

Plug Gauge

BMD plug gauges are high precision self-centering indicating bore gauges. The BMD can be used for static and dynamic measurements. The plug body secures the centering of the gauge in the bore without problem. BMD plug gauges are mainly used for the volume gauging of close toleranced bores. The usability of the BMD for manually in-process and post-process bore inspection as well as the use in automatic gauging stations offers a wide range of application. A large assortment of accessories e.g. indicator holders, depth extensions, adaptors, right angle attachments, etc. guarantee a large range of utilization e.g. also for SPC.

Technical data :

- Size diameter : 2.98 mm to 270 mm
- Measuring range : 0.1 to 0.8 mm (according to style)
- Repeatability : $\leq 1 \mu\text{m}$
- Linearity : $\pm 1\%$ of the travel
- Measuring depth : several meters (depending on size)
- Contact points : different materials available (depending on material hard chrome, ceramic, ruby, diamond, plastic), standard carbide
- Our standard range of programme has many different styles of plugs (suitable for through bore, blind bore etc.)
- Special purpose style plugs are produced in different body shapes, together with multi-plane plugs, always quoted on request.



Split ball probes

Split-ball probes : The universal bore gauge system for the indication of internal measurement. A modular gauging system constructed using interchangeable pieces allows gauging of most common bores. The gauges are used for individual or serial control in both inspection and production areas.

Through the different types of split-ball probes, the measurement of through & blind bores together with parallel distances can be made.

A large assortment of accessories such as holders, depth extensions, adaptors, right angle attachments, depth stops etc. enables the use of the gauging system as a hand-held gauge, or can be used in checking stands or gauging fixtures.

Technical data :

- Range of application : dia. 0.47 mm to 41.4 mm (in 3-point-version also to dia. 150 mm)
- Measuring range : 0.06 mm to 2.2 mm (depending on size)
- Calibration with setting masters
- Measuring depth : several meters (depending on size)
- Contact points : different materials available (depending on size and material carbide, ceramic), standard hard chrome
- Special shapes for blind bores, parallel distances and grooves
- Special shapes on request



Plunger probes

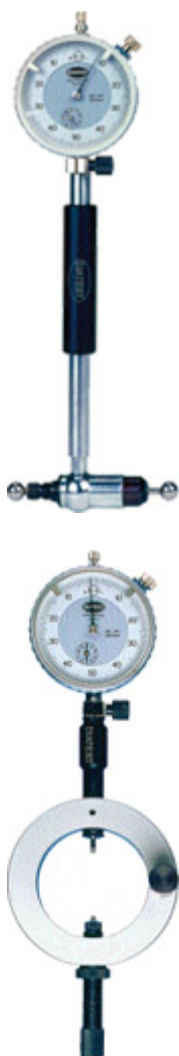


Plunger Probes : The indicating 2-point bore gauges distinguish themselves by easy handling, various combination possibilities and a large measuring range. The zero setting can be effected without problems in a micrometer gauge or in a setting ring. Alignment is independently effected via centring bridge. Apart from detecting the diameter also shape deviations of the bore e.g. conical shape, barrel-shape, out-of-round etc. can be determined. Plunger probe gauges are manufactured as standard also for blind bore gauging in style FB.

Technical data :

- Modular construction, universal bore gauge system for larger bores (M-678 und M-68-FB)
- Range of application: dia. 26,3 to 330 mm/1.03" to 13" (dia. 38,5 – 348/1.5" to 13.7" for blind bore FB)
- Large measuring range : +/- 1.5 mm
- Measuring depth : up to several metres
- Contact points : Tungsten carbide
- Calibration in setting master or micrometer
- Holders and depth extensions are manufactured from temperature stabilized material, ensuring minimal gauging errors

Gear Gauge



Internal gear gauges (IV)

- For measuring size between balls (M_i)
- Constructed in the same way as the split-ball and plunger probe
- Range of application : $M_i = 3.5$ mm up to 333 mm/0.14" to 13"
- Measuring range :
 - + 0.6 mm to 1.6 mm for split-ball system ($M_i = 3.5$ to 26.1 mm)
 - + 3 mm for plunger probe system ($M_i = 26.1$ to 333 mm)
- Accessories of split-ball and plunger probe system
- Measuring balls made of tungsten carbide
- Special solutions and gauge slides on request

External gear gauges (AV)

- For measuring size between balls (M_a)
- Constructed in the same way as the split-ball and plunger probe
- Range of application : $M_a = 10$ mm to 140 mm/0.4" to 5.5"
- Measuring range : 30 mm/1.2"
- Accessories of split-ball and plunger probe system
- Measuring balls made of tungsten carbide for use in MST-102
- Special solutions and gauge slides on request



Chamfer Gauge



Features :

- Measuring surface and taper made of hardened steel
- Scale graduation of indicators: 0.01 mm
- Calibration at factory or via setting master
- Special designs on request

Chamfer gauge (KT/KT-B)

- Direct gauging of 45 angle chamfers on rectangular and cylindrical work, even bores or slots
- Measuring range: chamfers up to 7 mm (radius 1 mm up to 9.5 mm via conversion)
- Chamfers in bores dia. 28 mm

Internal taper gauge (IKT)

- Direct gauging of major diameter of internal tapers or tapered slots
- Models with 60, 90 and 127 angle taper
- Range of application : dia. 0.5 mm to 120 mm
- Measuring range : 11.5 mm for 60 angle taper, 19.5 mm for 90 angle and 127 angle taper

External taper gauge (AKT)

- Direct gauging of minor diameter of external taper
- Models with 60, 90 and 127 angle plungers
- Range of application: dia. 5 mm to 120 mm
- Measuring range : 11 mm for 60 angle plunger, 19.5 mm for 90 angle and 127 angle plunger (except for size 1)

Outside Diameter Gauge



AMG

- Self-centering outside diameter gauge
- Used with mini fixture
- Measuring range : 5 mm to 25 mm/0.2" to 1"
- Smaller diameters from 1 mm and special solutions on request
- Simple calibration with setting discs
- Tungsten carbide contacts
- Repeatability: ≤ 0.001 mm/0.00005"



ODV

- Adjustable snap gauge
- Hand-held gauge
- Measuring range : 6.35 mm/0.25"
- Application range : 12 mm to 82 mm/0.5" to 3.25"
- Anti-magnetic design
- Ceramic anvils
- Repeatability: ≤ 0.002 mm/0.00008"

Dial Indicator



MU-1 m/MU-01Z

- Scale graduation: 0.001mm or 0.0001"
- Travel: 1 mm/0.04"
- Accuracy according to company standard
- Various measuring pressures

MU-10 m/MU-1Z

- Scale graduation: 0.01mm or 0.001"
- Travel: 10 mm/0.5"
- Accuracy according to DIN 878
- Various measuring pressures



Micro comparator (F-1000)

- Scale graduation: 0.001mm
- Measuring range: +/- 0.05 mm
- Accuracy according to DIN 879
- Various measuring pressures



Analogic (ANA)

- Measuring range: +/-0.2 mm digital or +/- 0.05 mm analog
- Resolution: 0,001 mm
- Optional with output similar to RS232 and min/max-function



MDU-125

- LCD digital display
- Measuring range: 12.5 mm or 0,5"
- Resolution: 0.01 mm/0.001 mm (0.0005"/0.00005")
- Data output: opto-RS232
- Model MDU-A with traffic-light-display
- Model MDU-M with min/max function (only for split-ball and plunger probes)

Indicator Holder



MH-10-150-P & MH-6-150-P

- The new shock-proof indicator holder
- Suitable for all digital and mechanical indicators (except for DM 1003 and ANA)
- Holders come with two marking strips as a standard

Diacator



DIACATOR

- For concentric alignment of bores on rotary machine tools
- Bores from 1.5 mm to 340 mm / 0.06" to 13.4"
- External diameter from 5 mm to 110 mm/0.2" to 4.3"
- Chucking possibility for draw- in collet chuck, jaw chuck, inside morse taper

Checking Stand

Suitable for use with DIATEST bore gauges (i.e. split-ball probes) for series measuring of small parts, also suitable in connection with special applications and preferably use together with DIATEST floating holders



Checking stand MST-58

- Measuring stroke adjustable from 0 to 40 mm or 1.6"
- Platen: Ø 58 mm/2.3"
- Top of stand continuously adjustable
- Maximum height of work-piece including gauge: 140 mm/5.5"
- Accessories: clamp-on-vee for positioning work-piece

Universal stand MST-102

- Measuring stroke adjustable from 0 to 130 mm or 5.1" with stop
- Size of platen: 100 x 100 mm / 4" x 4" (larger platen available in standard programme)
- Different jib arms to hold measuring system
- Extensive accessories



Mini fixture KM

- Suited best for measuring small work pieces in combination with BMD plugs
- Optimal position due to possibility for adjustments and accessories
- Design as gauging station with several KM side-by-side
- Suitable for multi-plane plugs



Crankshaft Gauge



Crankshaft Gauges : The crankshaft gauge can be used for the testing of crankshafts and crankshaft bearings. When turning the crankshaft the KP gauge will detect excess deflection of the crank flange (i.e. poor concentricity, too large bearing clearance, faulty or damaged crankshaft etc.). Crankshaft gauges are used when testing marine engines, motor vehicle engines, compressors etc. in crankshaft grinding shops, repair departments and in the assembly of engines.

Technical data :

- Operative range: 45 mm till 150 mm distance of crank web 60 mm till 600 mm distance of crank web
- Gauging points hardened
- Dial graduation of indicator 0.01 mm