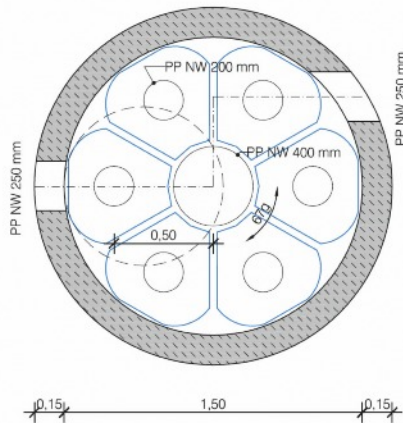
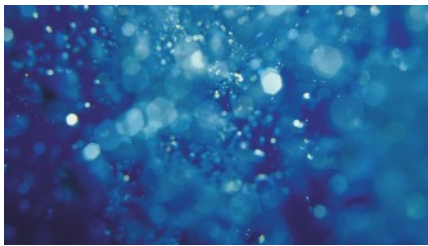
Decentralized stormwater treatment is state of the art, reducing the costs for urban drainage by using source control. The HydroSystem 1500 filtration unit has numerous advantages in comparison to other systems. The system combines a Hydrodynamic Separator with an up-flow filter unit. It is easy to inspect and maintain. Certainty of Treatment. Low head loss. Filter media is kept in cartridges, there is no loose material in the system in bags or sumps. Filter media replacement in intervals between 3 and 5 years depending on the sites conditions. Space saving Hard SUDs device, low footprint: can be installed below car parks or roads .

The filter media removes pollutants like PAH's, hydrocarbons and heavy metals. Furthermore, it binds phosphorous and ammonium from stormwater runoff. The multi stage four step treatment train removes both solids and dissolved pollutants.

The system is ideal for car parks, roads, industrial areas and even metal roofs. Therefore, three different filter cartridges for low traffic densities, high traffic densities, and normal roofs are available. The very highest hazard pollutant levels in stormwater runoff can be treated to acceptable levels for groundwater and surface waters. The flexible modular design allows the adaptation to nearly any site condition.







### Technical data

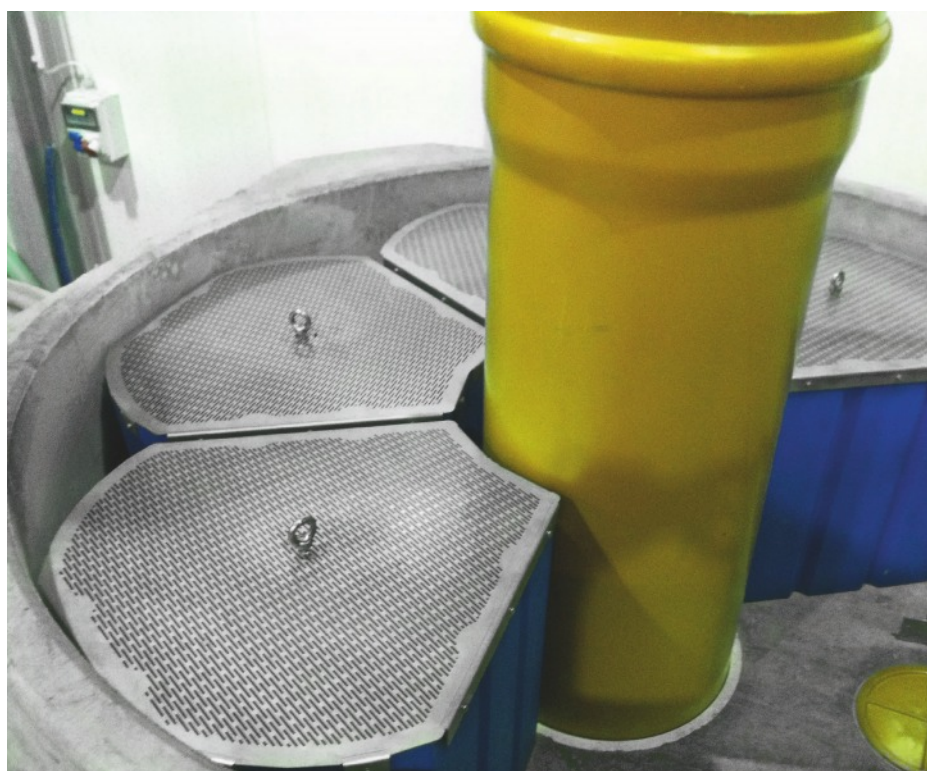
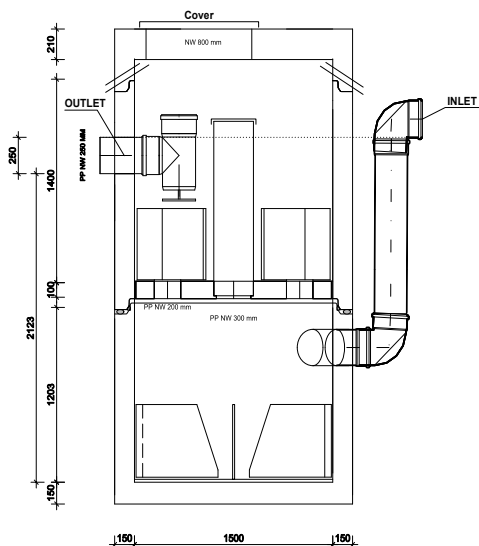
Inner diameter of concrete or plastic shaft:	1.5 m
Minimum head loss between inlet and outlet:	0.25m
Connectable area:	1600 m <sup>2</sup> to 3200 m <sup>2</sup> according to site conditions
Maximum flow rate:	70 l/s, filterable flow rate: 24 l/s, treatment flow rate: 4 l/s
Nominal weights (approx):	
Filter Set (6 cartridges):	450kg (dry)   550kg (wet)

### Product Description

Special stormwater filter for installation within standard 1500 mm shafts. Suitable for contaminated runoff from trafficked areas, industrial sites and roofs. The cleaned water can be discharged directly into infiltration facilities or surface waters.

The filter works by an up-flow process with low head loss. In the system the stormwater runoff is cleaned by multiple treatment processes: sedimentation, adsorption, filtration, and chemical precipitation. Incoming stormwater is led down to the basal section of the filter shaft. A hydrodynamic particle separator promotes sedimentation.

Particles settle in the silt trap located below the separation chamber. Above the separation chamber 6 filter cartridges situated, occupying the full shaft width such that all water must flow up through the filters. The clogging of the filters is reduced due to the upwards flow. The filter cartridges can be easily exchanged. The system is maintained and back flushed normally once a year.



### Modular design for optimal drainage performance

The modular design is based on a standard 1500 mm concrete or plastic shaft.

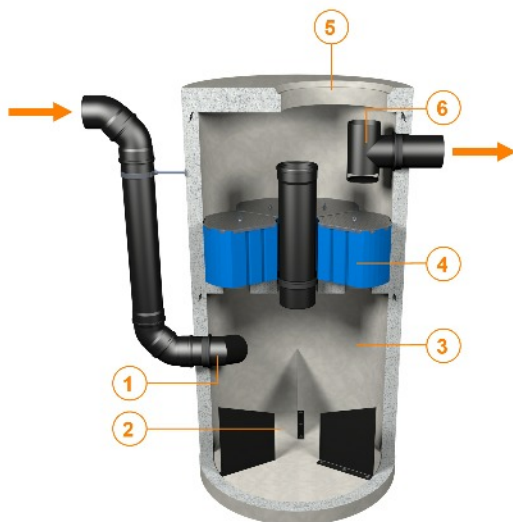
The modular interior of the HydroSystem 1500 has three different filter cartridges for site specific Average daily Traffic (ADT) conditions:

- Filter element traffic for ADT < 15000 vehicles/day
- Filter element heavy traffic for ADT > 15000 vehicles/day and industrial sites
- Filter element roof for standard roofs without bare metal.

### Tests and certificates

- Tested and fully certified according to DIBt standard for groundwater infiltration. UK EA and SEPA will accept DiBT approved devices.
- Independent field test data available
- Tested according to NJDEP TSS testing procedure

### Working principles



HydroSystem 1500 installed in a concrete shaft.

- 1 The stormwater runoff is directed into the basal section of the system. The angled inlet generates a radial flow pattern, vortex separation.
- 2 The hydrodynamic separator promotes particle sedimentation, particularly of the sand and silt fractions.
- 3 The sediment is retained in a silt trap chamber below the separator. The silt trap needs to be emptied out at site specific intervals.
- 4 The water has to pass an upflow filter device built of six cartridges. Different filter media is available for bespoke applications sites. Within the filter element filtration, adsorption and precipitation takes place. The filter cartridges can be backwashed to remove TSS particles.
- 5 The filter elements can be exchanged via the shaft upper opening.
- 6 The treated water discharges via an oil baffle and leaves the system by the outlet.

### STORMWATER TREATMENT

Making climate-friendly water possible:  
3P technologies boost stormwater treatment.

### RAINWATER FILTERS

Rainwater harvesting for a green world.  
3P focus on sustainability.

### GARDENING WATER NEEDS

Rainwater at its most beautiful form:  
original rainwater tanks and taps by 3P