

# Rental Treatment Systems For Remediation & Emergency Response

Offering and maintaining a fleet of rental equipment to respond to short or long term rental needs throughout North America.



# **A Robust Rental Fleet**

At Newterra, we continue to expand our 100+ rental fleet of process systems and components to accommodate remediation equipment needs that are short term, require a rapid response, or are not within current capital budgets. Our fully warranted rental systems can include an optional services contract, and are also available for purchase.

In addition to full scale rental systems, our fleet includes a wide selection of large and small systems optimized for pilot studies, either at our facility or in the field. Short term pilot studies are the best method for determining site requirements and specifications of full scale, long term solutions.

This brochure highlights some of the equipment available in our rental fleet but if you don't see what you need, please give us a call so we can help you to find the right solution for your site challenge.

# **Environmental Compliance Approval (ECA)**

Newterra has the ability to help our clients navigate the technical and bureaucratic process of obtaining their Environmental Compliance Approval (ECA) for a sewage water treatment systems.

The MECP (Ministry of the Environment Conservations & Parks) issue ECA's. The MECP mandate is to safeguard our environment by working toward cleaner air, water and land, and healthier ecosystems for the people of Ontario. The ECA process is provincially regulated and while similar to approval processes in other provinces/states, it is recognized that Ontario has very strict requirements and can be a challenging market to penetrate. For this reason, Newterra has secured mobile ECA's which can be used in Ontario in conjunction with our rental equipment so our customers can get their sites up and running quickly, avoiding up to 12-month wait times for approved ECA's.

# **Modular Construction Dewatering & Treatment Equipment**

Newterra offers pre-built, fully assembled dewatering equipment that's packaged for easy shipping and fast set-up at your construction site. Our modular systems provide cost-effective, automated water treatment and filtration to address TSS removal, pH adjustment and sludge monitoring/removal for **volumes up to 300 GPM**. We can also engineer and manufacture specialized systems to treat more complex compounds.



# **Water Treatment Systems**

# Newterra's Modular Water Treatment Systems

Our fleet includes Water Treatment Systems ranging from 10 to 300 GPM which can also be used in Ontario with our ECA. The Water Treatment Systems can include an oil water separator, bag filters, air stripper, and media vessels filled with whatever media is required for the application.

#### **Typical Applications**

- Flow Range: 10 to 300 GPM
- Groundwater Extraction/Treatment

- Surface Water Treatment
- Hydrocarbon Contaminated Water Treatment

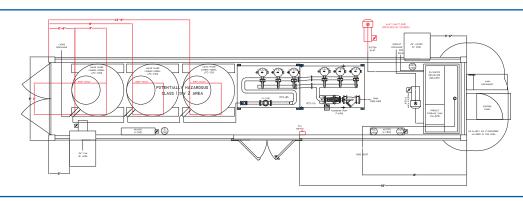
# **Example Water Treatment System in Our Rental Fleet (RTS260)**

#### **Equipment Summary**

- Groundwater Inlet/Discharge port 3in
- Stainless Steel oil water separator (OWS-27) w/ product storage tank
- #2 Size Bag Filter Housings x7
- Wide availability of filtration media options, including TM100 Clay, Carbon, Alumina, etc.

#### Construction

- Installed in a 8' x 40' modified shipping container
- Programmable Logic Controller (PLC)
- Remote access and control via cellular wireless telemetry (Optional)



#### **Process Specifications**

- Rated Pressure and Flow for Water Treatment System: Up to 150 GPM @ 100 ft TDH
- Approximate Weight: 30,000 lbs.
- Approximate Exterior Dimensions: 8' x 40'
- Acceptable Ambient Temperature: -40°C to + 35°C

#### **Power Specifications**

- Power Requirements: 86 Amps @ 120/208V 3 Ph
- Service Required: 100 Amps @ 120/208V 3 Ph
- Main Disconnect by: Newterra
- Area Classification of Process Equipment: Class 1 Div 2 Group D
- Area Classification of Control Panel: General Purpose, Outdoors
- Electrical Approvals: UL Panel Approval

 Telephone Line Requirements: None - Optional wireless telemetry available

#### **Standard Features**

 Automated PLC control system for independent operation

#### **Optional Features**

- All air phase and liquid phase media, bag filters, and OWS media is purchased at time of the order
- Additional transmitters and other process instrumentation
- Remote access system with data-logging functions
- Province of Ontario Environmental Compliance Approval (ECA) for discharge to storm sewer, surface watercourse or surface of the ground

A Sampling of Water Treatment Systems in Newterra's Fleet			
System Number	System Description	Power Requirements	
RTS004	WTS, 10 GPM, Trailer	230V 1ph, Class 1 Div 2	
RTS033	WTS, 10 GPM, Trailer	230V 1ph, General Purpose	
RTS060	WTS, 10 GPM, Trailer	230V 1ph, Class 1 Div 2	
RTS062	WTS, 10 GPM, Trailer	230V 3ph, Class 1 Div 2	
RTS068	WTS, 10 GPM, Trailer	230V 1ph, Class 1 Div 2	
RTS113	WTS, 40 GPM, Trailer	208V 3ph, Class 1 Div 2	
RTS242	WTS, 30 GPM, Pump-Filter, Skid	208V 3ph, General Purpose	
RTS114	WTS, 10 GPM, Trailer	230V 1ph, General Purpose	
RTS045	WTS, 40 GPM, Pump-Filter, Skid	208V 3ph, General Purpose	
RTS025	WTS, 50 GPM, 20' Container	240V 3ph, 70FLA	
RTS180	WTS, 50 GPM, 6.6SS Stripper, Skid	208V 3ph, Class 1 Div 2	
RTS154	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS185	WTS, 150 GPM, Skid	No Pump, No Panel	
RTS186	WTS, 150 GPM, Skid	208V 3ph, Class 1 Div. 2	
RTS244	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS252	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS257a	WTS, 150 GPM, 40' Container (Bottom)	208V 3ph, General Purpose	
RTS257b	WTS, 150 GPM, 40' Container (Top)	208V 3ph, General Purpose	
RTS260	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS261	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS262	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS263	WTS, 150 GPM, 40' Container	208/120V 3ph, Class 1 Div 2	
RTS075	WTS, 250 GPM, Trailer, Air Stripper	208V 3ph, General Purpose	
	WTS, 250 GPM, 24.6SS Air Stripper, Container	208V 3ph, Class 1 Div 2	

# LongBox<sup>®</sup> Clarifier Series

# Newterra's LongBox® Clarifier Series

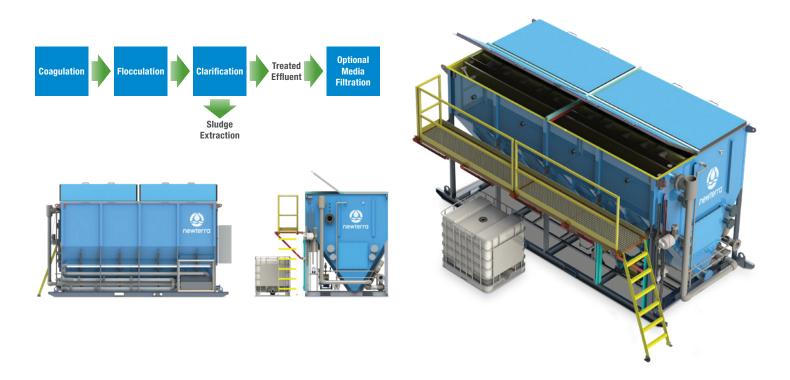
Our fleet includes Newterra's LongBox<sup>®</sup> high-flow Clarifiers, designed specifically for efficient sediment and suspended solids removal on groundwater treatment and dewatering projects. They are built for easy transport on flat-bed trucks to sites and remote areas. Once on location, installation, setup and operation is fast and simple – even on uneven ground. Newterra's LongBox<sup>®</sup> Clarifiers provide excellent removal efficiencies compared to traditional weir tanks and settling or frac tanks commonly used for sediment treatment or construction sites.

#### **Typical Applications**

- Flow Range: up to 200 GPM (depending on influent water characteristics)
- Sediment and Suspended Solids Removal for:
  - Groundwater
  - Construction Dewatering
  - Potable Water
  - Process Water
  - Mine Groundwater
  - Wastewater

#### Process

- A coagulant is used to strip fine particulate of charges and collect them into larger coagulated particles
- A flocculent is added and mixed in the pipe flocculator before entering the clarifier
- A slow mixing flocculation zone in the clarifier settles the bulk of large solids
- Finer flocculated solids settle out in a tube settling section of the clarifier
- Supernatant from the clarifier is discharged by gravity
- Sludge accumulated in the bottom of the clarifier is automatically pumped to a settling pond or sludge drying bed



# LongBox<sup>®</sup> Clarifier Series

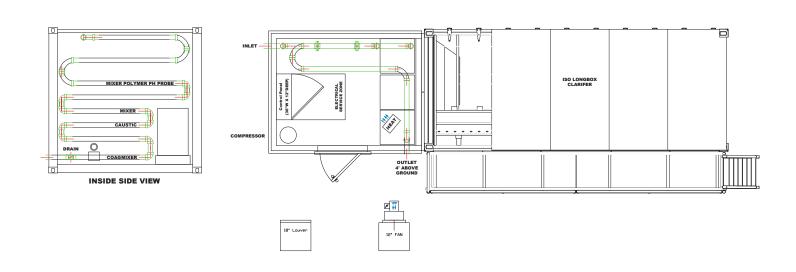
# Example LongBox<sup>®</sup> Clarifier System in Our Rental Fleet (RTS264, LB-16)

#### **Equipment Summary**

- Automated sludge removal
- Chemical dosing including pH transmitter
- Flow meter: Endress, Promag
- Available remote telemetry
- Quick leveling onsite
- Operator access platform

#### Construction

- Winterized enclosed system
- Heat trace on all piping
- Easy setup and connection at site





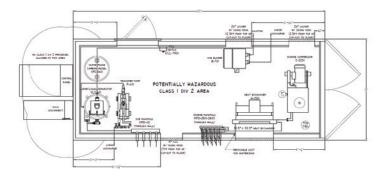
A Sampling of LongBox <sup>®</sup> Clarifiers in Newterra's Fleet			
System Number	System Description	Power Requirements	
RTS216	Clarifier, Longbox Series, LB-16 (80-200 GPM)	208/120V 3ph, Class 1 Div 2	
RTS264/RTS264A	Clarifier, LongBox Series, LB-16 (80-200 GPM) Clarifier, Complete with 20' enclosure for controls, chemical dosing and compressor equipment	208/120V 3ph, Class 1 Div 2	
RTS266/266A	Chemical and Compressor Building 20', LB-17 (80-150 GPM)	208/120V 3ph, Class 1 Div 2	
RTS267/RTS267A	Chemical and Compressor Building 20', LB-17 (80-150 GPM)	208/120V 3ph, Class 1 Div 2	



# **Traditional Remediation Systems**

# **Traditional Remediation Systems**

Our fleet includes equipment designed for site remediation of groundwater and soil such as soil vapor extraction (SVE), air sparge, multi-phase extraction (MPE), catalytic oxidizers and more. Newterra systems have been used extensively for the clean-up of light, non-aqueous phase liquids (LNAPL) that are residuals of gas stations, pipelines, refineries, military bases, and storage facilities.



#### A Sampling of Site Remediation Systems in Newterra's Fleet

System Number	System Description	Power Requirements
RTS014	SVE, 500 ACFM, 20' Container	208V 3 Ph, Class 1 Div 2
RTS065	SVE, 160 ACFM, Skid	230/120V 3Ph, Class 1 Div 2
RTS078	SVE, 500 ACFM@14"Hg, 12 GPM	230/120V 3ph, Class 1 Div 2
RTS096	SVE, 300 SCFM, Ox, Trailer (open deck)	208V, 3ph, Class 1 Div 2
RTS147	SVE/AS, 1500scfm@11"hg, 530scfm@4psi	230/120V 3ph, Class 1 Div 2
RTS149	SVE/AS, 450scfm@11"hg, 325scfm@19psi	230/120V 3ph, Class 1 Div 2
RTS173	SVE, 150 ACFM@15"hg, Trailer	208V 3 Phase, Class 1 Div 2
RTS199	SVE/AS, 400SCFM SVE, 45SCFM SPG, Skid	
RTS249	SVE/AS, 600 scfm@72"WC SVE, 300 scfm@19psig SPARGE	230V 3Ph, Class 1 Div 2
RTS253	SVE/AS, 240 SCFM@45"WC, 156 SCFM@11psi, 20' Container	120/230V 3 Phase, Class 1 Div 2
RTS090	MPX, 360 ACFM, 25 GPM, Trailer	230V, 3ph, Class 1 Div 2
RTS121	MPX, 360 ACFM, 25 GPM, Trailer	208V, 3ph, Class 1 Div 2
RTS198	MPX, 325 ACFM, 40 GPM, Trailer	208V, 3ph, Class 1 Div 2
RTS211	MPX, 150 ACFM@15inHg, 20 GPM, AS 60SCFM@25psi Trailer	230/120V 3ph, Class 1 Div 2
RTS134A/B	MPX, 1,200 ACFM, 25 GPM, Containers	208V, 3ph, Class 1 Div 2
RTS010	MPX, 360 ACFM, 10 GPM, Container	230V/120V, 3ph, Class 1 Div 2
RTS048	MPX, 160 ACFM, 25 GPM, Trailer	230/120V, 3ph, Class 1 Div 2
RTS085	MPX, 190 ACFM, Oxidizer, Trailer	230V, 3ph, Class 1 Div 2
RTS087	MPX, 180 ACFM, 25 GPM, Trailer	230/120V 3ph, Class 1 Div 2
RTS098	MPX, 180 ACFM, 10 GPM, Trailer	240-120V, 3ph, Class 1 Div 2
RTS120	MPX, 300 SCFM, 10 GPM, Trailer	230V 3 Ph, Class 1 Div 2
RTS194	MPX, 360 ACFM, 15 GPM, Container	208V, 3ph, Class 1 Div 2
RTS195	MPX, 340 ACFM, 15 GPM, Container	208V, 3ph, Class 1 Div 2
RTS190	Oxidizer, 300E	230/120V 3ph, Class 1 Div 2
RTS203	Oxidizer, 300 CFM, Electric, Relay, FALCO	208V, 3 Ph, 56FLA

# About Newterra

## A Global Water Technology Leader

Newterra<sup>®</sup> is recognized as a global leader in the development of modular treatment solutions for water, sewage, wastewater and groundwater remediation for industrial, municipal, land development, commercial & residential markets. Our heritage of innovation in providing clean water solutions dates back to 1863. Over that time, Newterra has grown to over 200+ people, and we've installed thousands of treatment systems – some of which operate in the most extreme conditions on the planet.

## Full Control from Start to Finish

At Newterra, we take full control of virtually every aspect of the treatment systems we build – from process design and engineering to manufacturing, installation, operations and ongoing parts & service support.

This award-winning approach ensures Newterra treatment systems meet our high standards for quality and on-time delivery.

