



Stellenbosch

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Our Services We are experts in solving complex engineering problems, including, but not limited to: Crash-worthiness including fluid-structure interaction

(sloshing) Vibrations in structures and components – resonance, gearboxes, fluid effects, etc Leakage, resonance, fatigue cracking of hydraulic systems Structural fatigue and fracture Fatigue failure of structures and components Structural collapse – reconstruction of incidents Crack propagation in structures and components Heat transfer problems Creep related problems Failure investigations Malfunction of control systems Ventilation system design (we did the Gautrain ventilation system calculations) Noise measurement, analysis and control Vibration measurement, analysis and control Condition-based maintenance Asset integrity assurance Vehicle and mine machinery design Our Products Components: Digital servo-controllers Servo-hydraulic actuators Test jigging Hydraulic cylinders Star Hydraulics servo-valves Hydraulic start-stop valves Mobile multimedia unit This unit was developed to enable transmission of the ANC government's 10 year inauguration in 2004 Four-poster test rig Investmech supply multi-actuator test rigs ranging in actuator size from 25 kN to 100 kN in size. Applying ARX models, drive signals are calculated that result in accurate reconstruction of field recorded responses Servo-hydraulic actuators Investmech supplies a wide range of servo-hydraulic actuators with application specific hydrostatic or hydrodynamic bearings. Our actuators are used in single and multi-axial durability and characterisation tests. Dynamic vibration absorbers Investmech designs and manufactures dynamic absorbers (damped and undamped, depending on application) for vibration control due to resonance.

floors and roof elements. The dynamic vibration absorber is fine tuned in the Investmech test laboratory to ensure efficient control of vibration at resonance

Test systems:We offer a wide range of tests systems of which the following is a typical list:

- Four poster durability test rigs
- Multi-actuator test systems
- Towing device test systems
- Exhaust thermal fatigue test rig
- Radiator pressure pulsation test rig
- Load cell calibration machines (1 to 100 ton)
- Warm water container or geyser thermal and pressure testing systems
- Low temperature brittleness testing
- 300 ton beam tester for bridge supports during construction

Measurement systems:Online agitator protection
Online strain, vibration, etc. monitoring
Online condition monitoring

Other:Tuned damped dynamic vibration absorbers
Tuned undamped dynamic vibration absorber
Underground vehicles
Jig hutch tanks
Guide roller assemblies

With over 25 years' Experience, we deliver Excellence.

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