Pumps 'n Pipeline (PnP) Short Intensive Masterclass









PnP Masterclass Program

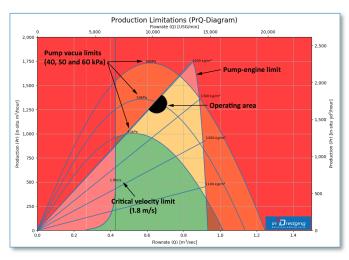
Learn how to estimate suction and discharge production accurately and reliably

Pumps, Pipeline and Soil-like Mixtures

<u>in2Dredging Pty Ltd (i2D)</u> is a dredging consultancy founded in 2016 that specialises in estimating services. For this purpose, i2D developed <u>Pumps 'n Pipeline (PnP)</u>, which accurately estimates suction and discharge production for any dredging or mining equipment that hydraulically transports soil-like materials. PnP software is successfully sold online.

Over the years PnP has been continuously developed and now can model any pump, pipeline and soil mixture, and any combination thereof. PnP has been developed for use by dredging professionals worldwide, who have found the program easy to use.

PnP also triggers their interest in understanding the background and fundamentals of hydraulic transport systems that utilise pumps and pipelines. Therefore, PnP users have often requested that an intensive masterclass such as this be held.



i2D has comprehensive knowledge and in-depth understanding of hydraulic transport. Our academic knowledge and extensive field experience enables us to accurately and reliably estimate production rates, but it also allows us to explain the basics and share our extensive worldwide field experiences.

Our 4-hour intensive PnP masterclass covers:

- Pumps:
 - Engine type and their characteristics
 - Pump type, terminology and behaviour
 - Design considerations and limitations
- Pipelines:
 - Pressure losses
 - ♦ Flow regimes and modelling
 - Pipeline characteristics
- Soil-like Mixtures
 - Densities and volume concentrations
 - Soil types, parameters and risks
 - Range and significance of mixture properties
- Suction and Discharge Production
 - ♦ Key parameters for each production rate
 - ♦ Increase productivity with, e.g., booster pumps
 - Energy efficient solutions
- PnP's Graphical User Interface
 - ♦ Collate data and insert it into PnP
 - Discover helpful features
 - Critically review results and find practical solutions



PnP Masterclass Details

Who should attend?

Passionate dredging and mining professionals who:

- are interested in pumping soil-like mixtures
- have some exposure to and understanding of hydraulic transport

What will you learn?

- Fundamentals on pumps and pipeline systems
- Which soil parameters influence mixture properties and therefore productivity
- How to easily and quickly collate data, input it into PnP and interpret PnP results by using PnP features
- Accurately and reliably estimate suction and discharge production

Why would you attend?

- To learn how to estimate pumping productivity quickly and definitively
- To be able to recognise realistic risks associated with pumping soil-like mixtures and how to effectively mitigate these risk
- To become competent and gain confidence in your own PnP results



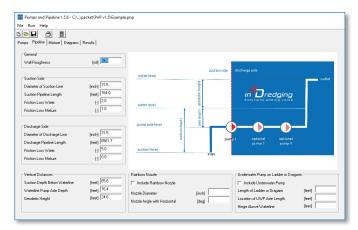
When and where?

- From anywhere in the world where there is access to the internet
- For course dates and times, as well as course costs, refer to our <u>Training</u> webpage.



Who is the Presenter Simon Burgmans?

- Master of Science in Civil Engineering from Delft University of Technology specialising in dredging
- Over 20 years experience in dredging, mining and oil and gas, in both engineering and execution phases of projects
- Founder of dredging consultancy <u>in2Dredging</u>
 (i2D) and developer of Pumps 'n Pipeline (PnP)





Contact Us

We are here to help

If you would like to discover how we can assist you to successfully achieve your projects' goals, please don't hesitate to contact us.

Our approach as dredging consultants

- Flexible and self-motivated approach
- Global 24/7 support
- Competitive rates
- Clear and effective communication
- Academic and field expertise enabling innovation
- Confidentiality and integrity

Dredging support

- Projects are completed safely, cost-effectively and successfully
- Contractors deliver operational improvements
- Engineers address all requirements through suitable design

Our dredging consultancy services

- Programme and Project Management
- Advanced Engineering and Reliable Estimating
- Environmental Approvals, Studies and Plans
- Insightful Geographic Data Processing
- Cutting-edge Research, Development and Innovation

Key contacts

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Offices

i2D has a presence in Australia and in Europe.

