



arvotec

Feeding Technology for Modern Aquaculture





Arvo-Tec T Drum 2000 Feeder

THE MOST ACCURATE FEEDER From hatcheries to outdoor farms

- 50 l hopper with dosing unit, pneumatic or electric spreader and hanger

- Hopper options: 1, 6, 10, 50, 150, 600 and 1200 l

- Feeding capacity 0,3 g/s - 100 g/s



6 l feeder



electrical spreader with adjustable speed and sector control





Arvo-Tec T Drum 2000 Feeder

Electrical spreader



electrical spreader with adjustable speed and sector control



electrical spreader in Feeding Robot



Arvo-Tec T Drum 2000 Feeder

Electrical
spreader





Arvo-Tec T Drum 2000 Feeder in action

**Very accurate dosing !!!
Normally better than 98%**



Feed floating and spreading with the current.

Feeder can be installed close to the water surface to enable gentle distribution.



Arvo-Tec T Drum 2000 Feeder

Dosing drum options



0,1

0,3

1

5

20

45

100

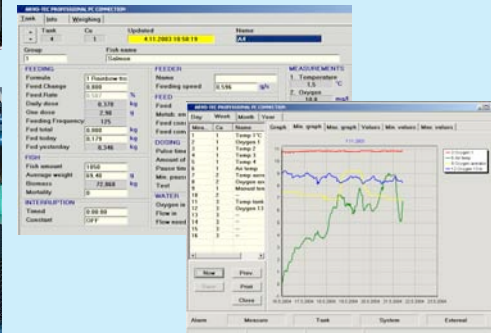
one cup size = smallest possible dose in g (depends on feed)



Arvo-Tec Professional Feeder Control System

Suitable for many types of fish farms

- Fully integrated feeding, measurement and alarm system
- Feed amounts are automatically calculated separately to each tank according to biomass data, incoming water temperature and oxygen content





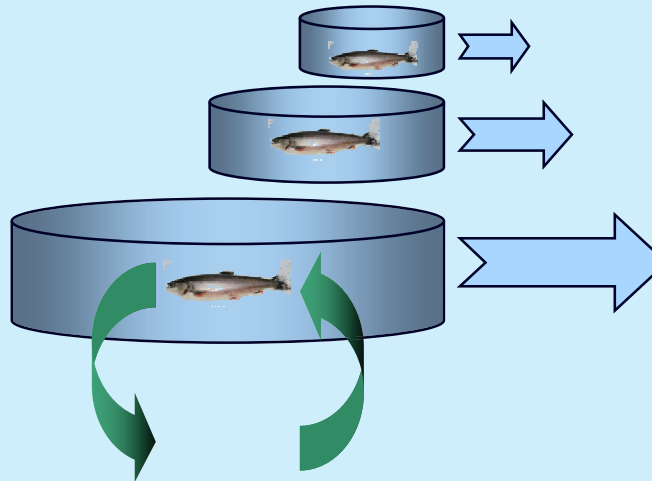
Arvo-Tec Control

Oxygen consumption model

Feeding is controlled by calculated oxygen content in outlet water separately in each tank.

All you need is one temperature and oxygen sensor in incoming water of the farm!

Temperature and oxygen measurements in incoming water



Calibrate model with normal portable oxygen meter every second week.

Separate recirculation version available with oxygen sensor in each tank.

Automatic oxygen consumption model is separate for each tank, based on the biomass in the tank and feeding level. Computation result is oxygen content mg/l. Decide your minimum allowed outlet oxygen into Arvo-Tec Control System feeding formula to give you alarm (optional) and to reduce/stop feeding.



Professional PC connection: Tank display

ARVO-TEC PROFESSIONAL PC CONNECTION

Tank Info Weighing

Tank	Cu	Updated	Name
4	1	4.11.2003 10:58:19	A4

Group: 1 Fish name: Salmon

FEEDING

Formula	1 Rainbow tro
Feed.Change	0,800
Feed.Rate	0,507 %
Daily dose	0,370 kg
One dose	2,98 g
Feeding Frequency	125
Fed total	0,000 kg
Fed today	0,179 kg
Fed yesterday	0,346 kg

FISH

Fish amount	1050
Average weight	69,40 g
Biomass	72,868 kg
Mortality	0

INTERRUPTION

Timed	0:00:00
Constant	OFF

FEEDER

Name	
Feeding speed	0,596 g/s

FEED

Feed	1 C-80 0,6
Metab. energy	17,7 MJ/kg
Feed consumption	4,469 kg
Feed conversion	0,8

DOSING

Pulse time	5 s
Amount of doses	1
Pause time	0:11:11,32
Min. pause	1 s
Test	0 s

WATER

Oxygen in outlet	10,8 mg/l
Flow in	999,0 l/s
Flow need	0,2 l/s

MEASUREMENTS

- Temperature: 1,5 °C
- Oxygen: 10,8 mg/l

ALARM

No time to feed

Too small dose

Low Oxygen

Oxygen alarm

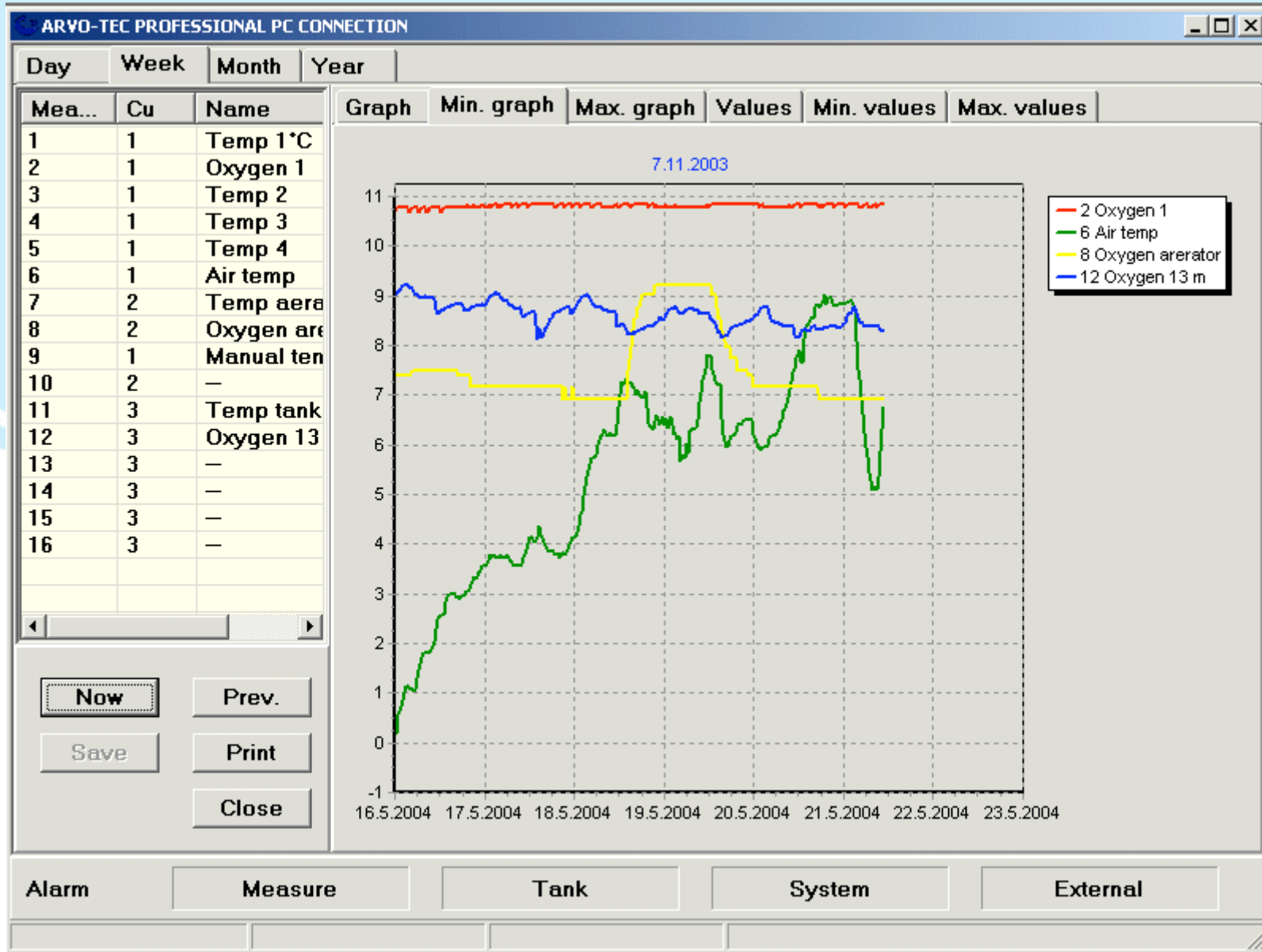
Feeder error

Group interrupt





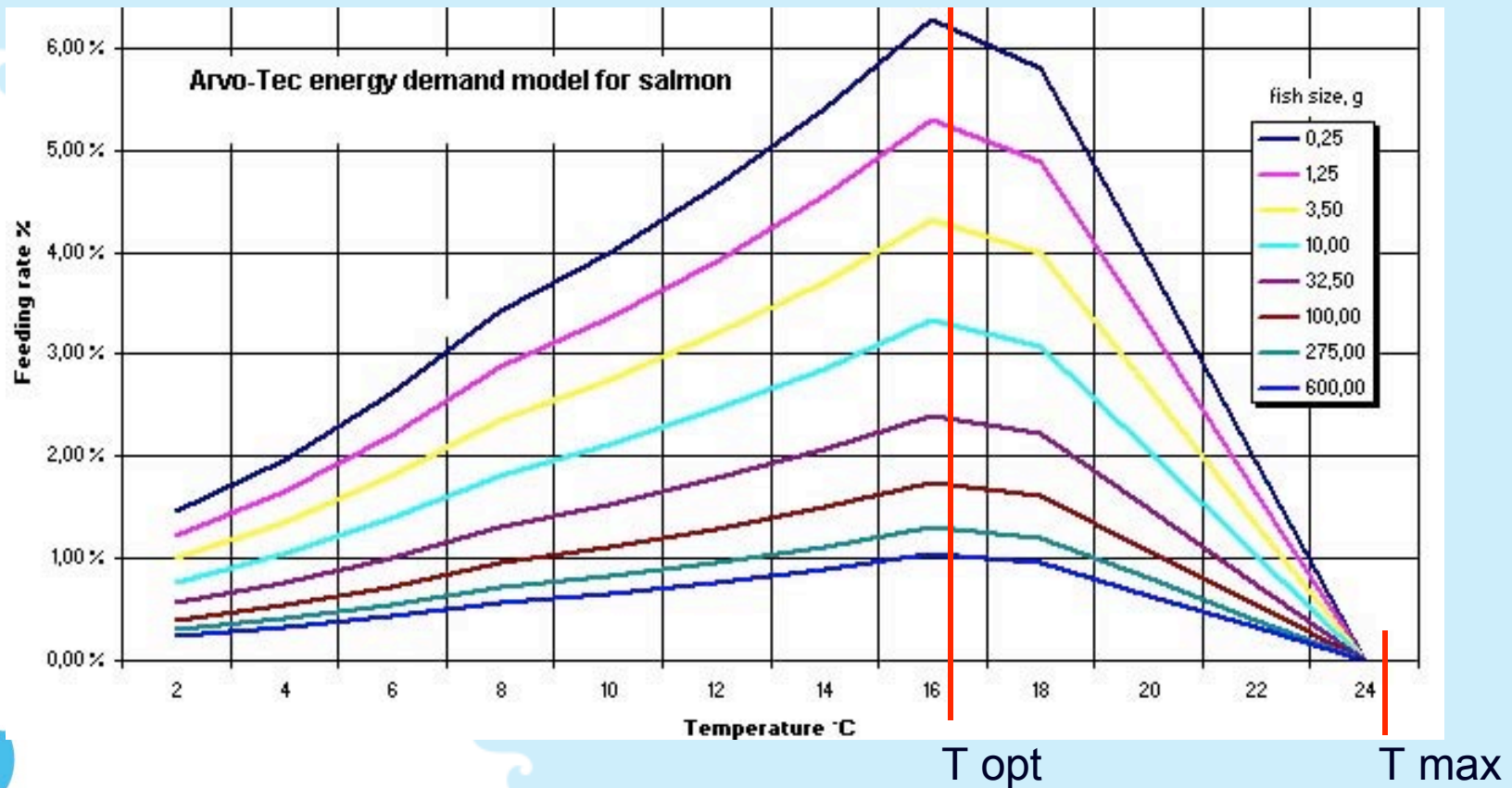
Professional PC connection: Automatic data logging of measurements





Energy demand model of Salmon

Feeding System is automatically following changes in environmental parameters





Arvo-Tec Feeding Robot

A single feeding unit for up to 199 tanks

- The Arvo-Tec Feeding Robot improves feed efficiency and saves labour time
- One feeding robot supplies many tanks, eliminating the need for a feeder at each tank
- Controlled through local programmer or optionally from a PC





Robot components

- Battery powered
- On board computer
- Controllable level switch to detect full silo
- Simple and accurate dosing
- Metal sheets to improve spreading. Optional electrical spreader.

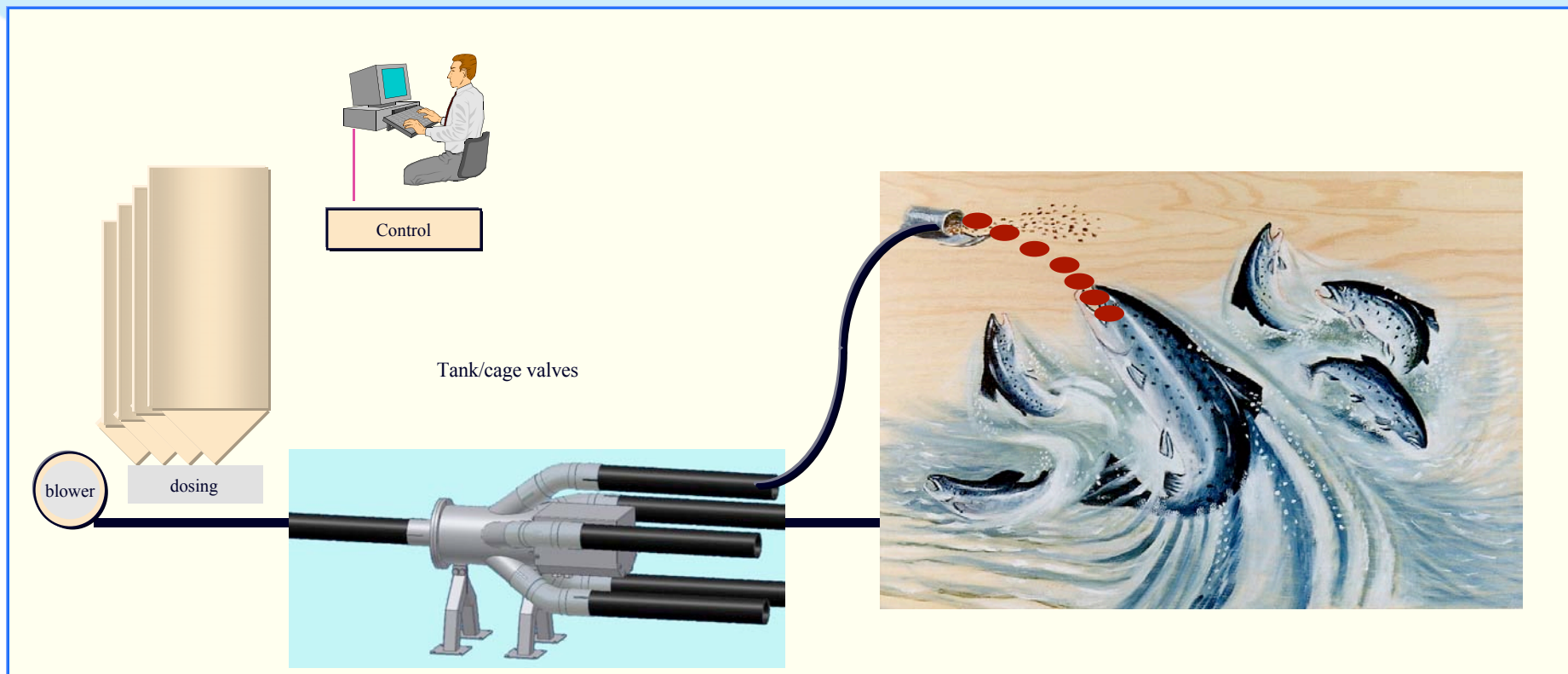


- Standard INP 80 DIN 1025 galvanised steel rail
- Filling control
- Motor for spiral
- Filling system spiral

Reserve silos

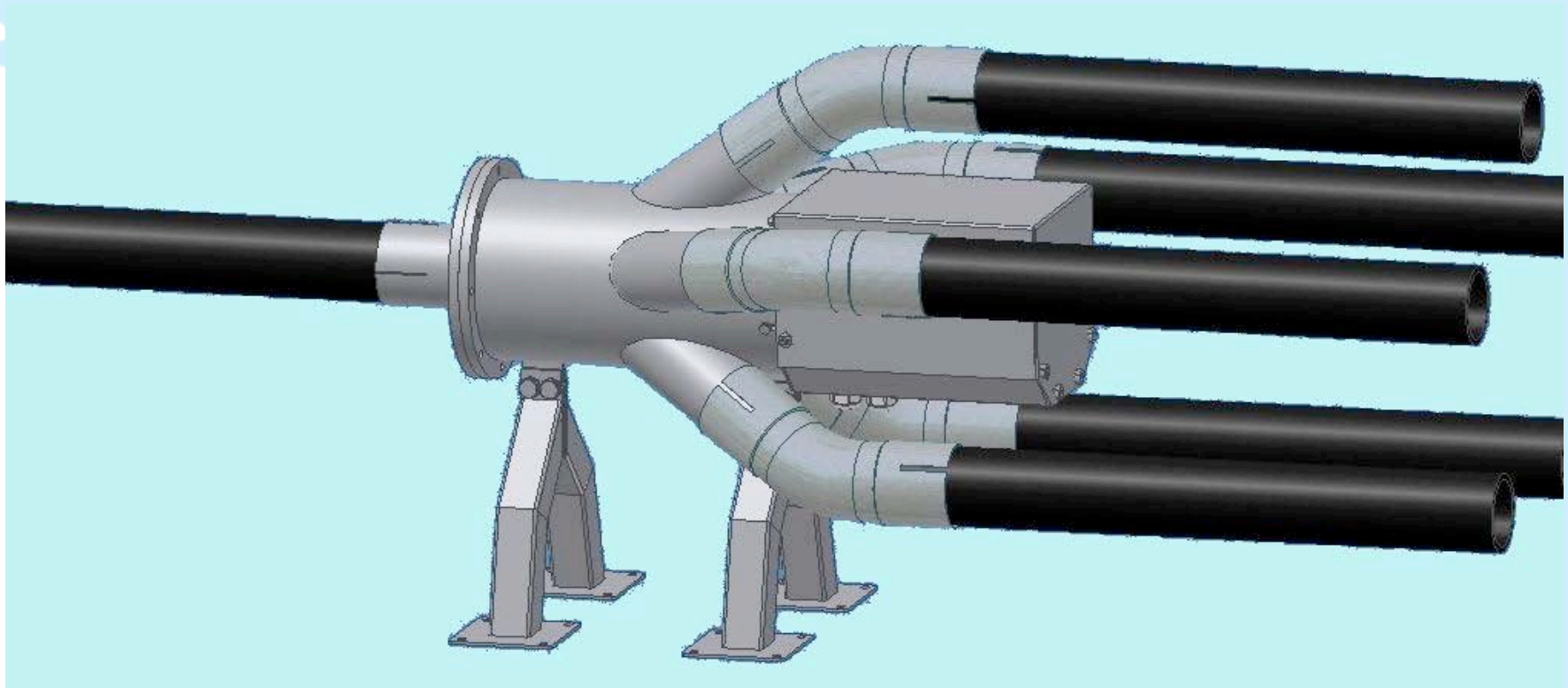


Centralised pipe feeding system optimised for freshwater sites





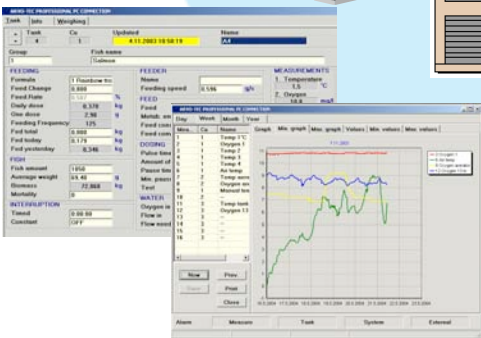
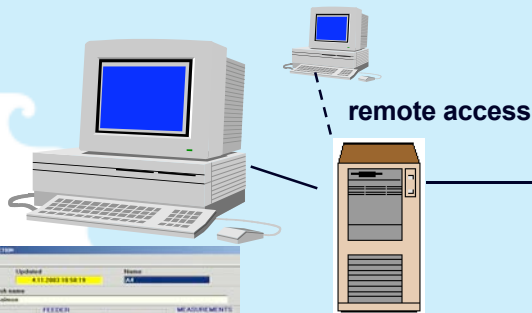
Centralised pipe feeding system optimised for freshwater sites





Arvo-Tec Feeding System

Networked feeding, measurement and alarm system optimised to moderns flow through and recirculation sites



ROBOT FEEDING SYSTEM



FEEDERS



- measurements
- external alarms to stop feeding in recirc sites
- light controls

CENTRALISED PIPE FEEDING SYSTEM

