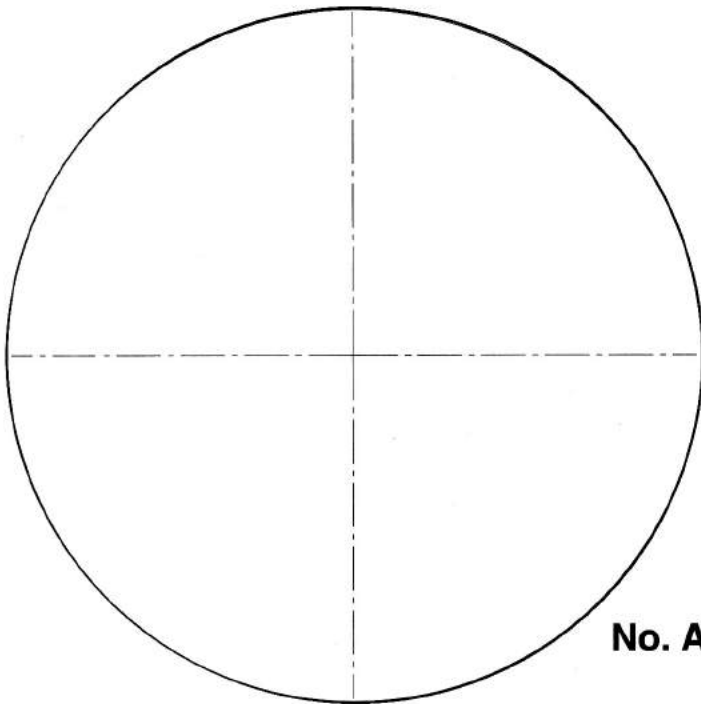


# Centerline Screens (Glass Only)

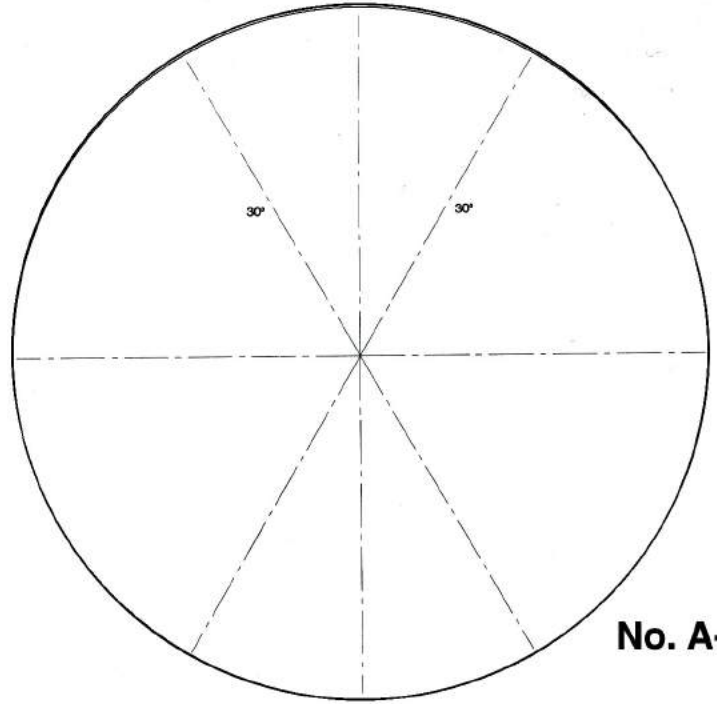


Q-PLUS Labs

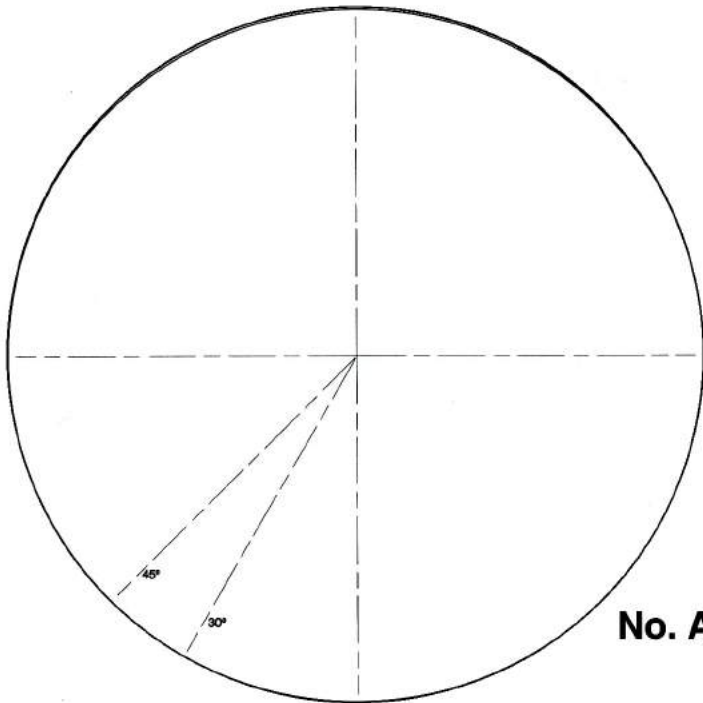
13765-E Alton Pkwy  
Irvine, CA 92618-1627  
TEL (949) 380-7758  
FAX (949) 380-7790  
www.QPLUSLabs.com



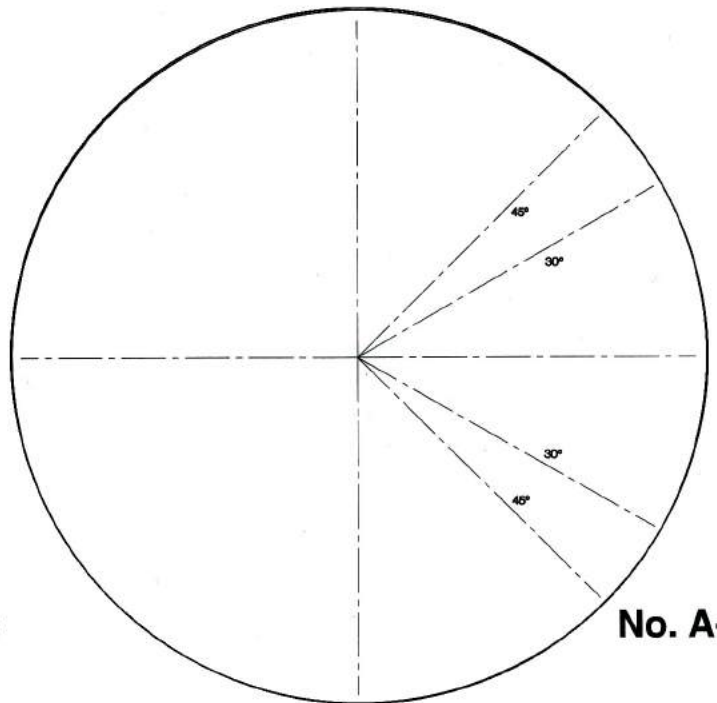
No. A-1



No. A-2



No. A-3

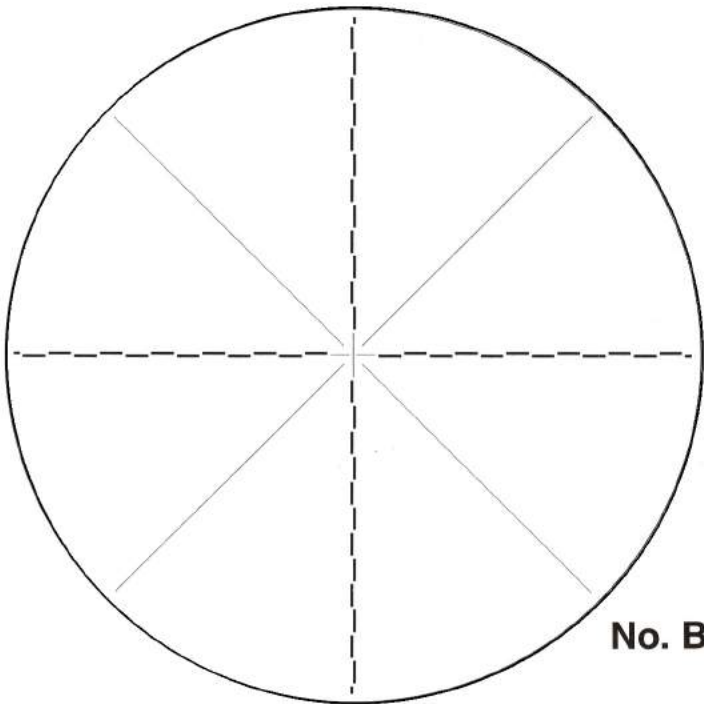


No. A-4

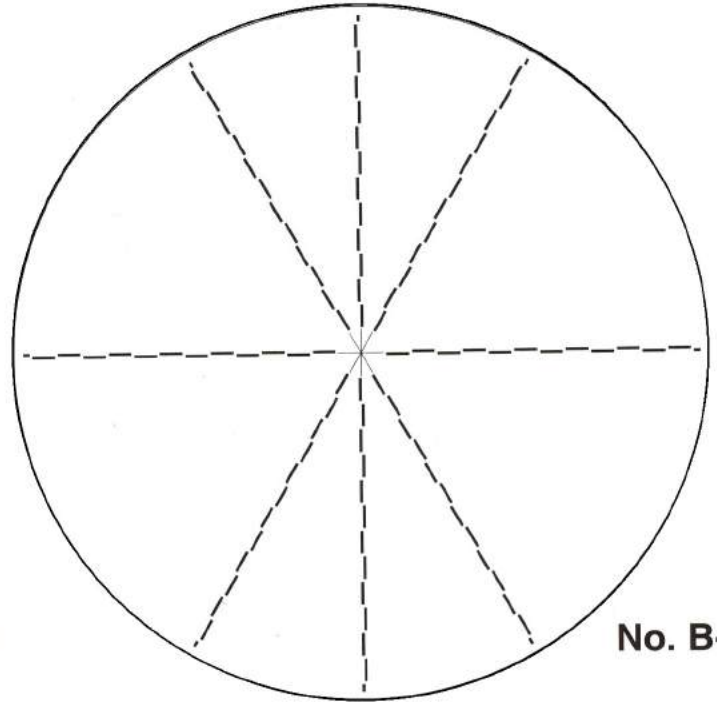
- \* Standard glass centerline screens are basic for any optical comparator.
- \* Protractor rings can be added to any screen.
- \* Other angular line combinations are available upon request.
- \* Screens can be ordered with solid or colored lines if desired.

# Centerline Screens

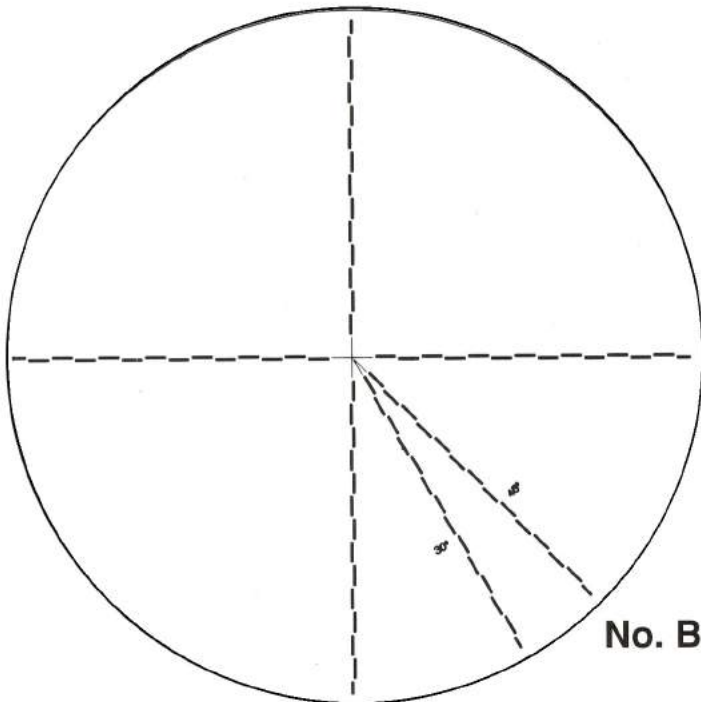
(Glass Only)



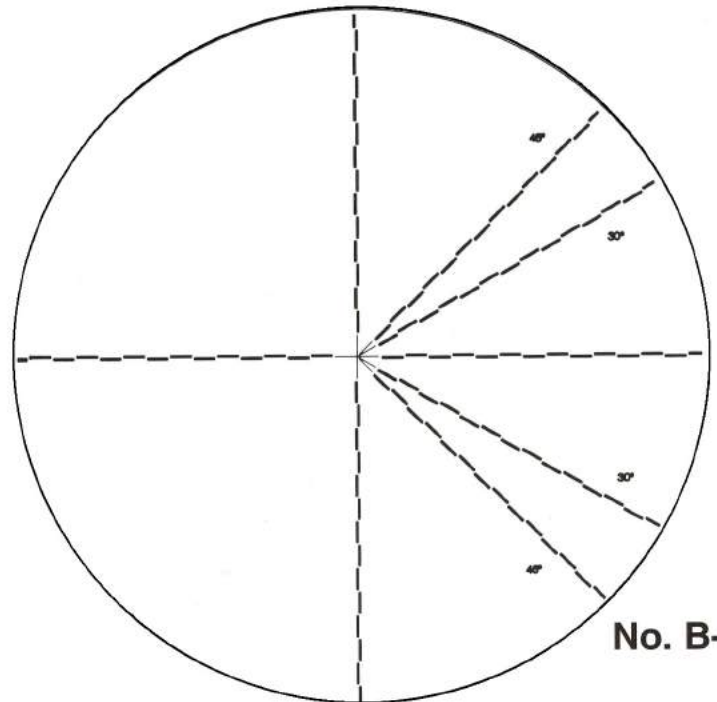
No. B-1



No. B-2



No. B-3

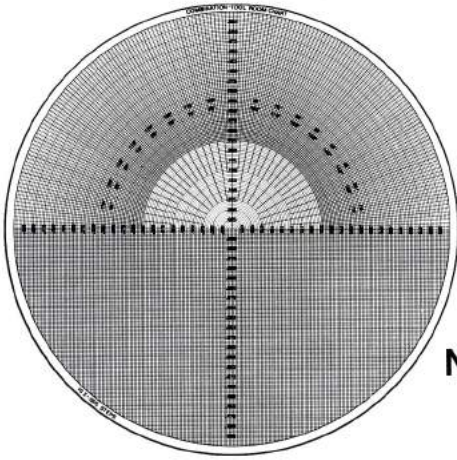


No. B-4

- \* Protractor rings can be added to any screen.
- \* Other angular line combinations are available upon request.
- \* Glass rectangular block screens available in all diameters up to and including 30.75" diameter.

# General Screens and Charts

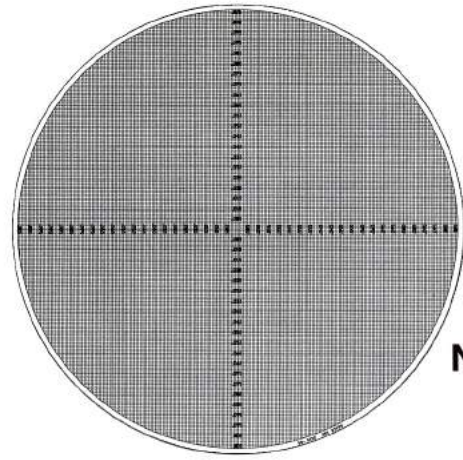
(Glass or Plastic)



No. 1

Combination Radius - Grid Chart

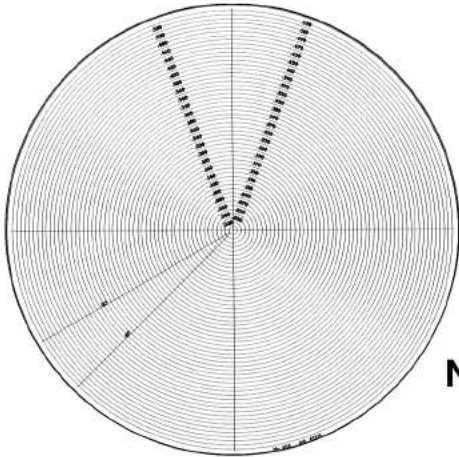
Magnification		10 X	20 X	25 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.005	.002 .0025	.002	.001	.001	.001	.0005
Metric	Increments	.10mm	.05mm	.04mm	.04mm	.02mm	.02mm	.01mm



No. 2

Grid Chart

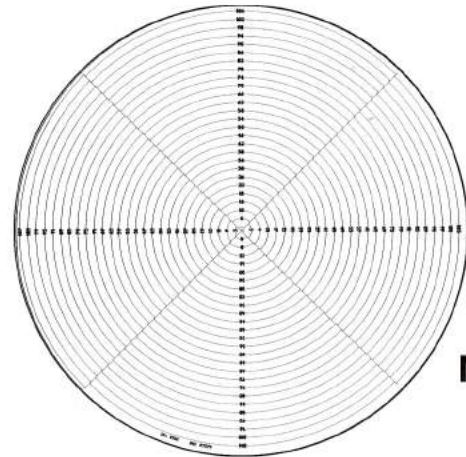
Magnification		10 X	20 X	25 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.005	.002	.002	.001	.001	.001	.0005
Metric	Increments	.10mm	.05mm	.04mm	.04mm	.02mm	.02mm	.01mm



No. 3

360° Radius Chart

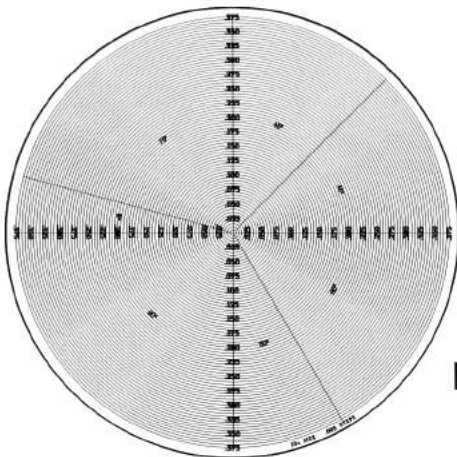
Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.010	.005	.004	.004	.002	.002	.001
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm



No. 4

Radius Chart .001 Increments Progressive In Each Quadrant

Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.001	.001	.001	.001	.001	.001	.001
Metric	Increments	.025mm	.025mm	.025mm	.025mm	.025mm	.025mm	.025mm

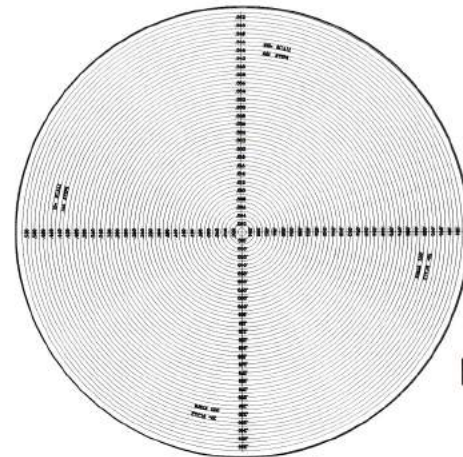


No. 5

Radius Chart 360° 15° 30° 45° 60° 75° Angles

Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.005	.002 .0025	.002	.002	.001	.001	.0005
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm

4 MAGNIFICATIONS AVAILABLE ON SAME CHART IF DESIRED, 10X, 20, 50X & 100X.



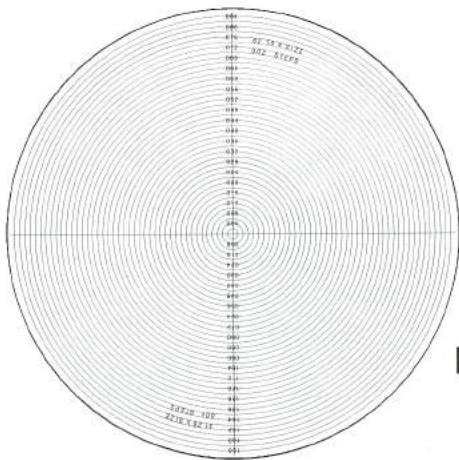
No. 6

Radius Chart 360° Combination 4 Magnifications On Chart

Magnification		10X	20X	50X	100X
Inch	Increments	.010	.005	.002	.001
Metric	Increments	.20mm	.10mm	.04mm	.02mm

# General Screens and Charts

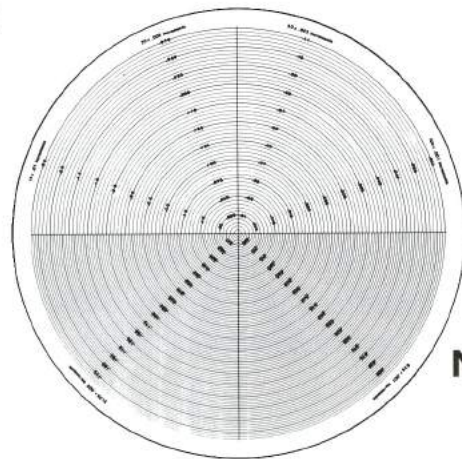
(Glass or Plastic)



No. 7

Radius Chart 360° Combination  
2 Magnifications On Chart

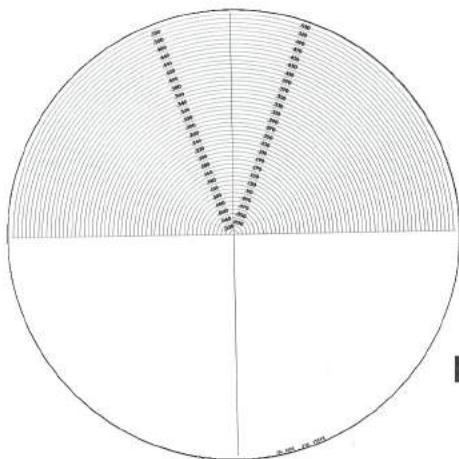
Magnification		31.25X	62.5X	Or	31.25X	62.5X
Inch	Increments	.004	.002	Or	.002	.001
Metric	Increments	.08mm	.04mm	Or	.04mm	.02mm



No. 8

Radius Chart - All Magnification

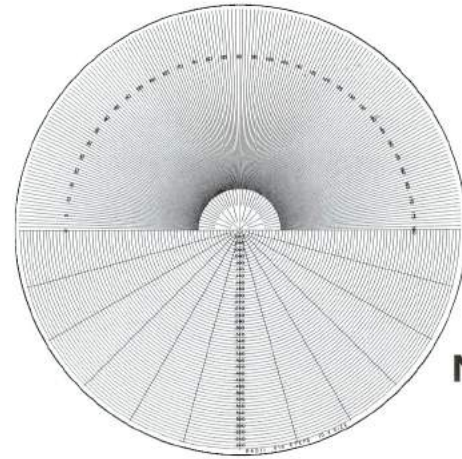
Magnification		10 X	20 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.010	.005	.002	.002	.001	.001
Metric	Increments	.20mm	.10mm	.04mm	.04mm	.02mm	.02mm



No. 9

180° Radius Chart

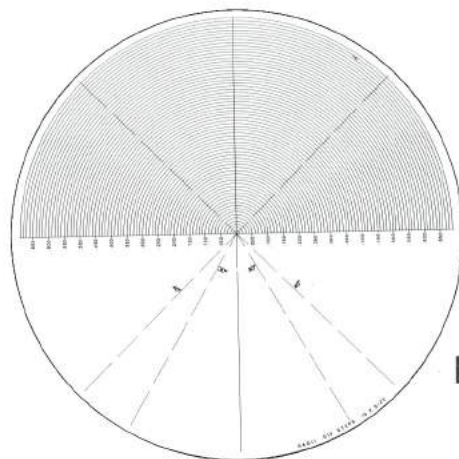
Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.010	.005	.004	.004	.0025	.002	.001
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm



No. 10

Combination Radius And Angle Chart

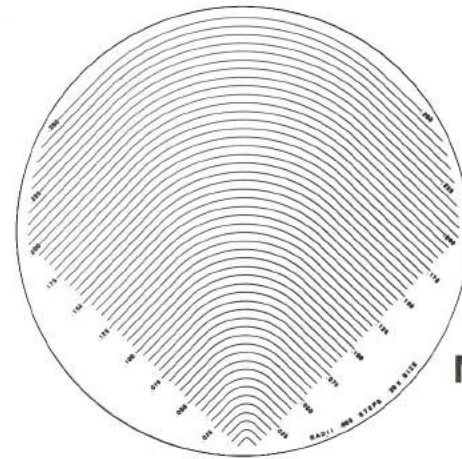
Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.010	.005	.004	.004	.002	.002	.001
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm



No. 11

180° Radius Chart With 30° And 45° Angles

Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.010	.005	.004	.004	.002	.002	.001
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm



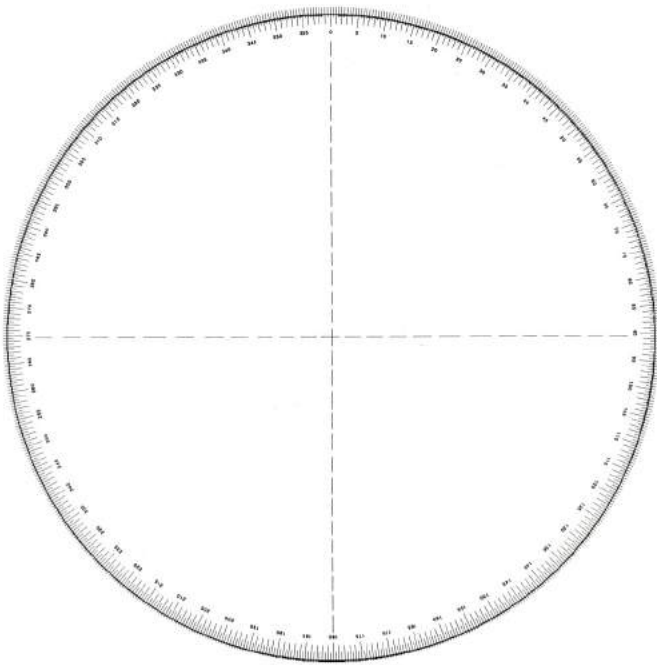
No. 14

Fillet Chart — 90° Arcs

Magnification		10X	20X	25X	31.25X	50X	62.5X	100X
Inch	Increments	.010	.005	.004	.002	.002	.001	.001
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm

4 MAGNIFICATIONS AVAILABLE ON SAME CHART IF DESIRED. 10X, 20X, 50X, & 100X.

# Protractor Screens (Glass Only)

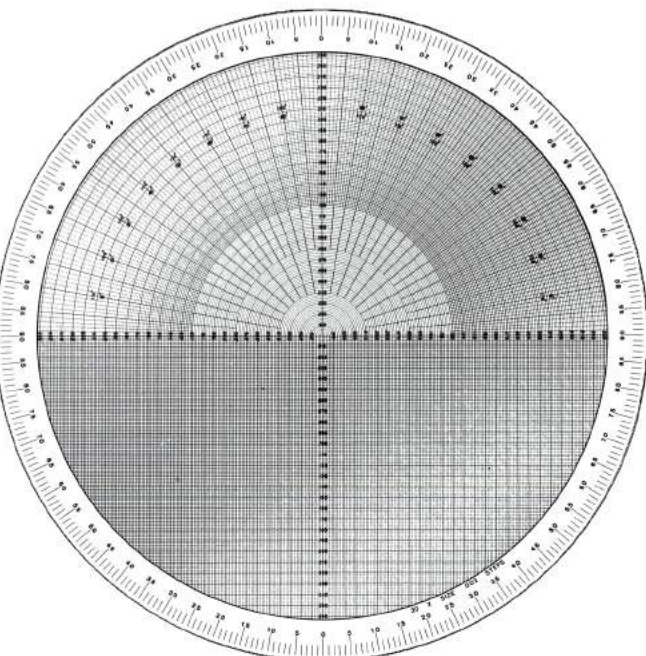
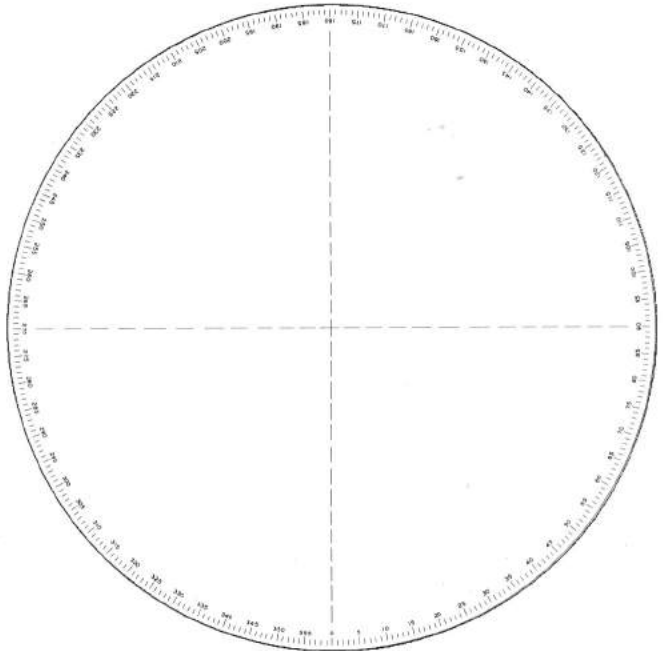


## No. 15

Marked every 5 degrees graduated every 30 minutes; "0" to 360 degrees shown. Available in all diameters up to and including 30.75" diameter.

## No. 16

Marked every 5 degrees graduated every degree; "0" to 360 degrees shown. Available in all diameters up to and including 30.75" diameter.



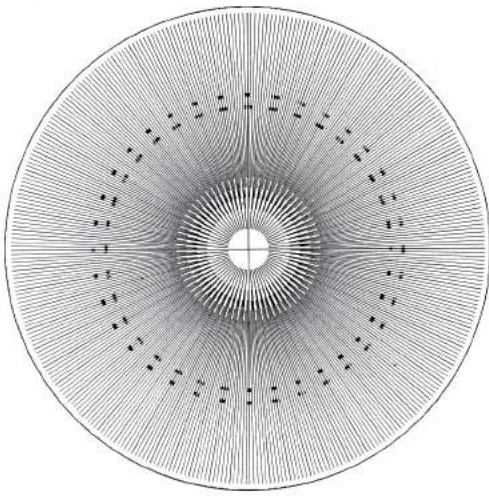
## No. 17

Marked every 5 degrees graduated every degree; "0" to 90 degree quadrants. Available in all diameters up to and including 30.75" diameter.

### Combination Radius - Grid Chart with Protractor Ring

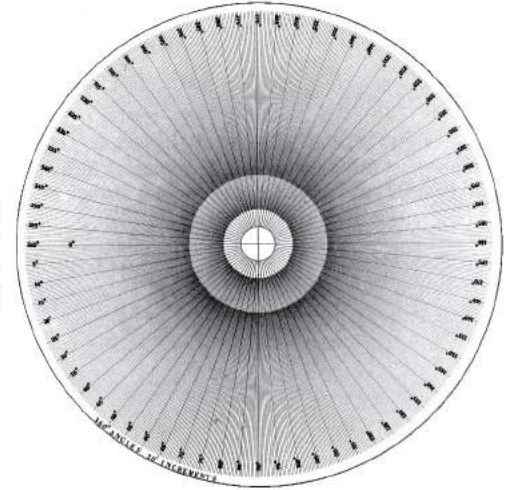
Magnification		10 X	20 X	25 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.005	.002 .0025	.002	.001	.001	.001	.0005
Metric	Increments	.10mm	.05mm	.04mm	.04mm	.02mm	.02mm	.01mm

# Protractor & Radius Charts (Glass or Plastic)



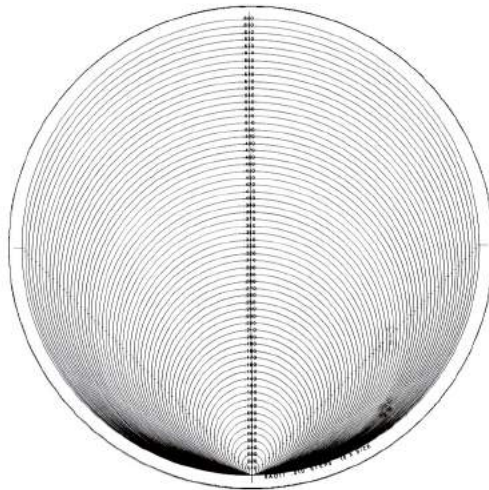
## No. 20

Marked every 10 degrees, graduated every degree. Available in all diameters up to and including 30.75" diameter.



## No. 24

Marked every 5 degrees, graduated every 30 minutes. Available in all diameters up to and including 30.75" diameter.



## No. 25

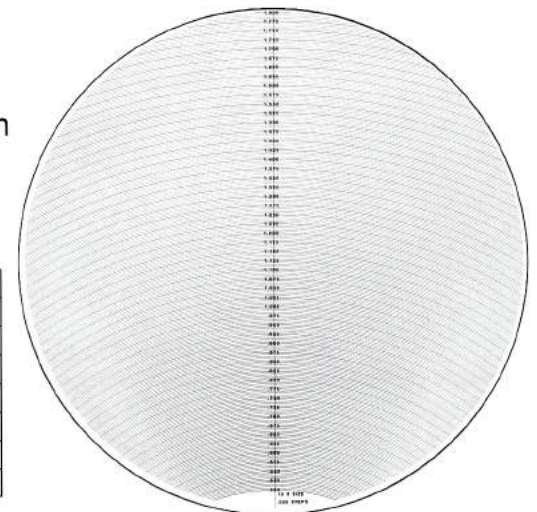
Small radius charts available up to 14.5" diameter.

Radius Chart

Magnification		10 X	20 X	25 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.010	.005	.004	.002	.002	.001	.001
Metric	Increments	.20mm	.10mm	.08mm	.04mm	.04mm	.02mm	.02mm

## No. 26

Large radius charts available in most sizes.



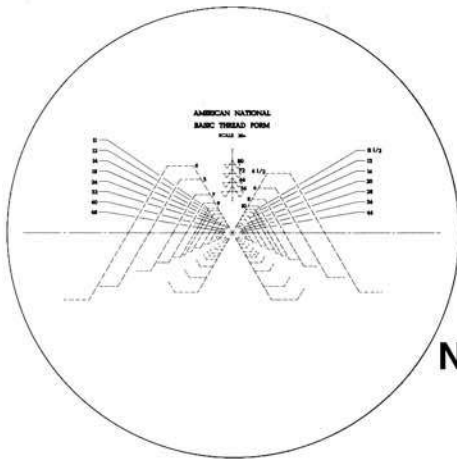
Large Radius Charts\*

INCH			
Mag.	Increments	Min. - Max. R.	Range
10 X	.005	.500 - 1.800	1.300
20 X	.002	.250 - .900	.650
25 X	.002	.200 - .720	.520
31.25 X	.002	.160 - .576	.416
50 X	.001	.100 - .360	.260
62.5 X	.001	.080 - .288	.208
100 X	.0005	.050 - .180	.130

METRIC			
Mag.	Increments	Min. - Max. R.	Range
10 X	.10 mm	12.5 - 46.0	33.5
20 X	.05 mm	6.25 - 23.0	16.75
25 X	.04 mm	5.0 - 18.4	13.4
31.25 X	.04 mm	4.0 - 14.8	10.8
50 X	.02 mm	2.5 - 9.2	6.7
62.5 X	.02 mm	2.0 - 7.4	5.4
100 X	.01 mm	1.25 - 4.6	3.35

\* Size range is based on 14" diameter (range is greater on larger diameters)

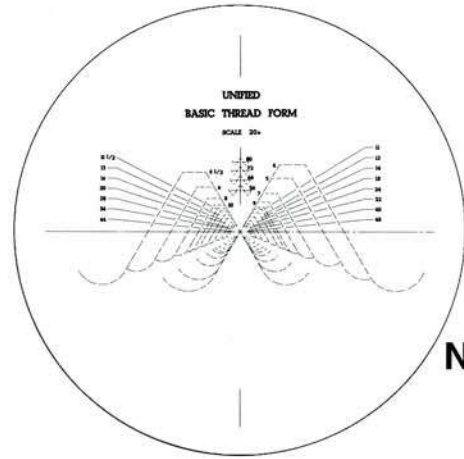
# Thread Form Charts



**No. 29**

## American National Basic Thread Form

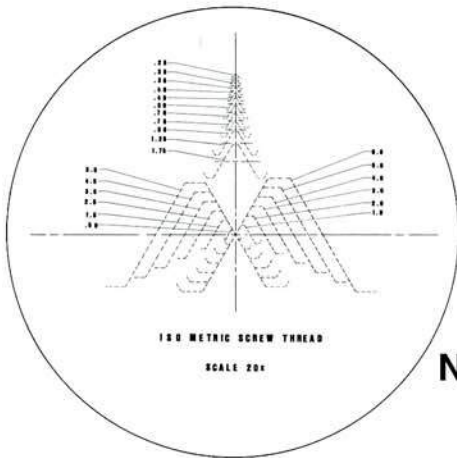
For checking thread angles, root and crest-forms and depth, from 4 to 80 pitch threads, as defined in the Federal Standard Handbook H-28.



**No. 30**

## Unified Basic Thread Form

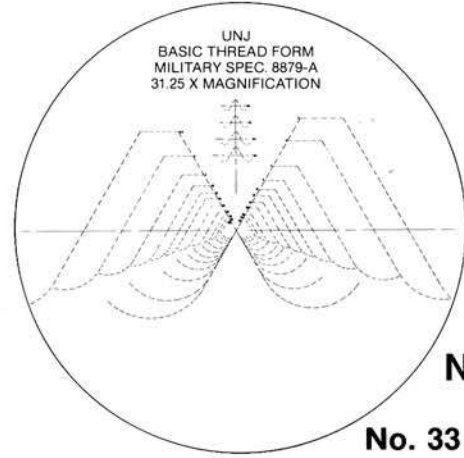
For checking thread angles, root and crest-forms and depth, from 4 to 80 pitch threads, as defined in the 1978 edition of Federal Standard H-28.



**No. 32**

## ISO Metric Screw Threads

For checking thread angles, root and crest-forms and depth, from .25 to 6.0 mm pitch threads, as defined in the 1978 edition to Federal Standard H-28. Also available in same format as chart no. 36 (single pitch threads).

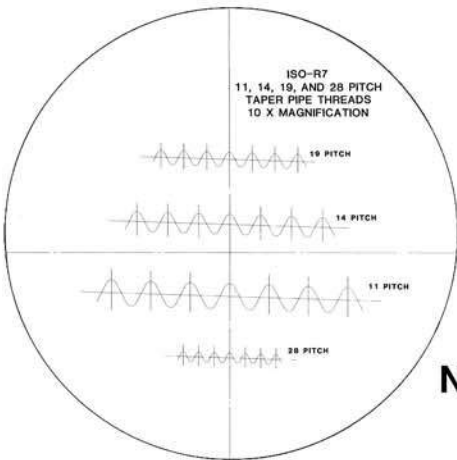


**No. 33**

**No. 33**

## UNJ Basic Thread Form, Military Spec. 8879A

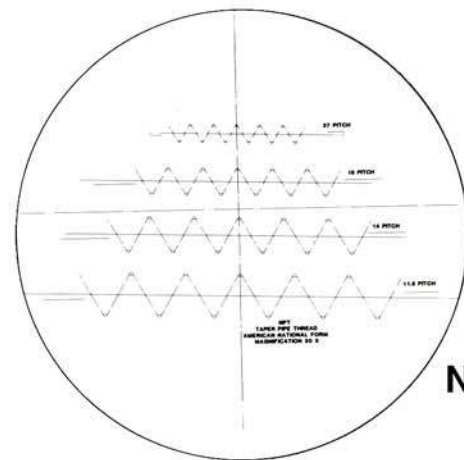
For checking thread angles, root and crest-forms and depth, from 4 to 80 pitch threads, as defined in the 1973 Military Specification Manual MIL-S-8879A. also available in same format as chart no. 36 (single pitch threads).



**No. 34**

## ISO Taper Pipe Threads

For rapid checking of thread form, lead, taper, truncation, and included angle.



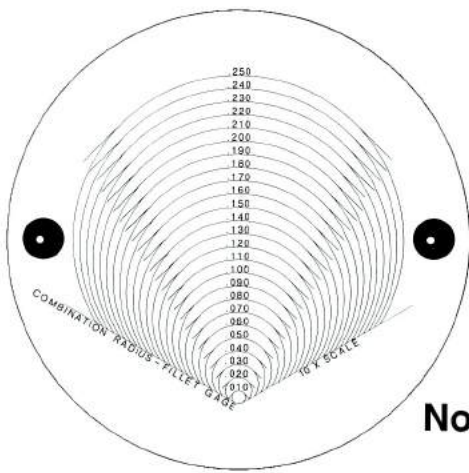
**No. 36**

## American National Form Taper Pipe Thread

For rapid checking of thread form, lead, taper, etc., as defined in National Bureau of Standards Handbook H-28.

Visual Precision specializes in custom thread charts. Please specify your requirements. A minimum magnification of 20X is strongly recommended for all thread charts.

# Hand Held Discs



**Radius Checker**

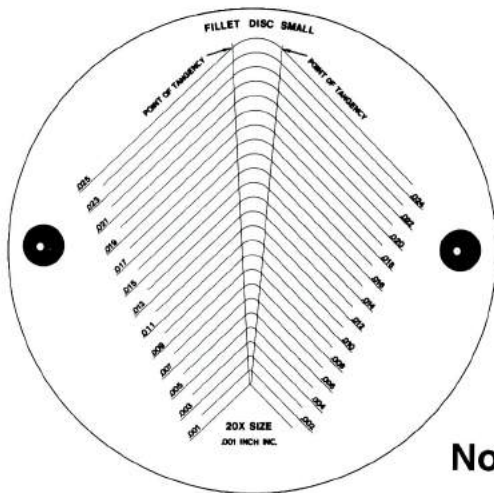
**No. 37**

**Radius Checker**

Magnification		10 X	20 X	25 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.010	.005	.004	.002	.002	.001	.001
Metric	Increments	.20mm	.10mm	.08mm	.10mm	.04mm	.05mm	.02mm

**ALL DISCS HAVE THESE FEATURES:**

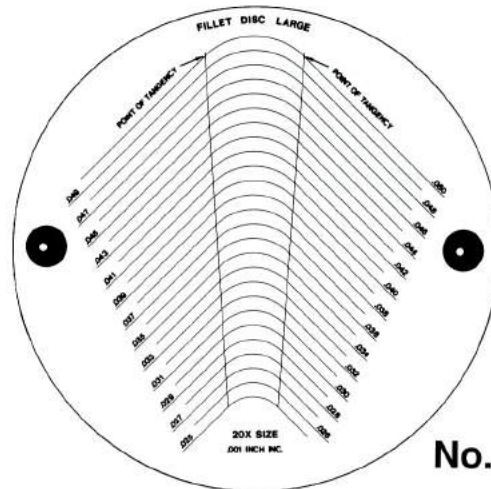
- \* Image on the bottom side, eliminating parallax
- \* Clear plastic material
- \* (2) knobs located on sides
- \* 7" diameter X 1/8" thick



**Fillet Checker**

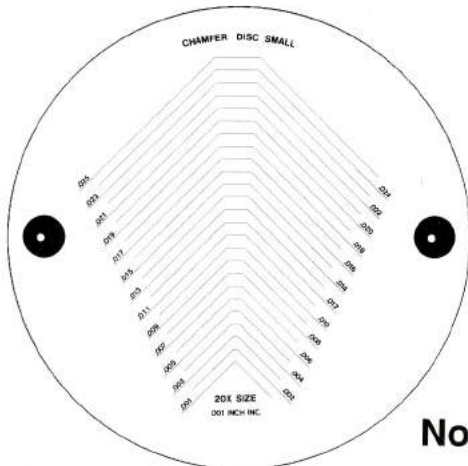
**No. 37-FS**

Fillet Small



**No. 37-FL**

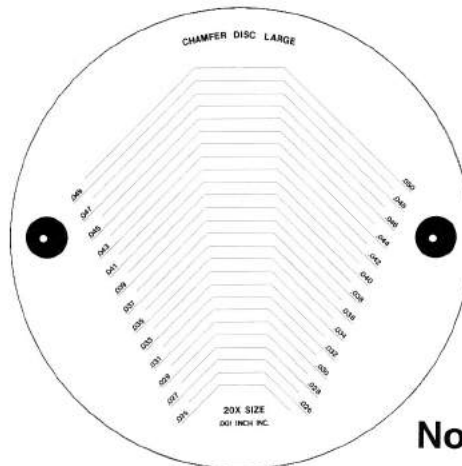
Fillet Large



**Chamfer Checker**

**No. 37-CS**

Chamfer Small



**No. 37-CL**

Chamfer Large

**Fillet & Chamfer Checkers**

Magnification		10 X	20 X	31.25 X	50 X	62.5 X	100 X
Inch	Increments	.001	.001	.001	.0005	.0005	.0005
Metric	Increments	.02mm	.02mm	.02mm	.01mm	.01mm	.01mm



# Layout & Measuring Scales



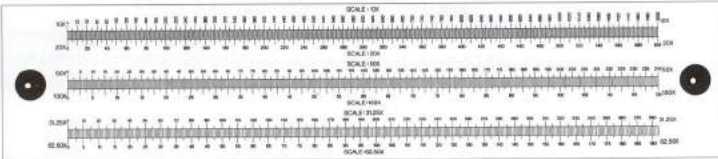
## No. 38 Two Magnification Scale

Combinations of Magnifications	Increments Available		Catalog Numbers							
			Glass				Plastic			
	INCH	METRIC	8"	12"	18"	24"	8"	12"	18"	24"
10X - 20X	.0050 - .0010	.10mm - .05mm	38100	38200	38300	38400	38600	38700	38800	38900
10X - 25X	.0050 - .0010	.10mm - .04mm	38101	38201	38301	38401	38601	38701	38801	38901
10X - 31.25X	.0050 - .0010	.10mm - .04mm	38102	38202	38302	38402	38602	38702	38802	38902
10X - 50X	.0050 - .0005	.10mm - .02mm	38103	38203	38303	38403	38603	38703	38803	38903
10X - 62.5X	.0050 - .0005	.10mm - .02mm	38104	38204	38304	38404	38604	38704	38804	38904
10X - 100X	.0050 - .0005	.10mm - .01mm	38105	38205	38305	38405	38605	38705	38805	38905
20X - 25X	.0010 - .0010	.05mm - .04mm	38106	38206	38306	38406	38606	38706	38806	38906
20X - 31.25X	.0010 - .0010	.05mm - .04mm	38107	38207	38307	38407	38607	38707	38807	38907
20X - 50X	.0010 - .0005	.05mm - .02mm	38108	38208	38308	38408	38608	38708	38808	38908
20X - 62.5 X	.0010 - .0005	.05mm - .02mm	38109	38209	38309	38409	38609	38709	38809	38909
20X - 100X	.0010 - .0005	.05mm - .01mm	38110	38210	38310	38410	38610	38710	38810	38910
25X - 31.25X	.0010 - .0010	.04mm - .04mm	38111	38211	38311	38411	38611	38711	38811	38911
25X - 50X	.0010 - .0005	.04mm - .02mm	38112	38212	38312	38412	38612	38712	38812	38912
25X - 62.5 X	.0010 - .0005	.04mm - .02mm	38113	38213	38313	38413	38613	38713	38813	38913
25X - 100X	.0010 - .0005	.04mm - .01mm	38114	38214	38314	38414	38614	38714	38814	38914
31.25X - 50 X	.0010 - .0005	.04mm - .02mm	38115	38215	38315	38415	38615	38715	38815	38915
31.25X - 62.5X	.0010 - .0005	.04mm - .02mm	38116	38216	38316	38416	38616	38716	38816	38916
50X - 62.5X	.0005 - .0005	.02mm - .02mm	38117	38217	38317	38417	38617	38717	38817	38917
50X - 100 X	.0005 - .0005	.02mm - .01mm	38118	38218	38318	38418	38618	38718	38818	38918
100X - 31.25X	.0005 - .0010	.01mm - .04mm	38119	38219	38319	38419	38619	38719	38819	38919

### ALL SCALES HAVE THESE FEATURES:

- \* Ruled lines on the bottom side, eliminating parallax
- \* Glass or Plastic material
- \* (2) knobs located at both ends
- \* Glass thickness of 1/4"
- \* Plastic thickness of 3/16"
- \* Optional cases

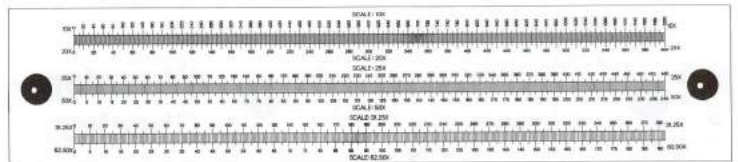
## No. 39 Standard Multi-Magnification Scale



Unit of Measure	Catalog Numbers							
	Glass				Plastic			
	8"	12"	18"	24"	8"	12"	18"	24"
INCH	3901	3902	3903	3904	3906	3907	3908	3909
METRIC	3911	3912	3913	3914	3916	3917	3918	3919

Magnification	Increments	
	INCH	METRIC
10X	.00200	.100 mm
20X	.00100	.050 mm
31.25X	.00100	.050 mm
50X	.00050	.020 mm
62.5X	.00050	.025 mm
100X	.00025	.010 mm

## No. 40 Multi-Magnification Scale



Unit of	Catalog Numbers							
	Glass				Plastic			
	8"	12"	18"	24"	8"	12"	18"	24"
INCH	4001	4002	4003	4004	4006	4007	4008	4009
METRIC	4011	4012	4013	4014	4016	4017	4018	4019

Magnification	Increments	
	INCH	METRIC
10X	.0020	.100 mm
20X	.0010	.050 mm
25X	.0010	.040 mm
31.25X	.0010	.050 mm
50X	.0005	.020 mm
62.5X	.0005	.025 mm

# Custom Comparator Charts

Simplify checking of complex production parts.

A custom comparator chart can solve a lot of problems quickly and inexpensively. Our design group has been creating "Special Application" charts for over 35 years. We can design and manufacture a comparator chart dedicated to your part and perfectly suited to your checking application.

We can create a chart from your part drawing or electronic CAD file. Features can include multiple views, graphic & numerical tolerances, datums, and theoreticals. The electronic files for charts are maintained for easy and inexpensive duplication and/or modification when a revision crops up. To enhance handling of your parts, we can also design and manufacture *dedicated holding fixtures* that are coordinated with your custom chart. See page 11 for details.

A Visual Precision custom comparator chart can help you simplify a complex inspection job for your quality system.

