

A Higher Level of Performance



Data Sheet

Gladiator G1 Series

Microwave Waveguide Information

Beam Blockage Detection

For more information, please visit >
www.hawkmeasure.com

Waveguide Concept

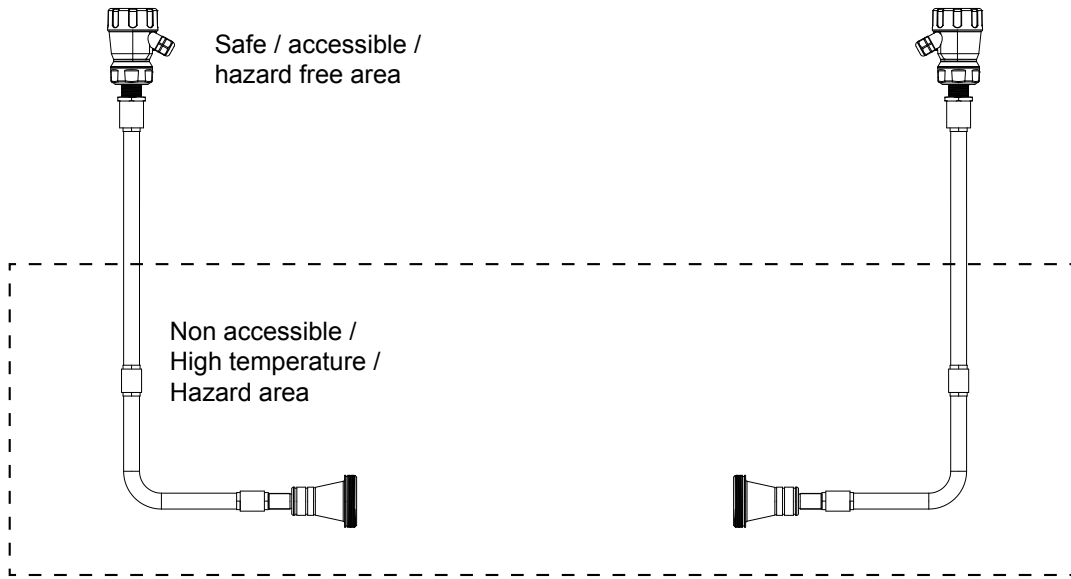
Gladiator G1 Microwave Series



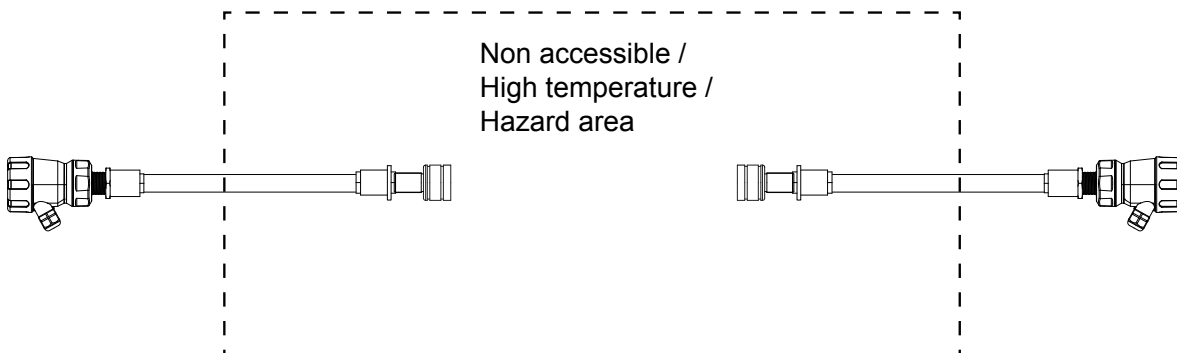
Waveguides

System with Waveguide extensions for remote mounting / signal transmission.

Waveguides can be used for difficult to access areas or to isolate the electronics from high temperature or non-compatible processes



Safe / accessible / hazard free area



Waveguides with Process Seals

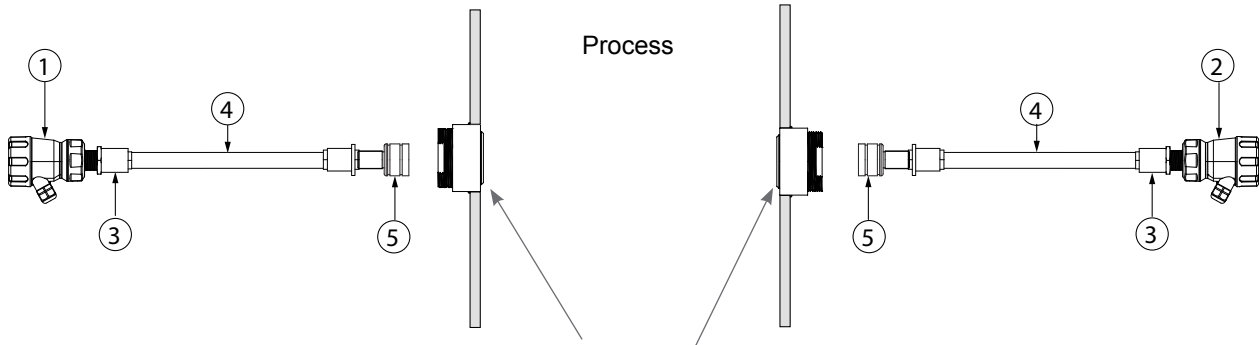
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Waveguides with windowed weldment / coupling process seals

System with Waveguide extensions for remote mounting / signal transmission.

Waveguides can be used for difficult to access areas or to isolate the electronics from high temperature or non-compatible processes

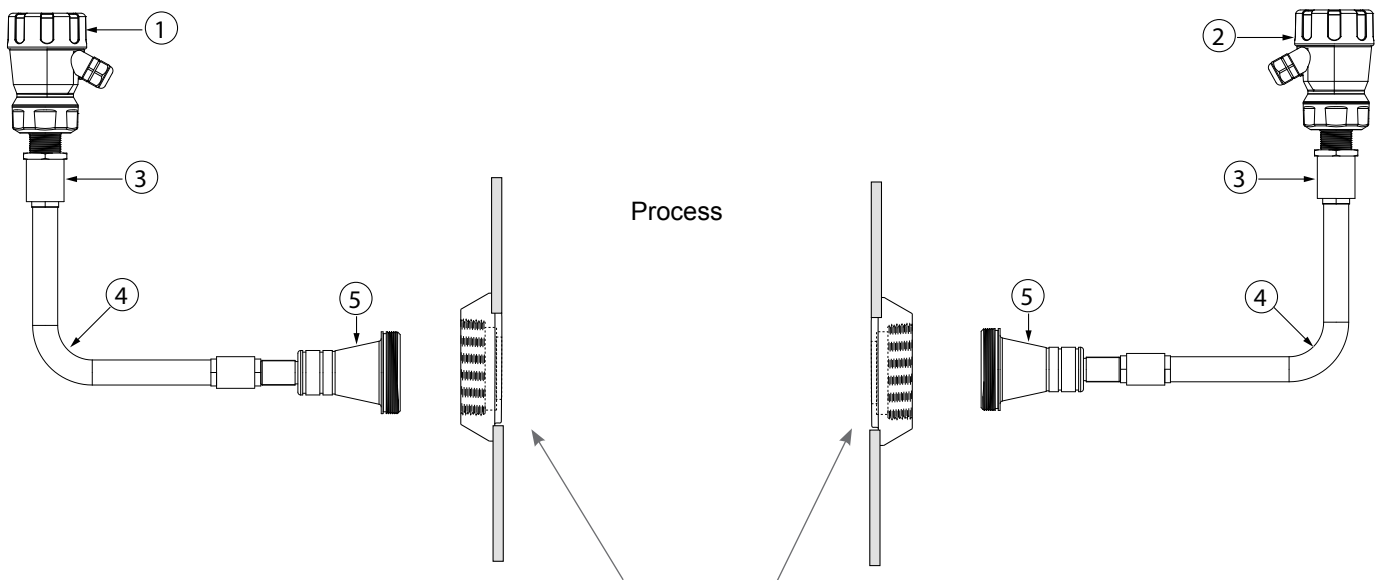


Pictured system:

- (1) G1R with TB (1" BSP) thread
- (2) G1S with TB (1" BSP) thread
- (3) Qty2 of MA-WG01
- (4) Qty2 of MA-WG10-L=xx
- (5) Qty2 of MA-WG03

MA2-WC-SS
Weldment / coupling
with UHMW window

Ceramic windows for high temperature applications



Pictured system:

- (1) G1R with TB (1" BSP) thread
- (2) G1S with TB (1" BSP) thread
- (3) Qty2 of MA-WG01
- (4) Qty2 of MA-WG02
- (5) Qty2 of MA-WG04

MA16
3" Weldment with
ceramic window

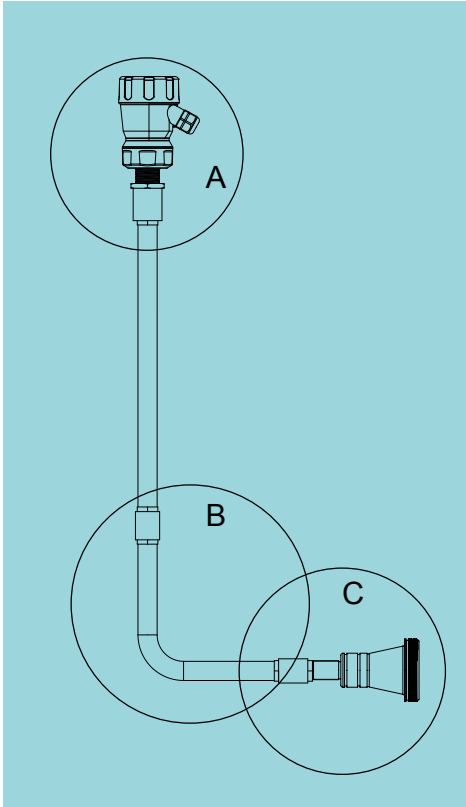
Example Setup

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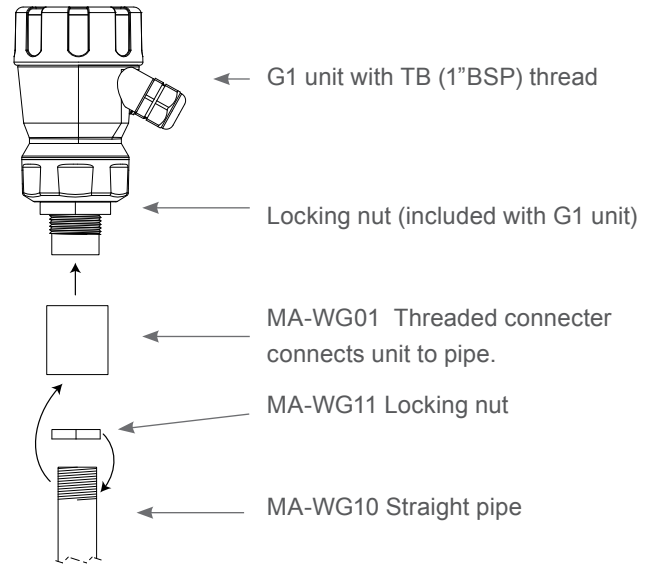


Example Waveguide setup with exploded parts

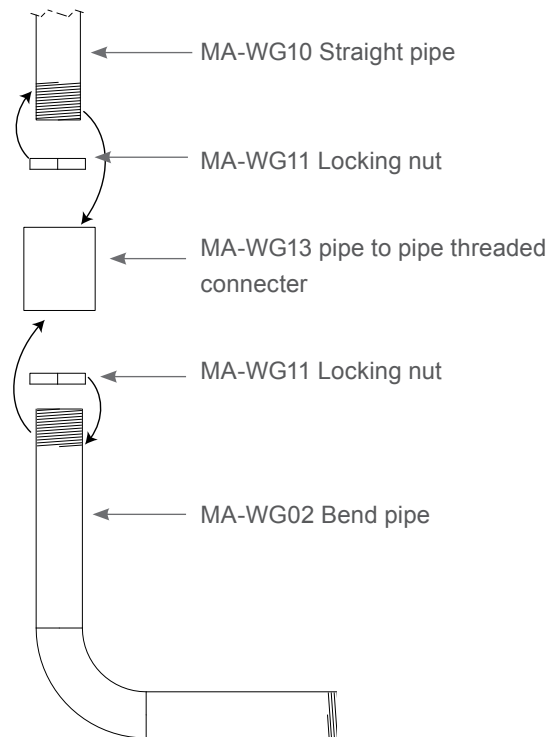
MA-WG04 (3" horn) with MA-WG14 (4" teflon window) can be swapped with MA-03 (1-1/2" horn) with MA-WG12 (2" teflon plug).



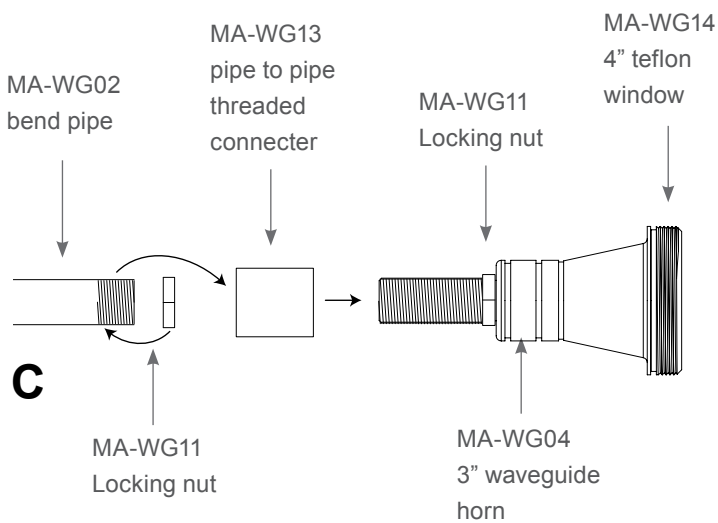
A



B



C



Dimensions

Gladiator G1 Microwave Series

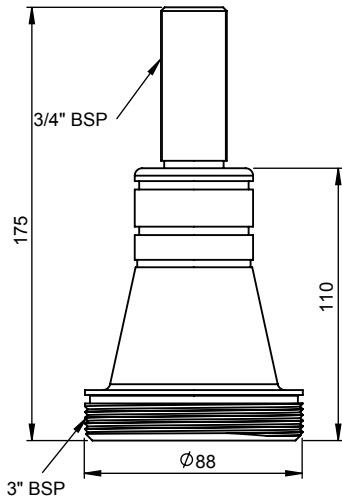


Waveguides and Waveguide Accessories

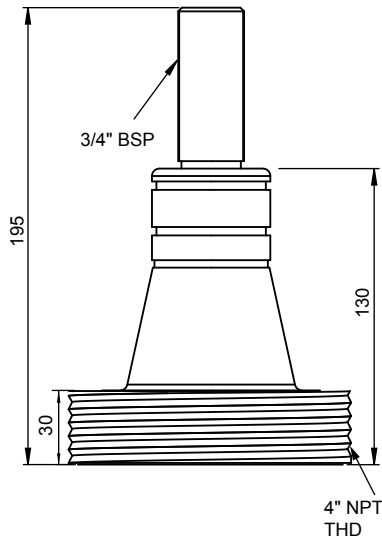
Additional mounting accessory variants and materials including high temperature ceramics are available. See Gladiator Gen 3 Microwave datasheet available at www.hawkmeasure.com

All dimensions in mm

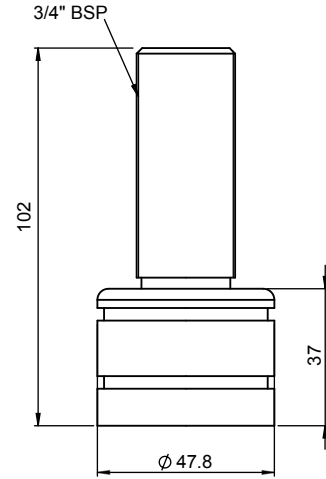
MA-WG04



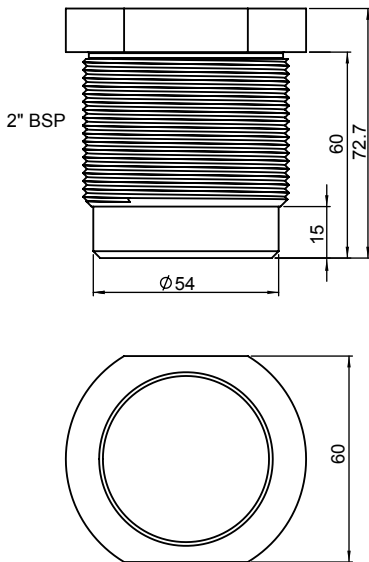
MA-WG04 with MA-WG14 window



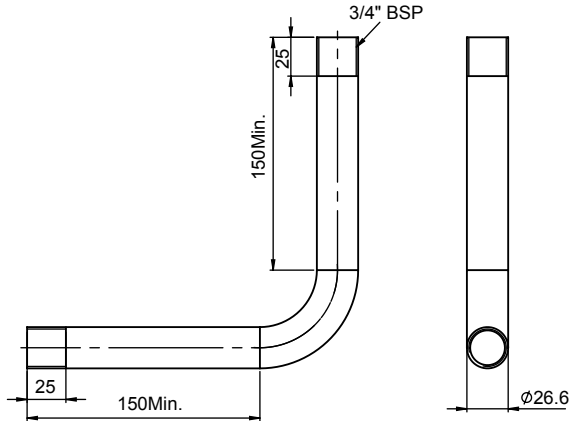
MA-WG03



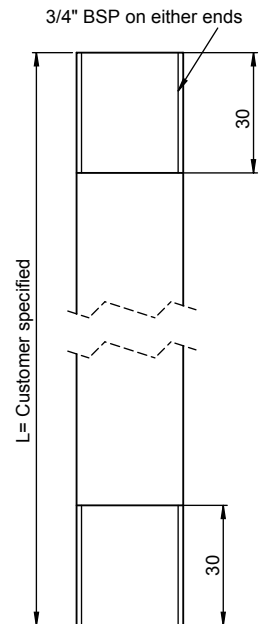
MA-WG12



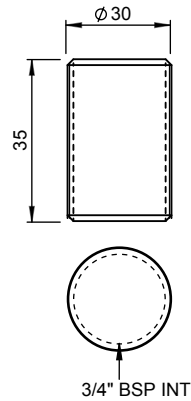
MA-WG02



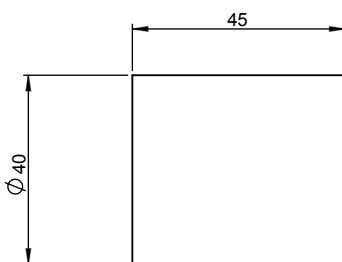
MA-WG10-L=xxx



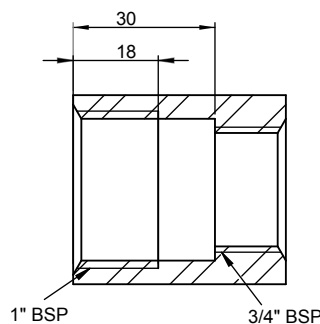
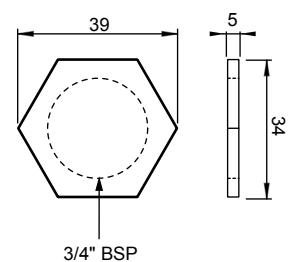
MA-WG13



MA-WG01



MA-WG11





G1 Series

Model

G1S Gladiator 1" Microwave Integral Sender

G1R Gladiator 1" Microwave Integral Receiver, 1 Relay with Failsafe

Electronics Housing (Sensor element is 316L with Teflon face)

S Powder Coated Aluminium

C 316L Stainless Steel

Power Supply

B 24VDC

U 24VDC and 90-260VAC

Mounting Thread

TB 1" BSP

Approvals

X Not Required

A22 ATEX Grp II Cat 3 GD T85°C IP67 Tamb -40°C to 70°C

G1S C B TB X

Mounting Accessories

MA

1	1" UHMW Window & mild steel weldment/coupling each
1-SS	1" UHMW Window & 316L stainless steel weldment/coupling each
1-UW	1" UHMW Window each
1-WC	1" mild steel weldment/coupling each
1-WC-SS	1" 316L stainless steel weldment/coupling each
2	2" UHMW Window & mild steel weldment/coupling each
2-SS	2" UHMW Window & 316L stainless steel weldment/coupling each
2-UW	2" UHMW Window each
2-WC	2" mild steel weldment/coupling each
2-WC-SS	2" 316L stainless steel weldment/coupling each

MA 2

Additional mounting accessory variants and materials including high temperature ceramics are available. See Gladiator Gen 3 Microwave datasheet available at www.hawkmeasure.com

Waveguides & Waveguide accessories

MA-WG

01	316L Threaded connector for Sender / Receiver
02	316L 90deg bend pipe (150mm + 150mm). Includes qty 2 of MA-WG11
03	316L 1-1/2" Wave guide horn. Includes qty 1 of MA-WG13 and qty 1 of MA-WG11
04	316L 3" Wave guide horn assembly. Includes qty 1 of MA-WG13 and qty 1 of MA-WG11
10-L=1	316L Straight pipe extension ¹ L= length in mm. Includes qty 2 of MA-WG11
11	316L Locking nut
12	2" BSP teflon plug with socket to match MA-WG03 horn
13	316L Pipe to pipe connector coupling
14	4" Teflon window to match MA-WG04 Horn. Fits into MA18 weldment.

MA-WG 01

Specifications

Gladiator G1 Microwave Series



Specifications

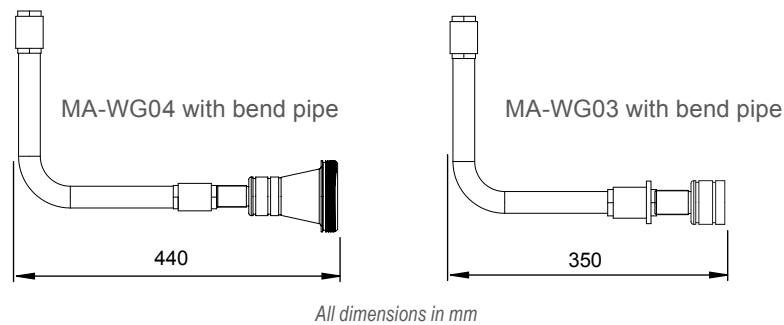
See G1 Microwave datasheet for full specifications available at www.hawkmeasure.com

Temperature

- 316L parts: 800°C
- Mild steel parts: 500°C
- Ceramic parts (alumina ceramic 95%) -50 to 800°C
- Teflon parts: 250°C
- UHMW parts: 80°C
- O-ring seals: NBR (Nitrile) 90°C. O-ring can be replaced with appropriate material for application.

Distance

- Maximum 5m of Waveguides
- Minimum with Bend pipe:



Bend Pipes

- Maximum 2 per side

Pipe Sealing

- Use sealing appropriate for atmosphere / application. Ingress into Waveguides may affect unit performance

Weights

- MA-WG01: 0.2kg
- MA-WG02: 0.6kg
- MA-WG03: 0.4kg
- MA-WG04: 1.1kg
- MA-WG10L=: 0.2kg per 10cm
- MA-WG11: 0.025kg
- MA-WG12: 0.2kg
- MA-WG13: 0.1kg
- MA-WG14: 0.4kg

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HAWK, Since 1988

Hawk Measurement Systems Pty Ltd (HAWK) was established in 1988. It's founding members saw the universal requirement of various industries requiring improved process control and efficiency in their operations.

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HAWK understands the difficulties customers face when seeking accurate level measurement. Every application is different, involving a multitude of environmental factors. This is where HAWK excels.

Our aim is to ensure that customers feel comfortable with our technology, and are provided with long term and reliable solutions. We believe that a combination of application and product expertise, as well as forward thinking and proactive support policies are the foundation of successful customer-supplier relationships.

Progressive Technical Support

HAWK believes that the future of the Level Measurement Industry revolves around the quality of pre and post sales - support. Our aim is for all sales & support staff to be product experts, and more importantly application experts making our customers applications as efficient and consistent as possible.

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HAWK understands the need for immediate technical assistance.

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HAWK believes that knowledge sharing is key to creating long term relationships. Empowering our customers and our worldwide distribution network, whilst being available at all times to lend a helping hand, is the perfect recipe for long term solutions and relationships. HAWK openly extends an invitation to share our 25 years of level measurement experience, and ensure that your day to day processes are efficient, understood, and always working.

Hawk Measurement Systems (Head Office)

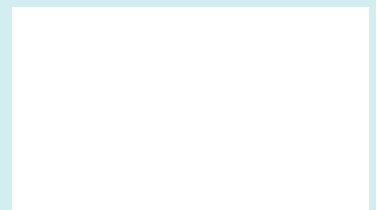
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