

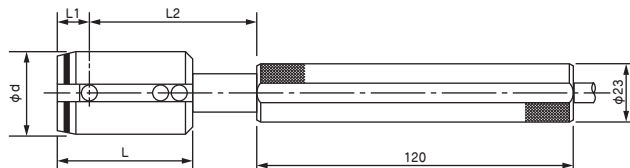
リーフ式内径測定ヘッド

Leaf(Plate spring)type measuring head for internal diam.



超硬ボール付き板バネを用いた接触式の測定ヘッドです。測定面の幅 4mm 以下のもの、表面粗さが $3.2 \mu\text{mRy}(\text{Rmax})$ を超えるものに適します。さらに止り穴に適用すると最深部の測定が可能です。

This is indirect type measuring head using plate spring with tungsten carbide ball point. It is applied to measurement of a width of 4mm or less or surfaces with a finish of $3.2 \mu\text{mRy}(\text{Rmax})$ or more. In case of blind hole measurement, more deep point nearest a bottom can be measured.



ϕd	通し穴用 No.8230 For through hole			止り穴用 No.8232 For blind hole		
	L	L1	L2	L	L1	L2
6.5-13	50	10	40	42	2	40
13-20	50	10	60	42	2	60
20-50	45	10	60	37	2	60
50-80	48	10	65	40	2	65
80-	(注) (Note)					

$d < 6.5$ 製作不可
 $d < 6.5$ is not available.
 (注) $d > 80$ も製作可能ですがその場合、ハンドル形状は $\phi 32 \times 170\text{mm}$ とります
 (note)
 $d > 80$ except above table is also available, but $\phi 32 \times 170\text{mm}$ handle is used in this instance.

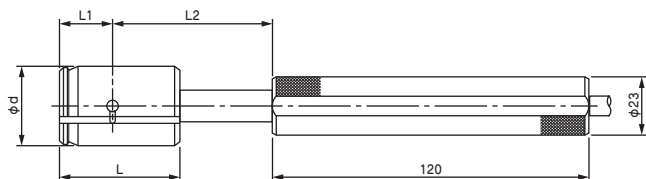
ボールコンタクト式内径測定ヘッド

Ball contact type measuring head for internal diam.



リーフ式同様、接触式の測定ヘッドです。主にリーフ式での測定が困難な場合に採用される他、空気の流れにより超硬ボールの測定子が測定面を転がりますのでボールの摩耗が少なく測定ワークのキズ発生が少ない特長があります。

Same as leaf type head, this is also indirect type measuring head using carbide ball point. It is mainly used for measurement in case that it is difficult to measure for leaf type measuring head. A further advantage of this type, two carbide balls floating in air current, which are located opposite each other, can roll over the measuring surfaces, thereby it prevents workpiece from the distortion or scratch.



ϕd	通し穴用 No.6235 For through hole			止り穴用 No.6237 For blind hole		
	L	L1	L2	L	L1	L2
12-13	30	10	40	24	4	40
13-20	45	20	60	30	5	60
20-50	45	20	60	30	5	60
50-80	35	20	50	35	5	65
80-150 (注) (Note)	50	30		45	5	

$d < 12$ 製作不可
 $d < 12$ is not available.
 ヘッドの形状は No.6002,6012 と同形状
 Head from is same as No.6002,6012.
 (注) 80-150 の場合、ハンドル形状は $\phi 32 \times 170\text{mm}$ とります
 (note)
 In case of 80-150, $\phi 32 \times 170\text{mm}$ handle is used.

スリットノズル式内径測定ヘッド

Slit nozzle type measuring head



非接触測定可能範囲を大幅に拡張し、更に用途が広がります

- 背圧式の場合、最小ワーク測定幅 0.5mm
- 流量式の場合、最小ワーク測定幅 0.9mm

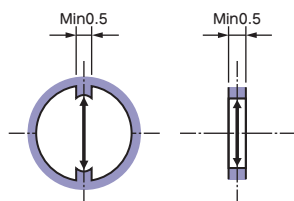
Useful measurement stage can be extended by using slit nozzle type measuring head.

It expands measurable range of non-contact measuring head for internal, external diam., and etc. Min. measurable width of workpiece

In case of measuring head for back pressure type Air micrometer : 0.5mm

In case of measuring head for flow model Air micrometer : 0.9mm

〈スリットノズル式〉(Slit nozzle type)



※ワークの形状によりストッパー等測定ヘッドの補助具を必要とする場合があります。

NOTE : Helpful tools for measuring head like stop collars shall be required if workpiece measured has special profile or it is not easy to be fixed

〈測定例〉

- 幅の狭い形状の各種寸法の測定
- 止り穴の底近くの測定
- 浅い溝の幅の測定
- 斜歯形状のワークの測定
- 接触式では不可能だった小径内径の測定や多点測定
- 奇数歯を含むセレーションの歯先円径の測定

〈Examples of measurement〉

- Measurement for workpiece with narrow space or width.
- Measurement for diam. near to bottom of blind hole.
- Measurement for width of shallow slit.
- Measurement for workpiece with helical spline.
- Measurement for small diam. or multi-places where it is not possible to measure for indirect measuring head.
- Measurement for tip circle diam. of serration included odd number of tooth.