

ARTS™

Version 1

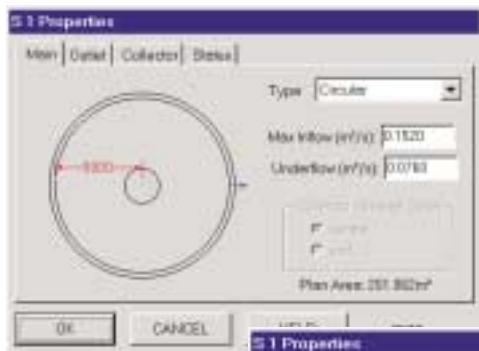
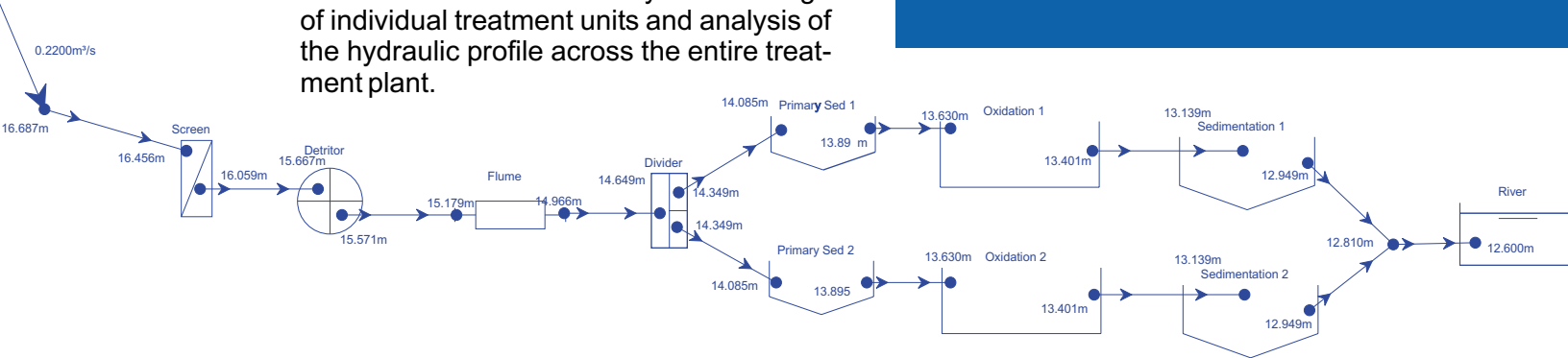
Fast and Accurate Hydraulic Design of Water and Wastewater Systems

ARTS is a hydraulic design software package specifically developed to meet the analytical and design needs of water and wastewater engineers.

ARTS provides you with the engineering tools for fast and accurate hydraulic design of individual treatment units and analysis of the hydraulic profile across the entire treatment plant.

Hydraulic design of process units and profile analysis using these elements:

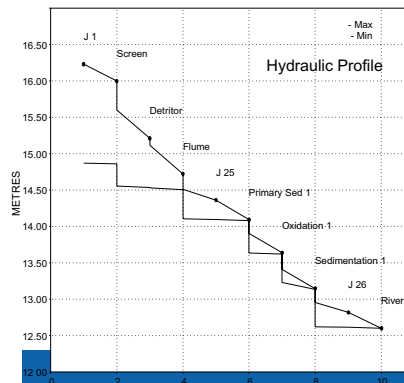
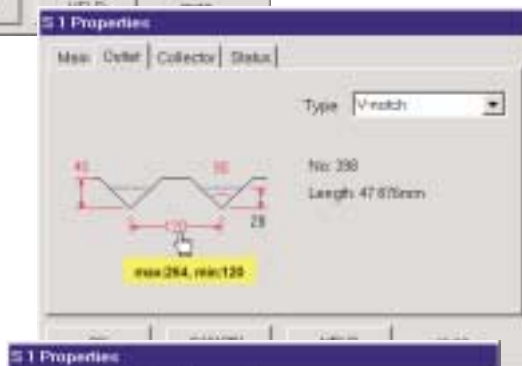
- reservoirs
- screen
- detritor
- flumes
- pipes and channels
- flow dividers
- aeration tank
- primary clarifier
- secondary clarifier
- weirs
- biofilter



The circular sedimentation tank has a peripheral weir composed of V-notches.

The notches discharge into a collector channel which is 500mm wide.

The **ARTS** tool-tip help shows you the range of values that can be validly used for a particular parameter.



And there's more

ARTS provides more than just wastewater hydraulic engineering and analysis:

- PIPE FLOW: Flow in simple pipes, pipe networks, pipe manifolds.
- OPEN CHANNEL FLOW: Hydraulic profiles in single and multiple channels decanting channels, storm-overflow channels.
- FLOW MEASUREMENT: Hydraulic design of flumes and weirs.
- PUMPING STATIONS: Duty point computation, multiple pumps, variable speed pumping.
- WATERHAMMER ANALYSIS: Basic waterhammer analysis and control.

Please visit our website for full **ARTS** features information.

Steady Pipe Flow

- Water, wastewater or sewage sludge in pipe networks
- Water or wastewater in pipe manifolds
- Computes flow and pressure distribution
- Accounts for fittings, bends, valves

Pumping Installations

- Hydraulic analysis of pump and rising main (forcemain) systems including multiple pumps, variable speed pumps

Waterhammer Analysis

- Analysis and control of pressure transients due to pump trip out with or without air vessel surge protection

Flow Measurement Structures

- Long-throated flumes of rectangular, trapezoidal and U-shaped section
- Short-throated flumes of rectangular section
- Parshall flumes
- Weirs: broad-crested and thin plate, proportional flow, rectangular notch and V-notch

Open Channel Flow

- Uniform flow or gradually and rapidly varied flow
- Rectangular, trapezoidal, U-shaped, V-shaped, parabolic and circular sections
- Decanting channels with distributed lateral inflow
- Storm overflow channels with lateral outflow

Water and Wastewater Systems

- Hydraulic design of individual process units or groups of interconnected process units
- Computation of hydraulic profiles across an entire facility

General Features

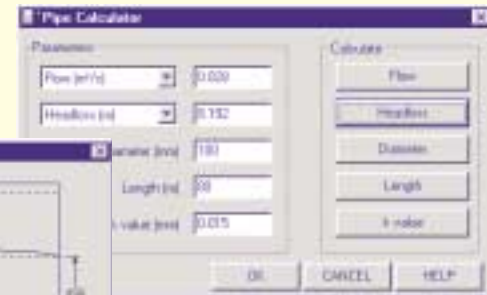
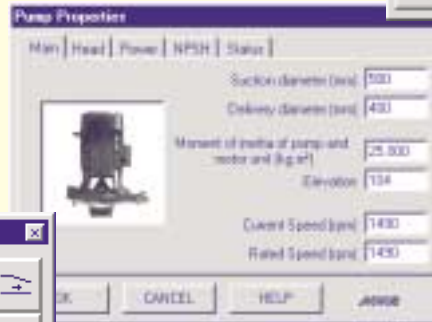
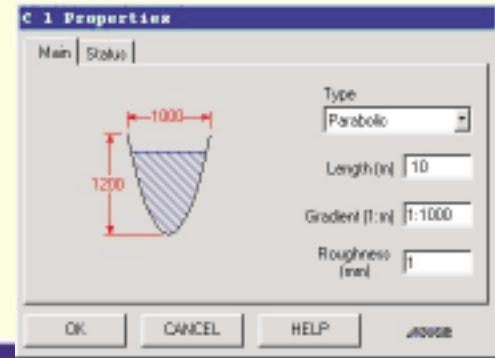
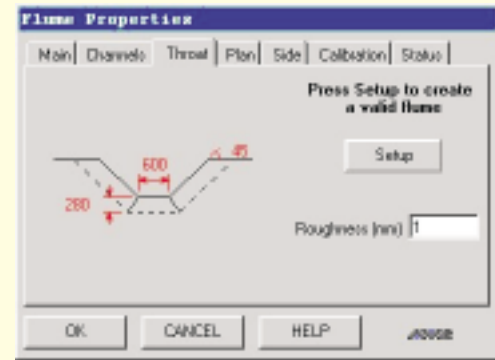
- Imperial or SI units
- All graphics are fully scalable graphics
- Export design to spreadsheets
- Export reports to word processors
- Copy or print any screen or design sheet
- Analyse single objects or entire systems
- Built-in error checking
- Comprehensive on-line Help
- User and Technical reference manual
- Drag-and-drop system and network building
- Full featured zoom control
- Works under Microsoft Windows operating systems

Special Auto Design Feature

This feature helps to speed up the hydraulic design of wastewater treatment systems by automatically sizing the connecting links between units, and units themselves, thus providing a design that can be quickly refined to generate an optimal solution.

Property Pages

The relevant properties of all the elements of the system are entered via property pages, so whether you are dealing with an axial flow pump or an open channel, you use the same type of interface. To edit the data for your system, simply display the element's property pages and edit the default values.



ARTS
provides a complete
hydraulic toolkit for Water
and Wastewater engineering

The **ARTS** list price is
USD 1,950 per license

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*Free 30 day evaluation can
be downloaded from:
www.hydromantis.com*