

## 12/05/00 Island ITI constructs first DAF Unit in Sri Lanka

The Environmental Technology Group of the Industrial Technology Institute (ITI) successor to the Ceylon Institute of Scientific and Industrial Research (CISIR) has successfully constructed and installed a Dissolved Air Flotation (DAF) Unit at Auto Speed Centre, a vehicle service station in Colombo. This Unit is the first of its kind to be designed and fabricated in the country.

In March 1999,

the Company contacted the ITI as the oil and grease content in their effluent after passing through the Oil separation system that they were using was exceeding the regulatory requirement of 10 mg/l. For oil separation a conventional Oil trap technique using gravity separation of oil is used in almost all service stations in the country. After studying the problem of lack of space in this particular service station the engineers of

the ITI decided to install a DAF unit instead of the conventional oil trap system.

The DAF system is an efficient technique for separating oil and other suspended and floatable material that do not settle readily. The DAF unit can be installed above ground level, even at rooftop level, whereas the conventional system requires three times the space and essentially needs space below ground level. The DAF Unit

constructed at the ITI costs around Rs. 250,000/- for a service station of average capacity, servicing around 20 vehicles per day.

The treatment capacity of the Unit is approximately 2000 litres per hour. Results have indicated that the treated water is of acceptable quality in respect of oil and grease content either for discharge into any disposal point recommended by regulation or recycling for purposes

such as undercarriage washing of vehicles.

Since the DAF system removes Biological Oxygen Demand (BOD), oil and grease and suspended solids in waste water significantly, this technique can also be used successfully in textile processing industries, bakeries and hotels.

Engineers in the Environmental Technology Group of the Chemical and Environmental Technology Division of the ITI carried out the construction and installation of the DAF Unit. The team leader Mr. H. N. Gunadasa, the Manager of the Group worked with the assistance of Ms. K. D. Attanayake.