

■ About the accuracy of straight edge

ℓ = Size

High accuracy



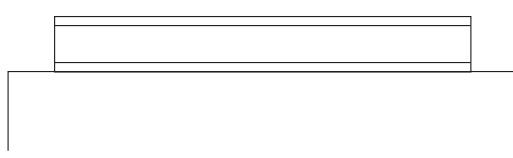
Type	Grade	Straightness calculation formula
Triangle type inspection straight edge	—	$(1 + \ell / 250) \mu\text{m}$
Knife type straight edge	—	
Precision straight edge (type - I)	A 級	
Rectangular sharp straight edge	A 級	$(2 + \ell / 250) \mu\text{m}$
Wide type highest grade straight edge	A 級	
I - beam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

Straightness measurement method and deformation

caused by weight of the straightedge

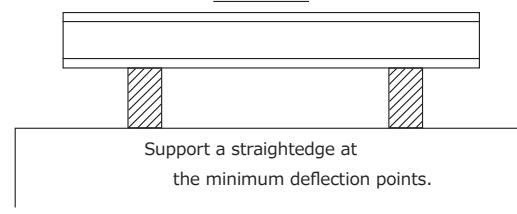
Note that when a straightedge is put on a plane as shown in Fig. (1), the plane is deformed by the weight of the straightedge and becomes exactly flat. With this method, the straightness of the plane cannot be measured correctly. To measure the straightness correctly, the measurement method shown in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

Fig (1)



Geometrically perfect plane

Fig (2)



Support a straightedge at
the minimum deflection points.

Geometrically perfect plane