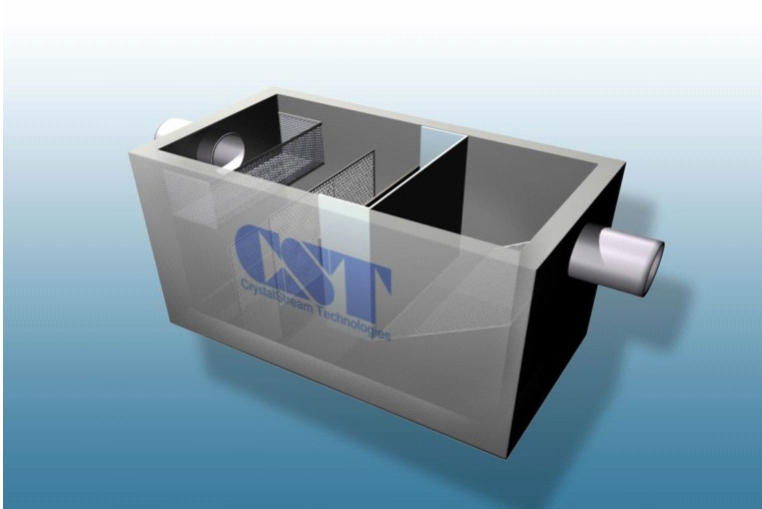


# HYDRODYNAMIC SEPARATION & POLLUTANT SCREENING

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SITE SPECIFIC ENGINEERING  
INTEGRATED INSTALLATION  
MAINTENANCE & CLEANING  
SERVICES

CLEAR SOLUTIONS

**wa·ter qual·i·ty de·vice** \wâ-tèr, Kwä-li-tE, di-vIs\ *noun*:

1. Innovative technology, possessing pollution removal capabilities related to stormwater flows. 2. Relating to a manufactured vault requiring maintenance and inspection on a regular basis and supported by a company willing to provide customer service.

SEE ALSO — CRYSTALSTREAM TECHNOLOGIES



# COMPANY PHILOSOPHY

“The fact that our product has been tested and proven to remove 89% of pollutants would be completely irrelevant without our total dedication to the “design-installation-cleaning” life cycle for these vaults and a long term commitment to the customer.”

John Moll, CEO CrystalStream Technologies

## —Site specific design—

The engineers at CrystalStream Technologies work hard to provide water quality solutions that are tailored to the goals of the individual site.

Every site is unique and demands the experience, innovation and dedication to post-construction success that only can be provided by a company that will follow-through with a cleaning plan.

## —Integrated Installation—

Time is money on a job site and the operations group at CrystalStream Technologies will coordinate delivery, provide crane services, and follow through to insure customer satisfaction. Every quote includes freight, crane and there are no parts to assemble or additional charges.

A CrystalStream representative attends all installations to provide information and support to the field professionals.

## —Cleaning/Maintenance Services—

When we talk about cleaning and maintenance services, it is based on years of experience in the business of cleaning water quality devices and thousands of successful operations.

Consistent, affordable and reliable cleaning is the number one concern for the surface water quality industry and no one can compete with CrystalStream in experience and service.

At CrystalStream, our customer service based approach requires that we meet the needs of all Water Quality Stakeholders including:

### ENGINEERS

Innovative Solutions to save Owners Money

Quick Design Turn Around

3 view CAD with inverts

No Substitutes without the Engineer's approval

### CONTRACTORS

Full Service Delivery including Freight & Crane

Representative on site during Installation

On-Site under 1 Hour

Lower Pricing and Overall cost



### OWNERS

Full Service from Design to On-Going Cleaning

Installation Support

Inspection Reporting

Verified Water Quality Results

### MUNICIPAL

Tested & Verified

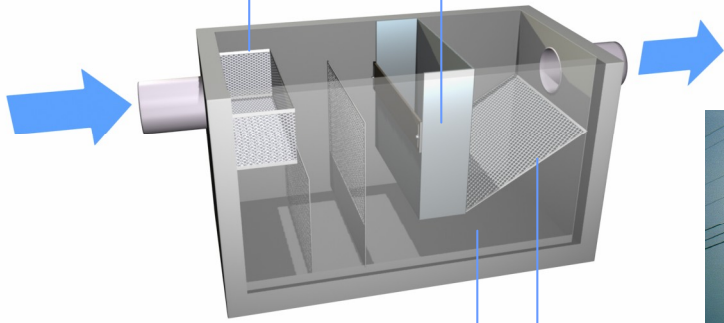
Post-Installation Availability

Cleaning/Maintenance Crews Available

We always design to your local rules and standards

**Trash, Vegetative Debris** and other large pollutants are screened from the flows using the trash basket. This material is held above the water line to prevent the decomposition that will occur in devices that promote a “floating” strategy. CrystalStream does not believe that these pollutants can be effectively captured and stored by floatation.

**Spill Protection** is provided using the hydrocarbon reservoir to segregate floating material from the flow pattern. From refueling operations to DOT projects, the ability to prevent a downstream incident resulting from an accidental spill is a clear advantage of the CrystalStream device.



Sediment and associated pollutants are retained by establishing the “**Optimal Treatment Flow**” based on pollutant type and transportation, cleaning frequency, maintenance and device size. CrystalStream is dedicated to using site specific data to maximize the removal rates for targeted pollutants.

**Fiber Filter Media** is used to remove neutrally buoyant particles including pre-decomposed nitrogen and phosphorus. Where excess nutrients are the pollutants of concern, this treatment phase set CrystalStream apart from the standard Hydrodynamic device.

# APPLICATIONS

**STAND ALONE TREATMENT**

- Ultra-Urban or Downtown Sites
- Space Constrained Sites
- Spill Protection
- Retro-Fit
- Sites not requiring detention or with centralized detention

**TREATMENT TRAIN or PRE-TREATMENT**

- Upstream locations to enhance water quality in combination with “fine” treatment system
- Upstream locations to reduce the cost of long term cleaning of ponds, sand filters or underground detention systems.
- Above natural intermittent streams or man-made swales to eliminate trash

**POLLUTANT/INDUSTRY SPECIFIC TARGETING**

- Industrial
- Municipal
- DOT's
- CSO's
- Maintenance Yards
- Plant Wash-down
- Car Washes

CrystalStream Technologies is committed to both field and laboratory testing of all of its products and services. This includes independent third party testing such as the EPA's ETV program as well as testing in situ by the USGS. Our design process includes in-house and external lab testing on specific flows and pollutants. These methods are valuable tools and provide much needed data but they do not address the individual nature of each site, and the unpredictability of storm water flows. We have found that our field experience including over 4,000 inspections and cleanings provides the broadest and most comprehensive look at the performance of this type of equipment.

The physical data including weights, particle sizes, pollutant typing that has been accumulated over the course of cleaning and maintaining a variety of storm water removal systems had been coupled with our on-going testing program. This allows CrystalStream Technologies to provide customers with information found nowhere else in the world.

Please contact our engineering group to find out about test results and other industry leading information.

Our engineers have completed literally thousands of designs. Professionals have submitted detailed plans of their sites, and we have developed numerous innovative pipe and layout arrangement to meet even the most unique and demanding site conditions. Our extensive design knowledge base comes from working hand in hand with the best design firms in the country. We acknowledge the contributions of the design community to our engineering portfolio, and are always eager to bring the benefits of this pooled expertise to your next project.



| GENERAL DESIGN CRITERIA <sup>(1)</sup>   |                    |                   |                          |                 |
|--|--------------------|-------------------|--------------------------|-----------------|
| Model Number   | Maximum Design CFS | Water Quality CFS | Spill Protection Gallons | Unit Dimensions |
| 646  | 6.0                | 1.8               | 280                      | 6 x 4 x 6       |
| 956  | 12.5               | 3.8               | 550                      | 9 x 5 x 6       |
| 1056   | 17.5               | 5.3               | 600                      | 10 x 5 x 6      |
| 1266   | 24.0               | 7.2               | 1000                     | 12 x 6 x 6      |
| 1246 <sup>(2)</sup>  | 12.0               | 3.6               | 700                      | 12 x 4 x 6      |
| 1856 <sup>(2)</sup>  | 20.0               | 6.0               | 1300                     | 18 x 5 x 6      |
| 2056 <sup>(2)</sup>  | 25.0               | 7.5               | 1400                     | 20 x 5 x 6      |
| 2466 <sup>(2)</sup>  | 36.0               | 10.8              | 2000                     | 24 x 6 x 6      |
| INTERNAL BYPASS UNITS  |                    |                   |                          |                 |
| 1246-IB <sup>(3)</sup>   | 18.0               | 3.6               | 280                      | 12 x 4 x 6      |
| 2056-IB <sup>(3)</sup>   | 35.0               | 7.5               | 400                      | 20 x 5 x 6      |
| 2466-IB <sup>(3)</sup>   | 50.0               | 5.3               | 600                      | 24x 5 x 6       |
| Higher flows can be treated, please call engineering for information   |                    |                   |                          |                 |
| <sup>(1)</sup> All units are sized and internal components placed on a site by site basis depending on multiple factors associated within the specific basin. Maximum flow will seldom vary. Water Quality flow is highly dependant on site conditions and target pollutants. The above criteria is for macro level evaluation and comparable analysis. The unit is standard with a 2/10 foot fall across the device but can be reduced in certain applications. |                    |                   |                          |                 |
| <sup>(2)</sup> Twin vault units. May be inline or side by side   |                    |                   |                          |                 |
| <sup>(3)</sup> Twin vault units. Must be side by side  |                    |                   |                          |                 |
| All units are constructed using 4000psi pre-cast concrete and all aluminum internal components. Lids and access are available in multiple configurations including traffic loading and non-traffic.  |                    |                   |                          |                 |



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