

Intelligent robotics system that inspects and seals joints on large diameter metallic live gas mains

STASS (System Two Assess and Seal Solution) travels within low and medium pressure live gas mains locating and applying an anaerobic sealant to lead yarn joint and screwed fittings to prevent them from leaking.

This award winning NIA funded project has been developed in partnership with Northern Gas Networks and ALH Systems and combines Synthotech's Synthotrax<sup>™</sup> robotic platform and ALH FlexSpray<sup>™</sup> sealant.

Operation of STASS is undertaken by Synthotech's Technical Support Engineers as a Specialist Service.



- For use on 12" 48" metallic mains up to 2Barg.
- Survey up to 125m each way from a single excavation, depending on pipe condition.
- Can seal up to 64 joints from one excavation.
- Access via an ALH System 3 /ALH Bond and Bolt technology for mains 24" and above, 200mm AVK under pressure tee via a 555/158 Donkin Valve for mains below 24".
- Uses SynthoTRAX technology including skid steering allowing full remote manoeuvrability, it can even turn in its own footprint.
- SynthoCAM™ TITAN pan and tilt camera technology provides full circumferential vision.



- Sealant repairs existing pipes, removing the need to replace, reducing costs.
- Live gas access system means minimal interruption to consumer supply.
- Can also investigate and locate bends, syphons, internal mechanical seals and service connections.







## STASS Information

	Pipe sizes	12"	14"	15"	16"	18"	20"	24"	30"	36"	42"	48"
Robot	Robot 'B' - short wheel based	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Х	Х	Х	Х	Х	Х	Х
	Robot 'C' - long wheel based	Х	Х	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>✓</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
Access System	Under pressure Tee with 200mm outlet via 158 or 555 Donkin valve	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>~</b>	Х	Х	X	Х	Х
	Bond and Bolt via ALH System 3 Valve	X	X	X	X	X pending	X pending	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>
	ALH System 3 Valve (chained)	Х	X	X	X	Х	Х	<b>/</b>	<b>/</b>	<b>/</b>	<b>✓</b>	<b>~</b>
Drilling Size	Minimum 6" BSP	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Maximum/Prefered 7%" *CGL 18" B&B Max 6" BSP	<b>/</b>	<b>/</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>/</b>	Х	X	х	Х	х
Completion	6" BSP Non Tap Plug * CGL 18" B&B Complete with NTP	Х	Х	Х	Х	X pending	X pending	<b>/</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
	Blanking Plate (Valve remains in place)	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	<b>/</b>	Х	Х	Х	Х	Х

