

# Custom Built Pilot Plant Description

## Application

Small scale custom built pilot plant design, bench plants, and pilot plants for R and D or in preparation for full scale production facilities can save money and time, identify and resolve problems improve efficiency, train operators, provide documentation, and facilitate maintenance and operation .

Tyne has been doing pilot plant design and manufacture of complex, process plants for its clients for around twenty years.



## Features

- High Cleanliness
- Full Documentation
- Low Leakage- 1 x 10<sup>-9</sup> cc/s helium
- Weld or High Integrity Fittings
- Simple and Complex Systems and Controls
- High Temperature to Cryogenic Temperature
- High Pressure to Full Vacuum.
- Pilot Plant Design through Commissioning
- ASME Sect. VIII Div 1; B31.3; ISO 9001 2000

Tritium Handling Equipment designed and built by Tyne

Tyne routes its work through all of the major steps that will be undertaken in a full scale complex plant. The same tools of scheduling, project management, procurement, design etc. are employed, and calculations, drawings, documents and specifications can be produced. All of these can go a long way to meeting a commitment for these items in a final full size pilot plant design. Tyne engineers will use their experience to supplement that of the Client's to provide a pilot plant design that functions as if it were the final process system. Clients then get a second chance for the final plant in that any shortcomings, in ideas, calculations or manufacturing which occur in the pilot plant design can be subsequently corrected. The small scale makes design changes relatively inexpensive and the identical small scale plant makes scaling to full size practical and cost effective.



Tyne personnel have the project management skills, the design skills, construction and commissioning skills including qualified welders and NDE personnel to carry out the projects according to schedule and budgets, and to identify problem areas and to help find solutions.

Process control systems may be made precisely the same as for the final plant, and scaling of the control system and any software programs can often apply to the finished plant with minimal change. Pilot plants inevitably result in better simpler final solutions, and can often be built in parallel with a final solution

to eliminate scheduling delays. Where pilot plants and control systems are similar to the final plant, the building of the pilot trains operators and maintainers in addition to confirming the design and operation.



System for the treatment of organic wastes

## Specifications

Design	Custom Built to Clients requirements
Piping Codes	ASME B31.3 Piping system
Pressure Vessels	ASME Section VIII div 1 vessels
Controls	Computer or PLC controls