SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Aerobic Water Treatment Pilot Plant – HydraNexis HNX 06

Category: Water Treatment Technology · **Order Code:** HNX 06 · **Country of Origin:** India

Product Overview

The Aerobic Water Treatment Pilot Plant ( ) is a laboratory and pilot-scale system designed to demonstrate the activated sludge process used in aerobic wastewater treatment. Made by Scientico India, ISO 9001:2015 certified, and supplied with a calibration certificate and operation manual.

View this product online: https://scienticoindia.com/product/aerobic-water-treatment-pilot-plant-hydranexis-hnx-06/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Component	Specification
Feed Tank	Capacity: 150 L; Material: Stainless Steel
Oxidation Reactor	Capacity: 60 L; Material: Stainless Steel; Stirrer Speed: 0–300 RPM
Settler Tank	Capacity: 30 L; Material: Stainless Steel
Agitator	Stainless Steel with Geared Motor
Feed & Recirculation Pumps	Type: Gear; Material: Stainless Steel; Flow: 0–1 LPM; Quantity: 2
Air Compressor	Type: Double Acting Piston; Flow: 0–1200 LPH
Air Diffuser	Sintered Stainless Steel
Flowmeters (Liquid)	Quantity: 2; Range: 0–1 LPM (Feed and Recirculation)
Air Flowmeter	Quantity: 1; Range: 0–1 m³/h
Sensors	pH: 0–14; Dissolved Oxygen: 0–100%
Temperature Measurement	K-type Thermocouple; Range: -100 to 400 °C
Optional Instrumentation	Magnetic Induction Flowmeters; Digital Flow Indicators
Software	HNX 06 SW DAQ Software (Optional), LABVIEW-based

Key Features

Key Features

- Demonstrates the activated sludge process in a single-stage aerobic treatment system
- Stainless steel oxidation reactor and settler for durability and hygiene
- Controlled aeration and agitation for stable biological activity
- Measurement of key biological and process parameters
- Sludge recirculation for maintaining microbial population
- Optional data acquisition and advanced monitoring features

Applications

- Environmental and civil engineering laboratory experiments
- Activated sludge process training and demonstration
- Studies on aerobic biodegradation of organic matter
- Nitrification and pre-denitrification process evaluation
- Research on sludge age, loading rates, and oxygen demand
- Pilot-scale testing of aerobic wastewater treatment parameters

Construction & System Design

The HydraNexis HNX 06 pilot plant is mounted on a stainless steel framework with castors, allowing easy positioning and stable operation. The oxidation reactor and settler include transparent inspection windows made of methacrylate for visual observation of biological activity and settling behavior. All wetted components, including tanks, pumps, and piping, are manufactured from stainless steel to ensure long service life and compatibility with wastewater streams. Integrated safety and monitoring systems support reliable laboratory operation. The overall design reflects export-grade manufacturing standards.

Export & Supply Capability

SCIENTICO manufactures the Aerobic Water Treatment Pilot Plant HydraNexis HNX 06 for supply to engineering institutions, research laboratories, and water treatment training centers worldwide. The system is suitable for international shipment with standard export packaging, technical documentation, and instruction manuals. Optional instrumentation and software configurations are available to meet specific academic or research needs.

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1. What treatment process does the Aerobic Water Treatment Pilot Plant demonstrate?
It demonstrates the activated sludge process, a widely used aerobic biological wastewater treatment method.

Q2. What parameters can be monitored during operation?
Key parameters include pH, dissolved oxygen, temperature, flow rate, sludge recirculation ratio, and aeration rate.

Q3. Does the system support sludge recirculation studies?
Yes, the pilot plant includes dedicated pumps for feed and sludge recirculation to study return sludge effects.

Q4. Is laboratory analysis required for experiments?
Yes, analysis equipment is required to measure parameters such as BOD_5, COD, TOC, and nitrogen species.

Q5. Is the HydraNexis HNX 06 suitable for export and international use?
Yes, the system is manufactured by SCIENTICO for export and is supplied with appropriate documentation and optional customization support.

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