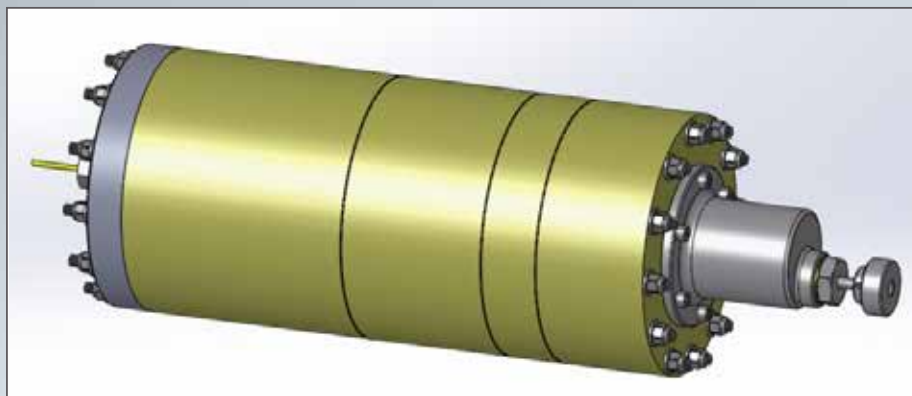


PRODUCT FEASIBILITY ASSESSMENT: WATER FLOW CONTROLLER

Developing an idea from concept to a viable, marketable product can be a major undertaking, and here at DesignFlow we can help you achieve this. By applying cutting edge computational tools, experimental testing and an iterative approach to risk management-based design we give you the ability to base engineering decisions on facts not assumptions.

Our recent work with Metaltech Precision Ltd saw us assess the feasibility of a pressure reducing valve controller (PRVC) designed to automatically adjust the outlet pressure of a water supply valve by sensing the amount of demand on the downstream system; as demand and therefore flow go up, so must the supply pressure.

In partnership with Langham Industrial Controls Ltd, experts in the installation, verification and maintenance of water flow metres, a bespoke, fully instrumented test bed was designed, built and calibrated.

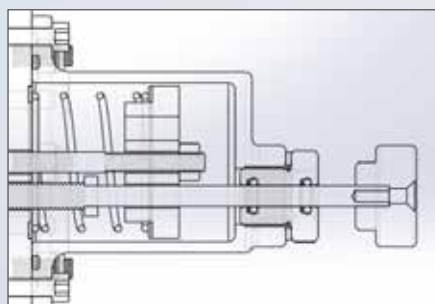


DesignFlow have not only given us a reliable, detailed understanding of the way the controller operates founded on experimental data but their 'real world' understanding of engineering practicalities has highlighted controller sensitivities that had previously not been considered"

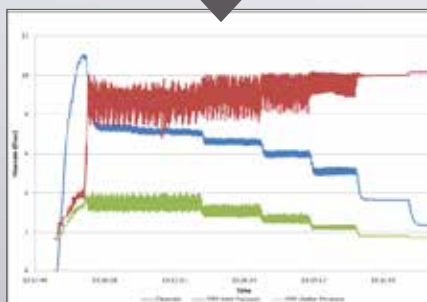
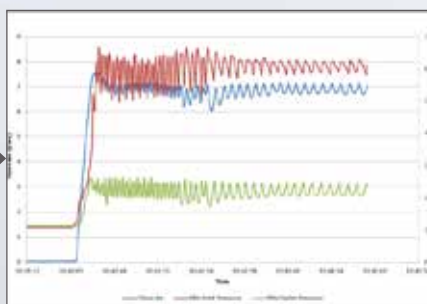
Steve Hill
Managing Director
Metaltech Precision Ltd.

A comprehensive testing schedule allowed key component sensitivities to be assessed before the controller function could be tested across a range of operating conditions. The findings of the experimental work conducted, combined with the extensive recommendations made by DesignFlow, have provided the client with the information necessary to make evidence based engineering design choices.

Main testing work



System adjustment sensitivity testing



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DesignFlow is a specialist consultancy and research group operating within Plymouth University. We offer a range of CFD, engineering analysis and product development services to industrial clients and research partners.

DesignFlow
Reynolds Building
Drake Circus
Plymouth PL4 8AA
Tel: 01752 586116
email: designflow@plymouth.ac.uk