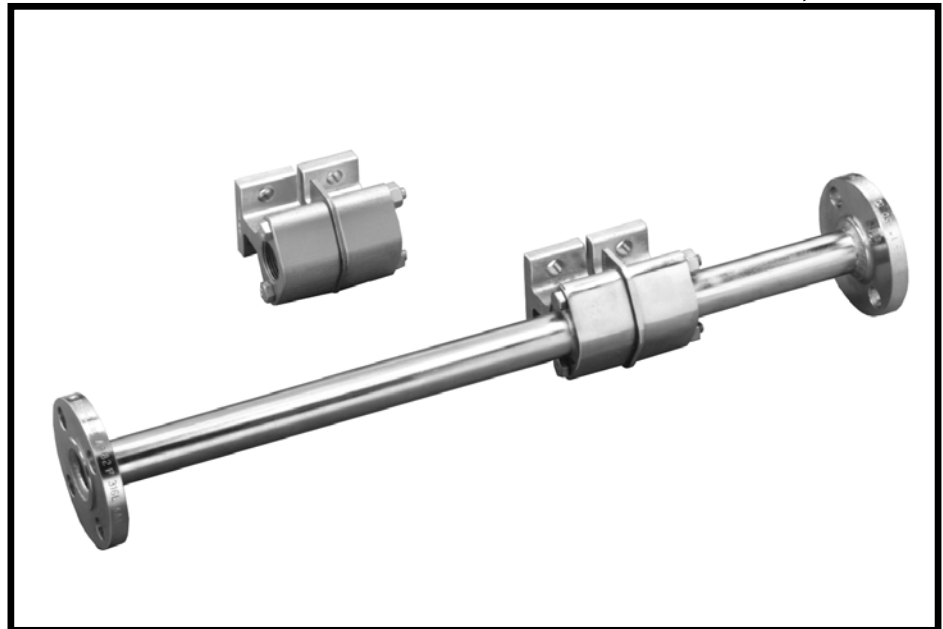


# ***INSTRUCTION MANUAL***

## ***INTEGRAL ORIFICE FLOW ELEMENT with Upstream and Downstream Piping and Threaded Connections***

*1330L Series, Model A*



IB-04H104\_8

## The Company

ABB Instrumentation is an established world force in the design and manufacture of instrumentation for industrial process control, flow measurement, gas and liquid analysis and environmental applications.

As a part of ABB, a world leader in process automation technology, we offer customers application expertise, service and support worldwide.

We are committed to teamwork, high quality manufacturing, advanced technology and unrivaled service and support.

The quality, accuracy and performance of the Company's products result from over 100 years experience, combined with a continuous program of innovative design and development to incorporate the latest technology.

The NAMAS Calibration Laboratory No. 0255(B) is just one of the ten flow calibration plants operated by the Company, and is indicative of ABB Instrumentation's dedication to quality and accuracy.

### BS EN ISO 9001



St Neots -  
Certificate No. Q5907  
Stonehouse -  
Certificate No. FM 21106

### ISO 9001



Rochester, USA -  
Certificate No. AQ-8618

### EN 29001 (ISO 9001)





Lenno, Italy -  
Certificate No. 90/90A





Stonehouse -  
Certificate No. 0255

## Use of Instructions

 **Warning.** An instruction that draws attention to the risk of injury or death.

 **Note.** Clarification of an instruction or additional information.

 **Caution.** An instruction that draws attention to the risk of the product, process or surroundings.

 **Information.** Further reference for more detailed information or technical details.

**Although Warning** hazards are related to personal injury, and **Caution** hazards are associated with equipment or property damage, it must be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process system performance leading to personal injury or death. Therefore, comply fully with all **Warning** and **Caution** notices.

Information in this manual is intended only to assist our customers in the efficient operation of our equipment. Use of this manual for any other purpose is specifically prohibited and its contents are not to be reproduced in full or part without prior approval of ABB Instrumentation.

## Licensing, Trademarks and Copyrights

**Hastelloy-C** is a trademark of Haynes International, Inc; **LA-CO**  
**Oxytite** is a trademark of Lake Chemical Co.

## Health and Safety

To ensure that our products are safe and without risk to health, the following points must be noted:

1. The relevant sections of these instructions must be read carefully before proceeding.
2. Warning Labels on containers and packages must be observed.
3. Installation, operation, maintenance and servicing must only be carried out by suitably trained personnel and in accordance with the information given or injury or death could result.
4. Normal safety procedures must be taken to avoid the possibility of an accident occurring when operating in conditions of high pressure and/or temperature.
5. Chemicals must be stored away from heat, protected from temperature extremes and powders kept dry. Normal safe handling procedures must be used.
6. When disposing of chemicals, ensure that no two chemicals are mixed.

Safety advice concerning the use of the equipment described in this manual may be obtained from the Company address on the back cover, together with servicing and spares information.

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