



STATS GROUP
Managing Pressure, Minimising Risk

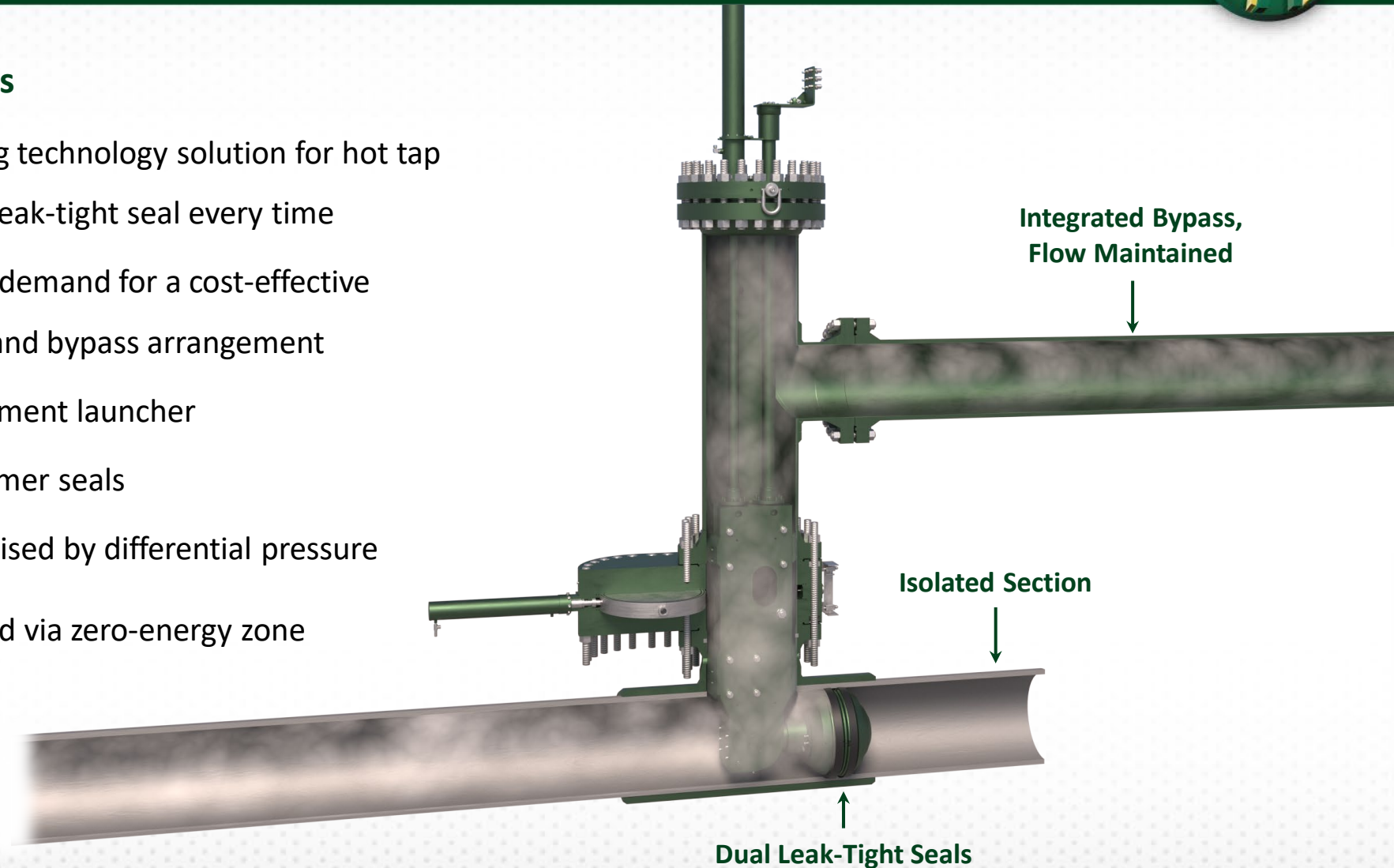
BISEP[®] DS

Branch Installed Self-Energised Plug with Integrated Bypass



BISEP® DS with Integrated Bypass

- ❖ The BISEP DS is the market leading technology solution for hot tap installed line stopping, offering a leak-tight seal every time
- ❖ Developed in response to market demand for a cost-effective double block and bleed isolation and bypass arrangement
- ❖ Integrated bypass through deployment launcher
- ❖ Dual hydraulically actuated elastomer seals
- ❖ Fail-safe seal actuation: self-energised by differential pressure
- ❖ Seal integrity constantly monitored via zero-energy zone





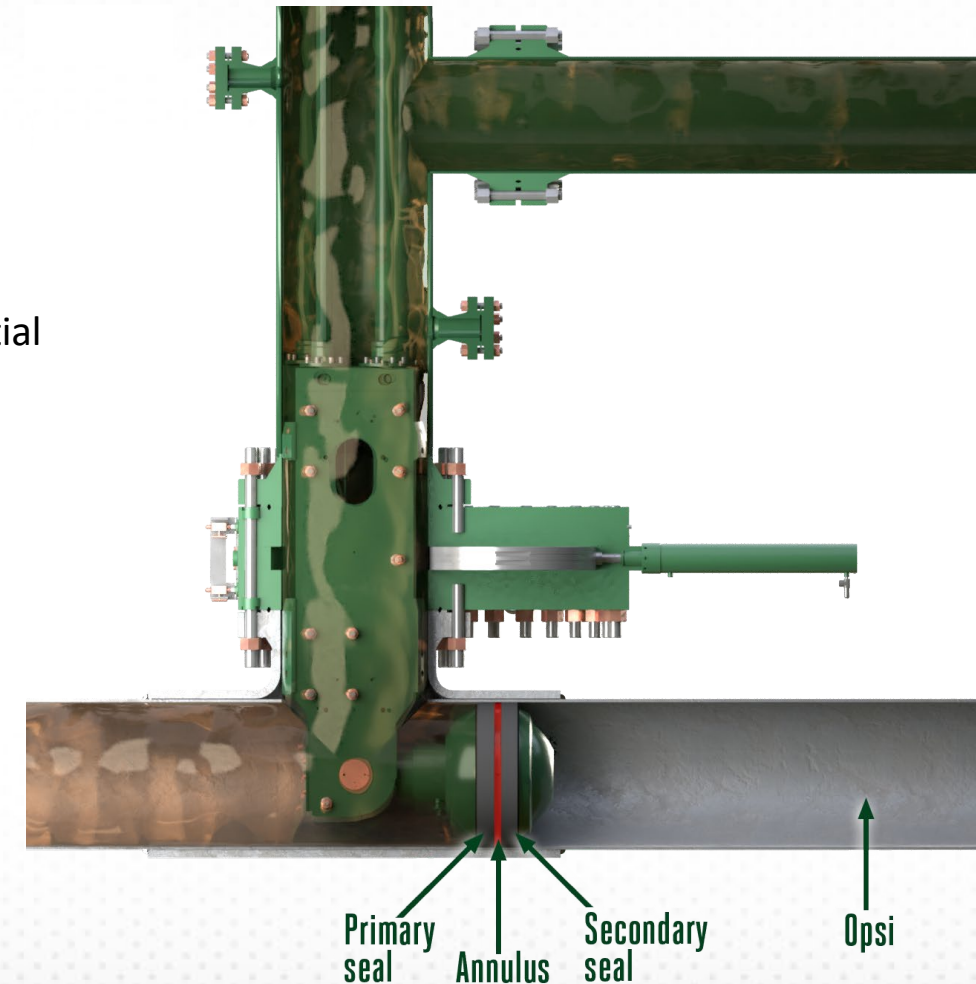


BISEP® Double Block & Bleed Verification Tests

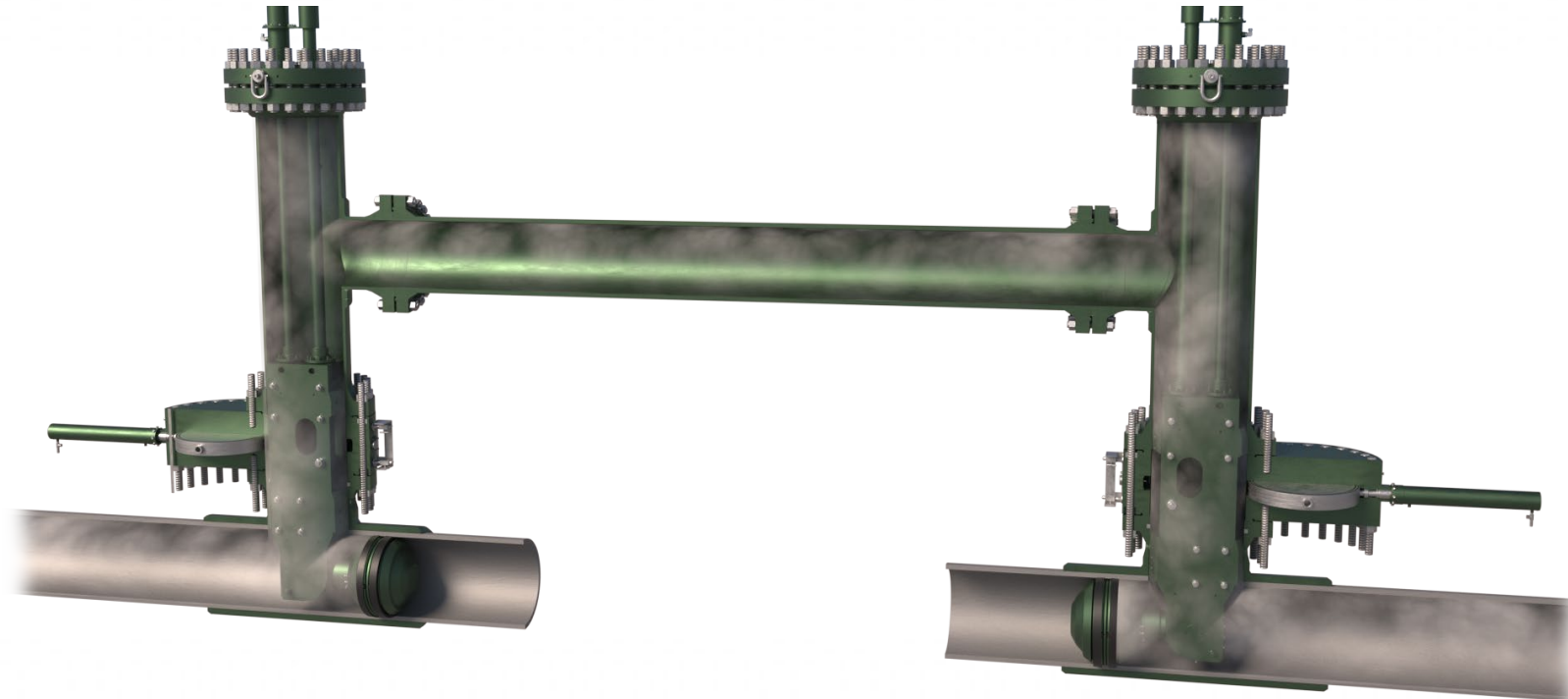
- ❖ Once isolated section is vented, BISEP has full pressure differential across it
- ❖ Annulus between seals can be pressurised, or depressurised to test seals
- ❖ Secondary seal test – full pressure, in direction of expected pressure differential
- ❖ Primary seal test – full pressure, in direction of expected pressure differential
- ❖ Zero-energy zone between seals

Fail-Safe Features: Self-Energising

- ❖ Two independent hydraulic activation mechanisms
- ❖ Pipeline differential pressure acting across BISEP head maintains a fail-safe isolation independent of hydraulic activation



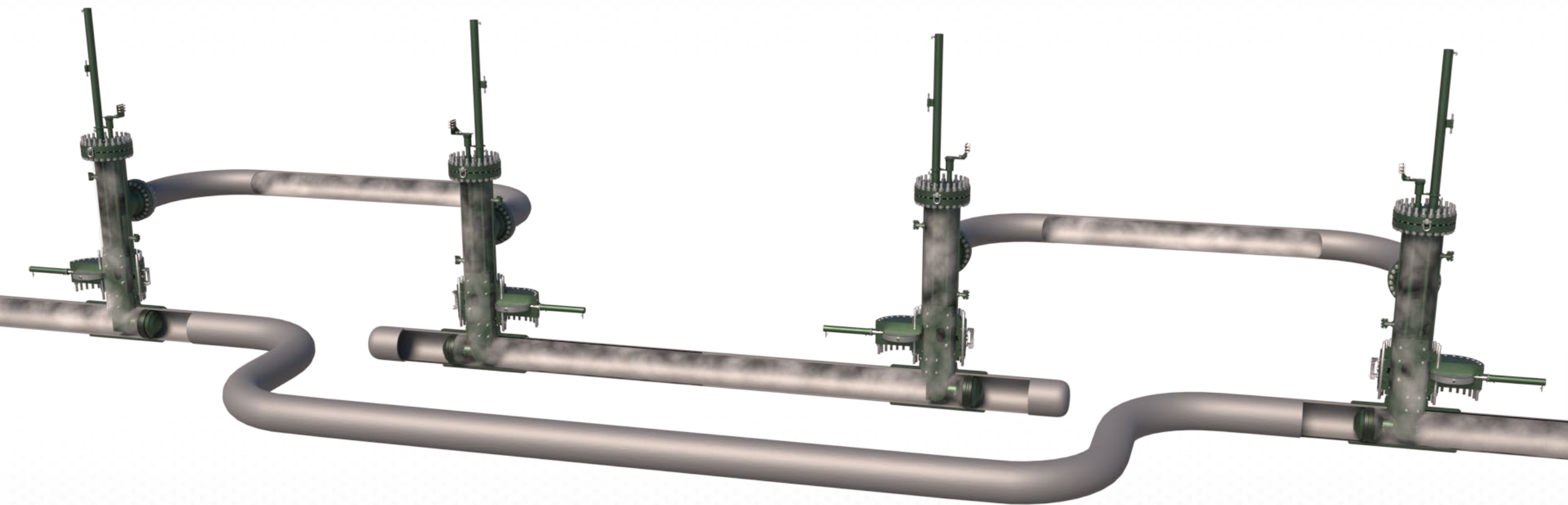
**Safety Assured – Double Block & Bleed Isolation
Costs and Timescales Significantly Reduced**



Benefits

- ❖ Reduced fittings, welding and inspection costs
- ❖ Reduced scaffolding, crane and excavation costs
- ❖ Reduced space required – when pipeline space is limited
- ❖ Reduced time to complete the work
- ❖ Reduced quality control required (fewer fittings)
- ❖ Reduced hot work

6" BISEP® DS, Pipeline Re-Route, Perth, Australia



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BISEP® DS - Summary



BISEP® DS with Integrated Bypass

- ❖ Fail-safe isolation of pipelines enabling maintenance to be conducted safely while avoiding production downtime
- ❖ Double block and bleed isolation, seal integrity constantly monitored
- ❖ Costs and timescales significantly reduced
- ❖ Minimising venting / flaring - avoiding the discharge of harmful emissions into the atmosphere
- ❖ Suitable for use in hydrocarbons, high pressure liquid CO2 and Hydrogen
- ❖ Global track record, with recent project successes in Australia.

