Main Parameters

QS-D Pipeline Diameter Gauge Parameter Table	
Applicable Pipeline Diameter	DN200-DN1100、DN400-DN2000
Measurement Accuracy	±2mm
Downhole Rod	Carbon fiber telescopic rod, standard 7m length, extendable options available
Measuring Rod	Carbon fiber telescopic rod, maximum length 1m
Protection Rating	IP68
Acquisition Frequency	60rpm, 1000 points/second
Imaging System	1/2.8" CMOS image sensor, 2MP; Field of view 180°*180°
Lighting	4 x 3W LED lamps, continuously adjustable brightness
Operating Temperature	-10℃ to 50℃
Weight	6.5kg
Battery	2 standard batteries, single battery continuous operation time 4h
Reserved Aviation Plug Interface	For interchangeable probes

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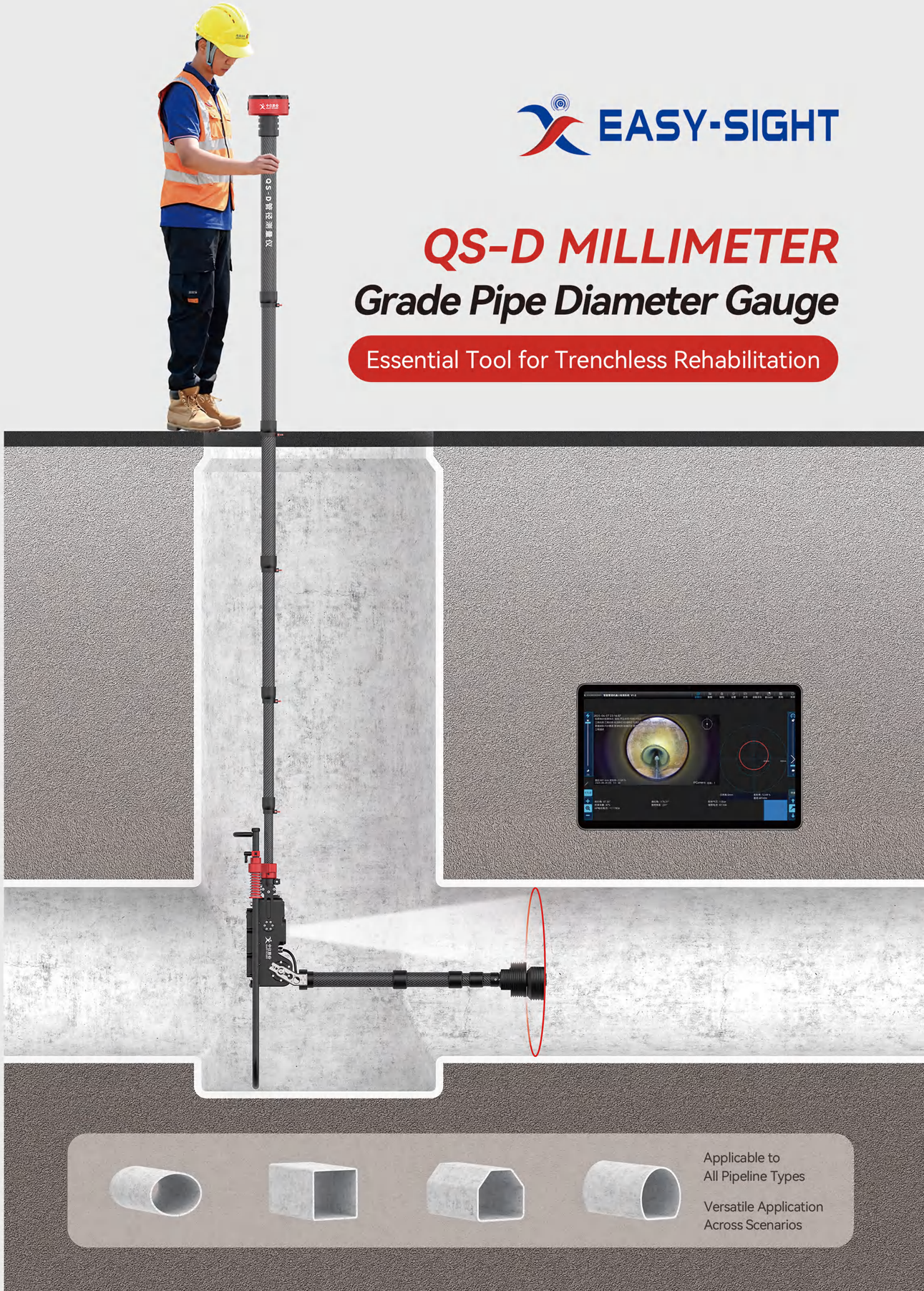
EASY-SIGHT

QS-D MILLIMETER
Grade Pipe Diameter Gauge

Essential Tool for Trenchless Rehabilitation



Product Introduction

The QS-D Pipeline Diameter Gauge is a millimeter-level intelligent inspection device capable of accurately and rapidly measuring core parameters such as pipeline diameter. It delivers exceptional measurement accuracy of ±2mm with a remarkably small error margin within 0.2%, providing highly precise data support for pipeline rehabilitation design.

Employing a high-precision laser probe, the system performs 360° scans to rapidly acquire high-density inner wall data. It accurately measures internal diameter and sediment levels for the inspection and structural assessment of various pipelines, including municipal, industrial, and oil & gas types.

GRGTEST 广电计量检测集团股份有限公司
广电计量 GRG METROLOGY & TEST GROUP CO.,LTD.

校 准 结 果
RESULTS OF CALIBRATION

证书编号： J202510216129-0001 第 4 页 共 4 页
Certificate No. Page of

1、外观以及一般性检查： 符合要求
In view of External and Generality check： Pass

2、直径示值误差校准：
Diameter calibration:

标准值	示值（mm）			示值平均值	示值误差	允许误差	不确定度 U (k=2)	结论
Reference	Indication			Average	Error	MPE	Uncertainty	Conclusion
（mm）	1	2	3	(mm)	(mm)	(mm)	(mm)	(P/F)
600.0	600.2	600.4	600.5	600.4	+0.4	±1.0	0.3mm	P
800.0	800.3	800.5	800.7	800.5	+0.5	±1.0	0.3mm	P

备注：
Notes：
结论(Conclusion)： 所校项目符合技术要求
1.本报告中的扩展不确定度是由标准不确定度乘以包含概率约为95%时的包含因子k。
The expanded uncertainty is given in the report by the standard uncertainty multiplied by the probability of about 95% when the factor k.
2.依据(Reference document)
JJF 1059.1-2012 测量不确定度评定与表示
(JJF 1059.1-2012 Evaluation and Expression of Uncertainty in Measurement)

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Accuracy Calibration Results

Utility Model Patent
Patent No.: 2025221991243

Technical Highlights

Millimeter-Level Precision

360° continuous scanning acquires 1000 data points per scan. Measurement accuracy reaches ±2mm with error within 0.2%, providing precise data support for pipeline rehabilitation design.

Pipeline Type Agnostic Multi-Scenario Applicability

Accurately measures diverse pipeline shapes (circular, oval, egg-shaped, rectangular) within a DN300-2000mm range. Essential for high-precision tasks including new pipe acceptance, pipeline mapping, and rehabilitation design.

Lightweight & Portable Single-Person Operation

Lightweight at 4.5 kg for easy one-handed portability and single-person operation. Includes a standard 7-meter telescopic rod (extendable) that folds for compact storage.

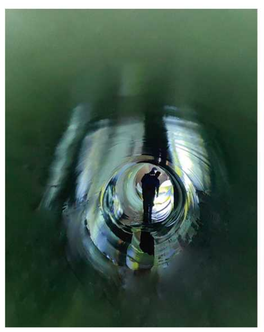
Intelligent & User-Friendly Long Battery Life

With real-time HD imaging for rapid positioning, it measures pipe diameters in a single operation and displays data instantly. The system supports multiple data export formats and offers up to 8 hours of continuous operation with its dual-battery design.

Application Scenarios

Municipal Drainage

Drainage Box Culverts



Rehabilitation Design

New Pipe Acceptance