

P&ID Analyser

THE PROBLEM

P&ID Reviews That Took a Full Day, Now Done in Minutes

A P&ID review is one of the most time-consuming tasks in plant engineering. Engineers manually check hundreds of symbols, tag numbers and connections across complex diagrams, a process prone to fatigue-driven errors with serious downstream consequences for safety and project delivery. Manual lists are collated from reviewing the P&ID documents.

- Full-day P&ID reviews completed in minutes
- AI provides exceptions; engineers apply judgement, not intricate manual inspection
- Significantly reduced error rates in issued documentation
- Validates against project-specific engineering standards

HOW IT WORKS

A multi-stage pipeline handles image preprocessing to enhance symbol clarity, Claude AI for semantic understanding of diagram structure and rule-based validation against project-specific specifications. The system identifies missing tags, inconsistent symbols, disconnected lines and standard deviations, flagging exceptions for engineer sign-off rather than requiring exhaustive manual inspection across every sheet. Industry insights are given based on the process engineering information. It's designed to be a second pair of eyes to assist engineers in ensuring all aspects of the P&ID are captured whether for bidding or other purposes. Multi-page comprehensive reports are generated in the PDF format.

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