

■ **About the accuracy of straight edge**

ℓ = Size

High accuracy



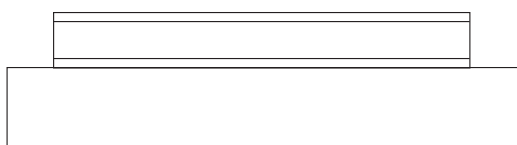
Type	Grade	Straightness calculation formula
Triangle type inspection straight edge	—	$(1 + \ell / 250) \mu\text{m}$
Knife type straight edge	—	
Precision straight edge (type - I)	A 級	$(2 + \ell / 250) \mu\text{m}$
Rectangular sharp straight edge		
Wide rype highest grade straight edge		
I - beam type highest grade straight edge	A 級	$(2 + \ell / 100) \mu\text{m}$
Standard steel straight edge		
Precision straight edge (type - I)	B 級	$(4 + \ell / 50) \mu\text{m}$
Rectangular sharp straight edge		
Wide rype highest grade straight edge		
Steel straight edge bevel form	—	$(10 + \ell / 50) \mu\text{m}$
Steel straight edge normal form		
Standard straight edge with gradutaion (type - A)	—	$(40 + \ell / 50) \mu\text{m}$
Standard straight edge with gradutaion (type - B)	—	$(100 + \ell / 20) \mu\text{m}$

Straightness measurement method and deformation

caused by weight of the straightedge

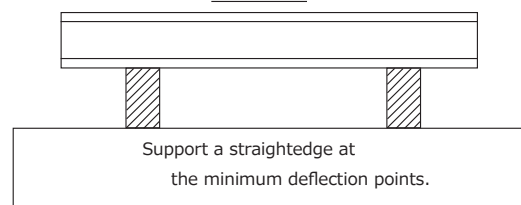
Note that when a straightedge is put on a plane as shown in Fig. (1), the plane is deformed by the weight of the straightedge and becomes exactly flat. With this method, the straightness of the plane cannot be measured correctly. To measure the straightness correctly, the measurement method shown in Fig. (2) is optimal.

Fig (1)



Geometrically perfect plane

Fig (2)



Support a straightedge at the minimum deflection points.

Geometrically perfect plane