SENCON
SENSING • TESTING • GAUGING

Master Series™

Automatic Axial Load Gauge

Measures the maximum force which can be applied in the axial plane before deformation

The Automtaic Axial Load Gauge accepts beverage cans with bodies from 202 to 211 and up to three neck diameters without change parts (200 - 206 on the standard gauge. Large and supersize versions are also available to accommodate up to 300).



- **Three neck diameters without change parts**
- **Additional neck sizes with quick change, tool-free inserts**
- **Full control of test program**
- **Can be integrated with other Master Series™ modules**
- **User adjustable test crush speed**
- **Software selectable measurement units (kg, N, or lbs)**
- **A compact semi-automatic benchtop version is also available that uses the same advanced technologies**

MASTER SERIES

MULTIPLE CAN SIZES AND NECK DIAMETERS: The standard gauge accepts beverage cans with bodies from 202 to 211 and automatically changes between three neck diameters. A large and super size can variant is also available.

HIGH PRECISION TESTING: The test load is applied via a high precision, digitally controlled motor through a four pillar platen. Operators can set:

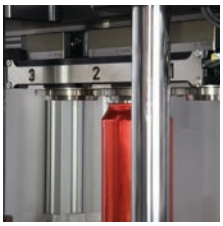
- Adjustable crush speed
- Adjustable Delta-peak sensitivity
- Test to destruction
- Test to pre-programmed load

EASY TO USE: The gauge uses Sencon's powerful, Process Master™ gauge control software to provide a single user interface for all Master Series™ gauge modules, saving operator time and minimizing training.

BODYMAKER AND SPRAY MACHINE ID CAMERAS: Master Series™ gauges can be equipped with optional bodymaker or spray machine ID cameras for reading and recording machine IDs. These are typically installed on the first module of a multi-gauge system.

INDUSTRY 4.0 SUPPORT: Master Series™ gauges support the OPC-UA communication standard. This allows client/server-authenticated access to operating data, which can be used across the plant's production process, enabling individual bodymakers, neckers, or decorators to be automatically stopped when out of specification cans are detected.







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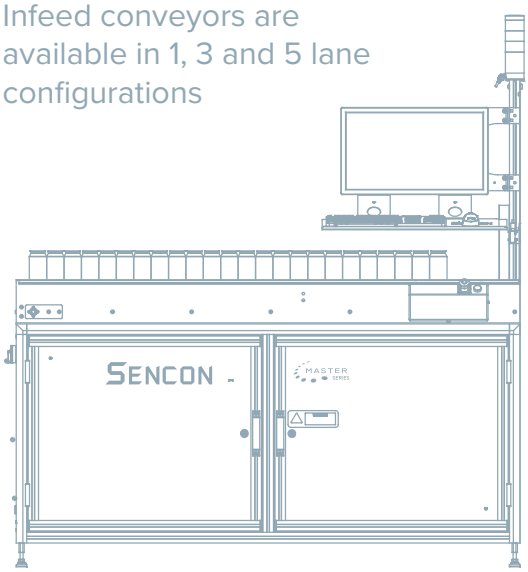
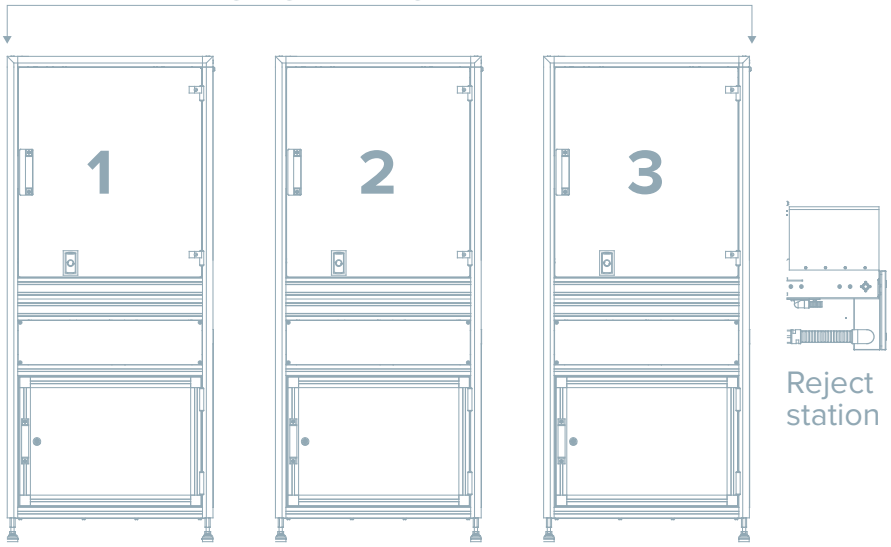
CREATE YOUR PERFECT GAUGING SUITE

Infeed conveyors are available in 1, 3 and 5 lane configurations



Up to 3 gauges configured in parallel



Minimum configuration (plus reject station)

TYPCAL SYSTEM CONFIGURATIONS

Back End Suite:	Back End	+	Axial Load	+	Buckle
Coatings Suite:	Film-Scan™	+	Enamel Rater		

Ordering Information

DESCRIPTION	CAN SIZE	NECK	HEIGHT
Master Series™ Axial Load Gauge: Standard	202 to 211	200 to 206*	88mm to 194mm automatic adjustment
Master Series™ Axial Load Gauge: Large can variant	300 single size	200 to 209	88mm to 210mm automatic adjustment
Master Series™ Axial Load Gauge: Super size can variant	307 single size	206 to 300	88mm to 210mm automatic adjustment

*can be set to measure up to 3 neck diameters at any time.

Core Module & Conveyor Options

CODE	DESCRIPTION
210-22215-00	Master Series™ Core Module with Single Lane Conveyor
210-22240-00	Master Series™ Core Module with 3 Lane Conveyor
210-22250-00	Master Series™ Core Module with 5 Lane Conveyor

Each lane has a capacity of 24 cans (211 diameter). Automatic in-line feed is possible as special option on all lanes. Conveyor extensions are also possible.

Options & Accessories

CODE	ITEM	DESCRIPTION
395-16151-00	Bodymaker ID Camera	Optional ID camera for identifying the Bodymaker mark on the can. This is typically installed on the first Master Series™ module of a multi-gauge system.
096-24090-00E	Spray ID Camera	Optional ID camera for identifying the Spray Machine mark on the can. This is typically installed on the first Master Series™ module of a multi-gauge system.
OPC	OPC-UA Plug-in	Adds OPC-UA fuctionallity to Process Master ™ gauge software for machine-to-machine (M2M) communication within the Industry 4.0 digital factory.

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TECHNICAL SPECIFICATIONS

MEASUREMENT CAPABILITIES	
Can Material:	Aluminium and Steel
Cans Accepted:	202 (54mm) to 211 (68mm) and up to three neck diameters without change parts - 200 (51mm) to 206 (60mm) Large can and Super size can variants are also available.
Maximum Batch Size:	255 cans (auto), 24 cans of 211 diameter (manual)
Test Types:	Axial collapse load: range 200 to 2500 N
Measurement Features:	Large number of measurement combinations and pass / warning / fail thresholds can be defined and stored using programmable measurement procedures and tests, allowing different parameters to be set easily for different can types or sizes, different customers or different measurement purposes (production, recheck, setup, etc.). Max. test load settable up to maximum of 2500 N Test crush speed settable in range 10 to 200 mm / minute

CONTROL	
Controller:	Process Master™ gauge software running on an integrated PC within the Conveyor module
Measurement Reporting:	Batch results displayed on PC screen and optionally sent as report to network storage or network printer. Factory line and machine numbers can be entered (manually or by association with procedure) for measurement traceability. Results can be displayed in N, lbf or kgf

OPERATING PARAMETERS	
Temperature Range:	10°c to 50°c
Relative Humidity:	0% to 80% non-condensing
Dimensions	Gauge cabinet (including rear chute) **Width:** 1053 mm (41.45”) **Depth:** 780 mm (30.70”) **Height:** 1840 mm (72.44”) For full system, add the following to the width: **Reject station:** 375 mm / 15.0” **Single Lane Conveyor:** 1941 mm (76.42”) **3 or 5 Lane Conveyor:** 2401 mm (94.53”)

DESIGN STANDARDS & SAFETY	
Maintenance:	Routine cleaning: see manual Routine maintenance: see manual Scheduled servicing interval: 1 year
Calibration:	Internal load cell is calibrated to traceable standards Annual recalibration / re-validation of gauge accuracy is strongly recommended
Safety:	Red, amber and green beacons to indicate system status from a distance Relay outputs for flexible triggering of external (customer) warning systems
Compliance:	CE marking: complies with relevant EU product directives

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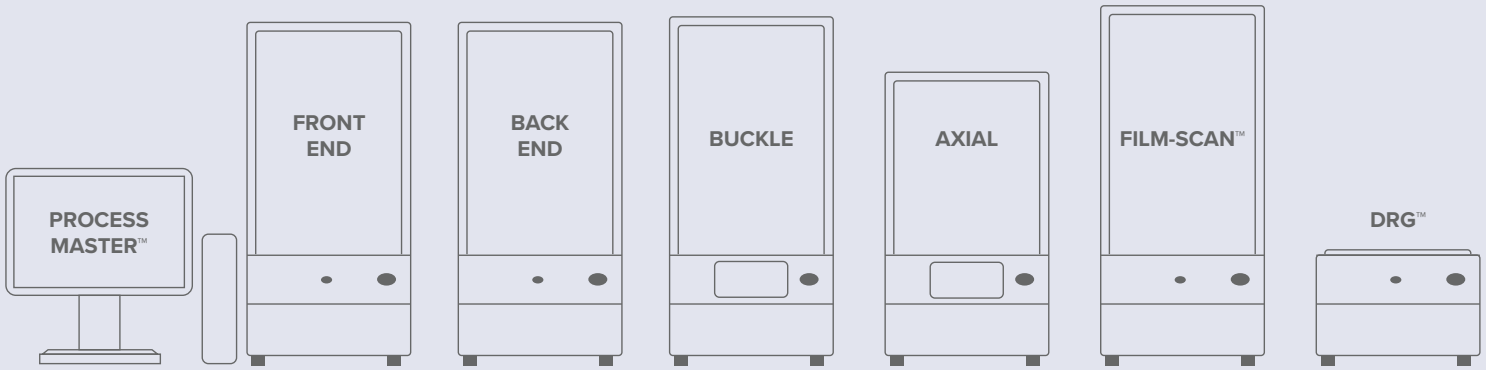
BENEFITS OF MASTER SERIES™

The modular design of our highly flexible and fully automatic Master Series™ gauges allows you to create the perfect combination of gauges to suit your individual requirements. This cost effective solution is the perfect fit for the modern can plant, saving time and floor space.

MULTI-SIZE CAPABILITY AS STANDARD: The gauges can handling system has been designed to accept standard beverage can sizes without change parts.

MODULAR SYSTEM: Allows gauges to be purchased individually or as integrated groups. Individual gauges can be added at a later date to increase throughput or add test features.

- Fully automatic, operator-free measurement
- Sampling on time or production basis
- Fully self-checking
- Data available on screen and exchanged via local area network
- Uses well-proven measurement techniques
- Modular design for cost effective expansion
- Future-proofed for changing requirements – easily update and reconfigure at any time
- Multi-lane capability – universal infeed conveyor



BIG ON CAPABILITY, SMALL ON SIZE

The Benchmark™ range of semi automatic benchtop gauges for the modern can plant

WORLDWIDE SUPPORT YOU CAN TRUST

We are committed to providing the best customer support worldwide with service engineers based in North and South America, Europe and Asia backed up with technical support from experienced industry specialists based at three technical support centers – you can trust Sencon.

Technical support is easily accessible through our 'Quick Assist' QR codes which offer support via WhatsApp*, email, web chat and telephone. Additionally, our online knowledge base provides support resources for all Sencon products.

*only available in Europe, Asia, Africa and Oceania



Industry specialists since 1976

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