

## Plug Gauges

The best and quickest method for inspecting bores with small diameters.

### TESA CARY plug gauges with diameters from 0,050 up to 0,300 mm

#### Type TDH

Due to their small size, these plug gauges are best handled using tweezers.

mm	STANDARD		ETALON	
	Step 2 µm	1 µm	Step 2 µm	1 µm
0,050 ÷ 0,080	<b>CJ1D1S2</b>	<b>CJ1D1S0</b>	<b>CJ1D1E2</b>	<b>CJ1D1E0</b>
0,081 ÷ 0,309	<b>CJ1D2S2</b>	<b>CJ1D2S0</b>	<b>CJ1D2E2</b>	<b>CJ1D2E0</b>

#### Type TLH

This type is identical to the TDH one, but with a 30 mm long handle.

mm	STANDARD ± 0,4 µm		ETALON ± 0,15 µm	
	Step 2 µm	1 µm	Step 2 µm	1 µm
0,050 ÷ 0,080	<b>CJ1L1S2</b>	<b>CJ1L1S0</b>	<b>CJ1L1E2</b>	<b>CJ1L1E0</b>
0,081 ÷ 0,309	<b>CJ1L2S2</b>	<b>CJ1L2S0</b>	<b>CJ1L2E2</b>	<b>CJ1L2E0</b>

#### Type TLH-5 or TLH-10 with a length of 5 or 10 mm

	STANDARD		ETALON		
	Step 2 µm	1 µm	Step 2 µm	1 µm	
<b>TLH-5</b>	STANDARD ± 0,5 µm		ETALON ± 0,2 µm		
<b>TLH-10</b>	STANDARD ± 0,8 µm		ETALON ± 0,3 µm		
mm					
<b>TLH-5</b>	0,101 ÷ 0,309	<b>CJ1L5S2</b>	<b>CJ1L5S0</b>	<b>CJ1L5E2</b>	<b>CJ1L5E0</b>
<b>TLH-10</b>	0,101 ÷ 0,309	<b>CJ1L10S2</b>	<b>CJ1L10S0</b>	<b>CJ1L10E2</b>	<b>CJ1L10E0</b>



EN ISO 1938  
Factory standard



Light alloy,  
coloured  
handle  
with engraved nominal  
diameter

Accuracy:  
STANDARD  
(blue handle)  
± 0,4 µm.

ETALON (yellow handle)  
± 0,15 µm

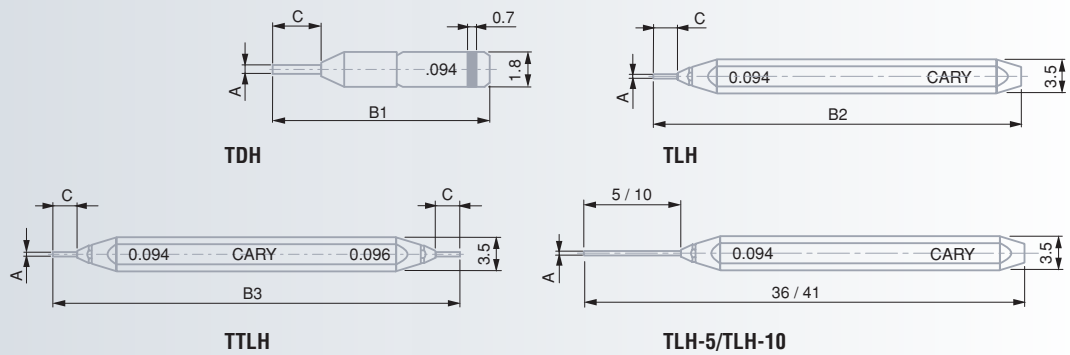
Inspection  
report available  
on request

## Type TTLH

Double-ended plug gauges consisting of two TDH-type plug gauges.



mm	Step 2 $\mu$ m	STANDARD $\pm 0,4 \mu$ m	Step 2 $\mu$ m	ETALON $\pm 0,15 \mu$ m
		1 $\mu$ m		1 $\mu$ m
0,050 ÷ 0,080	–	<b>CJ1LL1S0</b>	–	<b>CJ1LL1E0</b>
0,081 ÷ 0,309	–	<b>CJ2LL2S0</b>	–	<b>CJ1LL2E0</b>



### TDH/TLH/TTLH gauge sizes

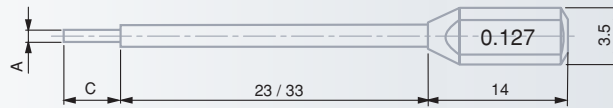
A mm	B1 mm	B2 mm	B3 mm	C mm
0,050 ÷ 0,100	10,3	31,8	33,6	0,8
0,100 ÷ 0,150	10,5	32	34	1,0
0,150 ÷ 0,200	10,7	32,2	34,2	1,2
0,200 ÷ 0,250	10,9	32,4	34,4	1,4
0,250 ÷ 0,300	11,1	32,6	34,6	1,6

### Standard accessories

No	A	=
<b>CJ1ED25N</b>	ED25N	Wooden case for 25 TDH plug gauges
<b>CJ1EL25N</b>	EL25N	Wooden case for 25 TLH plug gauges
<b>CJ1XDL</b>	XDL	Plastic case for TDH/TLH/TXH plug gauges



**Type TZH for deep bores  
with diameters from 0,050 up to 0,300 mm**



These plug gauges are mounted on holders for checking hard-to-reach bores.

When ordering, please specify:

- plug gauge diameter (0,050 to 0,300 mm)
- desired quality (STANDARD or ETALON)
- holder length (23 or 33 mm)

**TESA CARY steel plug gauges  
with diameters from 0,3 up to 10 mm**

**Type TXH**

Single-ended steel plug gauges (1 item).



mm	STANDARD			ETALON		
	Step 10 µm	2 µm	1 µm	Step 10 µm	2 µm	1 µm
0,300 ÷ 1,509	<b>CJ1X1S10</b>	<b>CJ1X1S2</b>	<b>CJ1X1S0</b>	<b>CJ1X1E10</b>	<b>CJ1X1E2</b>	<b>CJ1X1E0</b>
1,510 ÷ 3,509	<b>CJ1X2S10</b>	<b>CJ1X2S2</b>	<b>CJ1X2S0</b>	<b>CJ1X2E10</b>	<b>CJ1X2E2</b>	<b>CJ1X2E0</b>
3,510 ÷ 10,000	<b>CJ1X3S10</b>	–	<b>CJ1X3S0</b>	<b>CJ1X3E10</b>	–	<b>CJ1X3E0</b>



EN ISO 1938  
Factory standard



Steel



Light alloy,  
coloured  
handle

with engraved nominal  
diameter



Accuracy:  
STANDARD (blue  
handle) ± 0,4 µm  
for diameters 0,3 ÷ 3 mm or  
± 0,5 µm for diameters  
3 ÷ 10 mm. ETALON (yellow  
handle) ± 0,25 µm for diam-  
eters 0,3 ÷ 3 mm or ± 0,3 µm  
for diameters 3 ÷ 10 mm.



Inspection  
report available  
on request

**Type TTXH**

Steel plug gauges, type GO/NOT GO (2 items)



mm	STANDARD	ETALON
	Step 1 µm	Step 1 µm
0,300 ÷ 1,509	<b>CJ1XX1S0</b>	<b>CJ1XX1E0</b>
1,510 ÷ 3,509	<b>CJ1XX2S0</b>	<b>CJ1XX2E0</b>
3,510 ÷ 6,509	<b>CJ1XX3S0</b>	<b>CJ1XX3E0</b>
6,510 ÷ 10,000	<b>CJ1XX4S0</b>	<b>CJ1XX4E0</b>



0,3 ÷ 3 mm or ± 0,5 µm for diameters 3 ÷ 6 mm. ETALON (red handle) ± 0,25 µm for diameters 0,3 ÷ 3 mm or ± 0,3 µm for diameters 3 ÷ 6 mm.



## TESA CARY tungsten carbide plug gauges with diameters from 0,3 up to 6 mm

### Type TCH

Single-ended tungsten carbide plug gauges (1 item)



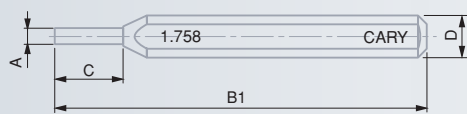
mm	STANDARD	1 µm		ETALON	1 µm	
	Step 10 µm	Step 10 µm	Step 10 µm	Step 10 µm	Step 10 µm	Step 10 µm
0,300 ÷ 1,509	CJ1C1S10	CJ1C1S0		CJ1C1E10	CJ1C1E0	
1,510 ÷ 3,509	CJ1C2S10	CJ1C2S0		CJ1C2E10	CJ1C2E0	
3,510 ÷ 6,000	CJ1C3S10	CJ1C3S0		CJ1C3E10	CJ1C3E0	

### Type TTCH

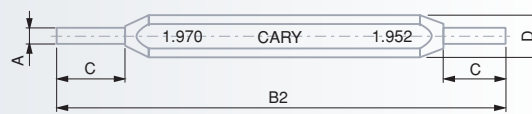
Tungsten carbide plug gauges, type GO/NOT GO (2 items)



mm	STANDARD	1 µm		ETALON	1 µm	
	Step 1 µm	Step 1 µm	Step 1 µm	Step 1 µm	Step 1 µm	Step 1 µm
0,300 ÷ 1,509	CJ1CC1S0			CJ1CC1E0		
1,510 ÷ 3,509	CJ1CC2S0			CJ1CC2E0		
3,510 ÷ 6,000	CJ1CC3S0			CJ1CC3E0		



TXH/TCH



TTXH/TTCH

#### Plug gauge sizes

A mm	B1 mm	B2 mm	C mm	D mm
0,30 ÷ 0,50	38	41	3	3,5
0,50 ÷ 1,00	39	43	4	3,5
1,00 ÷ 1,50	40	45	5	3,5
1,50 ÷ 2,00	46	52	6	5
2,00 ÷ 2,50	47	54	7	5
2,50 ÷ 3,00	48	56	8	5
3,00 ÷ 3,50	49	58	9	5
3,50 ÷ 4,00	60	70	10	8
4,00 ÷ 5,00	61	72	11	8
5,00 ÷ 10,0	62	74	12	8

#### Standard accessories

No	Accessories	Description
CJ1PTXK	PTXK	Suited case for 50 plug gauges Ø 0,300 ÷ 1,509 mm
CJ1MTXK	MTXK	Suited case for 50 plug gauges Ø 1,510 ÷ 3,509 mm
CJ1GTXK	GTXK	Suited case for 50 plug gauges Ø 3,510 ÷ 10,00 mm



### LTXH-type precision steel pins with diameters from 0,30 up to 10 mm

These steel pins can be made available without handle upon request.

When ordering, please specify:

- pin diameter (0,30 to 10 mm)
- desired quality (STANDARD or ETALON)

### PNH-type wires with handle for checking threads. wire diameters from 0,10 up to 10 mm



	STANDARD	ETALON
mm	Step 10 µm	Step 10 µm
0,10 ÷ 0,15	<b>CJ1N1S</b>	<b>CJ1N1E</b>
0,16 ÷ 0,50	<b>CJ1N2S</b>	<b>CJ1N2E</b>
0,51 ÷ 4,00	<b>CJ1N3S</b>	<b>CJ1N3E</b>
4,01 ÷ 10,00	<b>CJ1N4S</b>	<b>CJ1N4E</b>



EN ISO 1938



Hardened steel,  
ground and lapped



Aluminium,  
coloured  
handle with  
engraved nominal  
diameter



Accuracy:  
STANDARD (blue  
handle) ± 0,8 µm  
for diameters 0,1 ÷ 10 mm.  
ETALON (yellow handle)  
± 0,3 µm for diameters  
0,1 ÷ 6 mm or ± 0,5 µm for  
diameters 6 ÷ 10 mm.



Inspection  
report available  
on request



PNH

#### Plug gauge sizes

A mm	B mm	C mm	D mm	E mm
0,10 ÷ 0,15	20	9,5	1,8	0,9
0,16 ÷ 0,30	32	9,5	1,8	0,9
0,31 ÷ 1,10	32	14	3,5	1,5
1,11 ÷ 10,00	32	14	5	2

#### Standard accessories

№	=
<b>CJ1N50</b>	Suited clear box for 50 PNH thread wires
<b>CJ1N3</b>	Carrying tube for 3 PNH thread wires
<b>CJ1NGC</b>	Box engraving for each diameter
<b>CJ1NLSM</b>	Thread wire alone, without handle

## Ring Gauges

Designed for inspecting cylindrical components such as pivots or axles – Used to determine external diameters.



EN ISO 1938  
Factory standard

Steel

Inserted into a light alloy, blue coloured ring for easier handling. Also with engraved nominal diameter.

Ø 0,15 ÷ 3 mm:  
± 0,6 µm  
Ø 3 ÷ 4,999 mm:  
± 0,75 µm

Inspection report available on request

### TESA CARY steel ring gauges with diameters from 0,151 up to 5 mm



<b>Typ BAH</b>	1 Steel ring gauge	
<b>Typ BIMHa</b>	2 BAH steel ring gauges mounted in pairs on plates for use as GO/NOT GO type gauges	
	BAH	BIMHa
mm	Step 1 µm	Step 1 µm
0,151 ÷ 1,500	<b>CJ1B2A</b>	<b>CJ1B2IA</b>
1,501 ÷ 2,500	<b>CJ1B3A</b>	<b>CJ1B3IA</b>
2,501 ÷ 4,000	<b>CJ1B4A</b>	<b>CJ1B4IA</b>
4,001 ÷ 4,999	<b>CJ1B5A</b>	<b>CJ1B5IA</b>



EN ISO 1938  
Factory standard

Tungsten carbide

Inserted into a black coloured, light alloy ring for easier handling. Also with engraved nominal diameter of the ring

Ø 0,060 ÷ 3 mm:  
± 0,6 µm  
Ø 3 ÷ 4,999 mm:  
± 0,75 µm

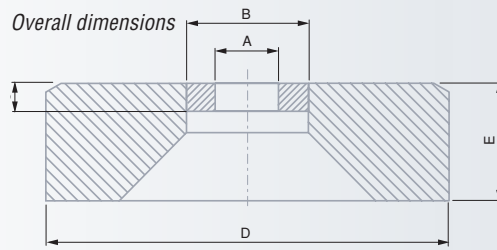
Inspection report available on request

### TESA CARY carbide ring gauges with diameters from 0,060 up to 5 mm



<b>Typ BCH</b>	1 Carbide ring gauge	
<b>Typ BIMHm</b>	2 BCH carbide ring gauges mounted in pairs on plates for use as GO/NOT GO type gauges	
	BCH	BIMHm
mm	Step 1 µm	Step 1 µm
0,060 ÷ 0,150	<b>CJ1B1C</b>	<b>CJ1B1IM</b>
0,151 ÷ 1,500	<b>CJ1B2C</b>	<b>CJ1B2IM</b>
1,501 ÷ 2,500	<b>CJ1B3C</b>	<b>CJ1B3IM</b>
2,501 ÷ 4,000	<b>CJ1B4C</b>	<b>CJ1B4IM</b>
4,001 ÷ 4,999	<b>CJ1B5C</b>	<b>CJ1B5IM</b>





 A mm	Ring gauges				Outer rings	
	B mm		C mm		D mm	E mm
	BAH	BCH	BAH	BCH		
0,060 ÷ 0,50	1,4	1,8	0,35	0,5	8	2,5
0,50 ÷ 0,75	1,8	1,8	0,5	0,5	8	2,5
0,75 ÷ 1,25	2,4	2,4	0,75	0,75	8	2,5
1,25 ÷ 1,50	3	3	0,9	0,9	8	2,5
1,50 ÷ 2,50	5	5	1,5	1,5	12	4
2,50 ÷ 4,00	8	8	2,4	2,4	16	5,5
4,00 ÷ 5,00	10	10	3	3	20	7

### Standard accessories

<b>CJ1CEB3</b>	Suited case for 3 rings	0,06 ÷ 1,50
<b>CJ1CEB4</b>	Suited case for 4 rings	0,06 ÷ 1,50
<b>CJ1EB12</b>	Suited case for 12 rings	0,06 ÷ 1,50
<b>CJ1CB40</b>	Suited case for 12 rings	1,50 ÷ 2,50
<b>CJ1CB24</b>	Suited case for 24 rings	2,50 ÷ 4,00
<b>CJ1CB18</b>	Suited case for 12 rings	4,00 ÷ 5,00
<b>CJ1280,21.010A</b>	Aluminium resting plate for 2 rings	0,06 ÷ 1,50
<b>CJ1280,21.011A</b>	Aluminium resting plate for 2 rings	1,51 ÷ 2,50
<b>CJ1280,21.012A</b>	Aluminium resting plate for 2 rings	2,51 ÷ 4,00
<b>CJ1280,21.013A</b>	Aluminium resting plate for 2 rings	4,01 ÷ 5,00
<b>CJ1BAA</b>	Bearing ring (one item for each ring gauge)	

## TESA CARY steel ring gauges with diameters from 5 up to 30 mm



Type BOMa	1 Steel ring gauge	
Type BBOMa	2 BOMa steel ring gauges mounted in pairs on plates for use as GO/NOT GO type gauges	
 mm	 BOMa	 BBOMa
	Step 1 µm	Step 1 µm
5,00 ÷ 9,99	<b>CJ1BOA1</b>	<b>CJ1BBA1</b>
10,00 ÷ 11,99	<b>CJ1BOA2</b>	<b>CJ1BBA2</b>
12,00 ÷ 13,99	<b>CJ1BOA3</b>	<b>CJ1BBA3</b>
14,00 ÷ 15,99	<b>CJ1BOA4</b>	<b>CJ1BBA4</b>
16,00 ÷ 17,99	<b>CJ1BOA5</b>	<b>CJ1BBA5</b>
18,00 ÷ 19,99	<b>CJ1BOA6</b>	<b>CJ1BBA6</b>
20,00 ÷ 22,99	<b>CJ1BOA7</b>	<b>CJ1BBA7</b>
23,00 ÷ 25,99	<b>CJ1BOA8</b>	<b>CJ1BBA8</b>
26,00 ÷ 29,99	<b>CJ1BOA9</b>	<b>CJ1BBA9</b>



Inserted into a light alloy, grey coloured ring for easier handling. Also with engraved nominal diameter.

5 ÷ 10 mm dia.: ± 1,25 µm  
10 ÷ 18 mm dia.: ± 1,5 µm  
18 ÷ 29,99 mm dia.: ± 2 µm

Inspection report available on request



EN ISO 1938  
Factory standard

Tungsten carbide

Inserted into a light alloy, black coloured ring for easier handling. Also with engraved nominal diameter.

Ø 5 ÷ 10 mm: ± 1,25 µm  
Ø 10 ÷ 18 mm: ± 1,5 µm  
Ø 18 ÷ 29,99 mm: ± 2 µm

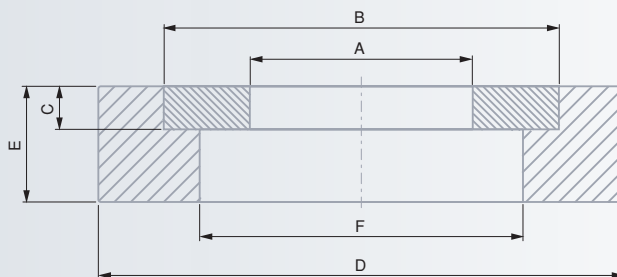
Better quality upon request (Q5)  
5 ÷ 10 mm dia.: ± 1 µm  
10 ÷ 18 mm dia.: ± 1,2 µm  
18 ÷ 29,99 mm dia.: ± 1,5 µm

Inspection report available on request

## TESA CARY tungsten carbide ring gauges with diameters from 5 up to 30 mm

Type BOMm	1 Tungsten carbide ring gauge	
Type BBOMm	2 BOMm carbide ring gauges mounted in pairs on plates for use as GO/NOT GO plug gauges	
BOMm		BBOMm
mm	Step 1 µm	Step 1 µm
5,00 ÷ 9,99	<b>CJ1BOM1</b>	<b>CJ1BBM1</b>
10,00 ÷ 11,99	<b>CJ1BOM2</b>	<b>CJ1BBM2</b>
12,00 ÷ 13,99	<b>CJ1BOM3</b>	<b>CJ1BBM3</b>
14,00 ÷ 15,99	<b>CJ1BOM4</b>	<b>CJ1BBM4</b>
16,00 ÷ 17,99	<b>CJ1BOM5</b>	<b>CJ1BBM5</b>
18,00 ÷ 19,99	<b>CJ1BOM6</b>	<b>CJ1BBM6</b>
20,00 ÷ 22,99	<b>CJ1BOM7</b>	<b>CJ1BBM7</b>
23,00 ÷ 25,99	<b>CJ1BOM8</b>	<b>CJ1BBM8</b>
26,00 ÷ 29,99	<b>CJ1BOM9</b>	<b>CJ1BBM9</b>

Overall dimensions



	Ring gauges		Outer rings		
	B mm	C mm	D mm	E mm	F mm
A mm					
5 ÷ 10	18	2	30	4	10,5
10 ÷ 14	24	2,5	38	5	15
14 ÷ 18	30	3	46	6	19
18 ÷ 24	38	3,5	56	8	25
24 ÷ 30	46	4	68	8	31

Standard Accessory



**CJ1BBA**



Bearing ring (one item for each ring gauge)