

# Gauge Blocks



## Metric/Inch Rectangular Gauge Block Sets SERIES 516

- Mitutoyo provides a wide selection of boxed sets of gauge blocks to meet the various needs of industry. Please select the set most suited to your working conditions and applications.

### Steel 1 mm Base Block Sets



Steel 112-block set



Steel 103-block set



Steel 76-block set



Steel 56-block set



Steel 47-block set



Steel 46-block set



Steel 34-block set



Steel 32-block set

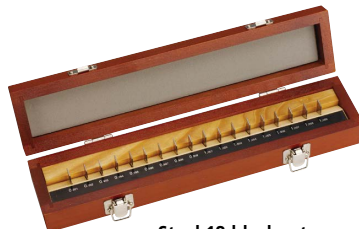
### Steel 0.001 mm Step Block Sets



Steel 9-block set  
(1.001 to 1.009 mm)



Steel 9-block set  
(0.991 to 0.999 mm)



Steel 18-block set

### Steel Long Block Sets



Steel 8-block set

### Steel Wear Block Sets



Steel (1 mm)

### Steel Thin Block Sets



Steel 9-block set

Note: Details of the contents of any particular set are given on pages 01-11 to 01-12.



**CERA 1 mm Base Block Sets**



CERA 112-block set

CERA 103-block set

CERA 76-block set

CERA 56-block set

CERA 47-block set

CERA 46-block set

CERA 34-block set

CERA 32-block set

**CERA 0.001 mm Step Block Sets**



CERA 9-block set  
(1.001 to 1.009 mm)

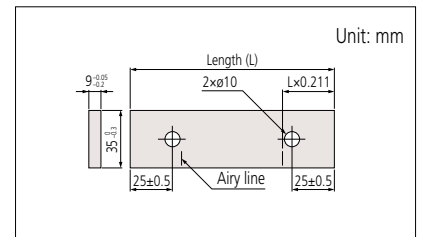
CERA 9-block set  
(0.991 to 0.999 mm)

CERA 18-block set

**CERA Long Block Sets**



CERA 8-block set



**CERA Wear Block Sets**



CERA (1 mm)

Note: Details of the contents of any particular set are given on pages 01-11 to 01-12.



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

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# Gauge Blocks

## SPECIFICATIONS

### 1 mm Base Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (mm)	Step (mm)	Qty.
<b>122</b>	—	—	—	—	—	1.0005	—	1
	516-596	—	K: -#0	—	—	1.001 - 1.009	0.001	9
	516-597	—	0: -#0	—	—	1.01 - 1.49	0.01	49
	516-598	—	1: -#0	—	—	1.6 - 1.9	0.1	4
	516-599	—	2: -#0	—	—	0.5 - 24.5	0.5	49
						30 - 100	10	8
						25, 75	25	2
<b>112</b>	516-531	516-541	—	—	—	1.0005	—	1
	516-937	516-337	K: -#0	K: -#6	K: -#1	1.001 - 1.009	0.001	9
	516-938	516-338	0: -#0	0: -#6	0: -#1	1.01 - 1.49	0.01	49
	516-939	516-339	1: -#0	1: -#6	1: -#1	0.5 - 24.5	0.5	49
	516-940	516-340	2: -#0	2: -#6	2: -#1	25 - 100	25	4
<b>103</b>	516-533	516-542	—	—	—	1.005	—	1
	516-941	516-341	K: -#0	0: -#6	K: -#1	1.01 - 1.49	0.01	49
	516-942	516-342	0: -#0	0: -#6	0: -#1	0.5 - 24.5	0.5	49
	516-943	516-343	1: -#0	1: -#6	1: -#1	25 - 100	25	4
	516-944	516-344	2: -#0	2: -#6	2: -#1	—	—	—
<b>88</b>	—	—	—	—	—	1.0005	—	1
	516-969	516-369	—	—	K: -#1	1.001 - 1.009	0.001	9
	516-970	516-370	0: -#0	—	0: -#1	1.01 - 1.49	0.01	49
	516-971	516-371	1: -#0	—	1: -#1	0.5 - 9.5	0.5	19
	516-972	516-372	2: -#0	—	2: -#1	10 - 100	10	10
<b>87</b>	516-535	515-543	—	—	—	1.001 - 1.009	0.001	9
	516-945	516-345	K: -#0	K: -#6	K: -#1	1.01 - 1.49	0.01	49
	516-946	516-346	0: -#0	0: -#6	0: -#1	0.5 - 9.5	0.5	19
	516-947	516-347	1: -#0	1: -#6	1: -#1	10 - 100	10	10
	516-948	516-348	2: -#0	2: -#6	2: -#1	—	—	—
<b>76</b>	—	—	—	—	—	1.005	—	1
	516-949	516-349	K: -#0	—	—	1.01 - 1.49	0.01	49
	516-950	516-350	0: -#0	—	—	0.5 - 9.5	0.5	19
	516-951	516-351	1: -#0	—	—	10 - 40	10	4
	516-952	516-352	2: -#0	—	—	50 - 100	25	3
<b>56</b>	516-536	516-544	—	—	—	0.5	—	1
	516-953	516-353	K: -#0	00: -#6	—	1.001 - 1.009	0.001	9
	516-954	516-354	0: -#0	0: -#6	—	1.01 - 1.09	0.01	9
	516-955	516-355	1: -#0	1: -#6	—	1.1 - 1.9	0.1	9
	516-956	516-356	2: -#0	2: -#6	—	1 - 24	1	24
					25 - 100	25	4	
<b>47</b>	516-537	516-545	—	—	—	1.005	—	1
	516-957	516-357	K: -#0	00: -#6	—	1.01 - 1.09	0.01	9
	516-958	516-358	0: -#0	0: -#6	—	1.1 - 1.9	0.1	9
	516-959	516-359	1: -#0	1: -#6	—	1 - 24	1	24
	516-960	516-360	2: -#0	2: -#6	—	25 - 100	25	4
<b>47</b>	—	—	—	—	—	1.005	—	1
	516-961	516-361	K: -#0	—	K: -#1	1.01 - 1.19	0.01	19
	516-962	516-362	0: -#0	—	0: -#1	1.2 - 1.9	0.1	8
	516-963	516-363	1: -#0	—	1: -#1	1 - 9	1	9
	516-964	516-364	2: -#0	—	2: -#1	10 - 100	10	10
<b>46</b>	—	—	—	—	—	1.001 - 1.009	0.001	9
	516-994	516-394	K: -#0	—	—	1.01 - 1.09	0.01	9
	516-995	516-395	0: -#0	—	—	1.1 - 1.9	0.1	9
	516-996	516-396	1: -#0	—	—	1 - 9	1	9
	516-997	516-397	2: -#0	—	—	10 - 100	10	10
<b>34</b>	—	—	—	—	—	1.0005	—	1
	516-128	516-178	K: -#0	—	K: -#1	1.001 - 1.009	0.001	9
	516-129	516-179	0: -#0	—	0: -#1	1.01 - 1.09	0.01	9
	516-130	516-180	1: -#0	—	1: -#1	1.1 - 1.9	0.1	9
	516-131	516-181	2: -#0	—	2: -#1	1 - 5	1	5
					10	10	1	
<b>32</b>	—	—	—	—	—	1.005	—	1
	516-965	516-365	K: -#0	—	K: -#1	1.01 - 1.09	0.01	9
	516-966	516-366	0: -#0	—	0: -#1	1.1 - 1.9	0.1	9
	516-967	516-367	1: -#0	—	1: -#1	1 - 9	1	9
	516-968	516-368	2: -#0	—	2: -#1	10 - 30	10	3
					60	60	1	

### Thin Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (mm)	Step (mm)	Qty.
<b>9</b>	516-990	—	0: -#0	—	—	0.10 - 0.50	0.05	9
	516-991	—	1: -#0	—	—	—	—	—
	516-992	—	2: -#0	—	—	—	—	—

Note: Details of the overall sizes for forms of block are given on page 01-3 and the accuracy standards to which they are manufactured are given on page 01-5.



### \*1: Suffix No. (■) for Selecting Standard and Certificate Provided

ISO / JIS		
Suffix No.	Inspection Certificate	Calibration Certificate JCSS
1	✓	
6	✓	✓

Suffix No. 1: Not available for Grade K sets.

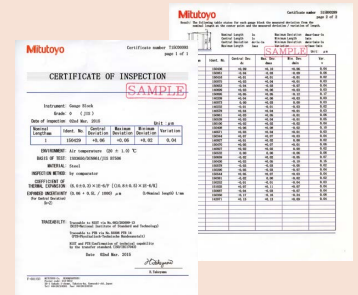
ASME		
Suffix No.	Inspection Certificate	Calibration Certificate JCSS
1	✓	
6	✓	✓

Suffix No. 1: Not available for Grade K sets.  
Suffix No. 6: Only for Grade K sets.

BS		
Suffix No.	Inspection Certificate	Calibration Certificate JCSS
1	✓	
6	✓	✓

Suffix No. 1: Not available for Grade K sets.  
Suffix No. 6: Only for Grade K sets.

### Inspection Certificate





## SPECIFICATIONS

### 0.001 mm Step Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (mm)	Step (mm)	Qty.
<b>18</b>	516-973	516-373	K: -#0	—	—	0.991 - 0.999	0.001	9
	516-974	516-374	O: -#0	—	—			
	516-975	516-375	1: -#0	—	—	1.001 - 1.009	0.001	9
	516-976	516-376	2: -#0	—	—			
<b>9</b>	516-981	516-381	K: -#0	—	K: -#1	1.001 - 1.009	0.001	9
	516-982	516-382	O: -#0	—	O: -#1			
	516-983	516-383	1: -#0	—	1: -#1	—	—	—
	516-984	516-384	2: -#0	—	2: -#1			
<b>9</b>	516-985	516-385	K: -#0	—	—	0.991 - 0.999	0.001	9
	516-986	516-386	O: -#0	—	—			
	516-987	516-387	1: -#0	—	—	—	—	—
	516-988	516-388	2: -#0	—	—			

### Long Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (mm)	Step (mm)	Qty.
<b>8</b>	516-540	516-546	—	—	K: -#6	125 - 175	25	3
	516-701	516-731	K: -#0	00: -#6	—	200 - 250	50	2
	516-702	516-732	O: -#0	0: -#6	—	300 - 500	100	3
	516-703	516-733	1: -#0	1: -#6	—			
	516-704	516-734	2: -#0	2: -#6	—	—	—	—

### Wear Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Carbide	CERA	ISO/JIS	ASME	BS	Size (mm)	Step (mm)	Qty.
<b>2</b>	516-807	516-832	O: -#0	0: -#6	—	1	—	2
	516-806	516-833	1: -#0	1: -#6	—			
<b>2</b>	516-803	516-830	O: -#0	0: -#6	—	2	—	2
	516-802	516-831	1: -#0	1: -#6	—			

### Inch Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (in)	Step (in)	Qty.
<b>82</b>	516-548	516-556	—	K: -#6	—	0.10005	0.0001	1
	516-905	516-305	—	00: -#6	—	0.1001 - 0.1009		
	516-906	516-306	—	0: -#6	0: -#1	0.101 - 0.149	0.001	49
	516-907	516-307	—	1: -#6	1: -#1	0.05 - 0.95	0.05	19
	516-908	516-308	—	2: -#6	2: -#1	1 - 4	1	4
<b>81</b>	516-549	516-557	—	K: -#6	—	0.1001 - 0.1009	0.0001	9
	516-901	516-301	—	00: -#6	—	0.101 - 0.149		
	516-902	516-302	—	0: -#6	0: -#1	0.05 - 0.95	0.001	49
	516-903	516-303	—	1: -#6	1: -#1	0.05 - 0.95	0.05	19
	516-904	516-304	—	2: -#6	2: -#1	1 - 4	1	4
<b>49</b>	—	—	—	—	—	0.1001 - 0.1009	0.0001	9
	516-910	—	—	—	—	0.101 - 0.109		
	516-911	—	—	—	0: -#1	0.01 - 0.19	0.01	19
	516-912	—	—	—	1: -#1	0.2 - 0.9	0.1	8
<b>35</b>	516-550	516-558	—	K: -#6	—	0.10005	0.0001	1
	516-913	516-313	—	00: -#6	—	0.1001 - 0.1009		
	516-914	516-314	—	0: -#6	0: -#1	0.101 - 0.109	0.001	9
	516-915	516-315	—	1: -#6	1: -#1	0.11 - 0.19	0.01	9
	516-916	516-316	—	2: -#6	2: -#1	0.1 - 0.3	0.1	3
	—	—	—	—	—	0.5, 1, 2, 4	—	4

### Thin Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (in)	Step (in)	Qty.
<b>28</b>	516-551	—	—	K: -#6	—	0.02005	0.0001	1
	516-917	—	—	00: -#6	—	0.0201 - 0.0209		
	516-918	—	—	0: -#6	—	0.021 - 0.029	0.001	9
	516-919	—	—	1: -#6	—	0.01 - 0.09	0.01	9
	516-920	—	—	2: -#6	—	—	—	—
<b>10</b>	516-926	—	—	0: -#6	0: -#1	0.005 - 0.050	0.005	10
	516-927	—	—	1: -#6	1: -#1			
	516-928	—	—	2: -#6	2: -#1			

### Long Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Steel	CERA	ISO/JIS	ASME	BS	Size (in)	Step (in)	Qty.
<b>8</b>	—	516-564	—	K: -#6	—	5 - 7	1	3
	—	516-741	—	00: -#6	—	8, 10, 12	2	3
	516-712	516-742	—	0: -#6	—	16, 20	4	2
	516-713	516-743	—	1: -#6	—			

### Wear Block Sets

Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set		
	Carbide	CERA	ISO/JIS	ASME	BS	Size (in)	Step (in)	Qty.
<b>2</b>	516-809	516-836	—	0: -#6	—	0.05	—	2
	516-808	516-837	—	1: -#6	—			
<b>2</b>	516-805	516-834	—	0: -#6	—	0.1	—	2
	516-804	516-835	—	1: -#6	—			



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

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Note: Details of the overall sizes for forms of block are given on page 01-3 and the accuracy standards to which they are manufactured are given on page 01-5.

## Gauge Blocks

### Micrometer Inspection Gauge Block Sets SERIES 516

- Special sets for micrometer inspection. **516-106/107/108** and **516-156/157/158** are useful for checking maximum permissible error. For inspection of large micrometers, we recommend using **516-115/116/117** and **516-165/166/167** together. **516-580/581/582** and **516-390/391/392** are special sets for inspection of QuantuMike, whose spindle moves 2.0 mm per one thimble rotation.

#### Steel



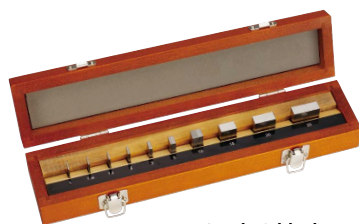
Steel 10-block set



Steel 10-block set



Steel 8-block set



Steel 10-block set

#### CERA



CERA 10-block set



CERA 10-block set



CERA 8-block set



CERA 10-block set



#### Gauge Block Sets for Micrometer Inspection

A set consisting of a Micro Checker and gauge blocks for micrometer inspection.

(516-132/133/134/135/136/137)



516-607

#### Micro Checker

Can clamp a stack of gauge blocks to be used for micrometer inspection.

#### SPECIFICATIONS

Metric	Micro Checker (holder only)
Code No.	516-607
Applicable gauge block sets	516-106/107/108, 516-156/157/158
Applicable gauge block sizes (mm)	2.5, 5.1, 7.7, 10.3, 12.9, 15, 17.6, 20.2, 22.8, 25

Inch	Micro Checker (holder only)
Code No.	516-608
Applicable gauge block sets	516-921/922/923, 516-321/322/323
Applicable gauge block sizes (in)	0.105, 0.210, 0.315, 0.420, 0.5, 0.605, 0.710, 0.815, 0.920, 1

#### Typical application



(The gauge block and optical parallel shown are optional accessories.)



**\*1: Suffix No. (■) for Selecting Standard and Certificate Provided**

ISO / JIS		
Suffix No.	Inspection Certificate	Calibration Certificate
1	✓	JCSS
6	✓	✓

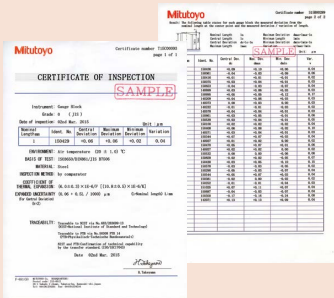
Suffix No. 1: Not available for Grade K sets.

ASME		
Suffix No.	Inspection Certificate	Calibration Certificate
1	✓	JCSS
6	✓	✓

Suffix No. 1: Not available for Grade K sets.  
Suffix No. 6: Only for Grade K sets.

BS		
Suffix No.	Inspection Certificate	Calibration Certificate
1	✓	JCSS

**Inspection Certificate**



**SPECIFICATIONS**

Metric Block Sets						
Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set
	Steel	CERA	ISO/JIS	ASME	BS	
16	516-111	516-161	0: -■0	—	—	1.00, 1.25, 1.5, 2, 3, 5, 10, 15, 20, 25, 25.25, 30, 35, 40, 45, 50 mm, Cerastone, Optical parallels (t=12 mm, 25 mm)
	516-112	516-162	1: -■0	—	—	
	516-113	516-163	2: -■0	—	—	
10	516-977	—	K: -■0	—	—	1.00, 1.25, 1.50, 2, 3, 5, 10, 15, 20, 25 mm, Optical parallel (t=12 mm)
	516-978	516-378	0: -■0	—	—	
	516-979	516-379	1: -■0	—	—	
	516-980	516-380	2: -■0	—	—	
10	516-103	516-152	0: -■0	0: -■6	—	1.00, 1.25, 1.50, 2, 3, 5, 10, 15, 20, 25 mm
	516-101	516-153	1: -■0	1: -■6	—	
	—	516-154	2: -■0	—	—	
10	516-580	516-390	0: -■0	—	—	2.2, 4.8, 7.8, 10.4, 12, 15.2, 17.4, 19.6, 22.6, 25 mm
	516-581	516-391	1: -■0	—	—	
	516-582	516-392	2: -■0	—	—	
10	516-106	516-156	0: -■0	—	—	2.5, 5.1, 7.7, 10.3, 12.9, 15, 17.6, 20.2, 22.8, 25 mm, Optical parallel (t=12 mm)
	516-107	516-157	1: -■0	—	—	
	516-108	516-158	2: -■0	—	—	
10	516-132	516-182	0: -■0	—	—	1.25, 1.50, 1, 2, 3, 5, 10, 15, 20, 25 mm, Micro Checker, Optical parallel (t=12 mm)
	516-133	516-183	1: -■0	—	—	
	516-134	516-184	2: -■0	—	—	
10	516-135	516-185	0: -■0	—	—	2.5, 5.1, 7.7, 10.3, 12.9, 15, 17.6, 20.2, 22.8, 25 mm, Micro Checker, Optical parallel (t=12 mm)
	516-136	516-186	1: -■0	—	—	
	516-137	516-187	2: -■0	—	—	
8	—	516-547	—	K: -■6	—	25, 50, 75, 100, 125, 150, 175, 200 mm
	—	516-164	K: -■0	00: -■6	—	
	516-115	516-165	0: -■0	0: -■6	—	
	516-116	516-166	1: -■0	1: -■6	—	
	516-117	516-167	2: -■0	2: -■6	—	
	—	—	—	—	—	

Inch Block Sets						
Blocks per set	Code No.		Standard/grade available and Suffix No.*1			Blocks included in set
	Steel	CERA	ISO/JIS	ASME	BS	
10	516-528	516-318	—	00: -■6	0: -■1	0.087, 0.189, 0.307, 0.409, 0.472, 0.598, 0.669, 0.772, 0.890, 1 in
	516-529	516-319	—	0: -■6	1: -■1	
	516-530	516-320	—	1: -■6	2: -■1	
10	516-552	516-559	—	K: -■6	—	0.105, 0.210, 0.315, 0.420, 0.500, 0.605, 0.710, 0.815, 0.920, 1 in, Optical parallel (t=0.5 in)
	516-921	516-321	—	00: -■6	0: -■1	
	516-922	516-322	—	0: -■6	1: -■1	
	516-923	516-323	—	1: -■6	2: -■1	
10	516-553	516-560	—	K: -■6	—	0.105, 0.210, 0.315, 0.420, 0.500, 0.605, 0.710, 0.815, 0.920, 1 in, Micro checker, Optical parallel (t=0.5 in)
	516-138	516-188	—	00: -■6	0: -■1	
	516-139	516-189	—	0: -■6	1: -■1	
	516-140	516-190	—	1: -■6	2: -■1	
9	516-554	516-561	—	K: -■6	—	0.0625, 0.100, 0.125, 0.200, 0.250, 0.300, 0.500, 1, 2 in, Optical parallel (t=0.5 in)
	516-929	516-333	—	00: -■6	—	
	516-930	516-334	—	0: -■6	—	
	516-931	516-335	—	1: -■6	—	
	516-932	516-336	—	2: -■6	—	
9	516-555	516-562	—	K: -■6	—	0.0625, 0.100, 0.125, 0.200, 0.250, 0.300, 0.500, 1, 2 in, Micro Checker, Optical parallel (t=0.5 in)
	516-141	516-191	—	00: -■6	—	
	516-142	516-192	—	0: -■6	—	
	516-143	516-193	—	1: -■6	—	
	516-144	516-194	—	2: -■6	—	
9	—	516-563	—	K: -■6	—	0.0625, 0.100, 0.125, 0.200, 0.250, 0.300, 0.500, 1, 2 in
	—	516-329	—	00: -■6	—	
	516-934	516-330	—	0: -■6	—	
	516-935	516-331	—	1: -■6	—	
	516-936	516-332	—	2: -■6	—	
8	516-126	516-176	—	0: -■6	—	1, 2, 3, 4, 5, 6, 7, 8 in
	516-127	516-177	—	1: -■6	—	

**SERIES 516 – Caliper Inspection Gauge Block Sets**

**SPECIFICATIONS**

Metric Block Sets						
Blocks per set	Code No.		Standard/grade available and Suffix No.			Blocks included in set
	Steel	CERA	ISO/JIS	ASME	BS	
5	—	516-174	2: -10	—	—	5 pcs.: 10.3, 24.5, 50, 75, 100 mm, Ceramic plain jaws, Holder (250 mm), Glove
4	516-526	516-566	1: -10	—	—	4 pcs.: 10, 30, 50, 125 mm, Setting ring (ø4 mm, ø10 mm), Pin gage (ø10 mm), Glove
	516-527	516-567	2: -10	—	—	
3	516-124	516-150	1: -10	—	—	3 pcs.: 30, 41.3, 131.4 mm, Setting ring (ø4 mm, ø25 mm), Glove
	516-125	516-151	2: -10	—	—	
2	516-122	516-172	1: -10	—	—	2 pcs.: 41.3, 131.4 mm, Setting ring (ø20 mm), Glove
	516-123	516-173	2: -10	—	—	



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

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