

## Gauge Blocks

### Rectangular Gauge Block Accessories SERIES 516

- Accessory sets for extending the range of application for rectangular gauge blocks.
- Available in 22-piece and 14-piece sets. Each accessory is also available separately for applications where a full set is not needed.
- Can be used with both steel and CERA blocks.



**516-601**  
(22 pcs.)

### SPECIFICATIONS

Item Description	Code No.	Nominal capacity/ dimension (mm)	Set		Quantity Supplied
			22 pcs. <b>516-601</b>	14 pcs. <b>516-602</b>	
Holder	<b>619002</b>	15 to 60		✓	1 pc.
	<b>619003</b>	5 to 100	✓	✓	
	<b>619004</b>	15 to 160	✓	✓	
	<b>619005</b>	20 to 250	✓	✓	
Base	<b>619009</b>	35	✓	✓	
Half-round jaw	<b>619010*</b>	2	✓	✓	One pair (2 pcs.)
	<b>619011*</b>	5	✓	✓	
	<b>619012*</b>	8	✓	✓	
	<b>619013*</b>	12	✓		
	<b>619014*</b>	20	✓		
Plain jaw	<b>619018*</b>	160	✓		
Scriber point	<b>619019</b>	—	✓	✓	1 pc.
Center point	<b>619020</b>	—	✓	✓	
Tram point	<b>619021*</b>	—	✓		One pair (2 pcs.)
Triangular straightedge	<b>619022</b>	100	✓	✓	1 pc.
	<b>619023</b>	160	✓		

\* A single piece is supplied for each code number, except for half-round jaws, plain jaws (B type) and tram points, which are supplied as a two-pack.



Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của **NPOWER**  
Bản quyền nội dung thuộc về **Mitutoyo**

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Typical application



Half-round jaw (619013) 2 pcs.  
Holder (619002) 1 pc.  
Gauge block



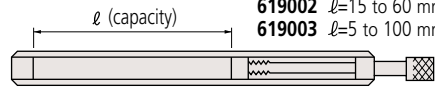
Base (619009) 1 pc.  
Holder (619003) 1 pc.  
Scriber point (619019) 1 pc.  
Gauge block



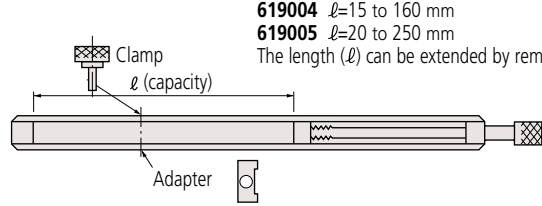
Setting a bore gage using a holder with a pair of Type I half-round jaws arranged as flat contact surfaces

Holder

Thickness=15 mm  
Width=29.5 mm

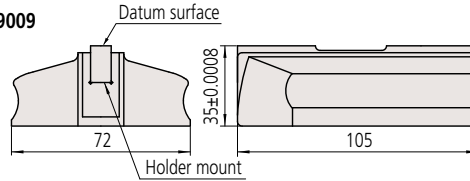


619002  $l=15$  to 60 mm  
619003  $l=5$  to 100 mm



619004  $l=15$  to 160 mm  
619005  $l=20$  to 250 mm  
The length ( $l$ ) can be extended by removing the adapter.

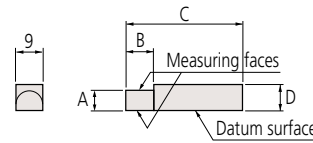
Base 619009



Flatness of the datum surface 0.5  $\mu$ m  
Parallelism 0.8  $\mu$ m  
Flatness of the bottom surface 1  $\mu$ m

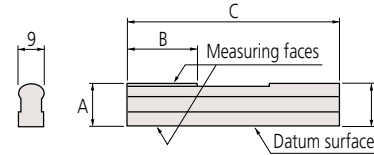
Half-round jaws

Type I



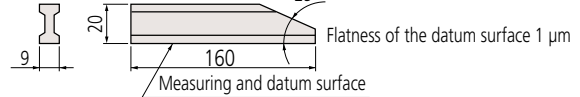
Flatness of the datum surface 0.5  $\mu$ m  
Parallelism of A 0.5  $\mu$ m

Type II



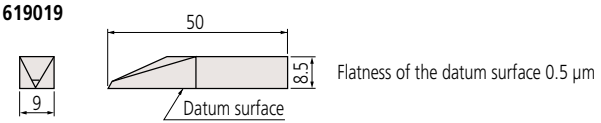
Code No.	Type	Size (mm)	A (mm)	B (mm)	C (mm)	D (mm)
619010*	I	2	2±0.0005	5.5	40	7.5
619011*		5	5±0.0005	15.5	45	7.5
619012*		8	8±0.0005	20	50	8.5
619013*	II	12	12±0.0005	25	75	13
619014*		20	20±0.0005	25	125	20.5

Plain jaw (B type) 619018\*



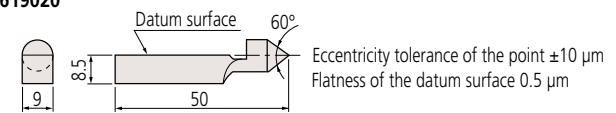
Flatness of the datum surface 1  $\mu$ m

Scriber point 619019



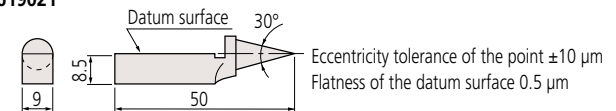
Flatness of the datum surface 0.5  $\mu$ m

Center point 619020



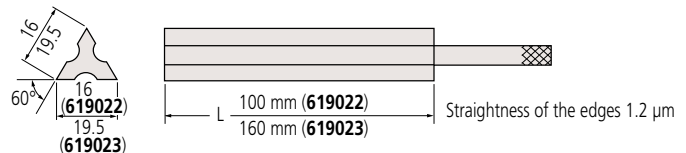
Eccentricity tolerance of the point ±10  $\mu$ m  
Flatness of the datum surface 0.5  $\mu$ m

Tram point 619021\*



Eccentricity tolerance of the point ±10  $\mu$ m  
Flatness of the datum surface 0.5  $\mu$ m

Triangular straightedge (for handheld use only)



Straightness of the edges 1.2  $\mu$ m

\* A single piece is supplied for each code number, except for half-round jaws, plain jaws (B type) and tram points, which are supplied as a two-pack.

# Gauge Blocks

## Accessories for Rectangular Gauge Blocks over 100 mm SERIES 516

- Specially designed for long rectangular gauge blocks of 100 mm and over which have two coupling holes in the body: coupling of two long gauge blocks, a stack of regular gauge blocks and attachment of jaws is possible.
- Can be used with both long steel and CERA blocks.

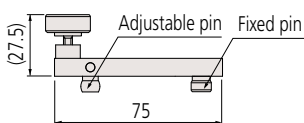


**516-605**  
(14 pcs.)

### SPECIFICATIONS

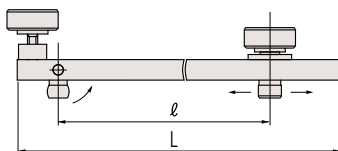
Set code No.	Code No.	Description	Quantity Supplied
516-605	619031	Connector A	1 pc.
	619032	Connector B	
	619033	Connector C	
	619034	Connector D	
	619035	Connector E	
	619036	Adapter	3 pcs.
	619009	Base	1 pc.
	619018	Plain jaw (B-type)	2 pcs.
	619013	Half-round jaw	
	619019	Scriber point	1 pc.

### Connector A 619031



Used for directly coupling two long gauge blocks.

### Connectors B and C



Unit: mm

Code No.	ℓ (max.)	L	Connector	Adapter Qty.
619032	90	126	Connector B	2
619033	200	236	Connector C	

Adapter (2 pcs.) **619036**

In addition to connecting long gauge blocks, the holders can also connect long gauge blocks with other types of gauge blocks inserted in between. Connector B is for gauge blocks with nominal size of 40 mm or less, and connector C for gauge blocks with nominal size of 150 mm or less (connector C can also be used to connect hole-less gauge blocks of 100 mm or less with various types of jaw). Adapters can be used to attach jaws on the edges of long gauge blocks.

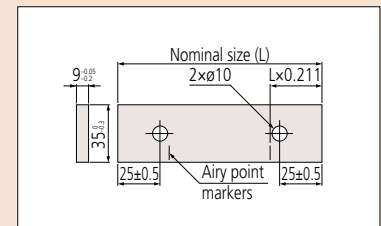
### Typical application



Using an A-type connector



Use of B-type connectors in gage construction



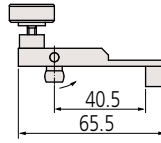
Coupling holes in long gauge blocks

Typical application



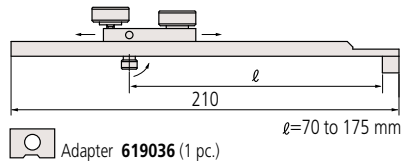
Setting a dial test indicator to a long-gauge-block stack attached to the base with a D-type connector

Connector D 619034



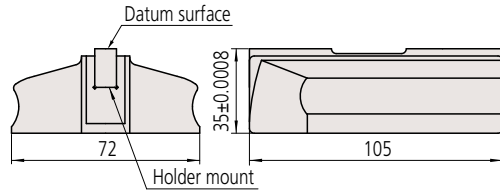
Used for attaching a long gauge block directly to the base.

Connector E 619035



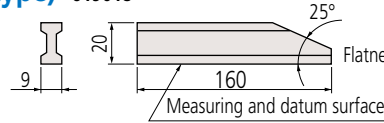
Used for attaching a long gauge block to the base over a stack of regular gauge blocks wrung between the base and long gauge block. The length  $l$  is highly adjustable to accommodate the variable length of the stack.

Base 619009



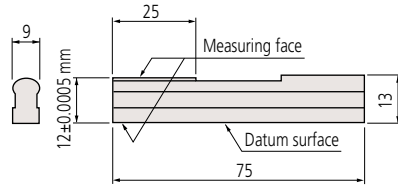
Flatness of the datum surface 0.5  $\mu$ m  
Parallelism 0.8  $\mu$ m  
Flatness of the bottom surface 1  $\mu$ m

Plain jaw (B-type) 619018



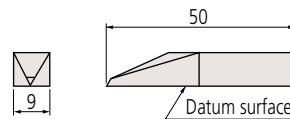
Flatness of the datum surface 1  $\mu$ m

Half-round jaw 619013



Flatness of the datum surface 0.5  $\mu$ m  
Parallelism 0.5  $\mu$ m

Scriber point 619019



Flatness of the datum surface 0.5  $\mu$ m

Example of use of accessories with long gauge blocks

The table below shows the appropriate combination of long rectangular gauge blocks and accessories for making inside and outside measurements in the approximate range 300 mm to 1000 mm in 100 mm steps. The numbers in the table represent the number of gauge blocks or accessories in use. Note that the ranges shown do not take into account the combined thickness of the half-round jaws for inside measurement (24 mm) and the length of any regular gauge block stack used.

Items	Code No.	300 mm		400 mm		500 mm		600 mm		700 mm		800 mm		900 mm		1000 mm	
		Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner	Outer
Rectangular gauge block (nominal dimension)	200 mm	611682							1	1							
	300 mm	611683	1	1						1	1	1	1				
	400 mm	611684			1	1			1	1	1	1		1	1		
	500 mm	611685					1	1					1	1	1	1	2
Connector A	619031							1	1	1	1	1	1	1	1	1	1
Connector B*	619032	2		2		2		2		2		2		2		2	
Half-round jaws 2 pcs./set	619013	2		2		2		2		2		2		2		2	
Adapter	619036	(2)		(2)		(2)		(2)		(2)		(2)		(2)		(2)	

\* Provided with adapters (2 pcs.).



Tài liệu được tổng hợp bởi đội ngũ kỹ thuật của NPOWER  
Bản quyền nội dung thuộc về Mitutoyo

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