

# Axial Force Sensor

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# YSAFS

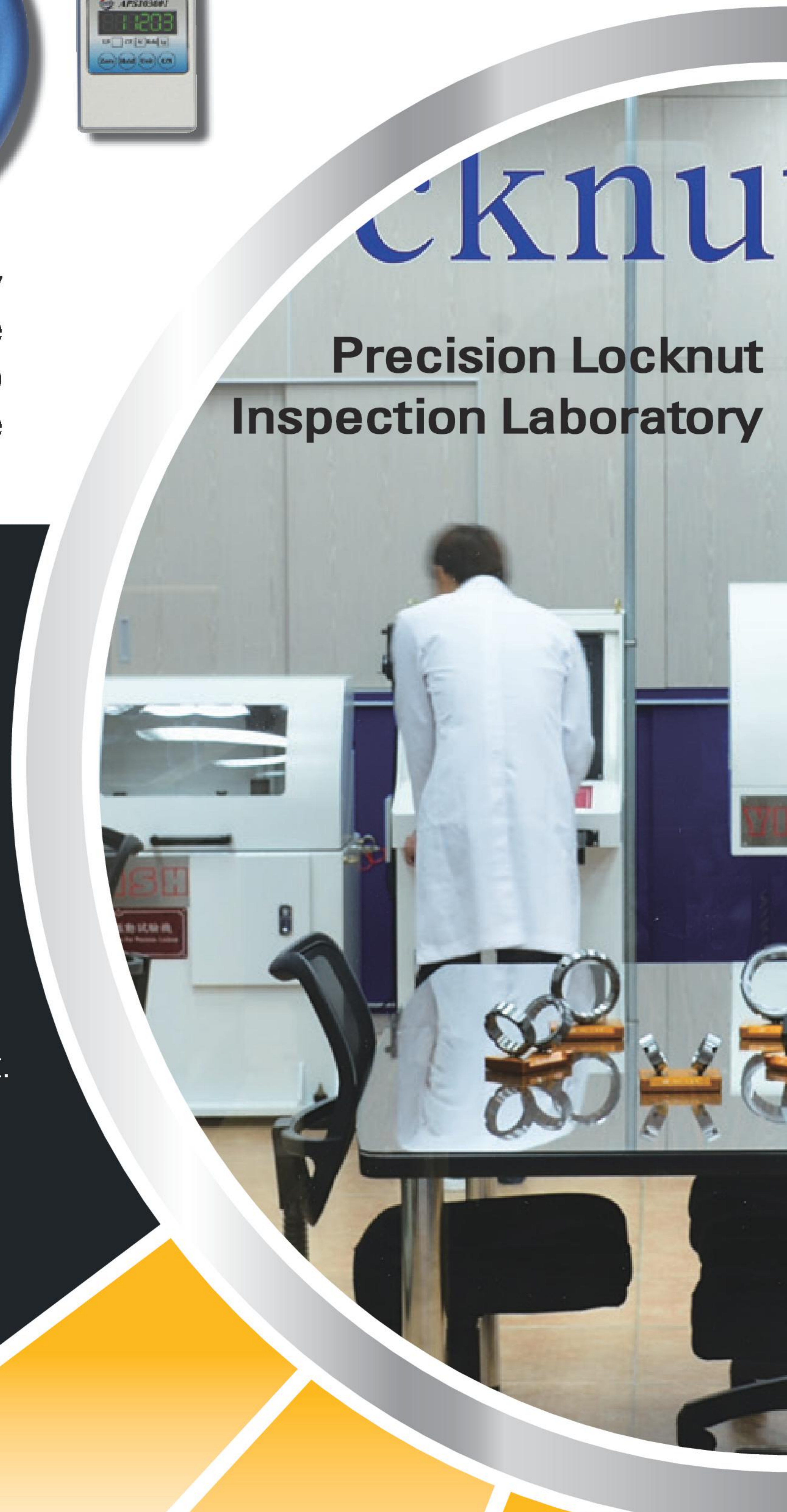
## Axial Force Sensor



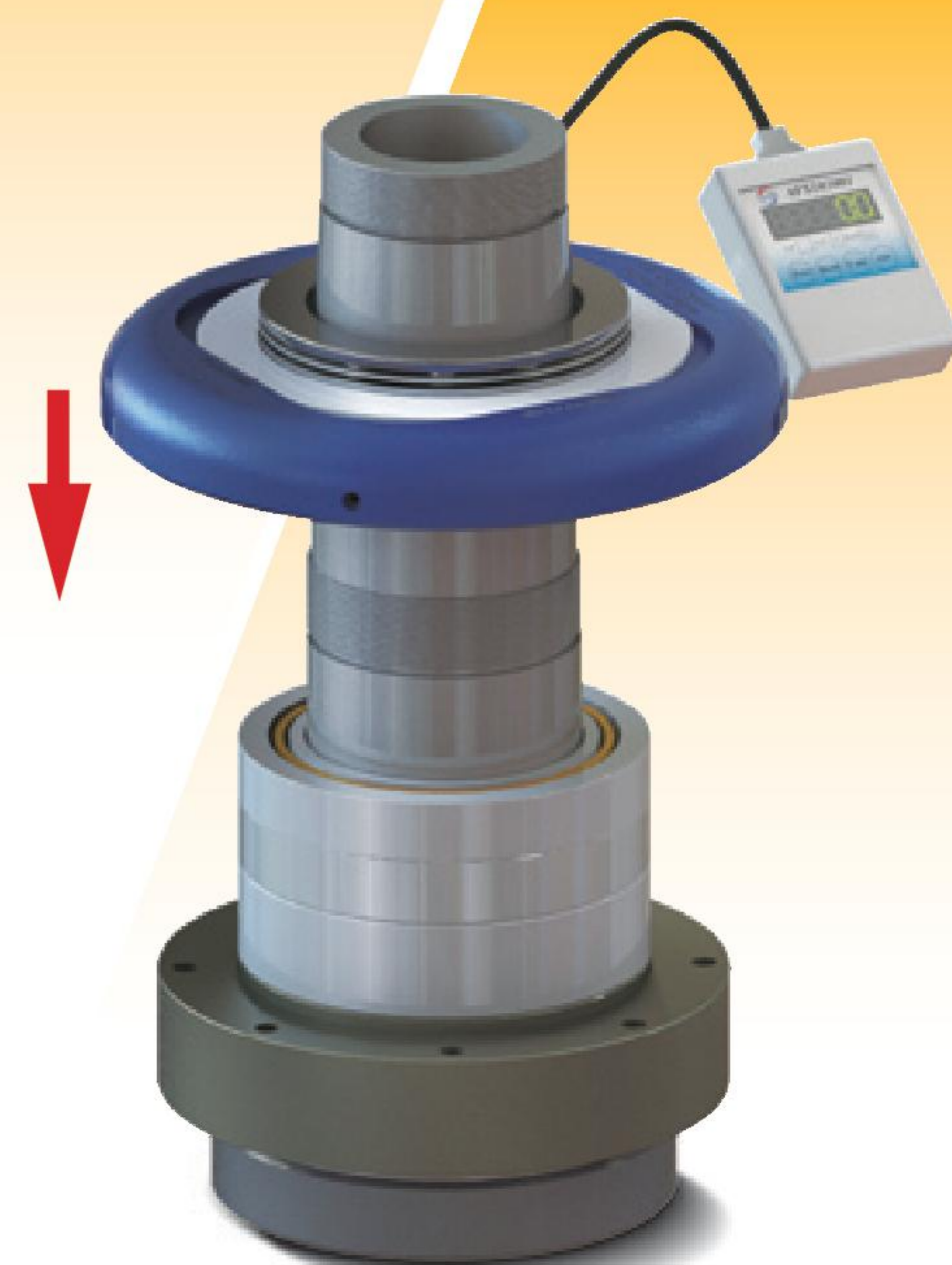
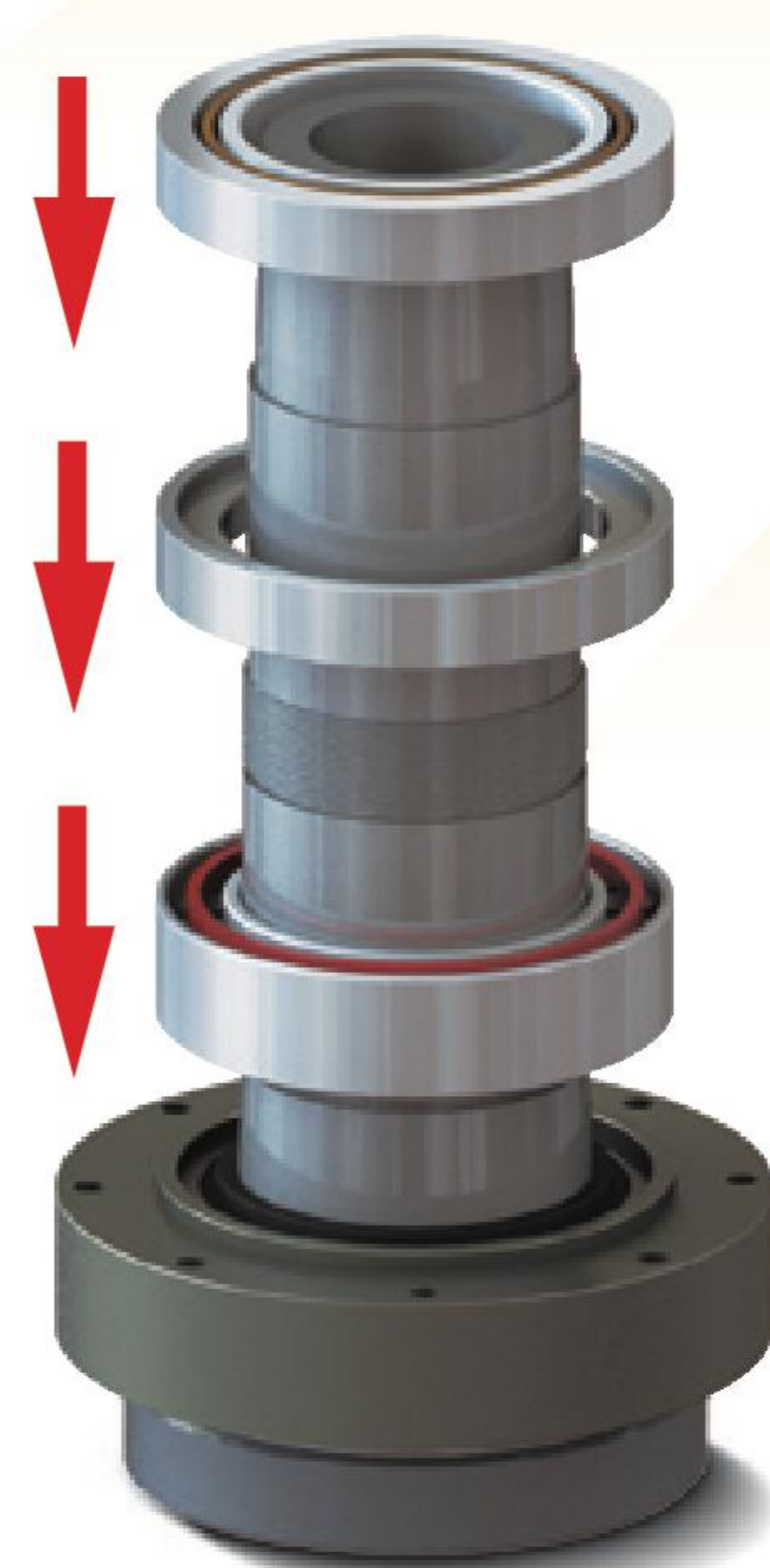
In 2014 YINSH Precision Industrial Co., Ltd. has launched the new axial force sensor which has been developed by their precision locknuts R&D and inspection lab. This device can closely measure the axial force generated by a locknut and therefore can be used to inspect locknuts during spindle assembly to ensure stable quality. This device can also compare and analyze axial force.

### Features

- Suitable for various kinds of precision locknuts.
- Currently this is the only axial force sensor that is designed for precision locknuts.
- Three specifications of the axial force sensor that can measure locknuts from M40 to M170.
- Can measure the amount of axial force when tightening the locknut.
- Easy-to-install plug-in connector.
- High precision, high stability, compact design, and energy saving.
- Built-in rechargeable battery.
- Can switch measurement units between pounds (lbf), kilograms (kgs), and newtons (N).



### How to use



**1** Measure the spindle shaft.

**2** Place the bearing and spacer ring.

**3** Place the axial force sensor.



# Simple, Fast, and Precise. Exceptional Device for Spindle Assembly.

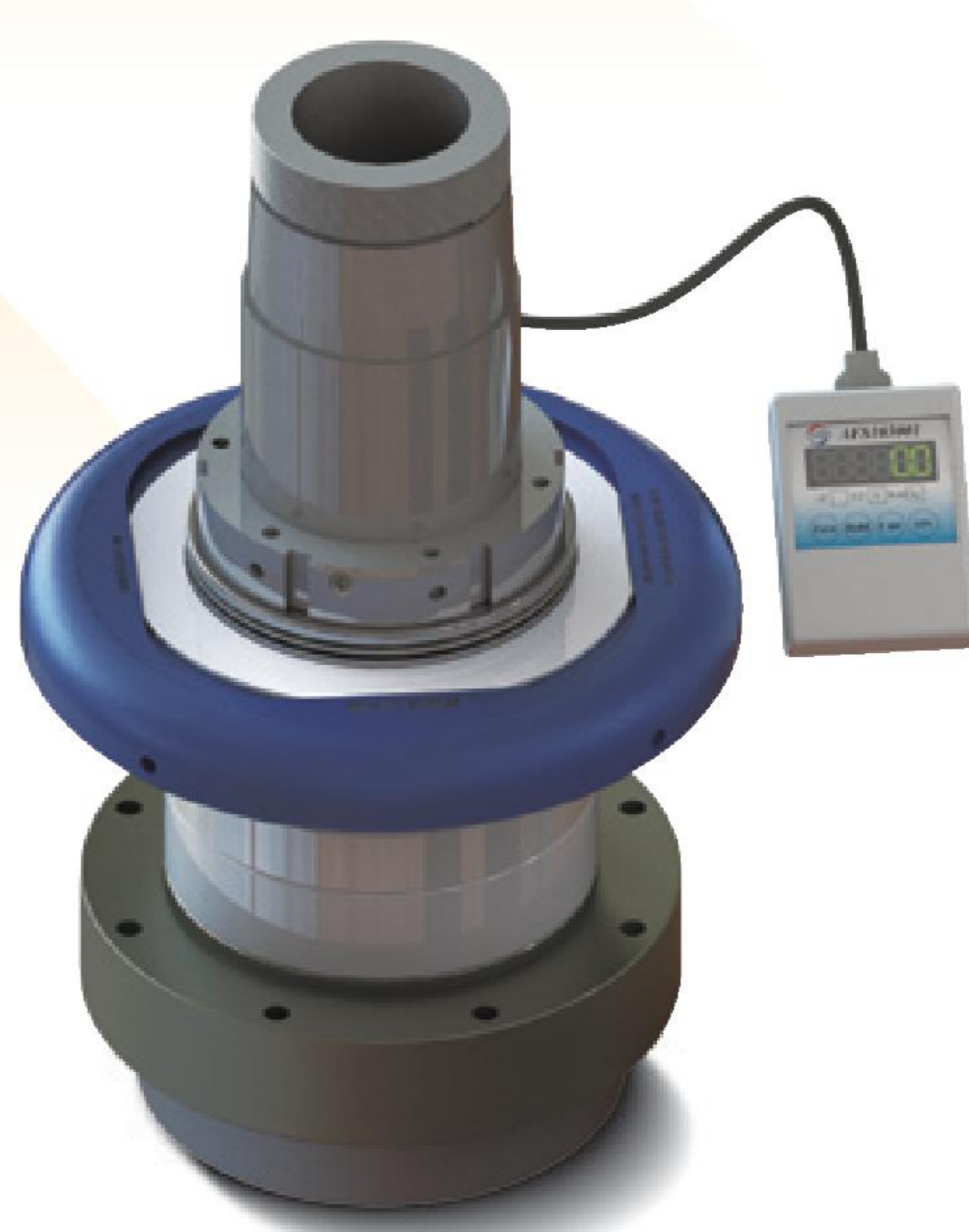
- The axial force sensor can be used to test the accuracy of spindle assembly for multiple batches of spindles.
- When designing spindles, even if the brand or specifications of the locknuts, or spacer rings and other components are changed, you can still use the axial force sensor to measure the most suitable tightening torque.
- It is very easy to use the axial force sensor to quickly and accurately measure the axial force.

## Enhance the Precision and Stability of Spindle Assembly and Development.

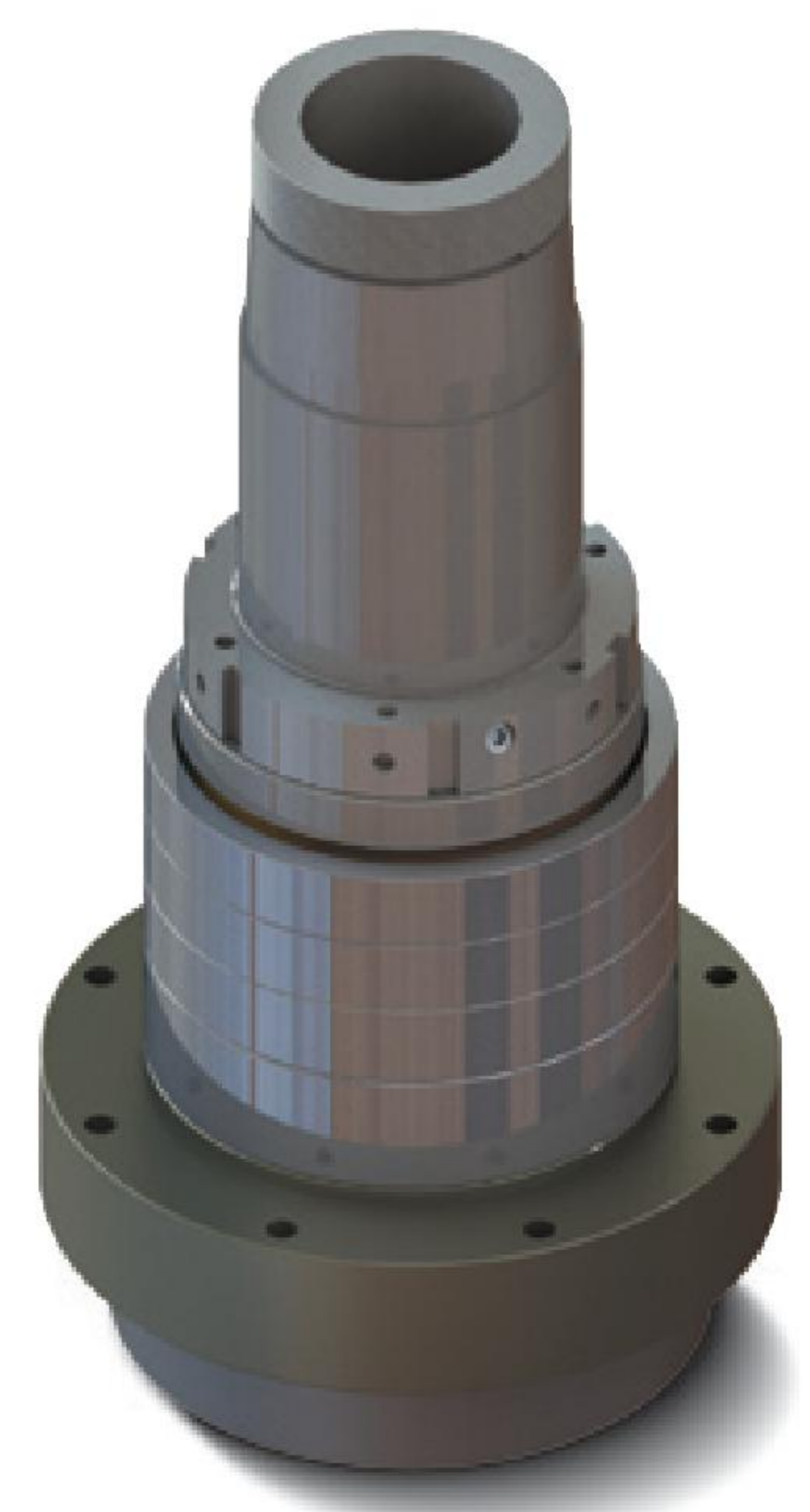
All bearings have specification requirements to regulate axial force, but since the tightening torque is influenced by the size and specification of precision locknuts, compatible gaps, bearing types, the brands used, hardness of the spacer ring, surface treatment of the locknut thread and so on, it is difficult to know the precise combination of these factors where the tightening torque achieves the optimal axial force of the bearing. Furthermore it is not easy to fully understand the static rigidity, dynamic rigidity and cutting stability of the spindle. Conventional solutions rely on the experience of repeated assembly and testing procedures, however since manufacturers constantly update spindle components and technologies, the efficiency of spindle development is limited. When using the "axial force sensor", this device eliminates the reliance on experience and therefore solves this problem. Not only does it have a simple structure and is it easy to use, but the measurement results of this device have a very high reproducibility ensuring high precision spindle assembly, which results in outstanding and reliable product development.



**4** Tighten the locknut.

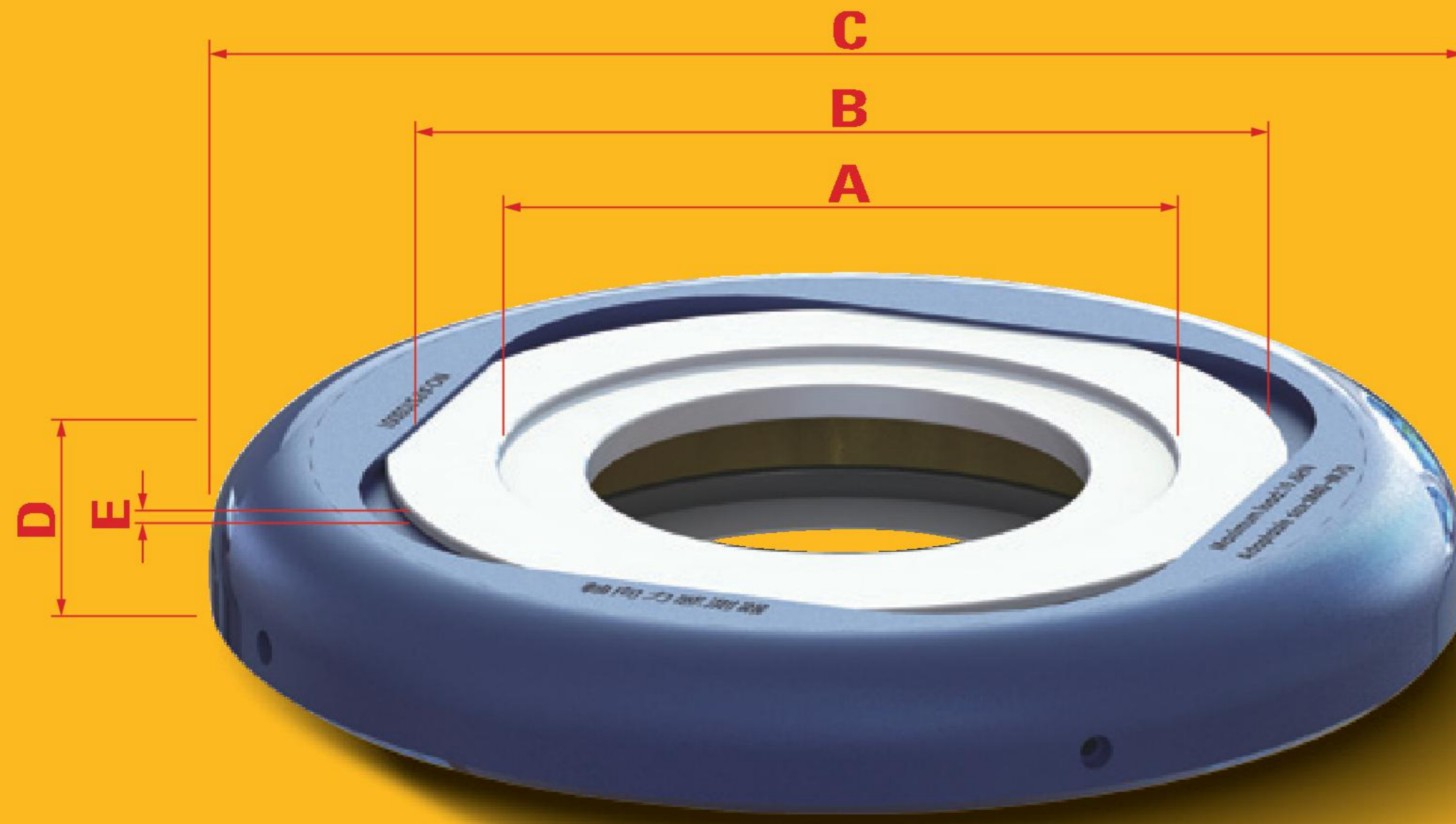


**5** According to the table of axial force, exert the torque required to reach the required axial force and then measure the tightening torque.



**6** Then use this tightening torque during spindle assembly.





## YSAFS

Specification		2T	3T	4T
Scope of application		M40-M70	M70-M120	M120-M170
The maximum load	kgf	2000	3000	4000
Accuracy		±1.0%	±1.0%	±1.0%
Allowable temperature range	°C	-20 ~ 70	-20 ~ 70	-20 ~ 70
Overload protection		150%	150%	150%
Weight without accessories	kg	3.8	5.3	7.2
Display range		0-99999	0-99999	0-99999
Display dimensions	mm	60 x 90 x 24	60 x 90 x 24	60 x 90 x 24
<b>A</b>	mm	85	135	185
<b>B</b>	mm	120	170	220
<b>C</b>	mm	200	250	310
<b>D</b>	mm	35	35	35
<b>E</b>	mm	2	2	2



**Scan Now!**



### YINSH PRECISION INDUSTRIAL CO., LTD.

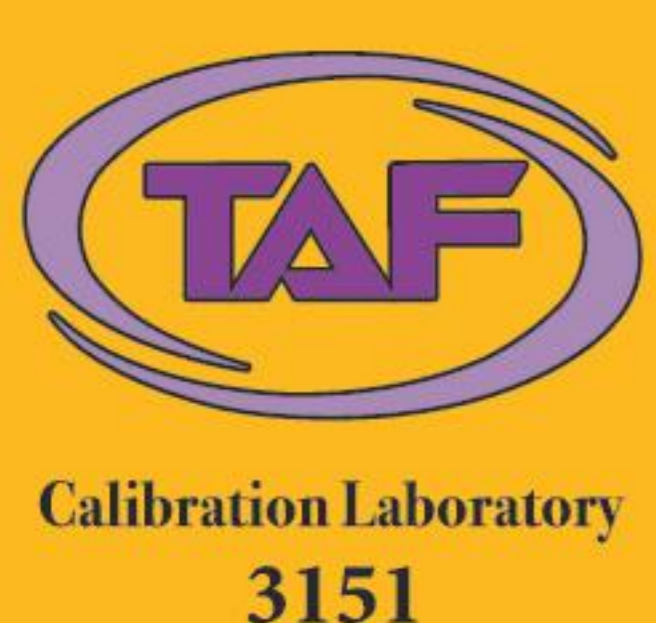
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