#### PIN GAUGE AND RING GAUGE





#### PIN GAUGES 精密塞规产品

The most convenient and fastest method 提供最方便有效的小孔测量方法 to control small diameter holes

### RING GAUGES 精密环规产品

For the control of cylindrical parts
Such as: pivot, axes, wheels, etc.
用于检测各种轴类产品的外径是否在公差要求范围内。
ABSOLUTE PRECISION 绝对精准



CARY: the first calibration laboratory accredited by the Swiss Confederation



CARY产品是首个被瑞士联邦 指定的实验室校准器生产商



# CARY plug gauges, ring gauges

## The absolute precision 瑞士CARY塞规、环规产品保证绝对精准

- CARY plug gauges: the best and quickest method of measuring CARY塞规是最好、最快、最有效的检测小孔直径的检查手段。 and inspecting small bores .
- CARY ring gauges: for inspecting CARY环规是检测各种轴类产品外径尺寸是否在公差技术要求范围内的最佳手段。cylindrical components such as pivots, axes, Wheels, etc.

### **CARY TDH and TLH/TTLH plug gauges** Ø 0.05 to 0.3 mm

TDH TLH/TTLH TDH 0.05 - 0.03 mm



The TDH plug gouge consists of a gauging pivot fixed in a 9 mm long aluminium handle. It is best handled by means of tweezers as the gouge handle is too small for use by hand. TDH型塞

规有9mm铝合金柄,由于产品尺寸 太小,最好建议用镊子夹住使用。



The TLH is identical to the TDH gouge with a 30 mm handle. This enables the use of the gouge without tweezers. This type is also available as doubleended. TLH型塞规有30mm手柄,可 以不用镊子使用,该产品有双头, 两面都有塞规产品。

### 9mm短柄IT 1精密标准

30mm 长柄易特龙IT 01精密标准

Quality	STANDARI	O (IT 1)	ETA	LON (IT 01)	
Material	Steel		Steel		
Accuracy ( $1\mu = 0.001$ mm)	+/- 0.4 µ		+/- 0.	.15 µ	
Colour of handle	Blue		Y	Yellow	
Marking units (engraving)	[mm]*		[mm]	*	
Nominal diameter Ø [mm]	0.05 to 0.1	0.1 to 0.15	0.15 to 0.2	0.2 to 0.25	0.25 to 0.3
Measuring length	0.8mm	1 mm	1,2 mm	1.4 mm	1.6 mm

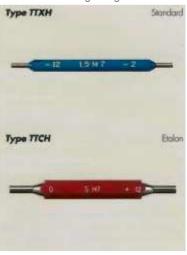
## **CARY plug gauges in sheet:** TXH/TTXH Ø 0.3 to 10 mm XH为钢, CH系列为硬质合金测头 **CARY plug gauges in Tungsten carbide:** TCH/TTCH Ø 0.3 to 6mm

实际应用:对于精密小孔的检验 最好用塞规进行通止检验。 同时该产品也可以作为其他量具, 小尺寸量规使用。可以校准千分 尺,比较仪等产品。

Application: In practice the measuring and inspection of small bores is best achieved by means of plug gouges They are also eminently suitable for setting, adjusting and checking of precision measuring instruments such as micrometers, comparators, etc.



Double-ended Plug Gauges



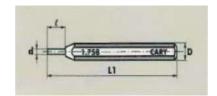
STANDARD (IT 1)

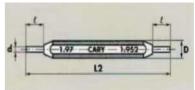
ETALON (IT 0) Accuracy Ø 0.3 to3mm  $+/-0.4 \mu$  $+/-0.25 \mu$ 

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### PIN GAUGE AND RING GAUGE

### Overall sizes





Ø over	Up to	L1[mm]	L2[mm]	D[mm]	<b>/</b> [mm]	Box for 50 gauges
0.3 mm	0.5 mm	38	41	3.5	3	PTXK
0.5 mm	1 mm	39	43	3.5	4	PTXK
1 mm	1.5 mm	40	45	3.5	5	PTXK
1.5 mm	2 mm	46	52	5	6	MTXK
2 mm	2.5 mm	47	54	5	7	MTXK
2.5 mm	3 mm	48	56	5	8	MTXK
3 mm	3.5 mm	49	58	5	9	MTXK
3.5 mm	4 mm	60	70	8	10	GTXK
4 mm	5 mm	61	72	8	11	GTXK
5 mm	10 mm	62	74	8	12	FTXK

CARY ring gauges BCH: 硬质合金环规实际应用: 对于轴类外径尺寸的检验可 BAL and BOM

以通过环规通止检验,同时可以通过光

**BAH**, and **BOM** 钢或硬质合金

隙法判定产品圆度是否完美。 Application: measuring, gauging and inspection of cylindrical components (pivot, axles, wheels, etc.). The inspection of cylindrical components by means of ring gouges enables the measurement of the external diameter which is particularly important for components which are not perfectly round.

精度等级







Ref.	BCH	BAH	BOM
Material 材料	Tungsten carbide 硬质合金	Steel 钢	Steel or Tungsten钢或硬质合金
Colour of out ring外环颜色	■ black 黑	■ blue 蓝	grey 灰
Diameter [mm] <u>直径范围</u>	0.06 to 5	0.151 to 5	5 to 29.99
Accuracy: Ø from 0.06 to 3 mm	+/- 0.6 <b>µ</b>		
Accuracy: Ø from 0.0.15 to 3 mm		+/- 0.6 µ	<u> </u>
Accuracy: Ø from 3 to 5 mm	+/- 0.75 µ	+/- 0.75 μ	<u> </u>
Accuracy: Ø from 5t o 10 mm			+/- 0.75 μ
Accuracy: Ø from 10 to 18 mm			+/- 1 µ
Accuracy: Ø from 18 to 29.99 mm			+/- 1.25 µ

### Ring gauges sizes 环规尺寸范围

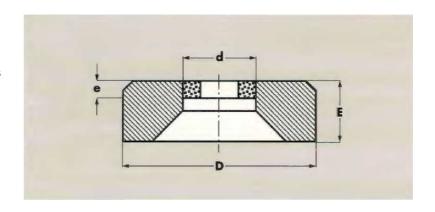
		Ring				Outer ring	
Ø over	Up to	d=ext. Ø [mm]		e=height [mm]		D=ext. Ø [mm]	E=height [mm]
		BCH	BAH	BCH	BAH		
0.06 mm	0.5mm	1.8	1.4	0.5	0.35	8	2.5
0.5mm	0.75 mm	1.8	1.4	0.5	0.5	8	2.5
0.75 mm	1.25 mm	2.4	2.4	0.75	0.75	8	2.5
1.25mm	1.5 mm	3	3	0.9	0.9	8	2.5
1.5mm	2.5mm	5	5	1.5	1.5	12	4
2.5 mm	4 mm	8	8	2.4	2.4	16	5.5

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### PIN GAUGE AND RING GAUGE

Ring gauges are mounted in light alloy rings which enables easier handling and, at the same time, provides protection for the ring gauge.

环规被镶嵌在合金保护圈里方便 取用并得到保护。



### GO an NO GO ring gauges:

BCH and BAH as well as BOMm et BOMa ring gouges con be mounted, in pairs, on plates, thus forming GO and NOGO gouges

### 通止环规:

通止环规是成对按照公差上、下 差选用的。通规为下差,止规为

上差,用于判定产品的外径是否合格。





Types	BIMH	BBOM
Diameter Ø[mm]	From0.06 to5 mm	From 5 to 29.99 mm
Equipment	BIMH, with 2 carbide (BCH) rings	BBOMm, with 2 carbide (BOMm) rings
	BIMHa, with 2 steel (BAH) rings	BBOMa, with 2 steel (BOMa) rings

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