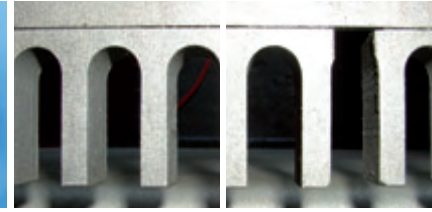


# INFILCO

# TRAVELING BRIDGE

## Grit and Grease Removal System



RELIABLE DESIGN

RETROFIT OR NEW

HIGH CAPACITY

LOW MAINTENANCE

← Applications

- Grit and grease removal
- New construction
- Retrofit into most existing basins



The Traveling Bridge Grit and Grease Removal System is designed to reduce horizontal flow velocity to allow heavy particles to settle while grease and other floating substances are allowed to rise to the surface to be separated. An aeration system is utilized to keep the majority of organic materials in suspension during this process. Slower spiral flows at the effluent end allows grease to float to the top of the unit for easy removal.

## MAIN FEATURES

### → Layout - Retrofitting

- Available space requirements may be tight
- Various bridge options - dual/single carriage

### → Reliability

- A proven technology – over 100 installations worldwide
- Exceptional tracking and alignment

### → Redundancy

- A single grit pump is standard, optional duplicate pump

### → Simple Control System

### → Heavy-Duty Construction

- Cog-wheel drive of hardened steel components

### → Operator Attention

- Requires little maintenance from plant personnel
- Automated system



## TRAVELING BRIDGE GRIT & GREASE REMOVAL SYSTEM TECHNOLOGY

The Traveling Bridge Grit and Grease Removal System is a proven and efficient grit and grease extractor. The air mixing and tank equipment adjust to treat significant variations in horizontal flow velocity. Horizontal flow velocity is reduced to allow heavy particles to settle while grease and other floating substances are allowed to

rise to the surface to be separated. An aeration system is utilized to keep the majority of organic materials in suspension during this process. All moving parts are accessible from the bridge or the walls of the grit tank.

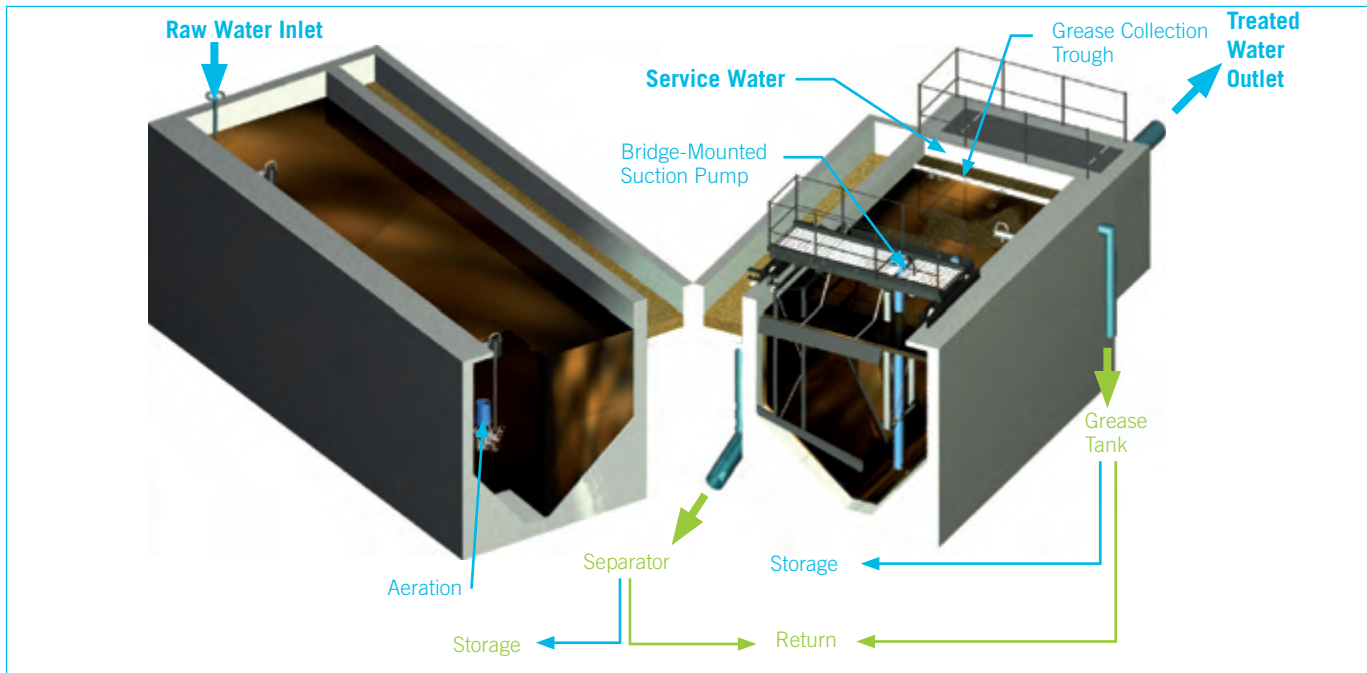


# TRAVELING BRIDGE

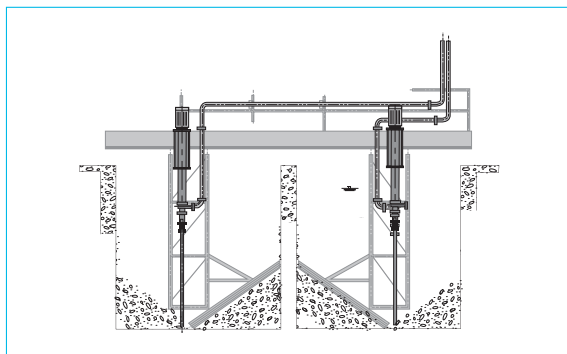
## HOW IT WORKS

### Operation Sequence

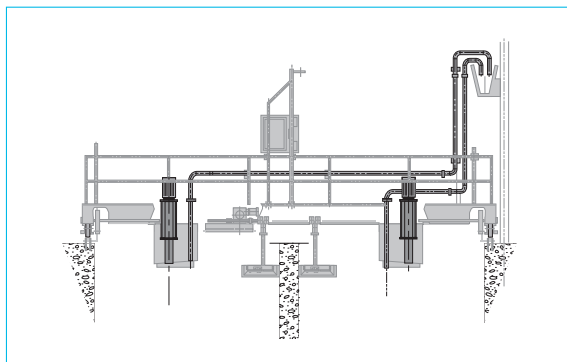
- 1 Extraction pump initiation
- 2 The Traveling Bridge begins moving forward after 30 seconds
- 3 The bridge advances to the upstream portion of the tank. Limit switches trigger a stop.
- 4 The bridge pauses in upstream position – the grease skimmer lowers.
- 5 The bridge slowly returns to its original position. The grease skimmer pushes floating substances up the ramp and into a holding sump where it deposits the grease on a dewatering ramp.
- 6 The grit pump conveys grit from the base of the channel to a side-mounted effluent trough for simple transport.
- 7 The pump stops after a time delay.



RECTANGULAR GRIT/GREASE SEPARATOR TYPE AM



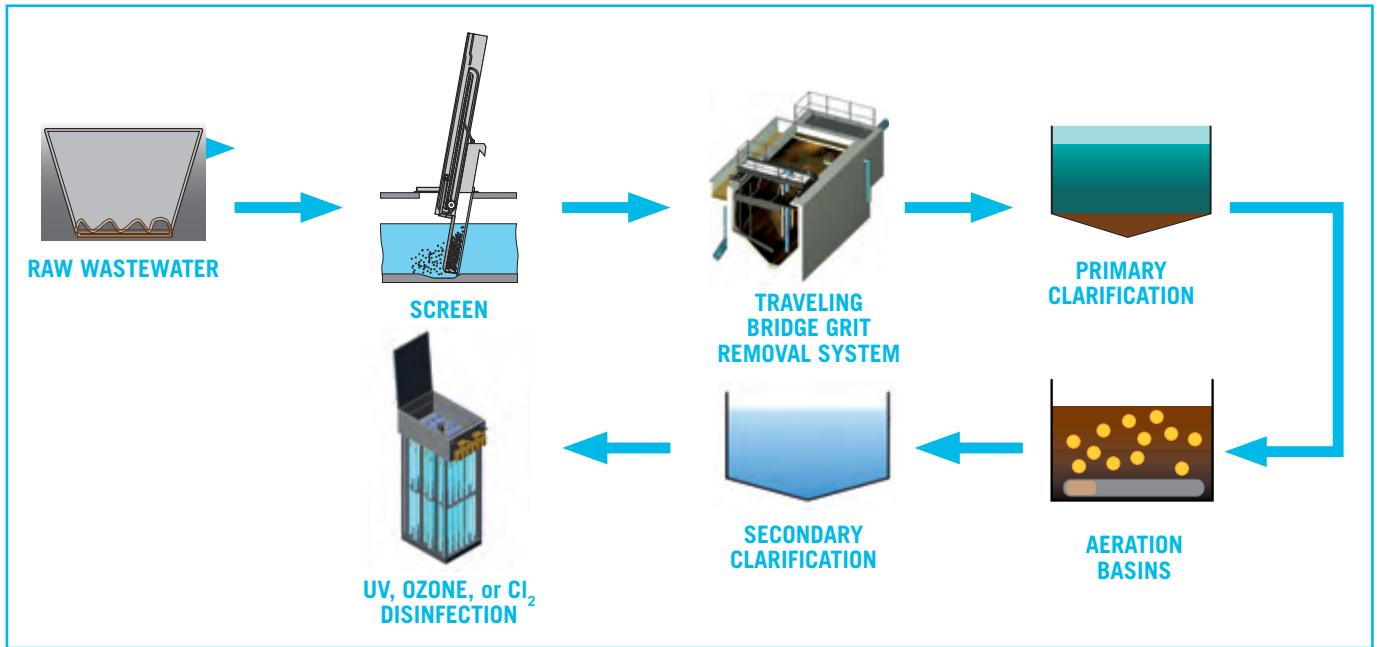
TANK



BRIDGE

## Advantages

- An easy and automated process
  - Low maintenance
  - Simple rectangular design is automated and reliable
- Protects downstream processes
  - Grit removal
    - Minimizes abrasion of mechanical equipment
    - Minimizes grit/sand accumulation downstream
  - Grease separation
    - Removal of grease & scum prior to biological and sludge treatment
- Easily retrofitted into existing basins



PLANT FLOW DIAGRAM



**DRIVE MECHANISM**

- Rack** – Accommodates movement of joints and concrete to result in smooth linear movement
- Drive Wheels** – Galvanized steel
- Shaft** – Coated to protect against corrosion
- Speed Reducer** – Reduction ratio of shaft provides a linear bridge speed of 8 ft/min
- Motor** – Air cooled, sealed, and explosion proof
- Torque Limiter** – Detect any rise in the motor load – wired to motor starter

**Technical Features**

- Heavy-duty materials of construction
- Simple control system
- Medium-bubble air mixing keeps the majority of biological matter in suspension
- Simple trough design to transport grit waste
- Grease dewatering ramp to minimize dewatering
- Cog-wheel drive mechanism to ensure positive driving and alignment

	Length	Width	Surface Area	Wet-Weather Flow	Dry-Weather Flow	Normal Flow
	ft.	ft.	ft <sup>2</sup>	mgd	mgd	mgd
Model 1	20	13	258	6	2.0	1.5
Model 3	26	13	344	8	3.0	2.0
Model 5	32	13	430	10	3.8	2.5
Model 7	38	13	516	12	4.5	3.0
Model 9	52	13	688	16	6.0	4.0
Model 11	66	13	860	20	7.6	5.0
Model 13	80	13	1 083	24	9.1	6.0
Model 14	96	13	1 205	28.5	10.6	7.0



# TRAVELING BRIDGE

## COMPLETE TREATMENT SOLUTIONS

Infilco Degremont offers an array of water, wastewater and industrial treatment solutions for any size client. Headworks, clarification, filtration, biological and disinfection systems are several of the product disciplines in our portfolio.

If interested in this product, check out some of the complementary HEADWORKS products:

- Helico® Screenings Press
- Vortex Grit Remover
- Climber Screen®



## PILOTING SERVICES

Infilco offers pilot systems and services for this and many other of our product offerings. Pilot studies are a practical means of optimizing physical-chemical and biological process designs and offer the client several benefits, such as:

- Proof of system reliability
- Optimal design conditions for the full-scale system
- Free raw water lab analysis
- Regulatory approval



If interested in a study for this system, please contact us for a proposal.

## SERVICES INFILCare®

### Part Sales

Infilco Degremont sells parts and components for most INFILCO brand equipment as well as parts for demineralizers, thickeners, nozzles, pressure filters, and valves. We offer reliable spare parts at competitive prices. We maintain records of previous installations to quickly identify your requirements. Many items are shipped directly from stock for quick delivery.



### Rebuilds, Retrofits and Upgrades

Infilco Degremont offers cost-effective rebuilds and upgrades for INFILCO provided systems, no matter what year they were built. If you are interested in an economical alternative to installing a whole new system, contact us for a proposal.



## Contacts [www.DEGREMONT-TECHNOLOGIES.COM](http://www.DEGREMONT-TECHNOLOGIES.COM)

**Infilco Degremont Inc.**  
8007 Discovery Drive  
Richmond, VA 23229-8605, USA  
Tel: +1 804 756 7600  
Fax: +1 804 756 7643  
info-infilco@degtec.com

**Degrémont Limitée**  
1375, route Transcanadienne,  
Bureau 400  
Dorval (Qc) H9P 2W8, Canada  
Tel: +1 514 683 1200  
Fax: +1 514 683 1203  
info-canada@degtec.com

Manufacturers' Representative: