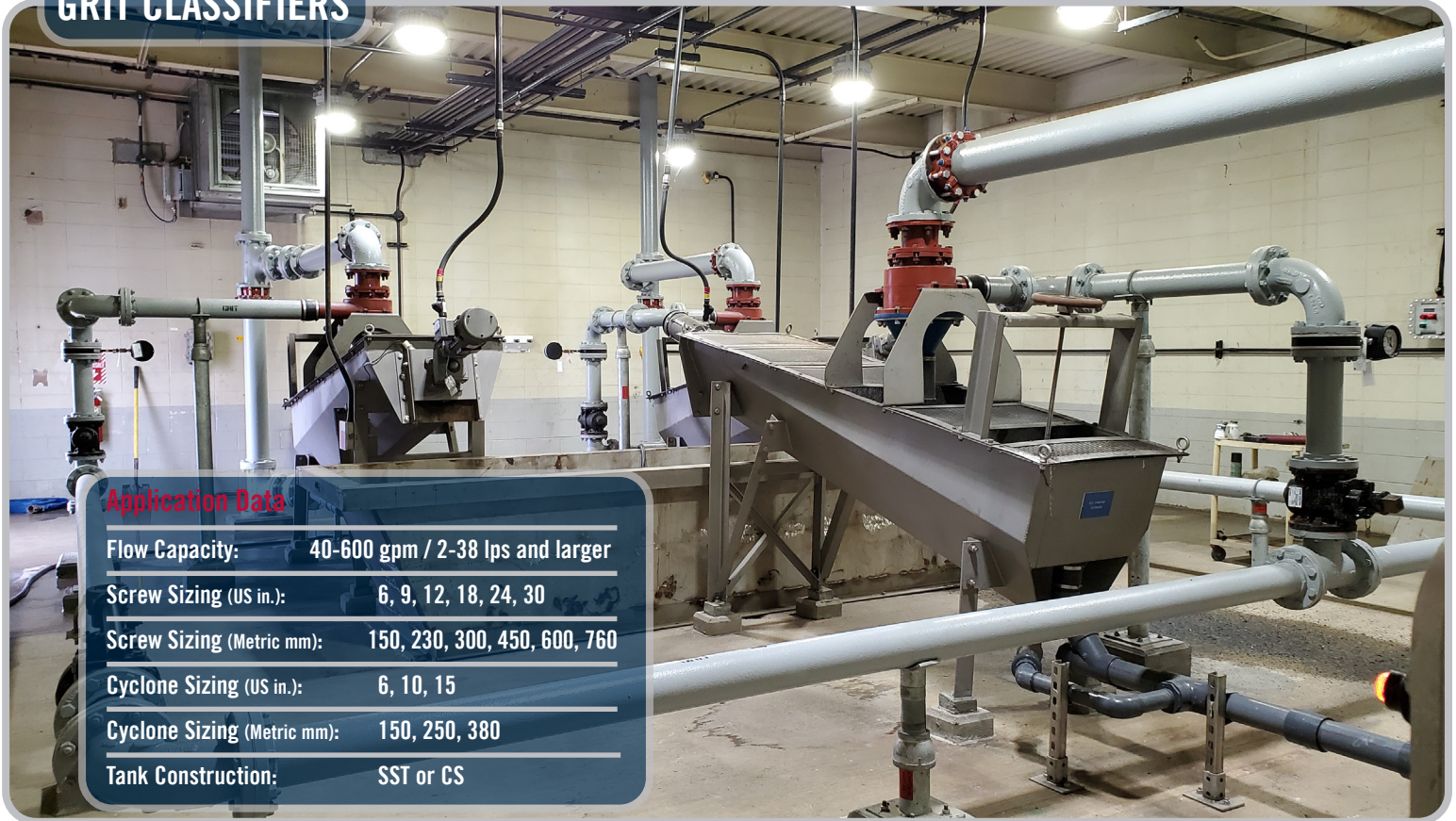




Smith & Loveless Inc.

GRIT CLASSIFIERS



Application Data

Flow Capacity:	40-600 gpm / 2-38 lps and larger
Screw Sizing (US in.):	6, 9, 12, 18, 24, 30
Screw Sizing (Metric mm):	150, 230, 300, 450, 600, 760
Cyclone Sizing (US in.):	6, 10, 15
Cyclone Sizing (Metric mm):	150, 250, 380
Tank Construction:	SST or CS

Grit Classifiers

Get the Job Done for the Small to Very Large Plant

The successful engineering behind **S&L SCHLOSS™** Grit Classifiers emanates from decades of **S&L SCHLOSS™** experience in the bulk handling and mining industries. This results in a rugged grit classifier that achieves 95% of grit down to 150 mesh / 100 micron in particle size. Our design takes special care for all aspects of classifier construction in order to maximize service life and performance over time. Systems are tailored to meet each application with various unit sizes and materials optionally available as desired. Our staff can assist during design.

FEATURES AND BENEFITS

- Achieves fine grit removal: 95% down to 150 mesh / 100 μ particles
- Screw sizes range from 6" - 30" / 150 - 760 mm
- Optional long-lasting Hydrocyclone(s) allow for smaller classifiers
- Backed by decades of engineering experience in bulk material handling
- Various wear shoe options available



Grit Washers & Classifiers



Grit Classifier with single Cyclone

**Fine Grit Removal
and Dewatering**
for a complete range of
grit removal applications



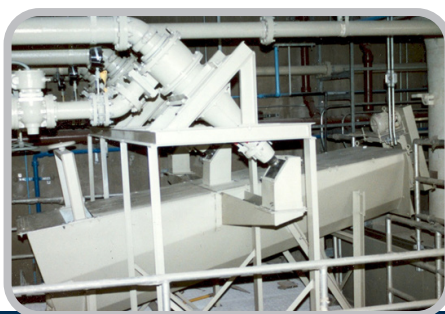
For project inquiries, visit
SmithandLoveless.com



Smith & Loveless, Inc.

Online: SmithandLoveless.com
Phone: 913-888-5201
FAX: 913-888-2173

A variety of designs comprising multiple cyclones and various screw diameters can be customized for your application.



Grit Classifier System Diagram

Diagram Details

- 1 Direct Drive Motor**
Provides safest and most efficient performance for classifiers.
- 2 Drive Assembly**
Mounted to moving pivoting screw.
- 3 Inclined Tank Assembly**
Various materials of construction available.
- 4 Screw Assembly**
Inclined at 16.26 degrees with diameters ranging from 6" - 30" (150 - 760 mm).
- 5 Lower Bearing Assembly**
Oil-filled bronze bearing with elastomeric loaded Stellite seals.
- 6 Screw Lifting Mechanism**
Handwheel/jackscrew simply raises lower bearing and screw for annual inspection.
- 7 Grit Hydrocyclone**
Optional involute fed cyclone separates grit particles from water by centrifugal force many times the force of gravity. Use of cyclone reduces grit classifier size. Many different sizes available.

Controls typically furnished in NEMA 4X, NEMA 12, IP55 or IP65 panel.

Grit Classifier Design Advantages *Compare S&L SCHLOSS™ design benefits*

Component	S&L SCHLOSS™ Grit Classifier	Competitive Grit Classifier
Cyclone	Modern, abrasion-resistant non-metallic design for ease of maintenance	Conventional elastomeric lined metallic causes time-consuming maintenance
Direct Drive	Made for thrust, limited bending, & limited U-Joint action	Generic drive not specifically designed for wastewater grit applications
Motor Mount	Mounted to speed reducer	Mounted on support and connected by means of less-efficient V-belt drive
Connections	Simpler speed reducer coupling connector design	Flanged connection from reducer to screw requires modifications to transmit axial load
Reducer Shaft	U-Joint action reduces overhung load, reducing bending moment on shaft and bearings	No U-Joint action places overhung load on reducer output shaft, increasing bending moment on reducer bearings

S&L SCHLOSS™ Grit Classifiers can be retrofitted into existing competitor designs. Contact S&L to discuss the application.