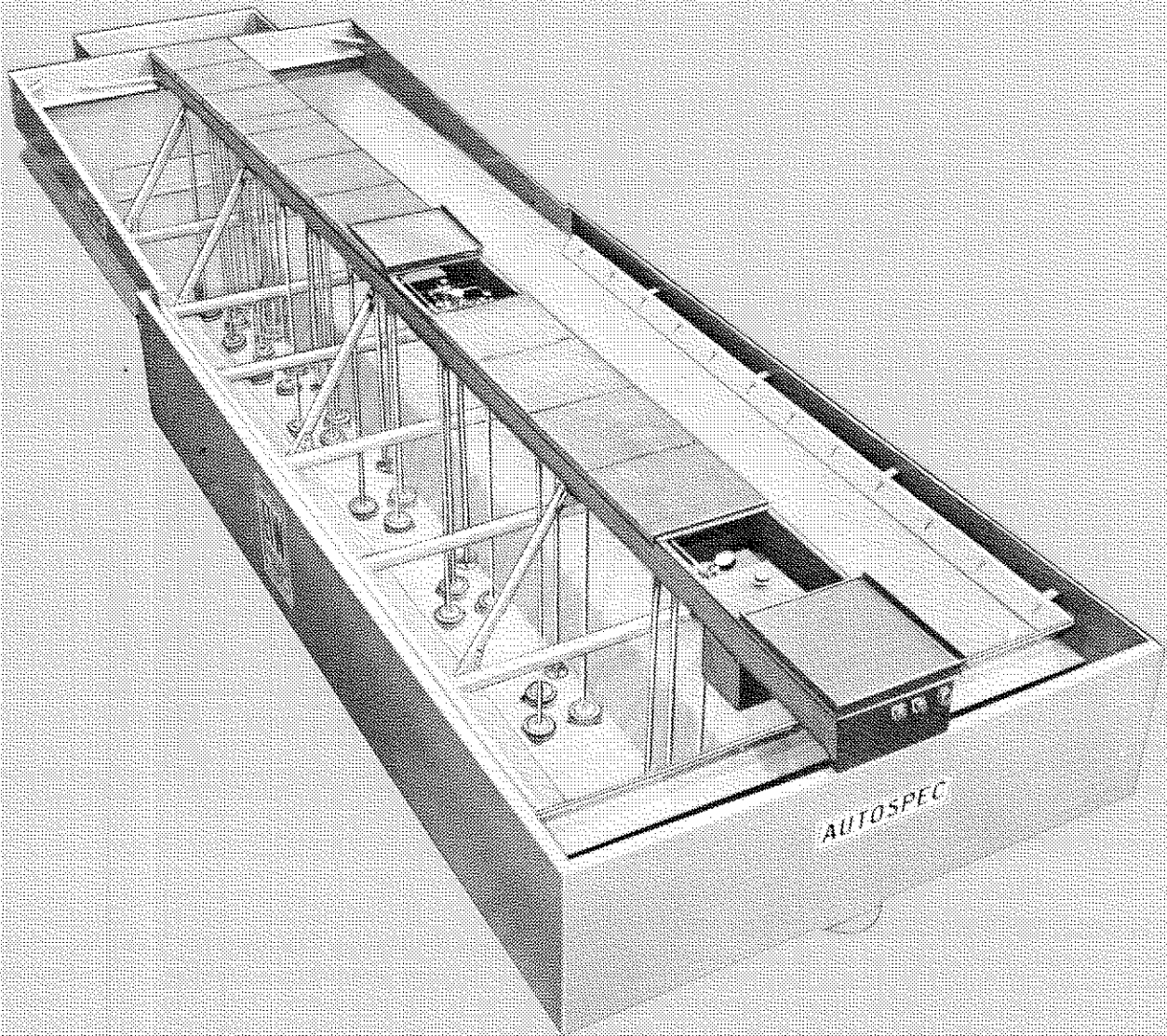


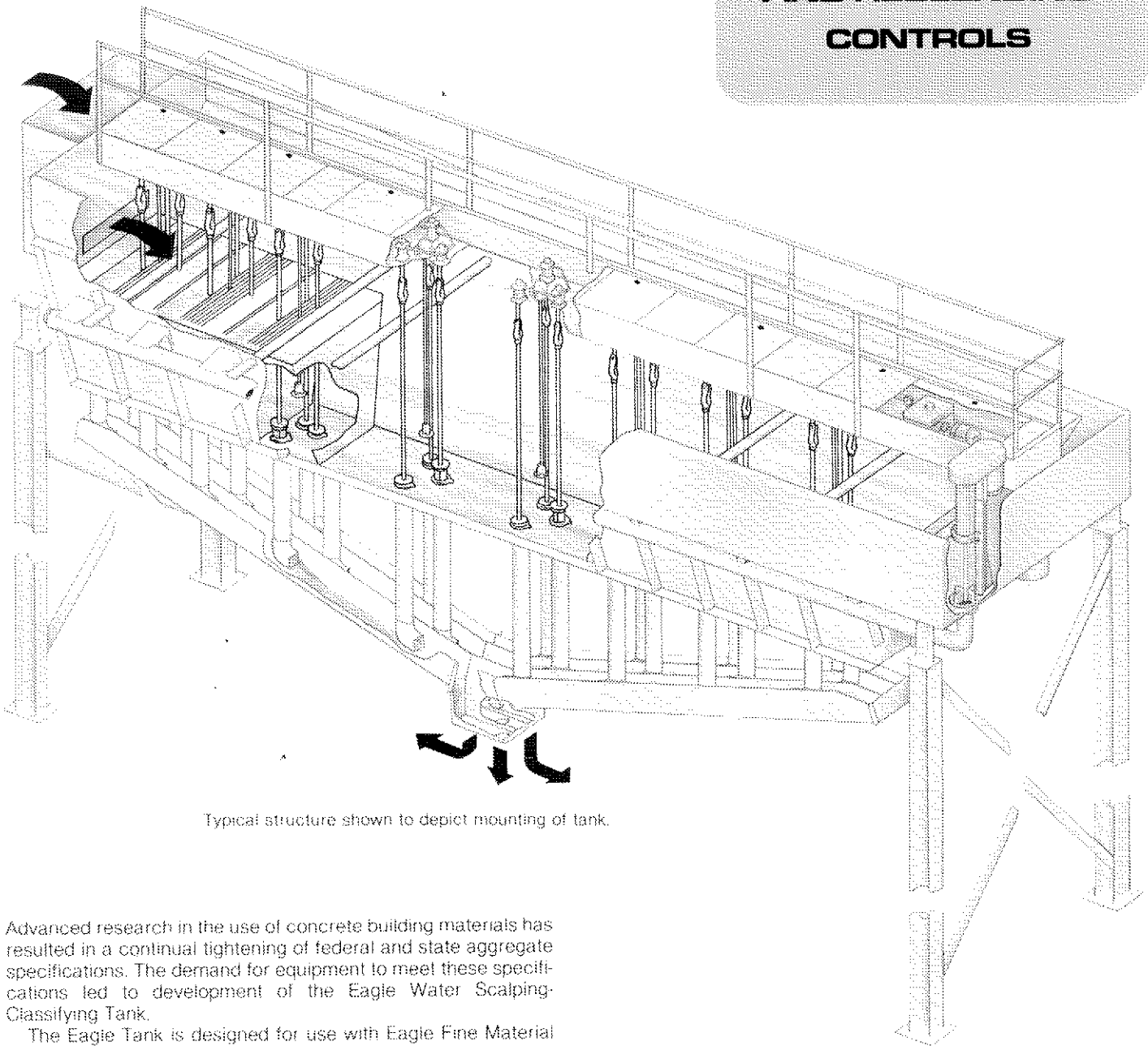
EAGLE

Water Scalping-Classifying Tanks
DIALSPLIT and AUTOSPEC Controls



General Catalog Section "B"

EAGLE SCALPING-CLASSIFYING TANK AND REBLENDING CONTROLS



Typical structure shown to depict mounting of tank.

Advanced research in the use of concrete building materials has resulted in a continual tightening of federal and state aggregate specifications. The demand for equipment to meet these specifications led to development of the Eagle Water Scalping-Classifying Tank.

The Eagle Tank is designed for use with Eagle Fine Material Screw Washers. Its function is threefold:

1. Removal of excess water.
2. Classification of material by removal of excess in certain meshes.
3. Retention of fines.

When is water Scalping-Classifying Tank required?

Eagle Fine Material Washers are designed to handle specific gallonages of water per minute. If material larger than 100 mesh is to be retained, a greater volume of water can be handled than if materials as fine as 150 mesh must be saved. In the latter case, a Water Scalping-Classifying Tank ahead of the Washer can remove surplus water. Use of a Water Scalping-Classifying Tank also is recommended in pits where "bellies" of certain mesh sizes are frequently encountered. With the Tank, excess sizes are easily diverted from the sand products.

Water Scalping-Classifying Tank operation

The diagram above shows the flow of materials through the Water Scalping-Classifying Tank. The basic principle is simple. Slurry containing sand is introduced into the Tank at the feed end. As the slurry flows to the opposite end, solids settle to the bottom. Because of the difference in weight of different mesh sizes, material is automatically classified as it settles. Coarse material drops out first, near the feed end. Material is progressively finer along the length of the Tank.

Eagle Reblending Systems

At each settling station along the bottom of the Tank, there are discharge valves for releasing sand into the collecting-blending flume. (See diagram below). Originally, manually-adjusted splitter gates below the discharge valves were used to direct the sand to a particular cell of the collecting-blending flume for selective reblending.

Many pits are not of a constant gradation, and variations in the composition of material fed to the Tank result in fluctuations in the amount of material passing through each valve. This requires frequent sampling of product and manual readjustment of the metering splitter gates in order to hold the product in spec.

Due to the time required to obtain a sample analysis, the result is often non-specification materials building up in the stockpile. Eagle electro-mechanical reblending systems can minimize this occurrence.

With AUTOSPEC® Automatic Sand Classification and Reblending Controls, there is a cluster of discharge valve openings at each station along the Tank length, instead of only one valve opening at each station as on Standard Series Tanks. Each valve opening, in the series discharging to the spec products, is controlled by timers on a convenient instrument panel, a set of timers for each station. As material builds up over the station, a sensing paddle actuates the opening of the appropriate valve, as determined by the control setting. The timers on the control panel are preset for the volumetric batching of the desired amounts of the material settled at each station to get the gradations in your stockpile that meet specifications. The product gradation is held constant by automatic reset of controls at completion of the batch.

The Eagle DIALSPLIT® Remote Sand Metering System uses the same basic discharge valve configuration as AUTOSPEC® controls. Instead of timers to control volumetric

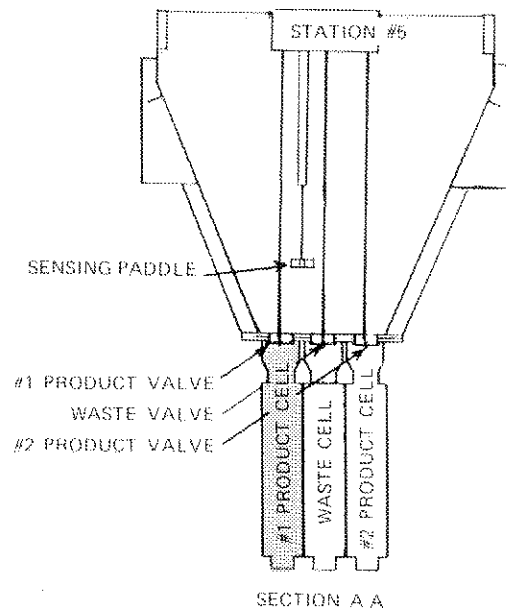
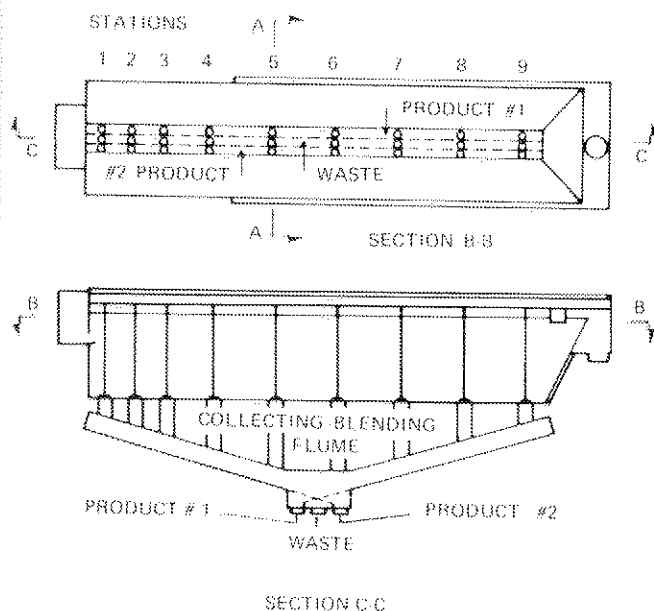
reblending, the DIALSPLIT® system distributes material on a percentage basis—the percentage of each classified material available at any station of the Tank that is required to meet product specs. It is less of a safeguard against pit gradation changes because it does not sense the volume of material discharged from the various stations. DIALSPLIT®, however, makes it easy for you to change material splitting. All changes are made remotely on the DIALSPLIT® control panel in precise increments. This is especially convenient when you need to change the products being made, or to compensate for pit variations to maintain a consistent product.

AUTOSPEC® II is the newest Eagle reblending system, and it combines features of both AUTOSPEC® and DIALSPLIT® to provide a feed monitoring capability. The AUTOSPEC® II control panel has dials for remote adjustment of material metering (just like DIALSPLIT®). It also has timers (like AUTOSPEC®) for monitoring sand settling at randomly selected stations in each of three or four gradation ranges. These timers sense pit changes and will warn the operator when product specs are in danger. This system is most useful in high volume operations.

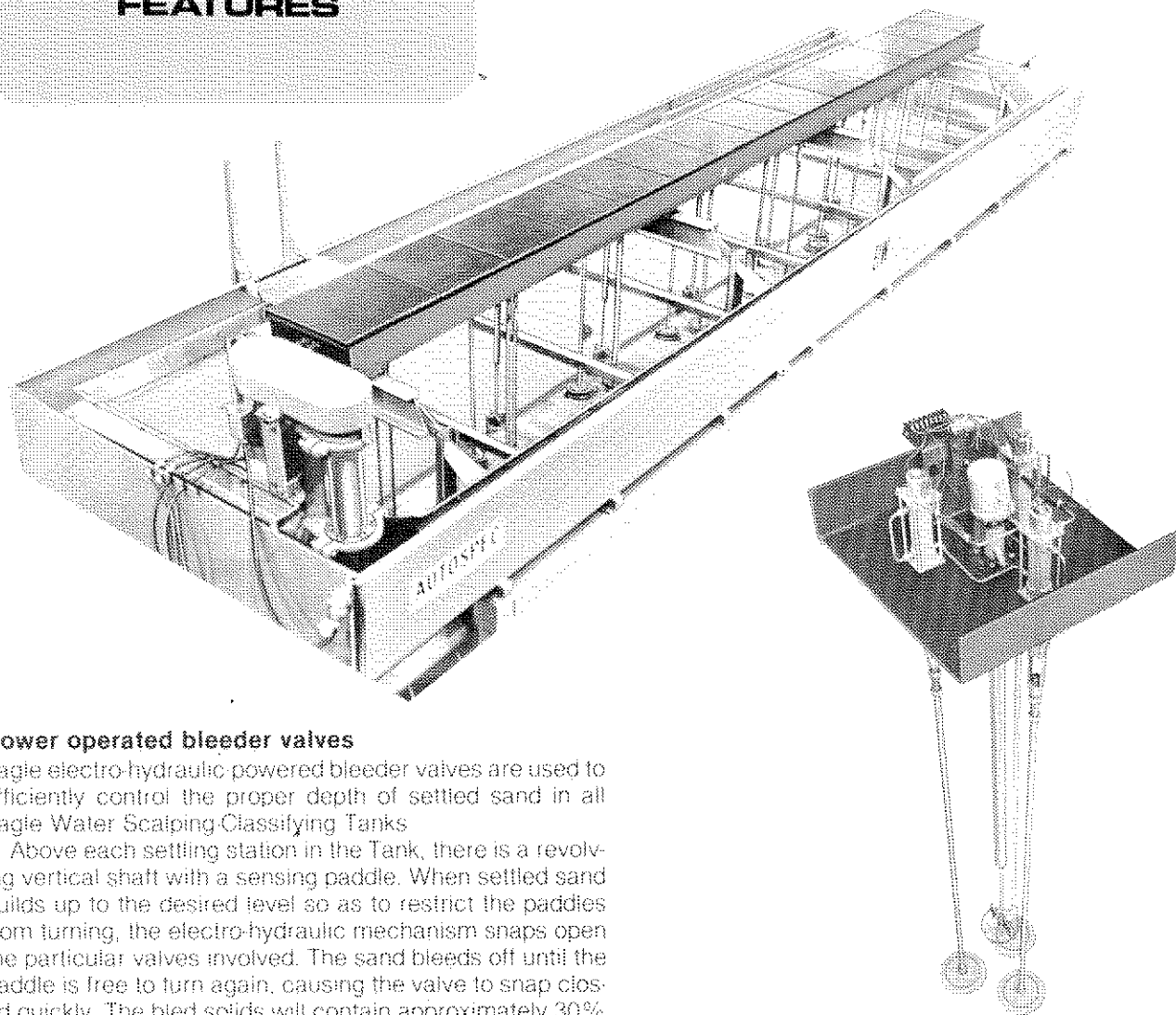
A history of success

Eagle Water Scalping-Classifying Tanks and reblending controls have proven themselves under widely varying conditions throughout the world. Advised of your water volume, pit screen analysis and product specifications, Eagle can recommend the proper Tank, reblending control system and washer combination.

The following pages explain the systems in greater detail and cover Tank construction and optional features. For more information, contact your Eagle Distributor or write to Eagle.



DESIGN AND CONSTRUCTION FEATURES



Power operated bleeder valves

Eagle electro-hydraulic powered bleeder valves are used to efficiently control the proper depth of settled sand in all Eagle Water Scalping-Classifying Tanks.

Above each settling station in the Tank, there is a revolving vertical shaft with a sensing paddle. When settled sand builds up to the desired level so as to restrict the paddles from turning, the electro-hydraulic mechanism snaps open the particular valves involved. The sand bleeds off until the paddle is free to turn again, causing the valve to snap closed quickly. The bled solids will contain approximately 30% water, so that this material can be chuted to an Eagle Screw Washer.

Eagle Tanks equipped with power-operated valves not only provide a better water scalping action, but assure greatly improved classification. There is no possibility of build-up of sand at any one discharge valve on the tank bottom, which would be the case if a valve did not open in time. In such a build-up of material at a valve, sand of the gradation that has settled there has a tendency to flow down to the next valve.

The "snap action" of the power-operated valve provides quick opening and closing, avoiding discharge of water only. Therefore, no excessive amounts of water are delivered to the settling pool of the line material screw unit or units following the tank. A uniform ratio of solids to water is maintained at all times.

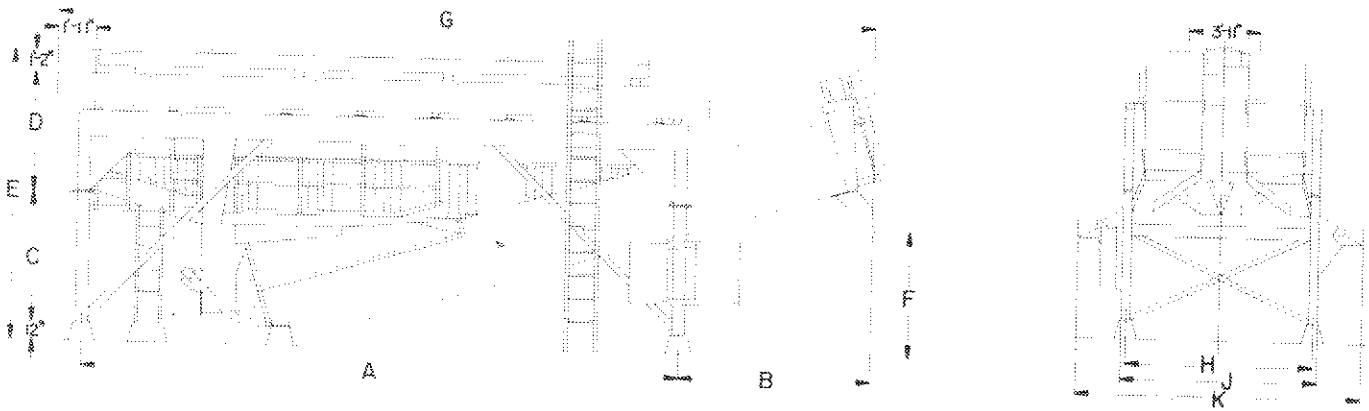
The Eagle power-operated valve is a mechanically sound device. Periodic maintenance of the hydraulic system assures proper functioning of valves. The cone-type valve assembly has a wear resistant Ni-Hard valve

seat and a dual diameter rubber valve disc seal. This advanced valve design provides a firm-closing, non-leaking unit that will resist wear from the constant passage of abrasive materials through the aperture. Design further provides a long service life, with a minimum of attention.

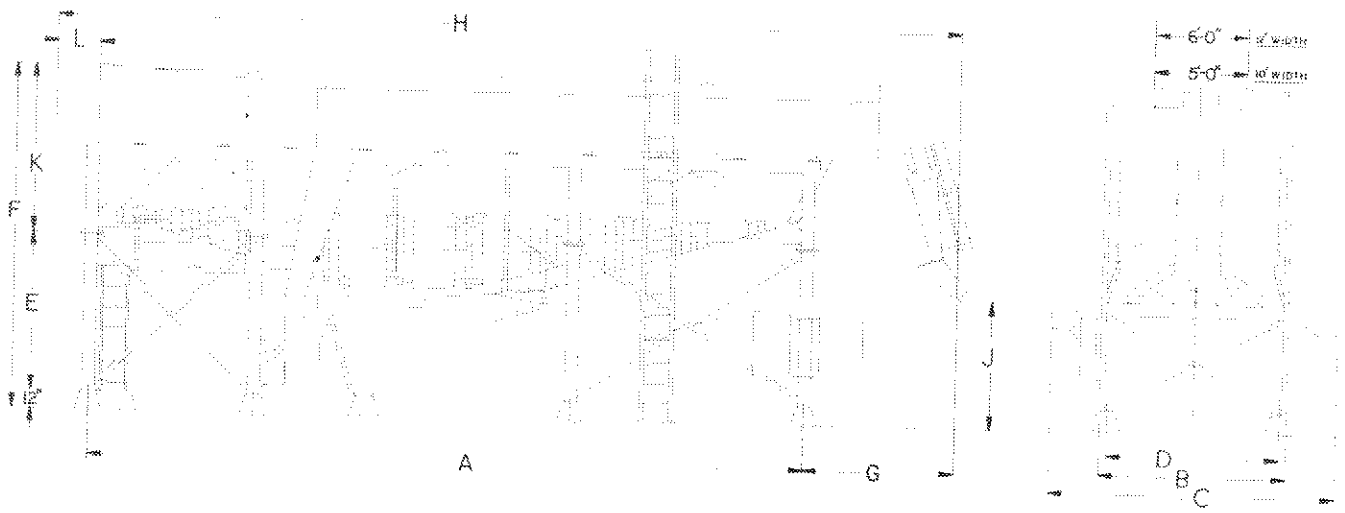
All service adjustments are accomplished from inside the tank, including replacement of the Ni-Hard valve assembly and rubber valve disc seal.

Cone-type valves and Ni-Hard valve seats are standard in Eagle Water Scalping-Classifying Tanks. Each material discharge pipe is also equipped with a Ni-Hard directional elbow at the bottom to eliminate splashing of material and reduce flume wear.

Electro-hydraulic valve actuating mechanism features integral solenoid and double-acting hydraulic cylinders to simplify piping. Dependable paddle motors and sensitive mercury switches provide years of service and minimum maintenance. The units are readily accessible under hinged covers on the valve bridge over the center of the Tank.



Washer Size	Capacity (TPH)	Tank Size	A	B	C	D	E	F	G	H	J	K
DBL 36" Dia x 25"	200	24 x 8	25.3"	60" 5/4"	5.0"	7.5"	14.7"	5.9" 9/16"	32" 11/32"	8.7" 5/16"	8.1"	14.0"
DBL 36" Dia x 25"	200	25 x 8	27.2"	74.0 5/8"	5.1" 1/2"	7.5" 1/2"	14.9"	5.9" 2/4"	36.1" 5/8"	8.7" 5/16"	9.1"	14.0"
DBL 40" Dia x 25"	200	32 x 8	30.9"	4.7" 2/8"	5.0"	6.7"	15.0"	5.9" 3/4"	34.1" 5/8"	8.7" 5/16"	9.0" 1/4"	14.0"
DBL 44" Dia x 32"	350	32 x 8	47.1" 0	10.0"	7.0"	6.4" 1/4"	15.6" 5/8"	6.10"	15.5"	9.11" 1/2"	10.6" 5/8"	15.2" 5/8"



Washer Size	Capacity (TPH)	Tank Size	A	B	C	D	E	F	G	H	J	K	L
DBL 36" Dia x 25"	200	32 x 10	30.4"	10.0"	14.0"	9.0"	6.5"	17.6"	6.0" 1/4"	38" 10" 1/2"	5.0" 3/4"	10.0"	2.3"
DBL 36" Dia x 25"	200	36 x 10	34.4"	10.0"	14.0"	9.3"	8.5"	18.5"	6.5" 5/8"	47.9" 5/8"	5.9" 5/4"	9.0"	2.3"
DBL 36" Dia x 25"	210	40 x 10	38.4"	10.0"	14.0"	9.3"	8.6"	18.6"	7.0" 5/8"	42.9" 5/8"	5.9" 3/4"	9.0"	2.3"
DBL 44" Dia x 32"	350	32 x 10	31.7"	10.0"	15.2" 3/8"	9.0"	7.6"	17.6"	10.3"	43.4" 1/4"	6.10"	9.0"	2.3"
DBL 44" Dia x 32"	350	36 x 10	38.4"	10.0"	15.2" 3/8"	9.3"	8.6"	18.6"	7.10"	48.2"	6.10"	9.0"	2.3"
DBL 44" Dia x 32"	350	40 x 10	38.4"	10.0"	15.2" 3/8"	9.3"	8.6"	18.6"	7.10"	48.2"	6.10"	9.0"	2.3"
DBL 44" Dia x 32"	350	48 x 12	46.5"	12.0"	15.2" 3/8"	11.1"	12.2"	20.2"	8.1" 1/2"	56.11" 1/2"	6.10"	10.0"	2.9"
DBL 54" Dia x 34"	450	40 x 10	38.4"	11.11"	20.0" 3/4"	11.2"	11.9"	21.3"	9.3"	48.6"	7.5" 1/2"	8.6"	2.3"
DBL 54" Dia x 34"	450	48 x 12	44.3"	12.0"	26.0" 3/4"	11.1"	13.7"	24.7"	9.4"	56.0"	7.5" 1/2"	10.0"	2.9"

Dimensions for general planning only, not for construction.
 Dimensions and specifications subject to change without notice.