

## PIPECAT DCVG NON-INTRUSIVE BURIED PIPELINE COATING DEFECT SURVEYING

### Introduction

Pipecat is the latest development in Direct Current Voltage Gradient (DCVG) pipeline coating-defect survey systems. It precisely locates coating defects with real time categorisation of defect severity and cathodic protection effectiveness and allows greater survey speed than afforded by the Pearson method, yet provides the in-depth analysis of the Close Interval Overline Potential Survey, as well as supplying additional information on coating defect severity that is not available from conventional Pearson and other close interval survey data.

The Pipecat system can be operated by a one-man team, and under most operating circumstances it is possible to cover at least 7 kilometres per team per day, drastically reducing survey costs.

### Proven in use

The system is also considerably less expensive than its nearest competitor, and has already proven its accuracy. 5000+ kilometres of pipeline have been test-surveyed, with all excavations indicating the system's reliability and its ability to comprehensively assess coating defects and to categorise them through in-depth analysis.

Pipecat is specifically designed to be more user friendly than traditional survey equipment. Easier to set up and light enough to be operated by one man (who does not need to be a cathodic protection specialist), the Pipecat can survey at walking pace, making routine monitoring extremely economical. Real-time evaluation of the defect severity is readily accomplished from the instrument without the need to return to the office to analyse the data.



### Detection, location & Categorisation

The Pipecat is already at an advantage over existing survey methods & categorisation because:

- no special transmitters are required
- contact probes are carried by one man
- actual cathodic protection potential gradients are measured
- remote sensing probes are not required
- No trailing wires are necessary

Once detected, the location of the coating defect or current drain is accurately located by a series of simple measurements. Accuracy of location is achieved by using small probe spacing (300mm) and measuring equipotential points with the centre zero meter.

The centre zero instrument and the precise measurement system mean that, even where multiple pipelines are running in the same corridor and are bonded intentionally or not, coating defect location will be such that defects on individual pipelines can still be identified and marked.

Surveying pipelines under bitumen roads may be carried out from the verge using the high resolution range. Comparison of the results from either side of the road will indicate the approximate location of the coating defect. Special techniques are possible for the precise location of the defect under the road, should this be required.



Submerged pipelines may be readily surveyed from a boat or by divers.

The special measurement technique allows coating defect surveys to be conducted even in areas of stray current activity.



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Industrial stray currents, AC currents, telluric currents and interference currents from other cathodic protection systems will not adversely affect the operation of the survey system or the real-time evaluation of coating defect severity.

The Pipecat is not only more effective in locating the coating defects and categorising them. It can also be used to:

- track down unwanted interference currents
- locate unwanted bonds between pipelines
- verify interference checks between cathodic protection systems
- measure polarised pipe-to-soil potentials

### Total Service Commitment

Corrpro Companies recognises that it is often not cost effective for customers to purchase the Pipecat system and to direct in-house resources to field survey, particularly for limited surveys.

Corrpro Companies therefore offers a full field service and will undertake DCVG (and associated cathodic protection) surveys on customers' behalf. The benefits of this service include:

- fully trained and experienced operators
- operators with cathodic protection experience to optimise the benefit of a coating survey
- detailed categorisation of coating defects
- full reporting with clear recommendations for remedial action where required
- correlation of existing levels of cathodic protection with defects, including defining whether defects are adequately polarised

For further information about the Pipecat DCVG system and associated services, please call Corrpro Companies Europe's Industrial Division at the address below.



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