Smith & Loveless Inc.
Above All Others.

PISTA® Grit Removal System

The Durable PISTA® Grit Concentrator (250 GPM/15.8 LPS)

The Smith & Loveless **PISTA**® Grit Concentrator combines uncompromising strength and durability for superior grit concentrator performance. Specially-designed for small flow applications, the **PISTA**® Grit Concentrator effectively washes collected grit while delivering extended service life beyond standard concentrator designs. Constructed of Ni-Hard, with a minimum thickness of 1.25" (3.2 cm) in high wear areas, it features a large discharge orifice (3.5" or 8.9 cm) to minimize clogging.

The **PISTA**® Grit Concentrator functions as a primary grit washing and dewatering device, separating the pumped flow into the basic components of water, organics and grit. Working in concert with the **PISTA**® Grit Screw Conveyor, the **PISTA**® Grit Concentrator sits snugly above it. The **PISTA**® Grit Concentrator's overall performance achieves greater than 95 percent removal of the residual organic material.

Features & Benefits

- Large discharge orifice minimizes clogging
- Specifically designed for small flow applications
- No wearing parts or liners makes maintenance easy

*The Smith & Loveless **PISTA**® Grit Concentrator 250 GPM (15.8 LPS) features Ni-Hard construction and **VERSAPOX**® epoxy coating.*

Product Features	PISTA® Grit Concentrator 250 GPM (15.8 LPS)	Others
Ni-Hard Cast Construction with 1.25" (3.2 cm) Min. Thickness in High Wear Areas	✓	
Fabricated & Cast Carbon Steel Housing		✓
Involuted Feed Entry	✓	✓
Large 3.5" (8.9 cm) Diameter Discharge Orifice to Minimize Clogging	✓	
Longer Lasting, Minimizing Downtime	✓	
Wearing Liners Requiring Routine Replacement		✓
250 GPM (15.8 LPS) Capacity	✓	✓

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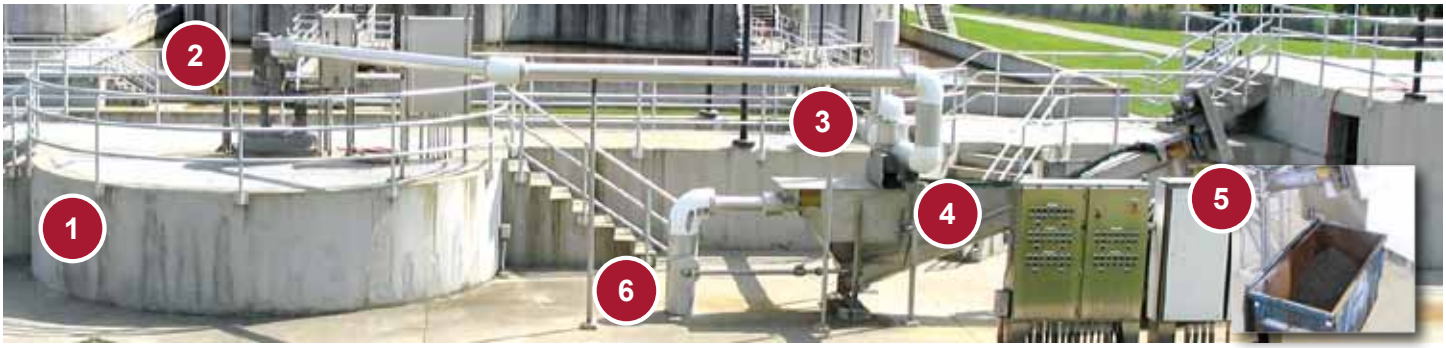
PISTA
GRIT REMOVAL SYSTEM

Complete Grit Removal, Handling & Dewatering System Flow Scheme



For maximum grit removal, the **PISTA**® Grit Chamber should be complemented with Smith & Loveless **PISTA**® grit handling and dewatering components, which transport, dewater and prepare the grit for final disposal. These components can be retrofitted to increase the efficiency of your grit handling system originally equipped with older components or non-Smith & Loveless accessories.

Smith & Loveless' commitment to market leadership in grit removal kindles on-going research and development, which leads to continued system and component innovations. See the timeline below for just some of the key **PISTA**® system design milestones.

Unparalleled Innovation For 30+ Years

1973 - **PISTA**® Grit Removal System (270º)
1974 - **PISTA**® Grit Screw Conveyor
1981 - 50 MGD (2,191 LPS) **PISTA**® Grit Chamber
1982 - **PISTA**® **TURBO**™ Grit Pump (4" or 10.2 cm)
1982 - 175 GPM (11 LPS) **PISTA**® Grit Concentrator
1984 - 70 MGD (3,067 LPS) **PISTA**® Grit Chamber
1988 - 360º **PISTA**® In-Line Design
1988 - 250 GPM (15.8 LPS) **PISTA**® Grit Concentrator
1989 - Parallel Plate **PISTA**® Grit Screw Conveyor
1992 - **PISTA**® Grit Fluidizer
1992 - 4" (10.2 cm) **PISTA**® **TURBO**™ Grit Pump
1998 - 6" (15.2 cm) **PISTA**® **TURBO**™ Grit Pump
1998 - 500 GPM (31.8 LPS) **PISTA**® Grit Concentrator
1999 - 100 MGD (4,381 LPS) **PISTA**® Grit Chamber
2004 - **PISTA**® Grit Flow Control Baffle
2006 - **PISTA**® Debris Deflector
2009 - 500 GPM (31.8 LPS) **PISTA**® **DURALYTE**® Grit Concentrator
2009 - **PISTA**® **TURBO**™ Grit Washer with **TRI-CLEANSE TECHNOLOGY**™
2009 - **PISTA**® **360**™ Grit Chamber with **V-FORCE BAFFLE**™
2009 - **SONIC START**® **STREAMLINE**™ for **PISTA**®
2010 - **PISTA**®**Works**™
2011 - **PISTA**® **PRO-PAK**™

PISTA® Grit Removal System Components & Scheme

1 ***PISTA® Grit Chamber —*** Influent enters flat-floor grit chamber hydraulically guided by coanda ramp, internal baffles and central, low-speed propeller. Forced vortex drives grit particles to center chamber floor and into lower grit hopper while organics and flow continue to plant.

2 ***PISTA® TURBO™ Grit Pump —*** Top-Mounted or Remote-Mounted unit pumps collected grit slurry (kept fluid by the **PISTA**® Grit Fluidizer) to the **PISTA**®'s second-stage grit washing and dewatering system while also providing proper head.

3 ***PISTA® Grit Concentrator —*** Specifically engineered for the **PISTA**® system, this abrasion-resistant Ni-Hard unit washes grit further.

4 ***PISTA® Grit Screw Conveyor —*** Grit from the concentrator deposits into the parallel (lamella) plate section of the S&L dewatering screw conveyor, which aids in retaining finer grit and reducing the stream's turbulence and overflow rate.

5 ***Dewatered Grit Discharges*** from the top of the inclined **PISTA**® Grit Screw Conveyor into a container for disposal.

6 ***The Flow and any Residual Organics are Returned*** to the inlet channel prior to the grit chamber, typically 93% of flow and 95% of organics.