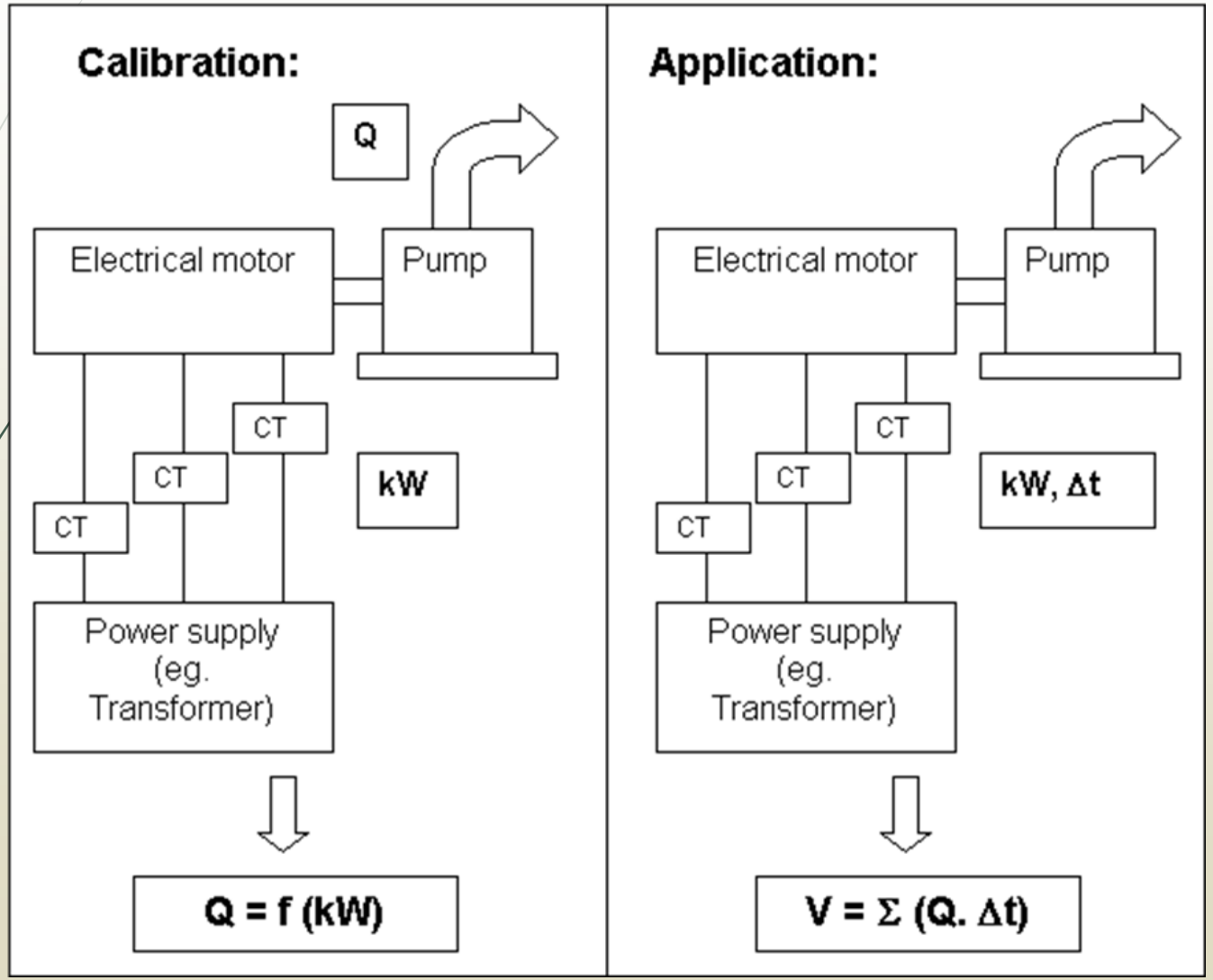
Indirect measurement

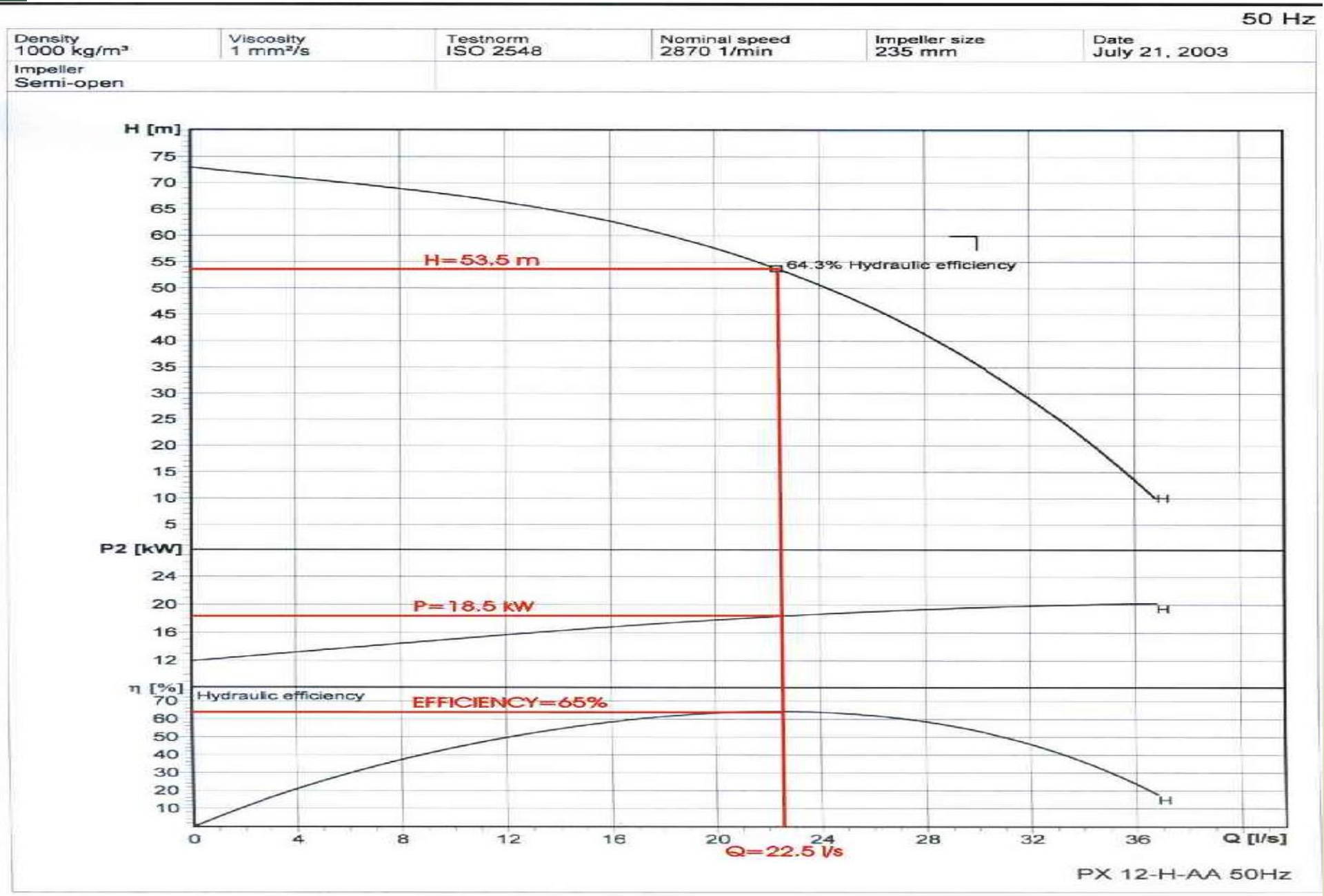
Operating principle



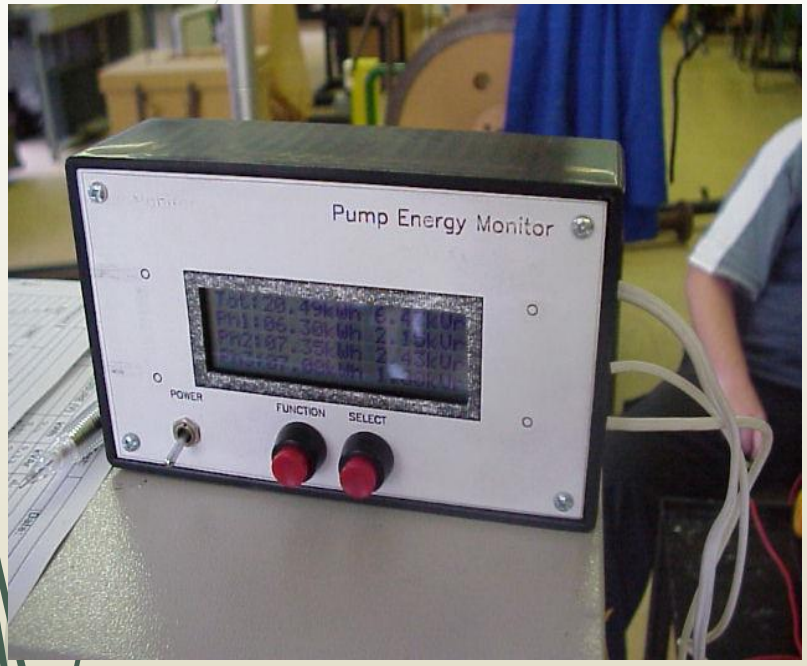
Operating principle

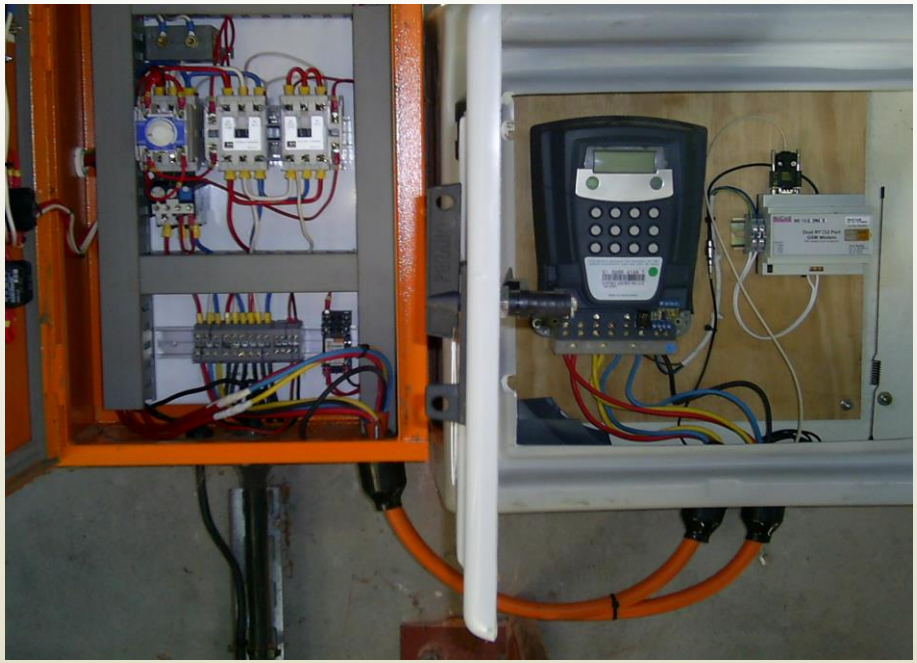
- A combined energy and water meter, specifically developed for raw water conditions, and where pumping is involved
- There is a reliable relationship between the work performed/done by pump (Q & H), and the power needed to perform the work (kW)

Pump curve


50 Hz
Density
1000 kg/m³
Viscosity
1 mm²/s
Testnorm
ISO 2548
Nominal speed
2870 1/min
Impeller size
235 mm
Date
July 21, 2003
Impeller
Semi-open
H [m]
H=53,5 m
64.3% Hydraulic efficiency
P2 [kW]
P=18.5 kW
η [%]
Hydraulic efficiency
EFFICIENCY=65%
Q=22.5 l/s
Q [l/s]
PX 12-H-AA 50Hz

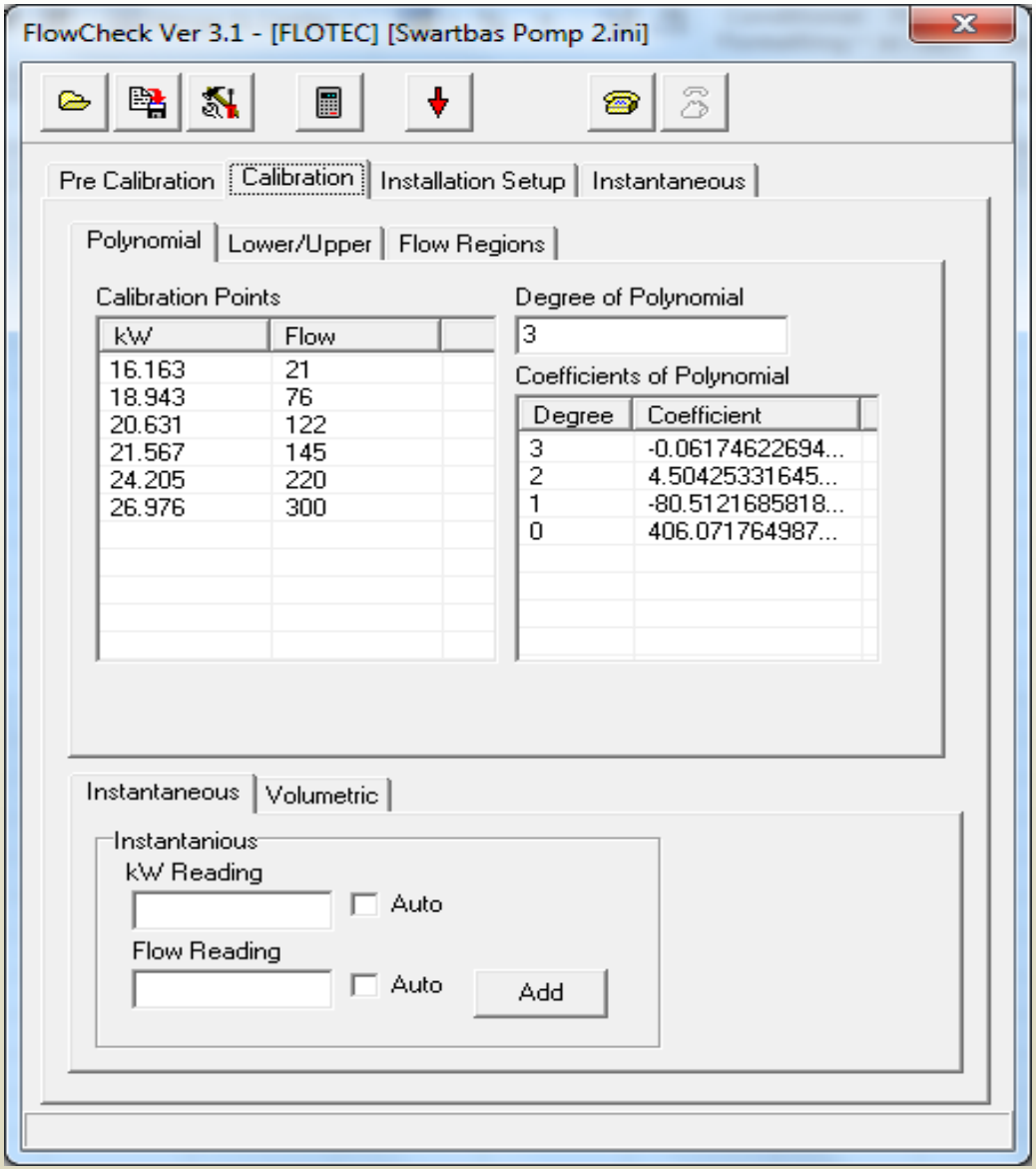
Product development (ElectroFlo meter)



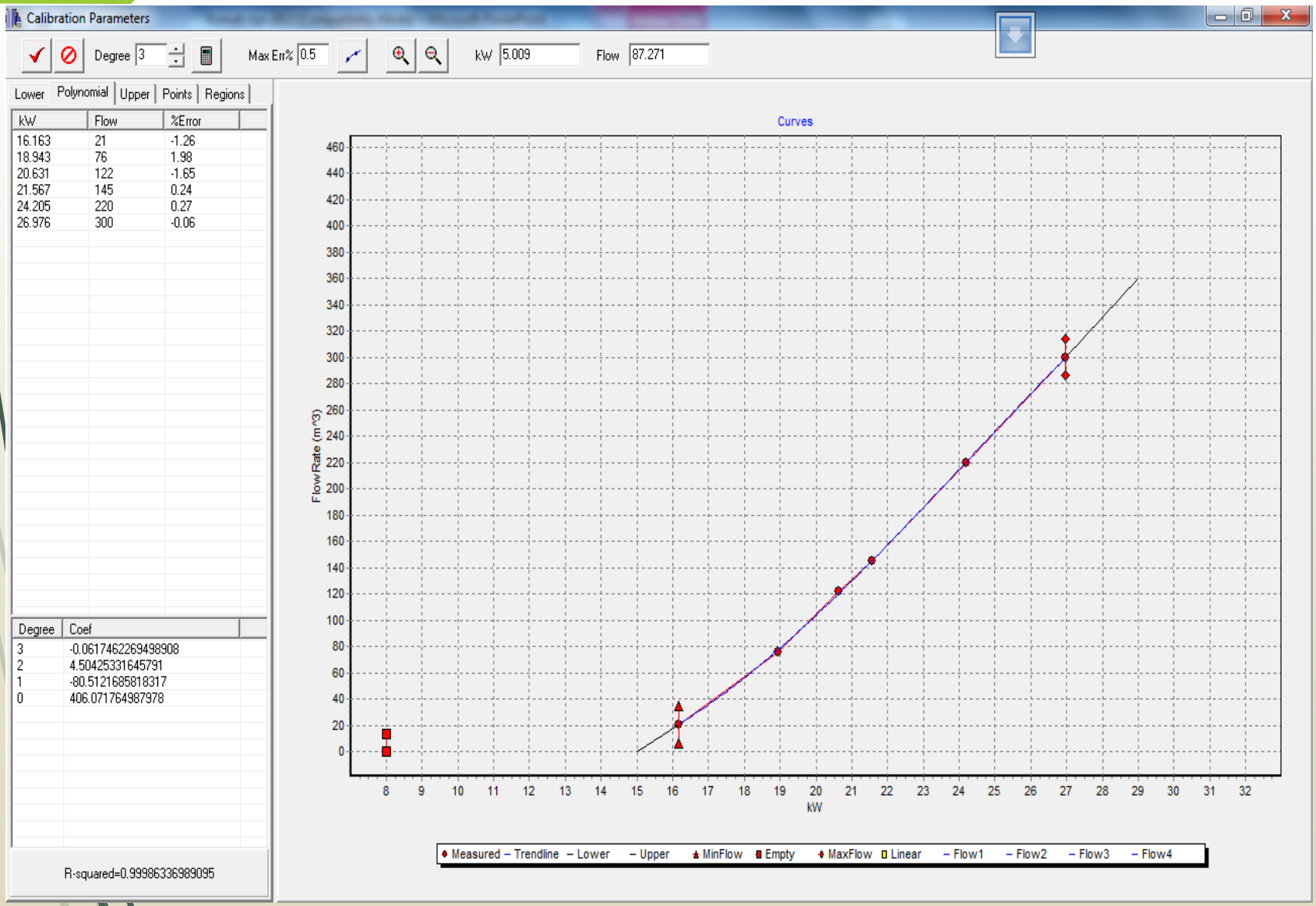


FloCheck meter

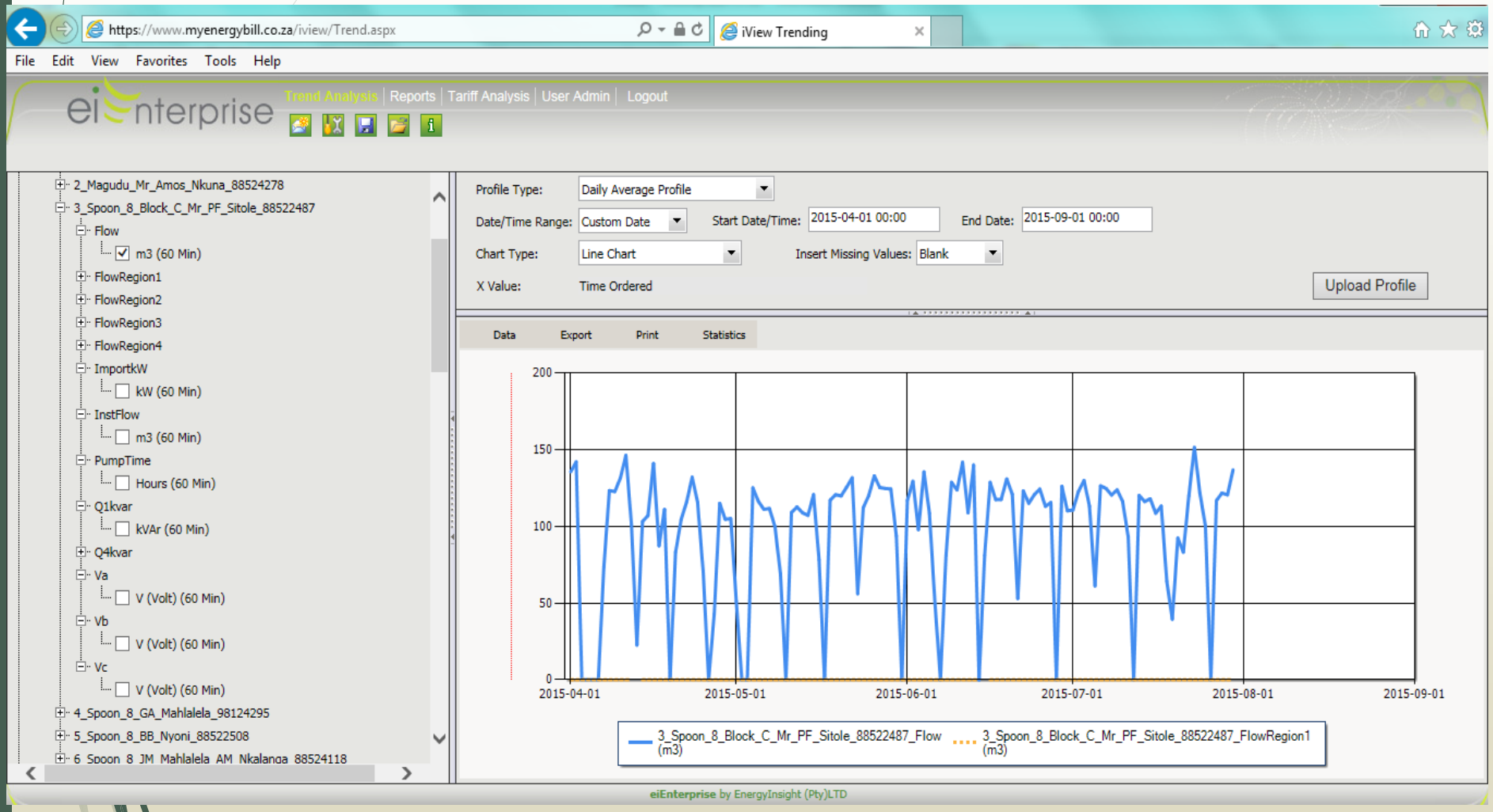
Calibration and programming



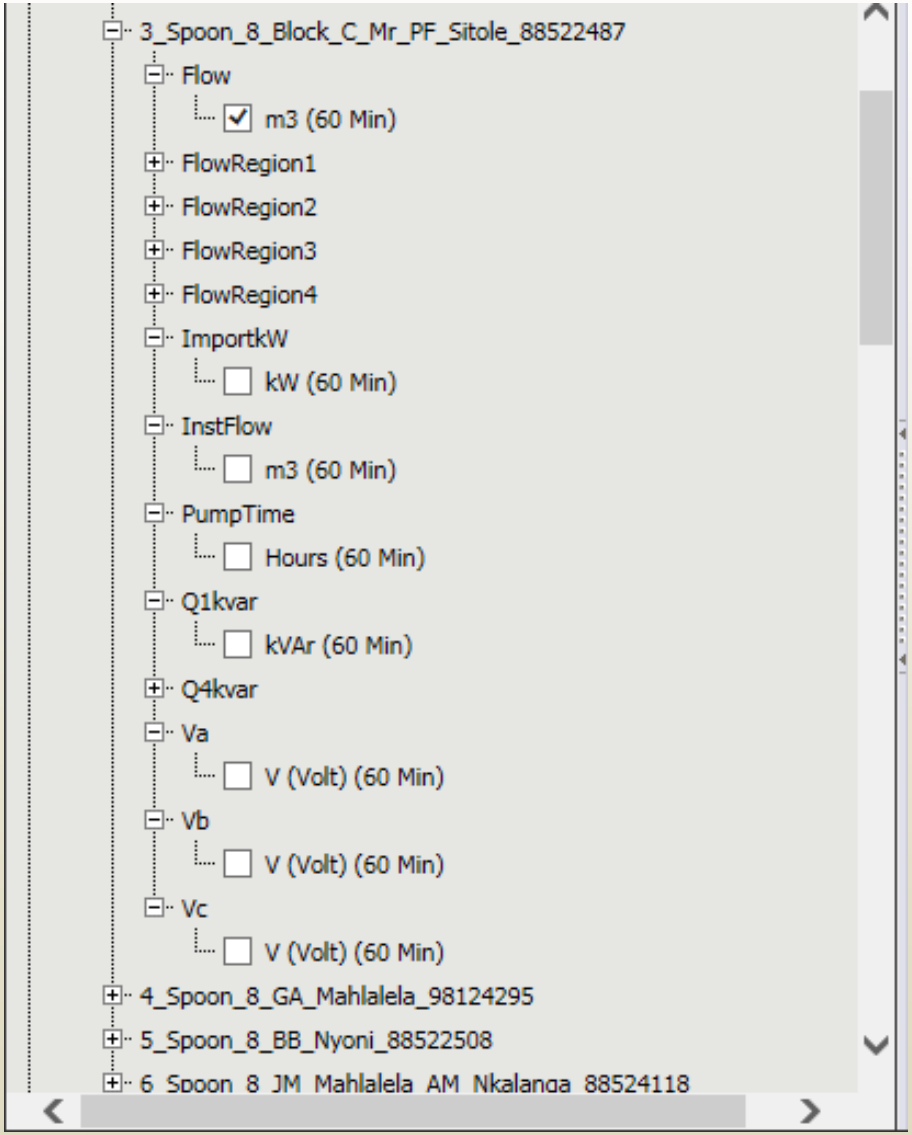
Calibration and programming



Data capturing



Data available



Advantages

- Ease of installation
- No moving parts
- No obstruction in flow path of water –

  therefore no additional friction
- High accuracy
- Affordability (cost)
- Value for money –

  much more than just a water meter
- Low maintenance
- Amount of info available from meter – with further analysis it can help to make the system more efficient
- Control functions

Disadvantages

- Recalibration requirement after certain work has been carried out on pump and electrical motor