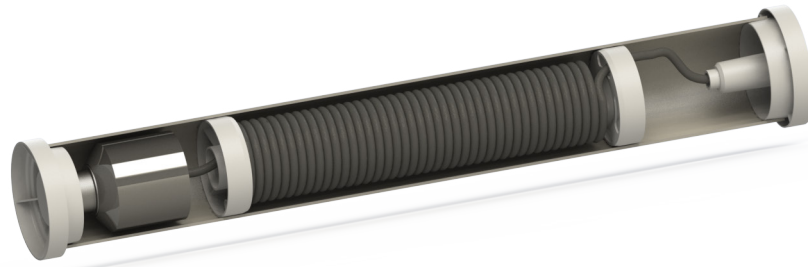


Acutap[®]

Drop-in Sensor



Acutap[®] drop in sensor is used primarily in BOF operations as the primary alternative to sublance measurements. The Acutap[®] sensor offers the user the convenience of measuring temperature as well as active oxygen values in BOF operations without the need to tilt the vessel for these measurements. This offers the convenience of a sublance system without the challenges of high maintenance and operational costs associated with the sublance system.

The probes consist of a sensor attached to a heavy steel weight which is "dropped-in" into the vessel remotely. The sensor (either a thermocouple or an oxygen sensor) is further attached to a quick contact via a long and flexible heat-proof cable which unwinds as the sensor travels into the vessel. The cable resists the heat for the duration in which the measurement is achieved and then burns out and is destroyed. The quick contact at the end of the probe is in turn connected to the measuring instrument via a contact block. After the measurement is over, the spent probe is usually discarded into the vessel via the chute in which the weight is dropped.

There are many chutes into which the weight can be dropped into the vessel, for ex. the lime chute, the off-gas chute or even a custom chute which connects to the sublance thimble. The choice of the chute and the location of the dropping equipment is custom built according to customer site conditions.

The Acutap[®] sensor suits customers looking to optimize their tap-to-tap time. On an average, the reduction in these times is over 150 seconds per heat when compared to vessel turndown measurements. The sensors can be used for both in-blow and end-of blow measurements.

The dropping system is custom built according to customer requirements which take into account space availability, user ergonomics, probe usage requirements, etc. The system is usually designed to have a measuring device for thermocouple/oxygen sensor data, a PLC to interact with the dropper machine systems and the plant level 2 communication systems and optionally a front end HMI system for the user which enables the operator to see realtime operational parameters of the machine as well as the measurement data and carry out measurements remotely via the HMI. The systems are designed to ensure maximum operator safety and optimization of steelmaking practices.



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The proprietary compensated cable construction as well as the patented probe design ensure a high success rates and high accuracy measurements. The low maintenance probe dropper machines ensure maximum equipment availability and ease of use.

Custom probes can also be manufactured according to requirements.

ORDERING INFORMATION:

Probe product code: AT32300327



ARRDY

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