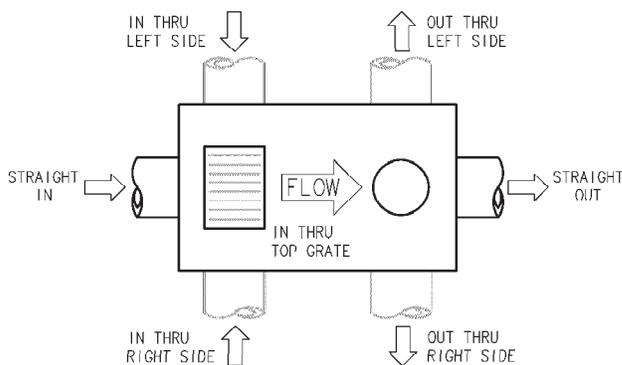


CALL 800.748.6945 for engineering support or use “Contact” button on the website.

General Sizing Criteria - The CrystalStream water quality devices are designed on a site-by-site basis and can be used inline for full flow, inline with an internal bypass or offline with an external bypass. For each basin, the design storm flow (25-year, 100-year, etc.) and the locally defined water quality flow are analyzed for particle capture and the potential for re-suspension. The final calculations are based on these flows and the site usage and surface conditions. The site engineer’s data and other site characteristics are submitted to us on our Design Information Sheet.

Site Device Placement: There are three common applications for CrystalStream devices: stand-alone treatment without detention, water quality treatment in conjunction with a detention system, or pre-treatment for another stormwater control measure (SCM). The most common placement for a stand-alone treatment device is that the basin low point where water would exit the property. When used in conjunction with a detention system or another SCM, the unit is most effective in front of the detention facility or other SCM to provide protection from gross pollutants, sediments and organic materials that contain nutrients.

IN-LINE SYSTEMS

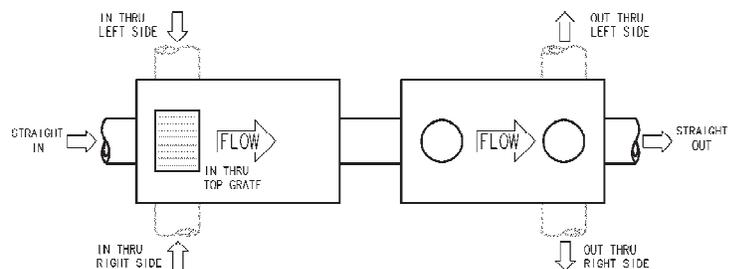
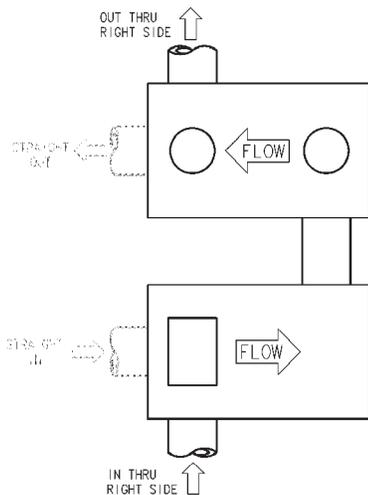


SINGLE VAULT SYSTEM

CST Single Vault Systems are applicable for small to medium sites as stand-alone or pretreatment designs. The unit orientation can accept and release flows in various directions to accommodate multiple pipe configurations. The unit can also accept flows through the top grate in certain applications. Oversize pipe holes are cut with a standard 0.20 foot drop across the unit. We can drop less if required.

Model	Design cfs	WQ cfs	Spill Protection	Footprint
646	6.0	1.2	280	6 x 4 x 6
956	12.5	2.5	550	9 x 5 x 6
1056	17.5	3.5	600	10 x 5 x 6
1266	24.0	4.8	1000	12 x 6 x 6

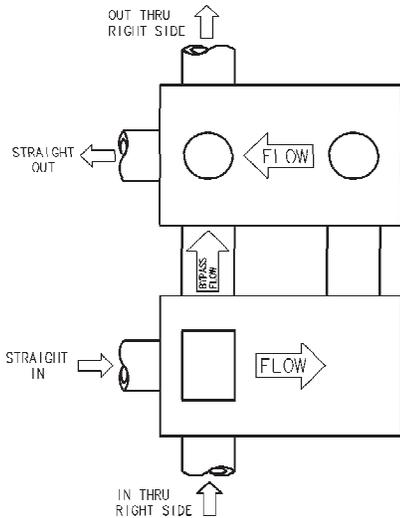
DOUBLE VAULT SYSTEMS



CST Double Vault Systems are applicable on medium to large sites for stand-alone or pre-treatment designs. Double Vault systems can be laid out side by side or in series, depending on the footprint required. The unit orientation can accept and release flows in various directions to accommodate multiple pipe configurations. The unit can also accept flows through the top grate in certain applications. Oversize pipe holes are cut with a standard 0.20 foot drop across the unit. We can drop less if required. Multi-Unit systems configured in parallel or arrayed are available to treat higher flows. Please contact our engineering department for more detailed information.

Model	Design cfs	WQ cfs	Spill Protection	Footprint
1246	12.0	2.4	700	12 x 4 x 6
1856	20.0	4.0	1300	18 x 5 x 6
2056	25.0	5.0	1400	20 x 5 x 6
2466	36.0	7.2	2000	24 x 6 x 6

BY-PASS SYSTEMS

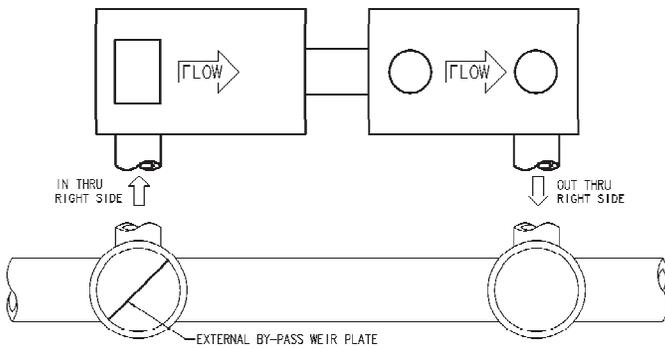


INTERNAL BY-PASS SYSTEM

CST Internal Bypass Systems are designed to provide maximum treatment in designs that contain offsite flows or other flows that are not to be treated under regulatory guidelines. Flows can be accepted in the configurations shown in the diagram to the left. The elevation of the bypass pipe will depend on the maximum flow in the pipe and the stated treatment requirements. Pre-bypass flows will be treated with the full CST system and bypasses flow will be screened for trash and debris.

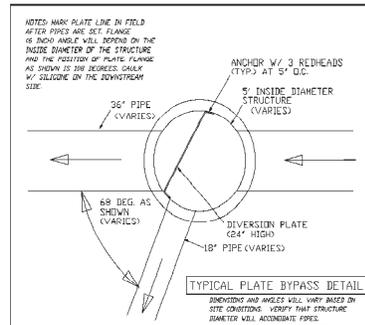
Model	Design cfs	WQ cfs	Spill Protection	Footprint
1246-IB	18.0(+/-)	2.4	280	12 x 4 x 6
1856-IB	30.0(+/-)	4.0	320	18 x 5 x 6
2056-IB	35.0(+/-)	5.0	400	20 x 5 x 6
2466-IB	50.0(+/-)	7.2	600	24 x 6 x 6

EXTERNAL BY-PASS SYSTEM



CST external bypass systems are designed to treat the maximum flow possible in large drainage systems when the full flows are not required to be treated.

These systems can be sized to meet the stated treatment requirements and goals of the system. CrystalStream Technologies does not recommend a bypass system under normal conditions. Allowing water to bypass cannot achieve the highest level of pollutant removal.



UNIT CONSTRUCTION

All CST units are manufactured with pre-cast concrete, no less than 6-inch wall thickness meeting ASTM C-857 and C-858 and aluminum internal components meeting ASTM B-209.

UNIT ACCESS/LID

All CST units can be designed for H-20/HS20 traffic applications as well as non-traffic. The standard lid configuration for traffic applications is a 2' x 3' foot grate on the inlet side and a 24" manhole ring and cover on the outlet side. The standard lid configuration for non-traffic lid is a 3 x 3 aluminum hatch on the inlet side and a 24" manhole ring and cover on the outlet side. Non-standard access configurations are available based on specific design request or jurisdictional regulations. Higher loading such as FAA loadings are also available.

UNIT DEPTH/RISER

CST units are designed with a full-size rectangular riser standard on most applications. On traffic applications the access points will be shipped loose to allow for bricking up to grade. On non-traffic applications the riser and lid height will match specified rim elevation on the design information sheet as submitted. Pipe inverts over 8 feet deep will need to be evaluated for increased wall thickness on the unit and riser.