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PRECISION GAUGES

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FERTER is manufacturer of high quality gauging and inspection equipment.

It was founded in 1953 in Izmir/TURKEY to manufacture precision cutting tools and machine parts. Since 1985 it grew to be a full service gauge manufacturer with emphasis on gauging. It has continually increased its product range and services so today FERTER has the widest product line in market.

In 2001, FERTER moved to its current plant where it was possible to upgrade a purpose built wide and well-equipped production line and Laboratory and centralize the administration offices as well as providing additional floor space to meet the growing demand for FERTER products.

FERTER has innovative outlook and continuous to invest in personnel and manufacturing facilities to provide absolute customer satisfaction by providing high quality products and superior service levels and to produce the growth seen today in the supply of new type gauges.

As a dynamic full service gage company, provide a complete line of custom gages; plain plug, ring and snap gauges, cylindrical thread ring and plug gages, tapered gauges etc. and many types of special gages as multiple starts, pre-plates, special leads, extra thread length etc. We provide a complete line of American Gage Design, Unified and Metric thread gages.

Each batch of Gauges part is measured in laboratory is registered laboratory according to ISO 17025. All is provided with a certification of examination confirming corresponds to standard or Customer specification.

We have wide variety of customer in the world in industries such as aerospace, automotive, petroleum, machinery, computers and electronics, construction, furniture, mechanical contracting, medical, educational and scientific institutions, military and other government bodies etc.

FERTER has become synonymous with high precise instrument.

OUR MAIN GOAL is to deliver absolute total customer satisfaction by providing high quality products and superior service levels with competitive prices.

WE DON'T ONLY SELL!. We are also delighted to provide specialized technical support to our customers free of charge with our highly skilled and dedicated workforce. We think we are in teamwork of our customer and it is to be valued for us to be respect, trustable and to be held in esteem.

LET'S JOIN US

AND TRUST.

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THREAD GAUGES

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THREADS GAUGES

As a basically, thread gauges are used to check Product Threads pass or not, to ensure assembly of mating parts, to Inspect Pitch Diameter and the Functional Thread.

Thread gauges are used for checking, calibrating, or setting of gauges or other standards. Individual ring gauges or ring gauge sets are for master, setting, or working applications. Master setting gauges to efficiently inspect internal or external dimensions of manufactured parts.

Master Setting Gauges are ideal for setting measurement instrument. Go/ No-go gauges are suitable for inspecting internal or external diameter of manufactured parts.

BASED ON THE ELEMENTS TO BE CHECKED

• Gauges for checking internal threads

Limit Thread Plug Gauge has fixed "go" and "no-go" ends. Go end has a complete thread profile; no-go side has a shortened thread profile with only a few threads. The function of limit gauges that are also called "go" and "no-go" gauges are to determine whether the actual dimensions of the workpiece are within or outside the specified limits

Go Thread Plug Gauge, is similar to go end of Limit Thread Plug and it has a complete thread profile. Basically, it is used to check the minimum value of the effective diameter (pitch diameter) (D2), the minimum value of the diameter at the thread root (major diameter D).

No-go Thread Plug Gauge, is similar to no-go end of Limit Thread Plug and it has a shortened thread profile with only a few threads. It is used to check only the maximum value of the effective diameter (D2).

Limit Plain Plug Gauge is used to check minor diameter (D1) of threads.

Taper Thread Plug Gauge has single end. It is used to check major diameter and pitch diameter of internal work piece threads taper or parallel at the gauge plane and the accommodation length.

• Gauges for checking external threads

Go Thread Ring Gauge has a complete thread profile, basically, it is used to check the maximum value of the effective diameter (d2) and this gauge checks the maximum value of the minor diameter (d1).

No-go Thread Ring Gauge has a shortened thread profile, basically it is used to check minimum limit of the effective diameter (d2).

Limit Snap Gauge is used to check major diameter (d) of threads.

Parallel Full Form Thread Ring Gauge has single end. It is used to check minor diameter and pitch diameter of external taper workpiece threads at the gauge plane.

BASED ON CHECK OF GAUGES

• To Check And Wear Control Of Thread Ring Gauges

Thread Plug Gauge for Checking New Ring Gauge is used to check new thread ring gauges and production gauges (application and inspection ring gauges).

Wear Plug Gauge for Ring Gauge is used to checks if the ring gauge's pitch diameter has exceeded the wear limit.

Taper Check Plug / Master Plug and Wear Check Plug Gauge is used to check taper thread ring gauges. Taper Modified Thread Form Check Plug Gauge is used to check pitch diameter of parallel full form ring gauge during manufacturing and calibration (wear during usage)

• To Check And Wear Control Of Thread Plug Gauges

The standards don't design a specific gauge for this purpose. In common practice the same system can be applied.

Check Ring Gauges for Plug Gauge is used to check NEW Go & No-go Plug Gauges.

Wear Check Ring Gauges for Plug Gauge is used to check / calibrate USED Go & No-go Plug Gauges.

Taper Check Ring / Master Ring Gauge is used to check taper thread plug gauge

Parallel Modified Thread Form Check Ring Gauge is used to check dimensions of taper thread plug gauges during manufacturing and calibration (wear during usage).

TOLERANCE CLASSES FOR THREADS

METRIC THREADS (M) WITH 60°THREAD ANGLES

Recommended Tolerance Classes for Internal Threads (Plug Gauges)

	Tolerance Position 'G'			Tolerance Position 'H'		
	Length of Thread Engagement					
	Short	Normal	Long	Short	Normal	Long
Fine	-	-	-	4H	5H	6H
Medium	(5G)	6G	(7G)	5H	6H	7H
Coarse	-	(7G)	(8G)	-	7H	8H

Recommended Tolerance Classes for External Threads (Ring Gauges)

	Tolerance Position 'e'			Tolerance Position 'f'			Tolerance Position 'g'			Tolerance Position 'h'		
	Length of Thread Engagement											
	Short	Normal	Long	Short	Normal	Long	Short	Normal	Long	Short	Normal	Long
Fine	-	-	-	-	-	-	-	(4g)	(5g4g)	(3h4h)	4h	(5h4h)
Medium	-	6e	(7e6e)	-	6f	-	(5g6g)	**6g**	(7g6g)	(5h6h)	6h	(7h6h)
Coarse	-	(8e)	(9e8e)	-	-	-	-	8g	(9g8g)	-	-	-

Tolerance classes in bold are first choice, in normal print are second choice, in parentheses are third choice.

UNIFIED THREADS WITH 60°THREAD ANGLES

Tolerance Classes for Internal Threads (Plug Gauges)			Tolerance Classes for External Threads (Ring Gauges)		
1B	2B	3B	1A	2A	3A

BSW / BSF THREADS WITH 55° THREAD ANGLES

Tolerance Classes for Internal Threads (Plug Gauges)	Tolerance Classes for External Threads (Ring Gauges)
Medium Class Normal Class Close Class	Medium Class Free Class Close Class

G / BSP THREADS WITH 55° THREAD ANGLES

Tolerance Classes for Internal Threads (Plug Gauges)	Tolerance Classes for External Threads (Ring Gauges)
Only General Class	Class B Class A

TRAPEZOIDAL THREADS WITH 30° THREAD ANGLES

Type of Thread	Diameter	Tolerance Classes			
Internal Thread (Plug Gauges)	Minor Diameter		4		
	Pitch Diameter		7	8	9
Internal Thread (Plug Gauges)	Major Diameter		4		
	Minor Diameter		7	8	9
	Pitch Diameter	6	7	8	9

Internal Thread (Plug Gauges): H for pitch diameter, major diameter and minor diameter
External Thread (Ring Gauges): c or e for pitch diameter and always h for major and minor diameter

METRIC J THREADS (MJ) WITH 60°THREAD ANGLES

Type of Thread	Nominal Diameter	Before Coating Threads	After Coating or Uncoated Coating Threads, Finish Threads	
			Pitch ≤ 2mm	Pitch > 2mm
External Thread (Ring Gauges)	-	4g6g	4g6g	4h6h
Internal Thread (Plug Gauges)	≤ 5mm	4G6G	4G6G	4H6H
	≥ 6mm	4G5G	4G5G	4H5H

TOLERANCE CLASSES FOR THREADS

UNIFIED J THREADS (UNJ) WITH 60°THREAD ANGLES

Tolerance Classes for Internal Threads (Plug Gauges)	Tolerance Classes for External Threads (Ring Gauges)
3B	3A

ACME THREADS WITH 29° THREAD ANGLES

Type of Thread	Nominal Diameter (")	Tolerance Classes
External Thread (Ring Gauges)	1/4 – 5	2G, 3G, 4G
	5 – 8	2C, 3C, 4C
Internal Thread (Plug Gauges)	1/4 – 5	2G, 3G, 4G
	5 – 8	2C, 3C, 4C

STUB ACME THREAD GAUGES WITH 29° THREAD ANGLES

Type of Thread	Nominal Diameter (")	Tolerance Classes
External Thread (Ring Gauges)	1/4 – 5	2G, 3G, 4G
	5 – 8	2C, 3C, 4C
Internal Thread (Plug Gauges)	1/4 – 5	2G, 3G, 4G
	5 – 8	2C, 3C, 4C

BUTTRESS ACME THREADS WITH 7°/45°, 0°/52° THREAD ANGLES

BS 1657	ANSI / ASME B1.9
Free Medium Coarse	Class 2 (Standard Grade) Class 3 (Precision Grade)

METRIC BUTTRESS / SAW TOOTH THREADS WITH 3°/30° THREAD ANGLES

Thread Plug Gauge	Thread Ring, Check Plug, Wear Check Plug
7H, 8H, 9H	6e, 7e, 8e, 9e, 6c, 7c, 8c, 9c

Tolerance Class	Thread Plug Gauge		Thread Ring, Check Plug, Wear Check Plug	
	Thread Engagement Type			
	Normal	Long	Normal	Long
Medium	7H	8H	7e	8e
Coarse	8H	9H	8c	9c

BA (BRITISH ASSOCIATION) THREADS WITH 47.1/2° THREAD ANGLES

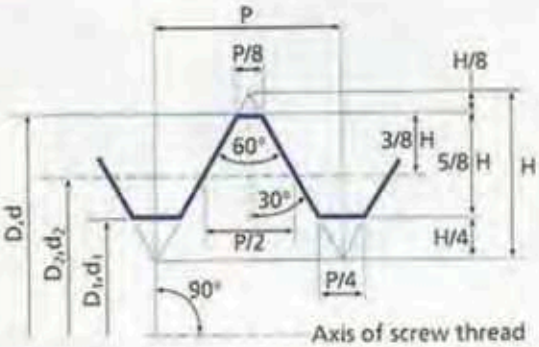
For All Types of BA Threads	
Normal (N)	Close (C)

BS CYCLE THREADS WITH 60° THREAD ANGLES

	Spokes and Nipples	Bolts and Nuts	Special Thread Applications
For All Types of BS Cycle Threads	Medium (M)	Close (C) Medium (M) Free (F)	Medium (M)

ISO METRIC THREAD GAUGES

M



Application

ISO metric gauges are used to check threads which are most commonly used gauges in the industry.

Specifications

	Basic Thread Dimension
ISO	ISO 965-1, ISO 965-2, ISO 965-3
DIN	DIN 13
BS	BS 3643-1, BS 3643- 2
ANSI	ANSI / ASME B1.13M
JIS	JIS B 0205, JIS B 0209

	Gauging Practice
ISO	ISO 1502
DIN	DIN 13
BS	BS 919-3
ANSI	ANSI / ASME B1.16M
JIS	JIS B 0251

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (mm)	Pitch (mm)	Short Description of Order
Limit Thread Plug Gauge	1,4 – 215	0,35 – 8	**M10x1.25 6H** Limit Thread Plug Gauge
Thread Ring Gauge			**M10x1.25 6g** Thread Ring Gauge
Limit Plain Plug Gauge (*)			**M10x1.25 6H** Limit Plain Plug Gauge
Limit Snap Gauge (**)			**M10x1.25 6g** Limit Snap Gauge
Check Plug Gauge			**M10x1.25 6g** Check Plug Gauge
Wear Check Plug Gauge			**M10x1.25 6g** Wear Check Plug Gauge
Check Ring Gauge			**M10x1.2 6H** Check Ring Gauge
Wear Check Ring Gauge			**M10x1.25 6H** Wear Check Ring Gauge

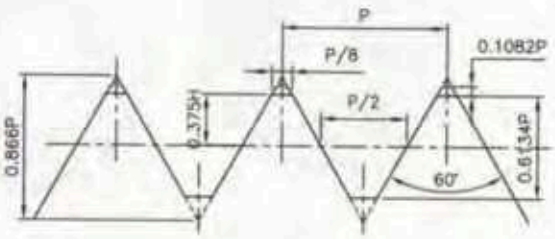
(*) For Limit Plain Plug Gauges, see Page 06 (**) For Limit Snap Gauges, see Page 06

Order Instructions

- Unless otherwise specified, we produce Metric thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce the thread plug gauge with the tolerance 6H and thread ring gauge with the tolerance 6g as standard, according to DIN 13.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Unless otherwise specified, up to 60mm nominal diameter go and no-go thread plug gauges are produced in one handle, larger diameters are produced separately.
- Thread gauges with left-handed, multiple starts must be specified in order.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

UNIFIED THREAD GAUGES

UNC
UNF
UNEF
UN
UNS
UNR
UNRS
UNRC
UNRF
UNREF



Application

Unified gauges are used to check threads that are used for general purpose fastening applications for imperial system of units.

Specifications

	Basic Thread Dimension
ANSI	ANSI / ASME B1.1
BS	BS 1580-1, BS 1580- 2

	Gauging Practice
ANSI	ANSI / ASME B1.2
BS	BS 919-1

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order
Limit Thread Plug Gauge	0,05 – 8	70 -3	¼" – 20 UNC 2B Limit Thread Plug Gauge
Thread Ring Gauge			¼" – 20 UNC 2A Thread Ring Gauge
Limit Plain Plug Gauge (*)			¼" – 20 UNC 2B Limit Plain Plug Gauge (*)
Limit Snap Gauge (**)			¼" – 20 UNC 2A Limit Snap Gauge (**)
Check Plug Gauge			¼" – 20 UNC 2A Check Plug Gauge
Wear Check Plug Gauge			¼" – 20 UNC 2A Wear Check Plug Gauge
Check Ring Gauge			¼" – 20 UNC 2B Check Ring Gauge
Wear Check Ring Gauge			¼" – 20 UNC 2B Wear Check Ring Gauge

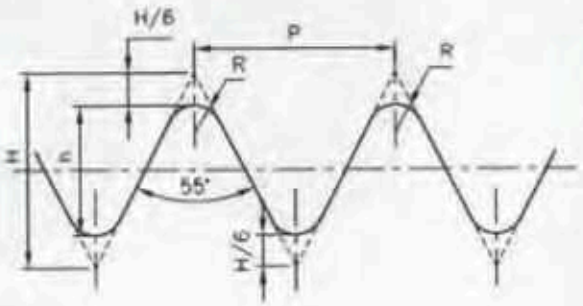
(*) For Limit Plain Plug Gauges, see Page 06 (**) For Limit Snap Gauges, see Page 06

Order Instructions

- Unless otherwise specified, we produce the thread plug gauge with the tolerance 2B according to ANSI / ASME B1.2 and thread ring gauge with the tolerance 2A according to BS 919-1 as standard.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Unless otherwise specified, up to 60mm nominal diameter go and no-go thread plug gauges are produced in one handle, larger diameters are produced separately.
- Thread gauges with left-handed, multiple starts must be specified in order.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

WHITWORTH PIPE THREAD GAUGES

G
BSP



Application

These gauges are used to check threads that are used for general purpose pipe fittings where pressure tight joints are not required on threads.

Specifications

	Basic Thread Dimension
ISO	ISO 228-1
BS	BS 2779
JIS	JIS B 0202

	Gauging Practice
ISO	ISO 228-2
BS	BS 2779
JIS	JIS B 0202

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

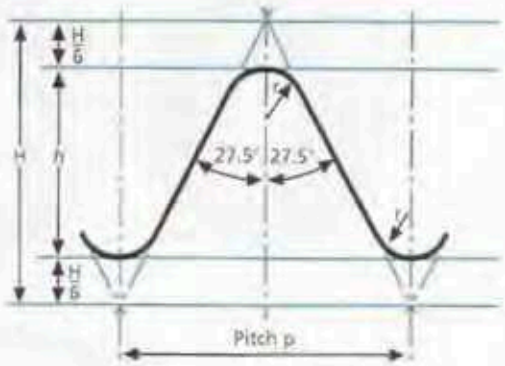
Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order	
Limit Thread Plug Gauge	1/16 – 6	28 – 11	G 1/2 - 14	Limit Thread Plug Gauge
Thread Ring Gauge			G 1/2 - 14	Thread Ring Gauge

Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce the thread ring gauge with the tolerance Class A according to ISO 228-2 as standard.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Unless otherwise specified, up to 60mm nominal diameter go and no-go thread plug gauges are produced in one handle, larger diameters are produced separately.
- Thread gauges with left-handed, multiple starts must be specified in order.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

WHITWORTH THREAD GAUGES

BSW BSF



Application

These gauges are used to check threads that are used where clearance between male & female threads is to be controlled.

Specifications

	Basic Thread Dimension
BS	BS 84

	Gauging Practice
BS	BS 919-2

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (inch)	Pitch (TPI)		Short Description of Order
		BSW	BSF	
Limit Thread Plug Gauge	0,05 – 8	40 – 2,5	32 – 4	5/16" BSW Limit Thread Plug Gauge
Thread Ring Gauge				5/16" BSW Thread Ring Gauge
Limit Plain Plug Gauge (*)				5/16" BSW Limit Plain Plug Gauge
Limit Snap Gauge (**)				5/16" BSW Limit Snap Gauge
Check Plug Gauge				5/16" BSW Check Plug Gauge
Wear Check Plug Gauge				5/16" BSW Wear Check Plug Gauge

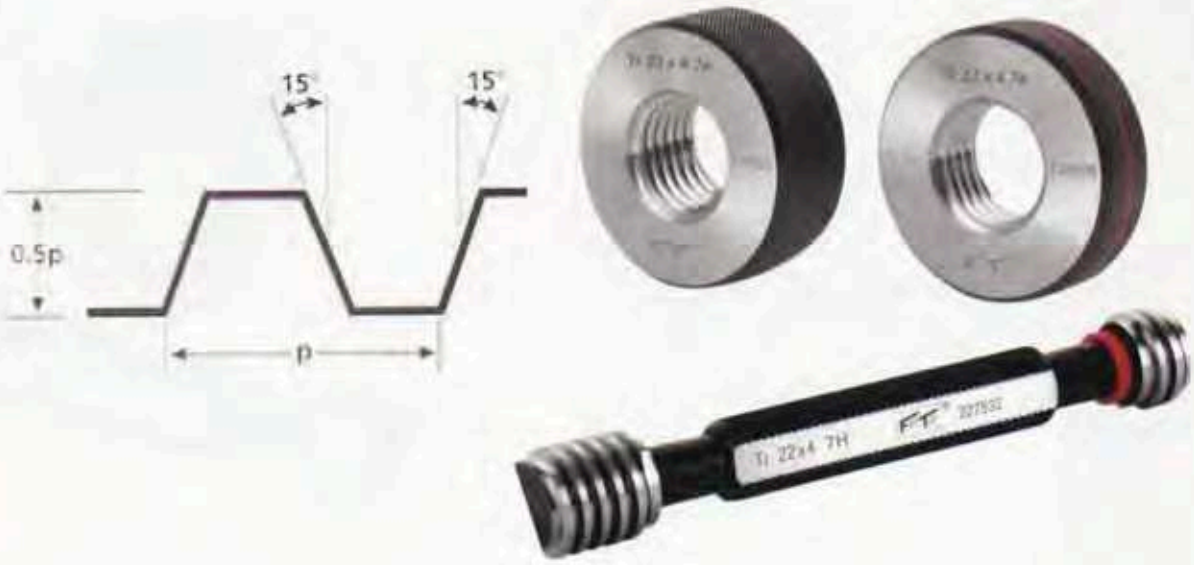
(*) For Limit Plain Plug Gauges, see Page 06 (**) For Limit Snap Gauges, see Page 06

Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce the thread plug and ring gauge with the tolerance Medium class according to BS 919-2 as standard.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Unless otherwise specified, up to 60mm nominal diameter go and no-go thread plug gauges are produced in one handle, larger diameters are produced separately.
- Thread gauges with left-handed, multiple starts must be specified in order.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

TRAPEZOIDAL THREAD GAUGES

TR



Application

These gauges are used to check threads that are used for transmission of power and motion and are nearly similar to ACME threads, but are made to metric dimensions and standards.

Specifications

Basic Thread Dimension		Gauging Practice	
ISO	ISO 2903, ISO 2904	DIN	DIN 103-9, DIN 263, DIN 6341, DIN 30295

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

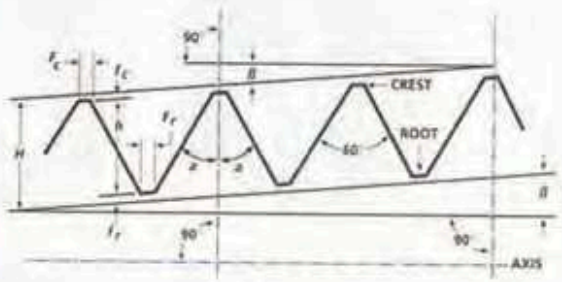
Gauge Type	Diameter (mm)	Pitch (mm)	Short Description of Order
Limit Thread Plug Gauge	6 -215	1 – 6	**Tr 20x4 7H** Limit Thread Plug Gauge
Thread Ring Gauge			**Tr 20x4 7e** Thread Ring Gauge
Check Plug Gauge			**Tr 20x4 7e** Check Plug Gauge
Wear Check Plug Gauge			**Tr 20x4 7e** Wear Check Plug Gauge

Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce the thread plug gauge with the tolerance 7H and the ring gauge wit tolerance 7e according to DIN 103-9.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Unless otherwise specified, up to 60mm nominal diameter go and no-go thread plug gauges are produced in one handle, larger diameters are produced separately.
- Thread gauges with left-handed, multiple starts must be specified in order,
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

AMERICAN PIPE TAPER THREAD GAUGES
(Taper 1:16)

NPT
NPSC
NPSL
NPSM
NPTR
ANPT



Application

These gauges are used to check NPT threads that are used in general purpose application of pipe assembly, where a pressure tight joint of pipes is made, by making the pipes wrench tight using a sealing compound.

Specifications

Basic Thread Dimension	
ANSI	ANSI / ASME B1.20.1 (Basic Type)
	American Handbook H-28 Part II (Limit Type)

Gauging Practice	
ANSI	ANSI / ASME B1.20.1 (Basic Type), ANSI SAE AS71051
	American Handbook H-28 Part II (Limit Type)

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order	
Taper Plug Gauge L1 basic and L1 step limit	1/16 - 8	27 - 8	¼" - 14 NPT	Taper Plug Gauge
Taper Ring Gauge L1 basic and L1 step limit			¼" - 14 NPT	Taper Ring Gauge
Limit Plain Taper Plug Gauge to check taper bore/minor dia. of int. threads			¼" - 14 NPT	Limit Plain Taper Plug Gauge
Taper Check and Wear Check Plug Gauge to check ring gauges			¼" - 14 NPT	Taper Check and Wear Check Plug Gauge

(*) ANPT threads need L1 Ring, L2 Ring, 6 Step Ring Gages and L1 Plug, L2 Plug, 6 Step Plug Gages

Basic Type

One step is provided which corresponds to basic size of component.

Limit Type

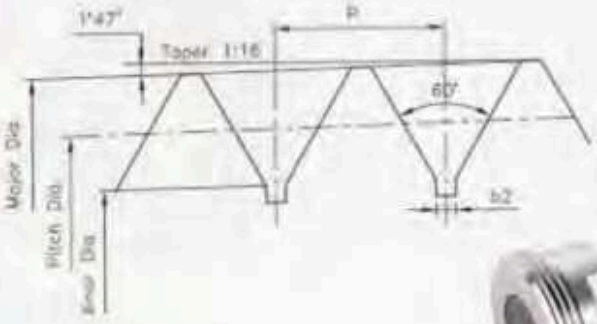
Gauge has three steps. These steps correspond to minimum, basic and maximum size of components.

Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce type L1 thread plug and ring gauge according to ANSI/ ASME B1.20.1 as standard.
- Unless otherwise specified, gauges are produced with 2 steps.
- NPT L2 gauges to check threads beyond L1 limit, i.e. up to L2 length for wrench fit, can be supplied on request.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

DRYSEAL AMERICAN PIPE TAPER THREAD GAUGES (Taper 1:16)

NPTF
NPSF
NPSI
PTF



Application

These gauges are used to check the threads that can provide pressure tight seal on threads without use of a sealing compound (Dry Seal Type). They are used in pipe assemblies where without using sealing compound pressure tight joint is required on threads. NPTF Gages are considered "Dry Seal" Pipe Threads. PTF are short gauges (less thickness) which are used for application similar to NPTF.

Specifications

Basic Thread Dimension	
ANSI	ANSI / ASME B1.20.3
	American Handbook H-28 Part II

Gauging Practice	
ANSI	ANSI / ASME B1.20.5
	American Handbook H-28 Part II

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

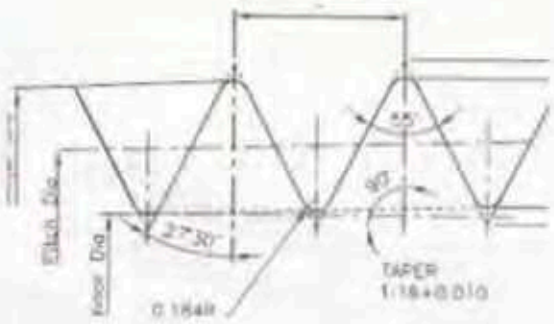
Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order
Taper Thread Plug Gauge (L1 Basic, L3 Basic or L1 Step Limit, L3 Step Limit)	1/16 - 8	27 - 8	⅛"– 14 NPTF L1 Taper Thread Plug Gauge
Taper Thread Ring Gauge (L1 Basic, L2 Basic or L1 Step Limit, L2 Step Limit)			½"– 14 NPTF L1 Taper Thread Ring Gauge
Plain Taper Plug Gauge The Crest Check Plug Inspects the Truncation Limits & Taper of the Minor Diameter (6 step)			¼"– 14 NPTF L1 Plain Taper Plug Gauge
Crest Check Plain Taper Ring Gauge The Crest Check Ring Inspect the Truncation Limits & Taper of the Major Diameter (6 Step)			¼"– 14 NPTF L1 Crest Check Plain Taper Ring Gauge
Taper Check Plug / Master Plug Gauge To check L1/ L2 Taper Rings			½"– 14 NPTF L1 Taper Check Plug / Master Plug Gauge
Taper Check Ring / Master Ring Gauge To check L1/L3 Taper Plugs			½"– 14 NPTF L1 Taper Check Ring / Master Ring Gauge

Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce type L1 thread plug and ring gauges according to ANSI/ ASME B1.20.5 as standard.
- Unless otherwise specified, gauges are produced with 2 steps.
- Type L3 for plug gauge and type L2 for ring can be produced on request.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

WITHWORTH PIPE TAPER THREAD GAUGES
(Taper 1/16)

R
RC
RP



Application

These gauges are used to check threads that are in pipe assemblies where pressure tight joint is required on threads, without use of sealing compound.

Specifications

Basic Thread Dimension	
ISO	ISO 7-1 (is technically equivalent to EN 10226-1 and EN 10226-2 combined)
BS	BS 21
DIN	DIN 2999

Gauging Practice	
ISO	ISO 7-2 (is technically equivalent to EN 10226-3)
BS	BS 21
DIN	DIN 2999

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order
Taper Full Form Thread Plug Gauge To check major diameter and pitch diameter of internal workpiece threads taper or parallel at the gauge plane	1/16 - 8	28 - 11	**R 1" – 11 DIN EN 10226-3** Taper Full Form Thread Plug Gauge
Taper Full Form Thread Plug Gauge with Relief to check major dia. and pitch dia. of internal work piece threads taper or parallel at the gauge plane and the accom. length			**R 1" – 11 DIN EN 10226-3** Taper Full Form Thread Plug Gauge with Relief
Parallel Full Form Thread Ring Gauge To check minor diameter and pitch diameter of external taper workpiece threads at the gauge plane			**R 1" – 11 DIN EN 10226-3** Parallel Full Form Thread Ring Gauge
Taper Plain Ring Gauge to check major diameter and the related useful thread length of external taper threads			**R 1" – 11 DIN EN 10226-3** Taper Plain Ring Gauge
Taper Modified Thread Form Check Plug Gauge to check pitch diameter of parallel full form ring gauge during manufacturing and calibration (wear during usage)			**R 1" – 11 DIN EN 10226-3** Taper Modified Thread Form Check Plug Gauge
Parallel Modified Thread Form Check Ring Gauge to check dimensions of taper thread plug gauges during manufacturing and calibration. (wear during usage)			**R 1" – 11 DIN EN 10226-3** Parallel Modified Thread Form Check Ring Gauge
Master Gauges to Check Gauge (Calibration and Control Purpose)			**R 1" – 11 DIN EN 10226-3** Master Gauges to Check Gauge

The Symbol For The Pipe Thread Gages

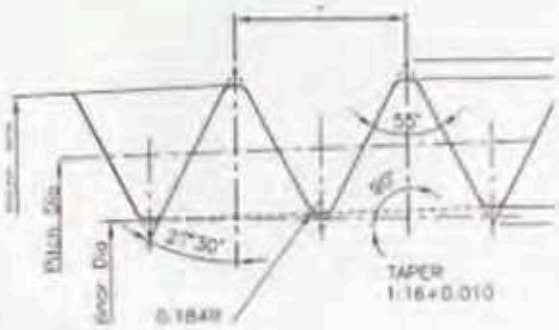
ISO 7/1				DIN 2999		BS 21	
Internal thread		External thread taper		Internal thread cylindrical	External thread taper	Internal thread	External thread taper
Rp	Rc	Rp	Rc	R	Rp	R	R
Taper limit plug gauge ISO 7/2		Taper limit ring gauge ISO 7/2		Taper limit plug gauge DIN 2999-4	Cylindrical limit ring gauge DIN 2999-5	Taper limit plug gauge BS 21	Taper limit ring gauge BS 21

Order Instructions

- Unless otherwise specified, we produce the gauges according to ISO 7/2-2000 which is technically equivalent to DIN EN 10226-3 as standard.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

WITHWORTH PIPE TAPER THREAD GAUGES
(Taper 1/16)

BSPT



Application

These gauges are used to check threads that can provide pressure tight seal on threads without use of a sealing compound. These threads are used in pipe assemblies where pressure tight joint is required on threads, without use of sealing compound.

Specifications

Basic Thread Dimension	
BS	BS 21

Gauging Practice	
BS	BS 21

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

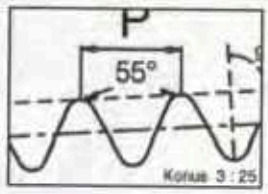
Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order	
Taper Thread Plug Gauge	1/16 – 8	28 – 11	**BSPT ½" – 14 A or B**	Taper Thread Plug Gauge
Taper Thread Ring Gauge			**BSPT ½" – 14 A or B**	Taper Thread Ring Gauge
Taper Check Plug Gauge			**BSPT ½" – 14 A or B**	Taper Check Plug Gauge
Taper Wear Check Plug Gauge			**BSPT ½" – 14 A or B**	Taper Wear Check Plug Gauge

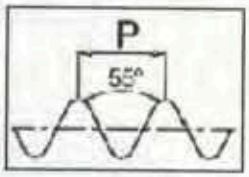
Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce thread plug and ring gauges according to BS 21 as standard.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

GAUGES FOR VALVE FITTINGS OTHER THAN LPG / GAS CYLINDERS

S





Application

Gauges for valve fittings other than LPG are used to check valves of containers/cylinder used for conveyance of permanent, liquefiable and dissolved gases up to working pressure 400 bar, valves of breathing apparatus & fire extinguishers.

Specifications

Basic Thread Dimension	
DIN	DIN 477, DIN 4668
BS	BS 341-1

Gauging Practice	
DIN	DIN 477, DIN 4668
BS	BS 341-1

Material

High-quality special gauge steel, hardened, finely polished.

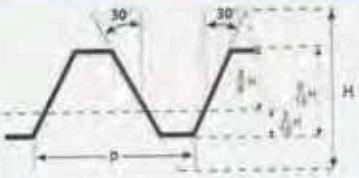
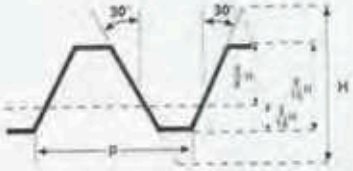
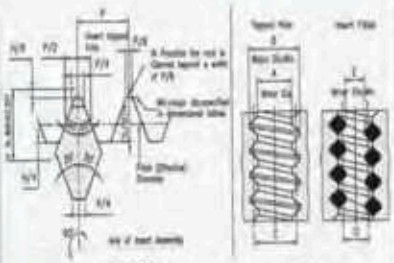
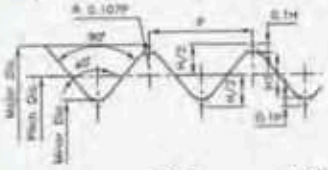
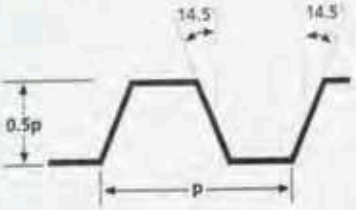
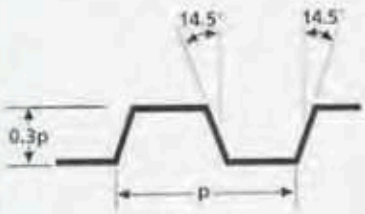
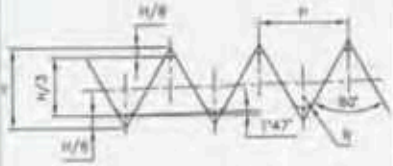
Manufacturing Range

Gauge Type	Diameter (inch)	Pitch (TPI)	Short Description of Order
Taper Thread Plug Gauge (I2 – I4 – I6) to check internal threads	15mm-80mm	14TPI-11TPI	W 28.8 – 14 I2 DIN 477
Plain Taper Plug Gauge (I1 – I3 – I5) to check minor diameter of internal threads			W 28.8 – 14 I1 DIN 477
Taper Thread Ring Gauge (I8 – I10 – I12) to check external threads			W 28.8 – 14 I8 DIN 477
Taper Check Plug Gauge (M2) for inspection of ring gauge			W 28.8 – 14 M2 DIN 477
Plain Taper Ring Gauge (I7 – I9 – I11) to check major diameter of external threads			W 28.8 – 14 I7 DIN 477
Plain Taper Check Plug Gauge for inspection of plain taper ring gauge (M1)			W 28.8 – 14 M1 DIN 477

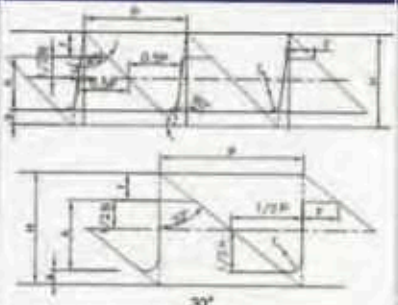
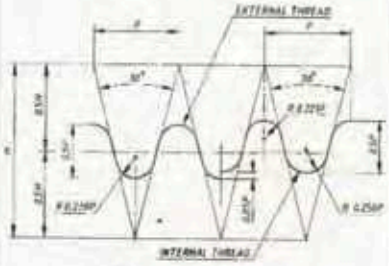
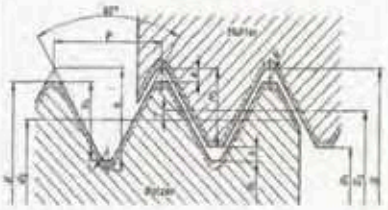
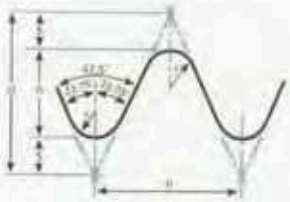
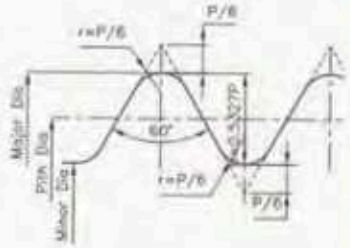
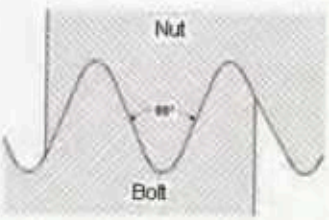
Order Instructions

- Unless otherwise specified, we produce thread gauges according to standards described in this catalogue.
- Unless otherwise specified, we produce the gauges according to DIN 477 as standard.
- I or M number must be specified in the order.
- All standard gauges are generally available in stock. Special request can be delivered in max. 2 weeks.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

OTHER THREAD GAUGES

Designation	Code Letter	Short Description of Order	Diameter / Pitch	Profile	Standard
MJ Metric Thread Gauges	MJ	MJ 6 x 1 4h6h MJ 6 x 1 4H5H	1.5mm-40mm / 0.35mm-4mm		ISO 5855-1 ISO 5855-2 ISO 5855-3 ANSI B1.21M ANSI B1.22M
Metric Thread Gauges	M	M 10 Sn 4 M 10 Sk 4 M 10 Sn 4 Tight	3mm-150mm / 0.35mm-6mm		DIN 13-51
UNJ Unified Thread Gauges	UNJ	11/16" - 16 UNJ 3B	0.05"-8" / 70TPI-3TPI		BS 4084 ISO 3161 ISO 15872
Wire Thread Inserts for ISO Metric Screw Threads (Heli-Coil)	EG M	DIN 8140 - EG M 20	2mm-60mm / 0.5mm-4mm		DIN 8140-2 BS 4377
Pg Thread Gauges	Pg	Pg 42	10mm-60mm / 20TPI-16TPI		DIN 40430 DIN 40431-1 DIN 40431-2
ACME Thread Gauges	ACME	4" - 4 ACME 2G	0.5"-8" / 20TPI-3TPI		BS 1104 ANSI / ASME B1.5
STUB ACME Thread Gauges	Stub ACME	3 - 6 StubAcme 2G	0.5"-8" / 20TPI-3TPI		ANSI / ASME B1.8
Metric Taper Thread Gauges	M	DIN 158-1 M 30X2 DIN 158-1 M 30x2 Short	5mm-80mm / 0.5mm-4mm		DIN 158-1 DIN 158-2

OTHER THREAD GAUGES

Designation	Code Letter	Short Description of Order	Diameter / Pitch	Profile	Standard
Buttress Thread Gauges	Buttress	3.75 - 10 Buttress	0.5"-8" / 20TPI-3TPI		ANSI / ASME B1.9 (7°/45°) BS 1657 (7°/45°, 0°/52°)
Metric Buttress / Saw Tooth Thread Gauges	S	S 48x8 S 40x14 P7	10mm-215mm / 2mm-8mm		DIN 513
		DIN 20401 S 25x1.5			DIN 20401
Knuckle Screw Threads	Rd	Rd 40x1/6 Rd 40x1/3 P1/6 Rd 40x5	8mm-200mm / 8TPI-3TPI		DIN 405-1 DIN 405-2 DIN 20400
		DIN 15403-Rd 80x10			DIN 15403
Valve Screw Threads	Vg	DIN 7756 - Vg 12	4mm-14mm / 0.5mm-2mm		DIN 7756
BA Thread Gauges	BA	2 BA	1.5mm-6mm / 0.31mm-1mm		BS 93 BS 919
BS Cycle Thread Gauges	BSCycle	5/8 - 26 BSCycle	2mm-60mm / 0.35mm-4mm		BS 811 BS 919
Bicycle Thread Gauges Threads for Bicycles And Moped	Fg	1/2 - 18 B.S. Conduit	2mm-60mm / 0.35mm-4mm		DIN 79012

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PLAIN GAUGES

PLAIN GAUGES

As a basically, Plain Gauges are used to check internal and external plain surfaces like shafts and holes.

BASED ON THE STANDARD AND LIMIT

•Standard gauges

Standard gauges are made to the nominal size of the part to be checked and have the measuring member equal in size to the mean permissible dimension of the part to be checked.

• Limit gauges

The function of limit gauges that are also called "go"and "no-go" gauges are to determine whether the actual dimensions of the workpiece are within or outside the specified limits. These are made to the limit sizes of the workpiece to be measured.

A limit gauge may be either **double ended** or **progressive.** A double end gauge has "go" end at one end and "no-go" end at the other end. One of the sides or ends of the gauge is made to correspond to maximum and the other end to the minimum permissible size. "go" end must pass into or over an acceptable piece but "no-go" should not. The progressive gauge has "go" and "no-go" ends next to each other on the end of handle and is applied to a workpiece with one movement.

BASED ON THE COMPATIBILITY IN MANUFACTURING AND INSPECTION

- **Working gauges** which are used at the economic batch or mass production in gauging the work as it being made.
- **Inspection gauges** that are used to inspect manufactured parts when finished.
- **Reference or master gauges** are used only for checking the size or condition of other gauges and represent as exactly as possible the physical dimensions of the product. It is not used for dimensional checking of work pieces directly, but are rather a part of measuring devices since these can be set to zero or any other defined value. Master gage blocks, master or setting discs, and setting rings are types of master gages used to calibrate or set micrometers, comparators, or other gaging systems. Working gages are used in the shop for dimensional inspection and periodically checked against a master gage.

DEPENDING ON THE ELEMENTS TO BE CHECKED

• Gauges for checking holes

Plug Gauges are used to check straight cylindrical holes, tapered, threaded square and splined holes. **A standard plug gauge** is used to check the nominal size of a cylindrical hole. **A double-ended limit plug gauge** is used to check the limits of size. At one end, it has a plug minimum limit size that is called "go" end, at the other end a plug of maximum limit that is called "no-go" end. When "go" and "no-go" ends are next to each other on the same end of the handle it is called **"progressive limit plug gauge"**

• Gauges for checking shafts

Ring gauges and snap gauges are used to check external diameters (shafts).

Standard Ring Gauge is to check the nominal size of a cylindrical shaft. **Limit Ring Gauge** is to used to check the limits of size. "Go" end checks the maximum diameter to tolerance limits of the shafts. No-go end checks minimum diameter to tolerance limits of the shafts.

Snap Gauges are used for checking external dimensions similar to ring gauges.
- Solid or non-adjustable caliper or snap gauge with "go" and "no-go" ends each is used for large sizes.
- Adjustable caliper or snap gauge used for larger sizes.
- Double-ended solid snap gauge with "go" and "no-go" ends is used for smaller sizes.

• Gauges for checking tapers

Taper gauges are used to check taper of shafts and hole. They are also used for gaging the diameter of the taper at some point.

Taper plug gauges are used for taper holes. In use the taper plug gauge is inserted into the hole and a slight pressure is exerted against it. If it does not rock in the hole, it indicates that the taper angle is correct.

The same procedure is followed in a **Ring Gauge** for checking tapered shaft.

Taper gauges is used
- To check size of taper
- To check correctness of the taper
- To check accuracy of taper hole (Taper limit gauges is used)

SETTING AND LIMIT PLUG GAUGES


Setting Plug Gauge


Limit Plug Gauge


Long Measuring Surface Limit Plug Gauge


Plug For Deep Bores


Limit Plug Gauge (No-go Flat Type)


Reversible Limit Pin Gauge

Application

These gauges are used
- To check hole as limit gauges,
- To set pneumatic length measuring instrument as setting plug.

Specifications

	Basic Dimension
ISO	ISO 286-1, ISO 286-2
DIN	DIN 7162, DIN 7150-2
BS	BS 1044-1
ANSI	ANSI/ASME B 89.1.5
JIS	NF E 02-202

	Gauging Practice
ISO	
DIN	DIN 7164, DIN 2245, DIN 2246, DIN 2247, DIN 2253
BS	BS 1044-1
ANSI	ANSI/ASME B 89.1.5, ANSI / ASME B 47.1
JIS	NF E 11-012

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Setting Plug Gauge	1 – 200	DIN 2253-P-50
Limit Plug Gauge	1 – 200	20 H7, Ø19,85 +0,03 / – 0,02
Reversible Limit Pin Gauge	0,1 – 10	

Order Instructions

- When ordered, type of gauges should be specified as setting or limit gauges.
- Unless otherwise specified, gauges are produced in accordance to DIN 2245.
- It is possible to produce according to customer requirements.
- Unless otherwise specified, working gauges are produced with wear over measure "z" according to DIN 7162, inspection gauges are on request.
- Gauges with decimal place in nominal diameter are on request.
- Gauges can be either single or double ended. Unless otherwise specified, go and no-go ends are assembled to opposite ends on the same handle.
- Plug gauges Ø 1 to 60 mm in 1mm, Ø 60 to 100 mm in 5mm increments up to H7 are in stock.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

FLAT LIMIT PLUG GAUGES

Double Ended Limit Plug Gauge (20-100mm)

Double Ended Limit Plug Gauge (10-100mm)

Double Ended Limit Plug Gauge (100-800mm)

Single Ended Limit Plug Gauge (70-700mm)

Application

These types of gauges are used to check large holes while minimizing the weight.

Specifications

	Basic Dimension		Gauging Practice
ISO	ISO 286-1, ISO 286-2	ISO	
DIN	DIN 7162, DIN 7150-2	DIN	DIN 7164

Material

These types of gauges are used to check large holes while minimizing the weight.

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Flat Limit Plug Gauges	20 – 100	Ø 150 H9 Ø 185 +0,03 / -0,02
Flat Limit Plug Gauges	10 – 100	
Flat Limit Plug Gauges	100 – 800	
Flat Limit Plug Gauges (Go or No-go)	70 – 700	

Order Instructions

- Unless otherwise specified, gauges are produced in accordance to DIN 2245.
- It is possible to produce in according to customer requirements.
- Unless otherwise specified, working gauges are produced with wear over measure "z" according to DIN 7162, inspection gauges are on request.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

PIN GAUGES

Application

These gauges are particularly suitable for the measurement of even the smallest bore holes.

- It is used very suitable for measurement tests on work pieces in manufacture, testing bore holes on the machines.
- It is used to determine dimensional accuracy, also linearity and angularity of the deep bore holes.
- It is also used for the measurement of angularity, distances between holes, dovetail guides, profile depths, guide surfaces and groove measurements.
- It is used as adjustment controllers for a wide variety of measuring instruments such as micrometers, dial gauges.
- Measuring pin holders allow the straightforward creation of individual go / no-go gauges, whereby two measuring pins are placed in the holder to serve as the upper and lower limit of a given tolerance range.

Specifications

	Basic Dimension		Gauging Practice
DIN	DIN ISO 2768	DIN	DIN 2269

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Measuring Pin Gauges	Ø 0.10 – Ø 20.00	DIN 2269 3.99 – 2

Order Instructions

- Unless otherwise specified, pins are produced with Tolerance Class 2.
- As standard, increasing by 0.01 mm.
- Customised grading available on request.
- Pins with 0,001 mm grading are only available in tolerance class 1 (± 0.001 mm).
- Special set combination can be provided on the request of the customer! Price on request.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

SETTING AND GO/NOGO RING GAUGES

Setting Ring Gauge

Go and Nogo Ring Gauge

Application

These gauges are used:

- To check shafts as limit gauges,
- To adjust or test inner measuring instruments as setting ring,
- To check or set solid and adjustable reamer as setting ring (collar),
- To set pneumatic length measuring instrument as setting ring.

Specifications

	Basic Dimension
ISO	ISO 286-1, ISO 286-2
DIN	DIN 7162, DIN 7150-2
BS	BS 4064, BS 4065
ANSI	ANSI/ASME B 89.1.6
JIS	NF E 02-202

	Gauging Practice
ISO	
DIN	DIN 7163 DIN 2250-1, DIN 2250-2, DIN 2254-1, DIN 2254-2
BS	BS 4064, BS 4065
ANSI	ANSI/ASME B 89.1.6, ANSI / ASME B 47.1
JIS	NF E 11-011

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Limit Ring Gauge (Go/No-go) For general purposes Precision Engineering	3 – 200	DIN 2250-G-25 h9 (Go) DIN 2254-A- 25 h9 (No-go) DIN 2254-FG- 25 h9 (Go) DIN 2254-FA- 25 h9 (No-go)
Setting Ring Gauge For general purposes For setting pneumatic length measuring instruments Presicion engineering	3 – 500	DIN 2250-C-40 DIN 2250-B-34 DIN 2250-FC-16

Order Instructions

- When ordered, type of gauges should be specified as setting or limit gauges.
- Unless otherwise specified, setting ring gauges are produced as FORM C in accordance to DIN 2250-1, go limit ring gauges are produced as FORM G in accordance to DIN 2250-1 and no-go limit ring gauges are produced as FORM A in accordance to DIN 2254-1, others are on request.
- It is possible to produce according to customer requirements.
- Unless otherwise specified, work ring gauges are produced with wear over measure "z" according to DIN 7162, inspection gauges are on request.
- Gauges with decimal place in nominal diameter are on request.
- Form C setting ring gauges Ø 3 to 60 mm in 1mm and Ø 60 to 150 mm in 5mm increments are available in stock.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

LIMIT SNAP GAUGES

Single-end Limit Snap Gauges

Single-end Limit Snap Gauge

Single-end Snap Gauge Made Of Steel

Double-end Limit Snap Gauges

Limit Recess Snap Gauge-steel

Adjustable Snap Gauges

Application

It is used to check dimensional accuracy of shafts.

Specifications

	Basic Dimension
ISO	ISO 286-1, ISO 286-2
DIN	DIN 7162, DIN 7150-2
ANSI	ANSI / ASME B 47.1

	Gauging Practice
ISO	
DIN	DIN 7163, DIN 2230 DIN 2231 DIN 2232, DIN 2235
ANSI	ANSI / ASME B 47.1

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

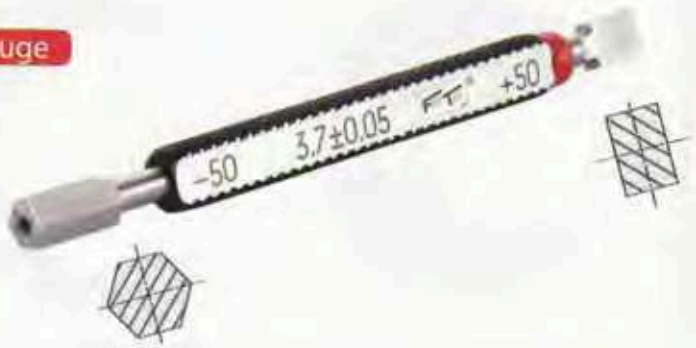
Gauge Type	Diameter (mm)	Short Description of Order
Single-end Limit Snap Gauge	3 – 100	80 g7 28,15 +0,03 – 0,02
Single-end Limit Snap Gauge	100 – 500	
Single-end Snap Gauge Made of Steel	3 – 150	
Double-ends Limit Snap Gauge	3 – 80	
Limit Recess Snap Gauge	3 – 150	
Adjustable Snap Gauge	3 – 200	

Order Instructions

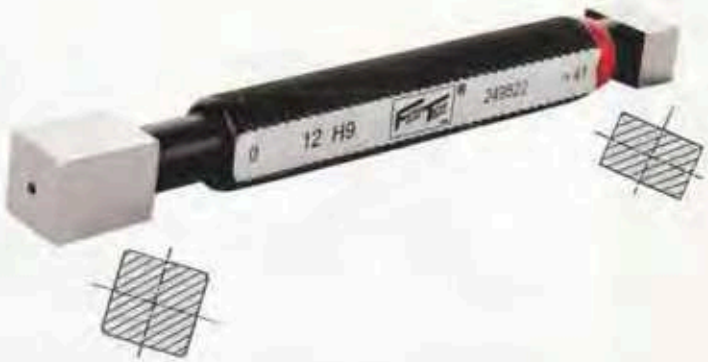
- When ordered, type of gauges as single-end, double end, limit recess should be specified.
- Unless otherwise specified, gauges are produced in accordance to DIN 7162 and DIN 7163, others are on request.
- It is possible to produce according to customer requirements.
- Gauges with decimal place in nominal diameter are on request.
- It is produced in according on request, not available in stock.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

HEXAGONAL / SQUARE INTERNAL LIMIT GAUGES

Hexagonal Internal Limit Gauge



Square Internal Limit Gauge



Application

These types of plug gauges are used to check internal squares and hexagons.

Specifications

	Basic Dimension
ISO	ISO 286-1, ISO 286-2, ISO 4762
DIN	DIN 7162, DIN 7150-2, DIN EN ISO 4762, DIN 912
ANSI	ASME B18.3, ASME B18.3.1M, ANSI/ASME B107.17M
JIS	JIS B 1176

	Gauging Practice
ISO	
DIN	DIN 7164, DIN EN ISO 23429
ANSI	ASME B18.3, ASME B18.3.1M, ANSI/ASME B107.17M
JIS	JIS B 1176

Material

High-quality special gauge steel, hardened, finely polished.

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Hexagonal Internal Limit Gauge	1 – 50	SW 12
Single-end Limit Snap Gauge	1 – 100	14 H11

Order Instructions

- Unless otherwise specified, gauges are produced in accordance to DIN 7162, DIN 7164.
- Special dimension and design is on request.
- It is possible to produce according to customer requirements.
- Unless otherwise specified, working gauges are produced with wear over measure "z" according to DIN 7162, inspection gauges are on request.
- Gauges with decimal place in nominal diameter are on request.
- It is produced in according on request, not available in stock.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

KEYWAY INTERNAL LIMIT GAUGES

Hub Keyway Limit Gauge

Shaft Keyway Limit Gauge

Application

It is used to check dimensional accuracy of shaft and bore key seats.

Specifications

	Basic Dimension
ISO	ISO 286-1, ISO 286-2
DIN	DIN 7162, DIN 7150-2

	Gauging Practice
ISO	
DIN	DIN 7164

Material

High-quality special gauge steel, hardened, finely polished

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Hub Keyway Limit Gauge Shaft Keyway Limit Gauge	1 – 50	4 P9

Order Instructions

- It is possible to produce in accordance in accordance with customer requirements.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate according to ISO 17025.

TAPER GAUGES

Taper Plug Gauges

Taper Sleeve Gauges

Application

- Morse Taper Gauges are used for checking work pieces; milling cutter, borer, seat of tools etc.
- Metric Taper Gauges are used for checking work pieces with metric taper.
- Steep Taper Gauges are used for checking spindle heads as per DIN 2079 and taper shanks as per DIN 2280.
- Drill Chuck Cone are used for checking drill chuck cones

Specifications

	Basic Dimension		Gauging Practice
DIN	DIN 7178	DIN	DIN 229, DIN 230, DIN 234 DIN 235, DIN 2079, 2080, DIN 2221, DIN 2222

Material

High-quality special gauge steel, hardened, ground, tapered surfaces lapped

Manufacturing Range

Gauge Type	Diameter (mm)	Short Description of Order
Morse Taper Plug Gauge without Tang	NO. 0, 1, 2, 3, 4, 5, 6	DIN 229 MK C4
Morse Taper Plug Gauge with Tang		DIN 230 MK D5
Morse Taper Sleeve Gauge without Tang		DIN 229 MK A5
Morse Taper Sleeve Gauge with Tang		DIN 230 MK B5
Metric Taper Plug Gauge without Tang	NO. 4, 6, 80, 100	DIN 234 ME C80
Metric Taper Sleeve Gauge without Tang		DIN 234 ME A100
Metric Taper Plug Gauge with Tang	NO. 80, 100, 120	DIN 235 ME D100
Metric Taper Sleeve Gauge with Tang		DIN 235 ME B120
Steep Taper Plug Gauge for Checking Spindle Heads	30, 40, 45, 50, 55, 60 (Spindel Head) 30, 40, 45, 50, 55, 60 (Driving Key–Form A) 60 (Driving Key – Form B)	DIN 2079 50 DIN 2079 A 45 DIN 2079 B 60
Steep Taper Sleeve Gauge for Checking Taper Shanks	30,40,45,50,55,60 (Form A) 30, 40, 45, 50, 60 (Form B)	DIN 2080 A 40 DIN 2080 B 40
Taper Plug Gauge for Checking Drill Chuck Cones	NO. B6, B10, B12, B16,B18,B22,B24	DIN 2221 B12
Taper Sleeve Gauge for Checking Drill Chuck Cones		DIN 2222 B12

Order Instructions

- Drawing or standard number must be informed in the order.
- It is possible to produce according to customer requirements.
- It is produced in according on request, not available in stock.
- Special and additional letterings can be provided accordingly with an extra charge.
- Gauges can be supplied with calibration certificate.

SPECIAL GAUGES

Jean Louis MENEGON - Votre représentant et Conseiller - Tél. : **06 76 08 96 83**
Email: *jlouismenegon@aol.com* - web: www.menegon-metrologie.com

SPECIAL GAUGES

FERTER can also supply a range of special purpose gauges according to either the customer drawings or offers for complete Design & Manufacture that suit to the exact requirements.

Special Purposes Gauges are for checking squareness, concentricity, localization, effective assembly, depth of thread or bore.

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PRECISION MEASURING PLUGS

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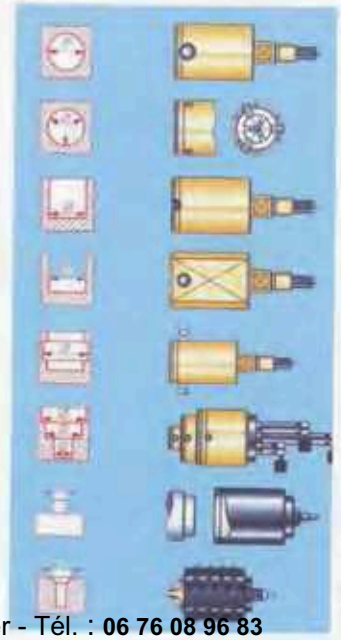
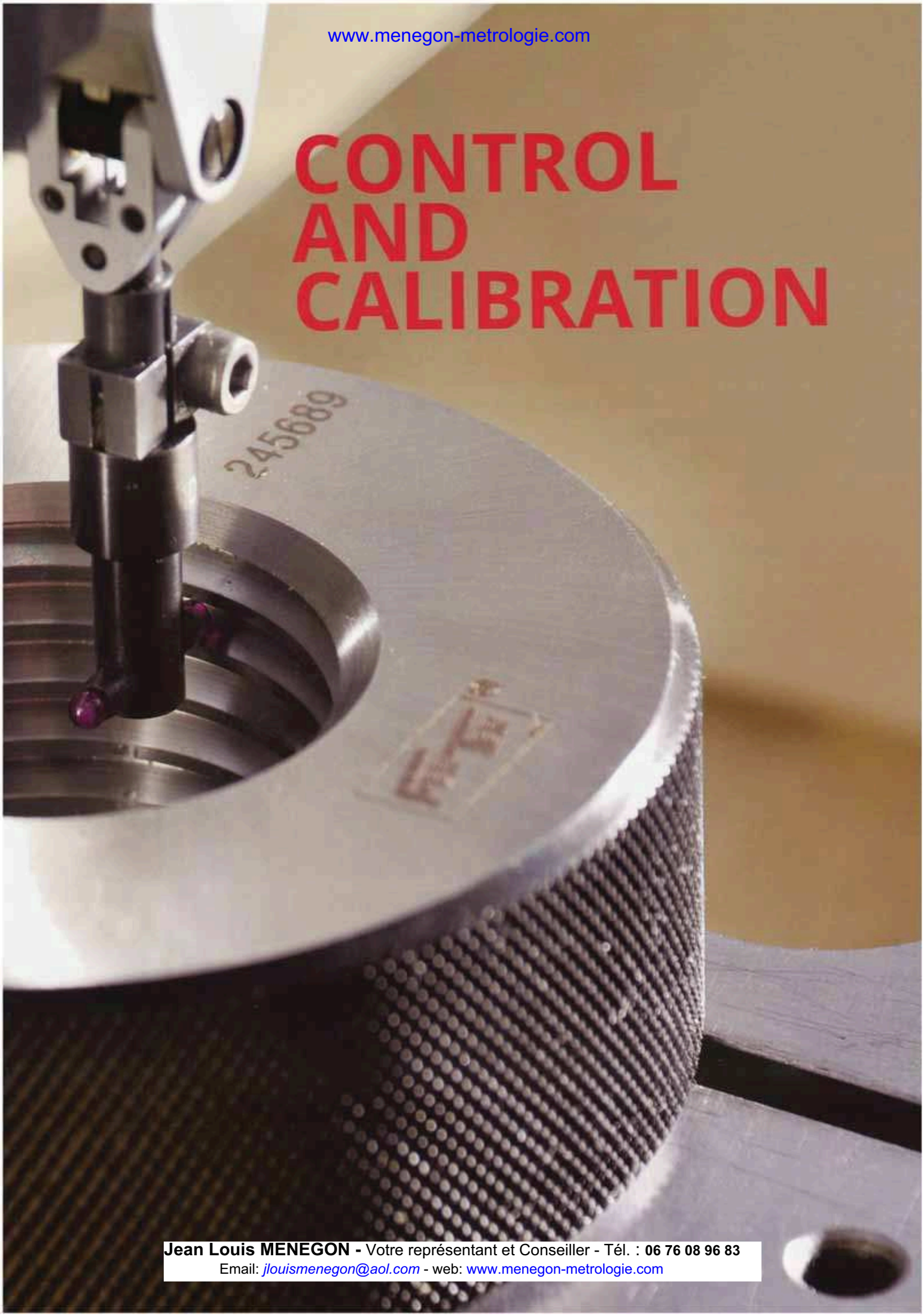
Precision Measuring Plugs

Ferter Offers High Precision Indicating Plugs For Testing And Measuring Internal Bore Diameters.

- Precision Measurement for Bores From Ø 6 mm to Ø 300 mm
- Different Design and Also Special Design on Request
- High Measuring Accuracy
- Repeatability ≤ 1 µm
- Made by Titanium Coated Tool-steel
- Various Contact Points 2 or 3 Points
- Carbide Contact Points as Standard (Titanium-nitride Coated or Diamond on Request)
- Modular System and Variable Accessories Depending on Bore Types
- Usability With Different Brand of Indicators
- Calibration in Setting Rings



CONTROL AND CALIBRATION



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CALIBRATION

If required, FERTER gives complete service for the calibration of thread, plain, taper gauges by our cooperation partner EGEMET Calibration Laboratory which is an independent, fully accredited calibration laboratory in house at FERTER.

Egemet is pioneer laboratory in Turkey as first private and accredited laboratory according ISO 17025 in TURKEY. Its measuring equipment, the staff and the environmental conditions are accordingly subject to approval by TURKAK (Turkish Accreditation Body that is member of the European cooperation for Accreditation (EA) and the International Laboratory Accreditation Cooperation (ILAC) for mutual recognition of calibration certificates.

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NOTES

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