

Optical Parallels

SERIES 157

FEATURES

- Designed to inspect parallelism and flatness of measuring faces of micrometers.
- Each set consists of 4 sizes.
- Supplied in fitted carrying case.



157-903

Technical Data

Flatness: 0.1μm
Parallelism: 0.2μm
Diameter: 30mm

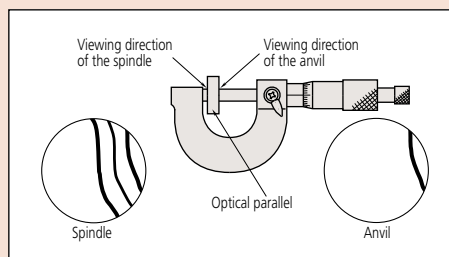
Parallelism Check of Measuring Faces by Means of Interference Fringe Produced by an Optical Parallel

The parallelism of the measuring faces can be determined as follows: bring the optical parallel to the anvil and observe the number of interference fringes produced on the spindle face under normal measuring force.

The diagram below shows parallelism of about 1μm (0.32μm x 3 = 0.96μm).

There should not be more than one fringe visible on the anvil face.

The four parallels are sized such that testing can be performed at each quarter revolution of the spindle.



SPECIFICATIONS

Metric		
Range of micrometer to be checked	Order No.	Sizes of parallels included in set
0-25mm	157-903	12.00, 12.12, 12.25, 12.37mm
25-50mm	157-904	25.00, 25.12, 25.25, 25.37mm

Inch		
Range of micrometer to be checked	Order No.	Sizes of parallels included in set
0-1"	157-901	.5000", .5062", .5125", .5187"
1-2"	157-902	1.0000", 1.0062", 1.0125", 1.0187"

Optical Flats

SERIES 158

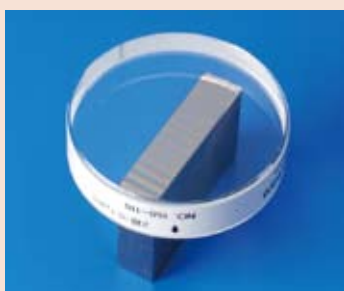
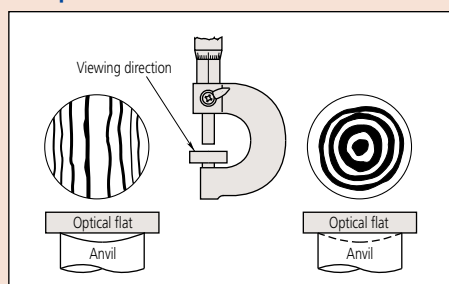
FEATURES

- Of circular form with one surface accurately polished, used for inspecting the flatness of gauge block or platen reference surfaces, micrometer measuring faces or any other very flat surface of high reflectivity.
- Available in two sizes and two grades of flatness tolerance for the specified surface.



158-118

Flatness Check of Measuring Faces Using Interference Fringe Pattern Produced by an Optical Flat



SPECIFICATIONS

Metric		
Flatness grade	Order No.	Diameter/Thickness
0.2μm	158-117	45mm/12mm
	158-119	60mm/15mm
0.1μm	158-118	45mm/12mm
	158-120	60mm/15mm

Inch		
Flatness grade	Order No.	Diameter/Thickness
.000004"	158-122	1.8"/.5"
	158-124	2.4"/.6"