

Hand Lance System

AGELLIS HLS

Hand Lance System

Portable, Fast, Efficient, Clean Sampling System

The Provac Hand Lance System (HLS) is a self contained portable unit for taking high quality metal samples using a manual lance. Argon gas is flushed through the sampler during immersion to protect it from slag entering and contaminating the sample.

System Capabilities

Ensures a solid sample of the melt, no diluting from slag caps. The sample surface and filling of the sample is also improved. Chemical analysis of the sample is more representative of the melt compared to a classic sample taken with a probe with a metallic slag cap.

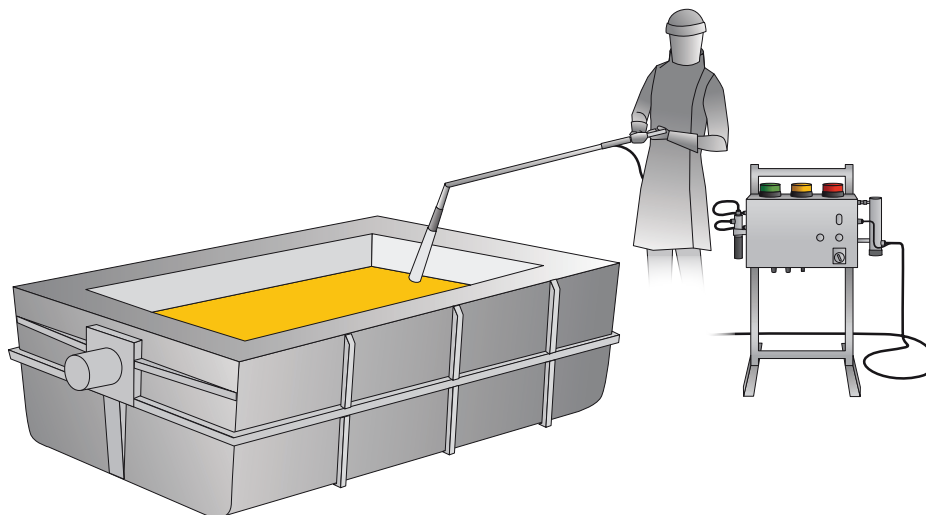
The control of Argon gas flow during immersion, together with the vacuum to fill the sample is performed by a metal sensor inside the lance. This sensor ensures that the sampler is fully immersed under the slag before the metal sample is taken. Therefore there is no risk of slag inclusions in the sample.

The HLS is easy to use for the operator as the metal sensor controls the sampling sequence.

The HLS unit is mounted on a stand with wheels. The electrical cabinet can also be removed from the stand and mounted on a wall.

Lances are customized to fit the specific requirements at the sampling location.

Argon hoist/cable between the lance and electrical cabinet can be ordered in lengths of 5, 10 and 15m.

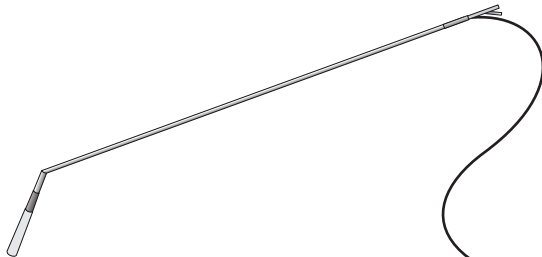


Technical Information

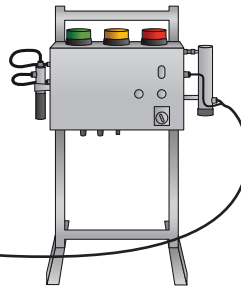
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System Overview

Lance with Probe



Control Unit



Dimensions

Height:	1500mm
Width (cabinet and stand):	1025mm
Depth:	800mm
Weight:	
Cabinet only:	28kg
Cabinet and stand:	60kg

Technical Information

Power Supply:	110-240VAC, 50-60Hz, max 300W
Argon gas pressure:	Min/Max - 6/10 bar
Argon gas flow:	Min - depending on application Max - 1350 l/min (during immersion)
Air pressure:	Min/Max - 6/10 bar
Air flow:	Min - 900 l/min (during sampling)
Safety standard:	Complies with known safety standards

Principles of Operation

The operator fits a sampling probe to the lance and pushes the start button on the cabinet. Argon gas starts to flush through the lance and sampler. At the same time, the green lamp (ready) illuminates to indicate that the lance is ready to be immersed.

The operator immerses the lance into the melt and continues until the metal sensor reacts. Immediately the yellow lamp (sampling) illuminates and a horn sounds to indicate that the correct depth under the slag has been reached.

The operator holds the lance at this position and the Argon gas flow stops. At the same time, a vacuum is created in the hoist and lance to help fill the sampler.

After a pre-set time the red lamp (finish) illuminates and a second horn sounds. This indicates that the sequence is complete and the operator retracts the lance from the melt.

User Benefits & Advantages

- **Easy & fast system** – Simple to follow procedure that takes seconds.
- **Exact sample position** – Always takes sample from correct depth.
- **Pure metal sample every time** – System prevents contamination.
- **Repeatable results** – Good sample irrespective of operator.
- **Optimizes production process** – Aids efficient decision making.
- **Cost effective** – Excellent return on investment.

Agellis follows a policy of continual improvement of design and we must therefore reserve the right to supply equipment differing in detail from that described herein.