



# BEARING & TOOL CENTRE



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## Our Sister Concern : RELIEF SERVICE CENTRE

Repairs, Removal of Jaw Error, Bore Gauge Extension, Instrument Modifications & Spares

### Quotation

#### 56 Bevel Protractor

Range-mm	W	C	D %	Simple	Dial	Digital
Least count				5 min	5 min	1 min
Insize Rs.	6	N		4994	7517	21952
Code				2372-360	2373-360	2172-360A
Catalog				Page No - 2	Page No - 2	Page No - 2
Kristeel Rs.		N	30	2700		---
Code				UBP		
Catalog				Page No - 3,4		
Aerospace Rs.		N	10	1940	3630	15555
M & W Rs.	6	N		3500		
Code				BP 12		
Mitutoyo Rs.	12	N	5	13366		55018
Code				187-901		187-502
Catalog				Page No - 5,6		Page No - 5,6
NABL Traceable Rs				260	260	260
NABL Accrediat Rs.				350	350	350

Note:- Aerospace item once sold will not be taken back even if it is Faulty.

#### 56 - 1 Digital Bevel Box

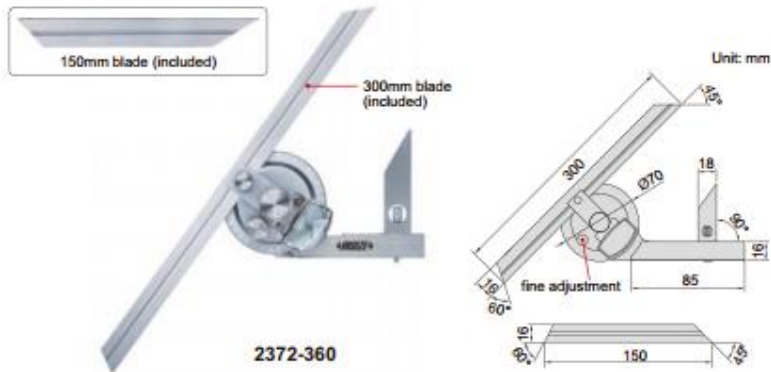
Make	Precise
Range-mm	180 degree
Least count	0.1 degree
Rs.	6500

### Terms & Conditions –

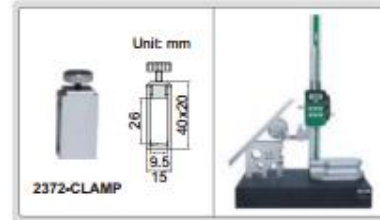
- Goods offered - Subject to Prior Sale
- Price Validity: "15 Days from Date of Quotation"
- C.S.T 2% extra against form C. Otherwise 5% without form C For Out of Gujarat Sales only.
- VAT 5% extra for Sales within Gujarat. Prices Ex-Godown Ahmedabad.
- Payment against Proforma Invoice, Packing, Forwarding & Freight extra.
- **Bank Detail** – Kotak Mahindra Bank Ltd.
- **Branch** – Shivranjini
- **Bank IFSC Code** - KKBK 0000 810
- **Bank Account No.** 08102 00000 2689
- Note - While making payment online do mention your Company's name.
- TIN NO 24070901229 , CST No. 24570901229
- We are looking forward to your valued orders.

# INSIZE MAKE

## UNIVERSAL PROTRACTOR



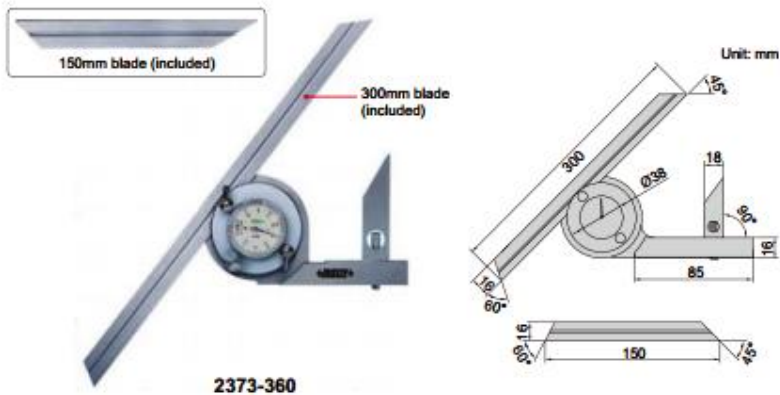
### clamp for height gages



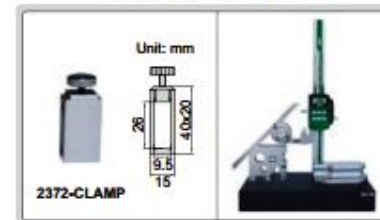
- Parallax-free reading
- Made of stainless steel
- Optional accessory: clamp (code 2372-CLAMP), suitable for height gages 1156, 1351 and 1250

Code	Range	Graduation	Accuracy
2372-360	0-360°	5'	±5'

## DIAL PROTRACTOR



### clamp for height gages



- Made of stainless steel
- Optional accessory: clamp (code 2372-CLAMP), suitable for height gages 1156, 1351 and 1250

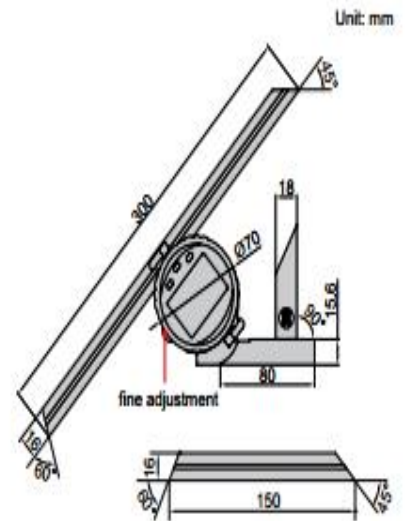
Code	Range	Graduation	Accuracy
2373-360	0-360°	5'	±5'

# DIGITAL PROTRACTOR

DATA  
OUTPUT

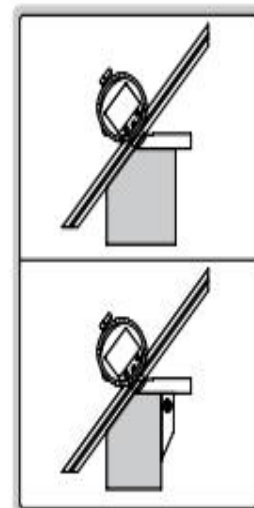
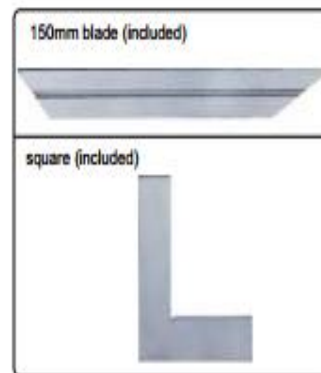


2172-360A



Unit: mm

- Display in degree (for example 32.655°) and degree/minute/second (for example 32°39'30")
- SET button: preset the reading, change measuring direction
- MODE button: choose 0-90°, 0-180° or 0-360° display
- ZERO/ON/OFF button: zero and power on/off
- Battery CR2032, automatic power off
- Data output
- Supplied with square to set 90°
- Made of stainless steel
- Optional accessory: data output cable (code 7305-SPC1A)

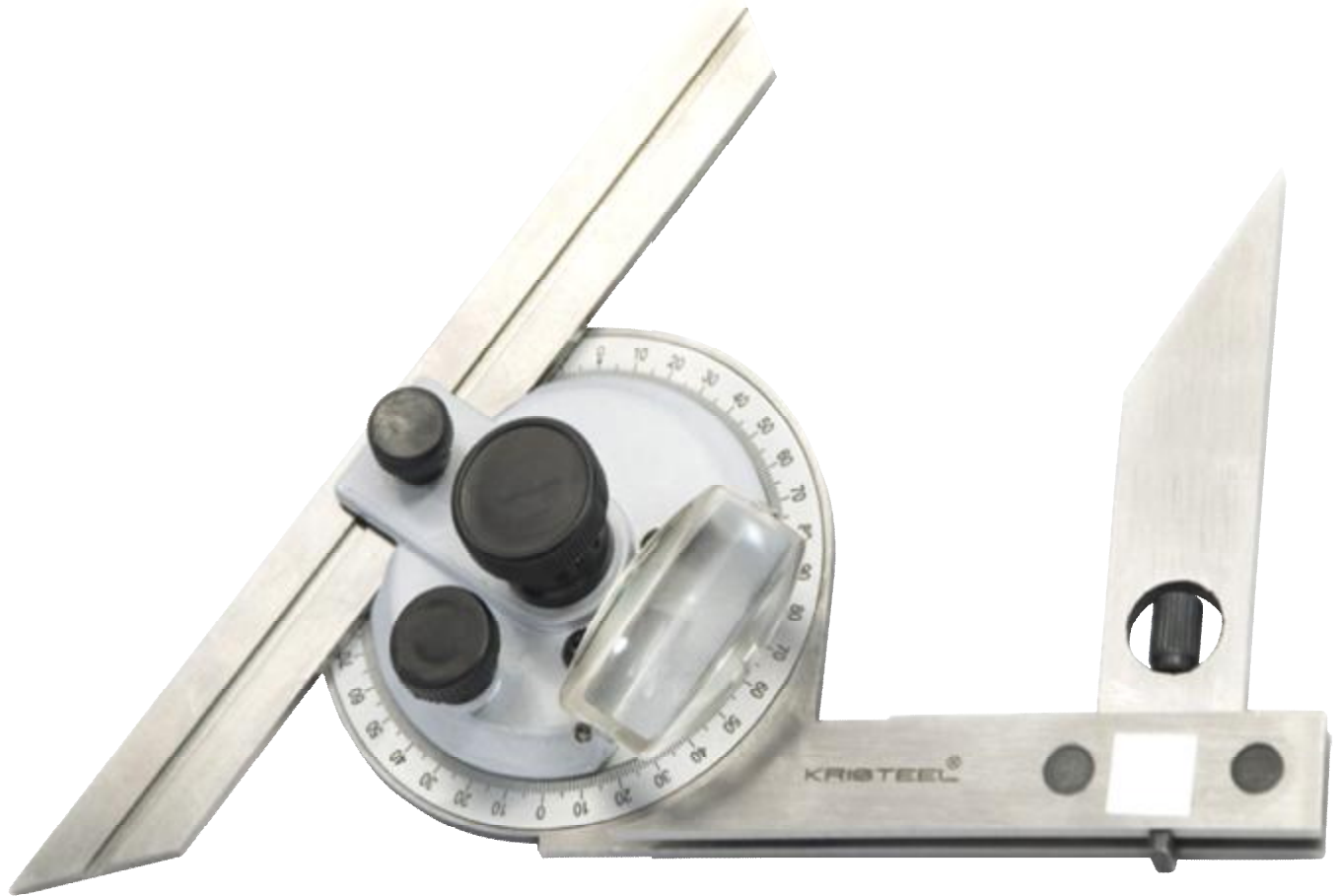


Code	Range	Resolution	Accuracy
2172-360A	0-360°	10"/0.005°	±5'

# **KRISTEEL MAKE**

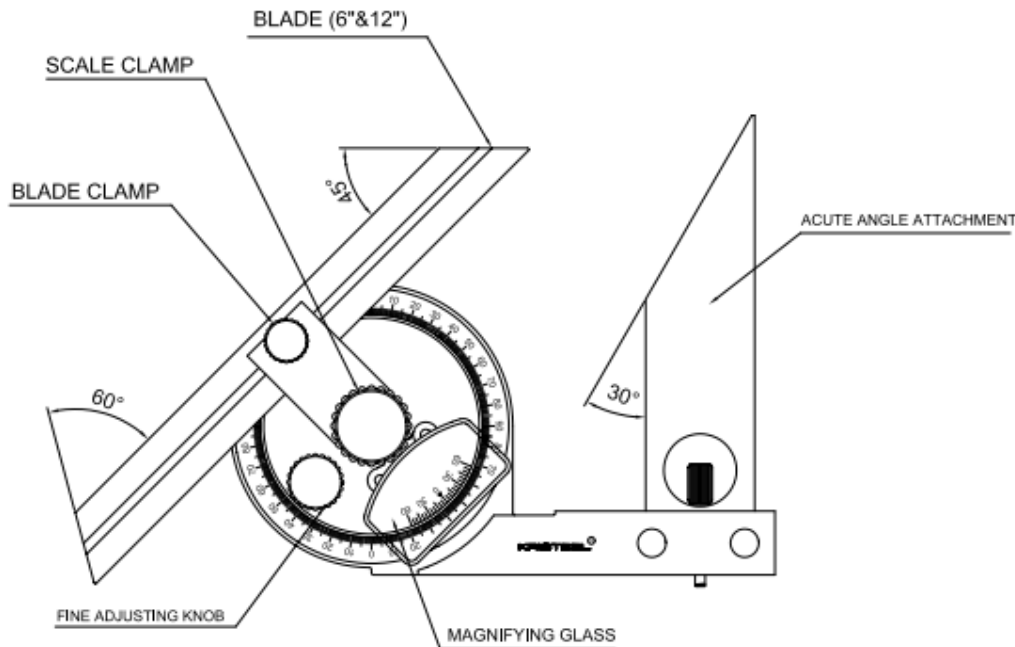
## **UNIVERSAL BEVEL PROTECTOR ( MODEL – UBP )**

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### **UNIVERSAL BEVEL PROTECTOR**

High precision angle gauge for accurate angle measurement of machines, moulds & jigs. Can be attached to height gauge. Comes with blade length of 150 / 300mm & with acute attachment.



**MATERIAL :-** Stainless Steel

**RANGE :-** 6" & 12" blades

**LEASTCOUNT :-** 5 Minute

**FINISH :-** Fine Polished

**USES :-** KRISTEEL Universal Bevel Protractor is a high precision angle gauge for setting and inspecting all types of machines ,metal moulds and Jigs, fixtures.

KRISTEEL Universal Bevel Protractor Is supplied with blades , an Acute angle attachment , a holder for Helght gauge and a Magnifying glass .

KRISTEEL Universal Bevel Protractor Is more valuable and usefull than a conventional angle gauge on the fact that fine adjustment of the blade can be obtained by the fine adjusting knob after untightening the clamp at the center , thus any angle can be lald out or measured with high accuracy .

Blade 150mm(6") and 300mm (12") are available

**FEATURES :-**

- \* Minimum reading (least count ) Is 5 minutes.
- \* Main scale and vernier scale are on the same plane to eliminate reading parallax .
- \* Fine adjustment of the blade Insures precision measuring and layng out of angle .
- \* Main parts are of hardened stainless steel to prevent rust.
- \* Combined with an attachment or Helght gauge, a wide range of measurement is available

**IMPORTANT -**

The blade can be clamped by rotating the knob in either direction clockwise or anticlockwise .If you feel tightness In unclamping rotate the clamp knob In the reverse direction.

Do not rotate the knob with the tools In this case, or It may damage the Instrument

**PACKING :-** Each assy packed In Plastic box with Instruction leaflet.

$$L.C. = 1 - \frac{\text{Main scale divn.}}{\text{Vern. scale divn.}}$$

Where 1 = main scales first matching divn. to ver. scale  
Which Is 2 °

$$U.B.P. L.C. = 1 - \frac{23 \text{ (Main scale divn.)}}{12 \text{ (Vern. scale divn.)}}$$

Value of 1 = 2°

$$L.C. = 2 - \frac{23}{12} = 2 - 1.916667 = 0.083333°$$

$$1° = 60 \text{ min. so } 0.083333 \times 60 = 5' \text{ (minute)}$$



# MITUTOYO MAKE

## Bevel Protractor

### SERIES 187

#### Technical Data

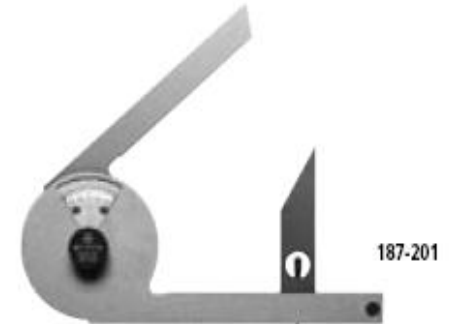
Graduation: 5 min. ( $0^{\circ}$  -  $90^{\circ}$  -  $0^{\circ}$ )  
Blade edge angle:  $30^{\circ}$  and  $60^{\circ}$

#### FEATURES

- Consists of three sheets of stainless steel, the middle one of which is made for angle measurements.

#### SPECIFICATIONS

Blade length	Order No.	Remarks
135mm	187-201	w/ $60^{\circ}$ , $30^{\circ}$ edges



#### Technical Data

Graduation: 5 min. ( $0^{\circ}$  -  $90^{\circ}$  -  $0^{\circ}$ )  
Blade edge angle:  $30^{\circ}$ \*,  $45^{\circ}$  and  $60^{\circ}$   
\*187-901, 187-902 only

## Universal Bevel Protractor

### SERIES 187

#### FEATURES

- High-precision angle gage for accurate angle measurement of machines, molds, and jigs.
- Can be attached to height gages.

#### SPECIFICATIONS

Metric		
Blade length	Order No.	Remarks
150, 300mm	187-901	w/ $60^{\circ}$ , $45^{\circ}$ , $30^{\circ}$ edges
150mm	187-907	w/ $60^{\circ}$ , $45^{\circ}$ edges
300mm	187-908	w/ $60^{\circ}$ , $45^{\circ}$ edges



Inch		
Blade length	Order No.	Remarks
6", 12"	187-902	w/ $60^{\circ}$ , $45^{\circ}$ , $30^{\circ}$ edges
6"	187-904	w/ $60^{\circ}$ , $45^{\circ}$ edges
12"	187-906	w/ $60^{\circ}$ , $45^{\circ}$ edges



## Digital Universal Protractor

### SERIES 187

#### Technical Data

Range:  $-360^{\circ}$  to  $+360^{\circ}$   
Tolerance:  $\pm 2''$  ( $\pm 0.03^{\circ}$ )  
Repeatability: 1'  
Resolution: 1' ( $0.01^{\circ}$ )  
Battery: Lithium Battery  
Battery life: 2,000 hours

#### Function

Presetting

#### FEATURES

- Data output function make it easy to see the statistical data.
- Can be attached to height gages, gage holder (950750, metric)
- Setting preset value.
- Removable blade.

#### SPECIFICATIONS

Blade length	Order No.	Remarks (standard accessory)
150mm	187-501	Height gage holder (950750)
300mm	187-502	Height gage holder (950750)
6"	187-551	Height gage holder (950749)
12"	187-552	Height gage holder (950749)





**TFT Tools Inc**

## **Operation Instruction**

### **Universal Bevel Protractor**

A protractor is a device for measuring the angle between two intersecting lines. The angle is measured in degrees, and a circle is defined as having 360 degrees of identical size. The earliest known protractors were designed in the 17th century by sailors needing to plot courses on nautical charts.

A basic protractor consists of a half-circular piece of material with degree markings notched onto the outside edge of the arc, or curved section. The straight edge is placed along one of the lines to be measured, and the number of degrees is determined by where the second line crosses the arc.

Because it is a half-circle, the basic protractor only measures angles up to 180 degrees. This is adequate in normal use, as the relationship between two lines can always be expressed as an angle of 180 degrees or less. If the original placement of the protractor produces an angle greater than 180 degrees, simply flipping it over will provide a reading of less than 180 degrees.

This is due to the symmetrical nature of the circle; starting from one line, the angle to a second intersecting line can be measured by moving either clockwise or counter clockwise. One direction will measure an angle greater than 180 degrees, and the other will measure an angle less than 180 degrees. They cannot both measure more than 180, as they must add up to 360, the number of degrees in a full circle.

An alternate type of protractor is made from two straight edges attached to each other at one end, with a graduated arc between them. The arc is attached to one arm, and the other arm slides freely over it. An arm is placed along one line, and the other arm is swung outwards until it is parallel to the other line. The degrees are then read off the arc. Astronomers often use a third type of protractor, one formed from a fully circular piece of material. This allows them to directly measure all angles between 0 and 360.

Protractors are generally used for measuring existing lines, but they can also be constructed to help draw them. By attaching a swiveling arm to the straight edge of the semicircular disk described above, lines with arbitrary angles can be drawn. Such devices are most commonly used in drafting of technical drawings such as architectural plans.