

BACK PLUNGER INDICATORS

ATTACHMENTS FOR 650, 651, 196 AND 196M BACK PLUNGER DIAL INDICATORS AND UNIVERSAL DIAL INDICATORS

A. CLAMP

PT99437 With a 1-5/16" (33mm) flat or round capacity – 5/16" (8mm) post (PT03709-1/2) used with PT18718 Snug.

B. TOOL POST HOLDER

PT99438 3/8" x 3/4" x 6" (9.5 x 19 x 150mm) with upright spindle (PT03820-0) 5/16" dia. x 4-1/2" length (8 x 114mm). Use with PT18718 Snug.

C. SNUG COMPLETE

PT18718. Post hole has a 5/16" diameter† and 3/32-1/4" holding capacity. Can be used on our 252 Height Transfer Gage, 57 and 257A and B Surface Gages, on 657A Magnetic Base and Swivel Post Assembly.

D. SNUG COMPLETE

PT18724. Post hole has a 3/8" diameter (9.5mm) and 3/32-1/4" (2.4-6.3mm) holding capacity. Can be used with our 57 and 257C and D Surface Gages or 657AA Magnetic Base with upright post.

E. UNIVERSAL SNUG

57S With spindle hole diameters 5/16", 3/8" (8, 9.5mm) and gripping hole diameters 9/64", 5/32", 3/16", 1/4" (3.5, 4, 4.8, 6.3mm).

F. UNIVERSAL SNUG

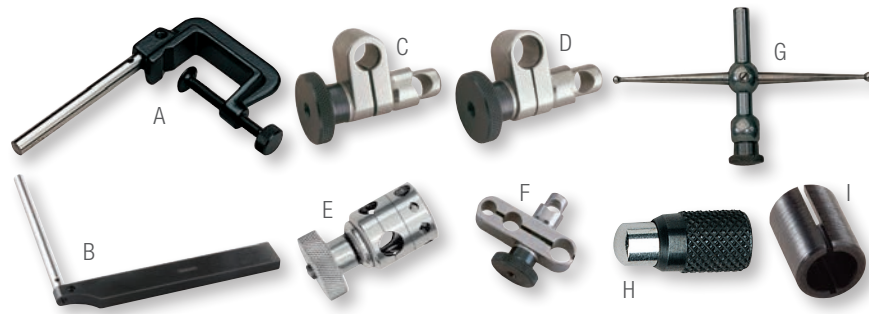
58S. With spindle hole diameters 1/4", 5/16", 3/8" (6.3, 8, 9.5mm). Gripping hole diameters range from 3/32-1/4" used on holders with smaller clamp hole.

Attachments for 650, 651, 196 and 196M Back Plunger Dial Indicators and Universal Dial Indicators

| Photo Key | Description | Cat./Part No. | EDP |
|-----------|---|---------------|-------|
| A* | Clamp | PT99437 | 64492 |
| B* | Tool Post Holder | PT99438 | 64493 |
| C* | Snug Complete | PT18718 | 50709 |
| D | Snug Complete - 1/4" and 3/8" Holes | PT18724 | 50710 |
| E | Universal Snug | 57S | 50296 |
| F | | 58S | 56613 |
| G* | Hole Attachment for 196 and 196M Only | 196F | 50706 |
| H | Shock Absorbing Anvil for 196 and 196M Only | PT08726A | 66052 |
| I | Split Bushing for 196 and 196M Only | PT00764 | 68850 |

* Attachments marked with an asterisk (*) are furnished with all sets having "A" in the catalog number.

† For snug with 8mm post hole diameter and 2.4-6.3mm holding capacity, order PT27171, EDP 66457.



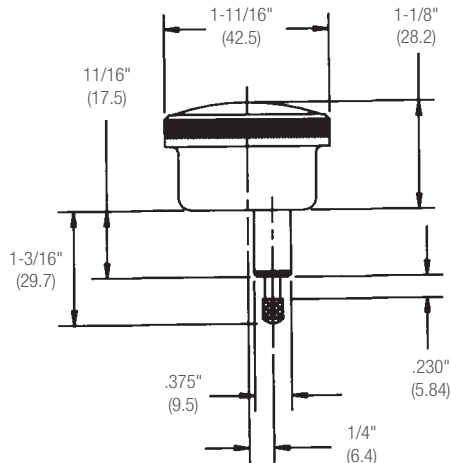
641, 641M BACK PLUNGER DIAL INDICATORS

.200"/5MM

These indicators have the same design as the 650, but without the shank and deep hole attachments. They are useful for positioning in unconventional fixtures and mountings. The spindle is perpendicular to the dial face for optimum dial readability.

- Continuous reading dials with revolution counters
- Uses standard AGD contacts

| 641 Back-Plunger Dial Indicators | | | | |
|-----------------------------------|------------|--------------|----------|-------|
| Range | Graduation | Dial Reading | Cat. No. | EDP |
| .200" | .001" | 0-100 | 641 | 65107 |
| 641M Back-Plunger Dial Indicators | | | | |
| 5mm | 0.01mm | 0-100 | 641M | 65108 |



ATTACHMENTS FOR 196 AND 196M ONLY

G. HOLE ATTACHMENT

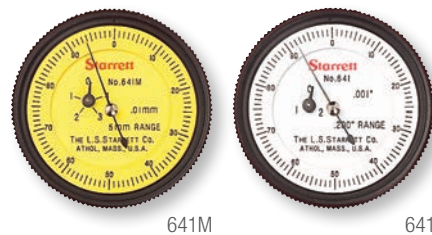
196F. allows indicator be used over obstructions and inside holes to a depth of approximately 1-5/8" (40mm).

H. SHOCK ABSORBING ANVIL

PT08726A.

I. SPLIT BUSHING

PT00764. Allows attachment of 196 Indicator to 660 Magnetic Base.



INDICATOR HOLDERS

657AA MAGNETIC BASE INDICATOR HOLDER

For use with all Starrett Test, Back-Plunger, AGD, Dial and Miniature-Dial Indicators. Also accommodates similar indicators of other manufacturers.

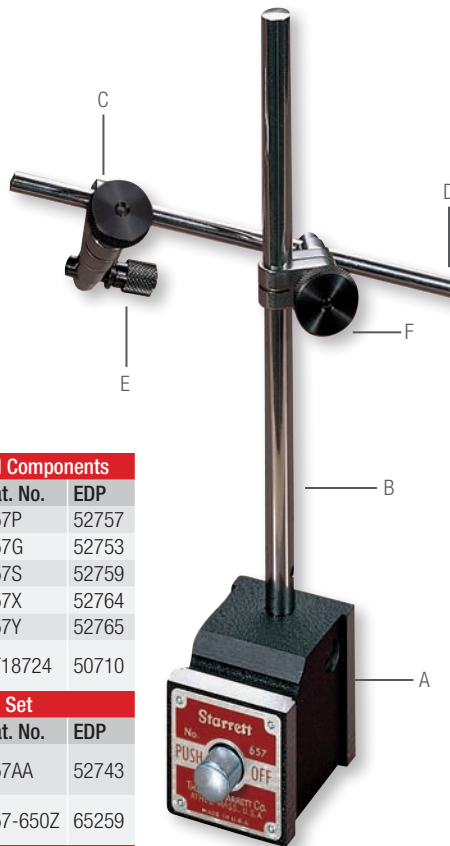
- A. 657P Magnetic Base. 1-15/16 x 1-5/8 x 1-7/8" (50 x 40 x 48mm). Push-button on/off switch for one-hand operation. Base has three precision ground magnetic contact points. Grips horizontally, vertically, and upside down. V-step holds base to arbors, shafts, etc. Base has extra 1/4-20 tapped hole on one side for mounting post. Black wrinkle finish on non-working surfaces.
- B. 657G Upright Base Post. 3/8" (9.5mm) diameter x 7-7/16" (190mm) length overall. 57S and 58S Universal Snugs may also be used.
- C. 657S Snug. Two 1/4" (6.3mm) diameter holes. Adapts 196, 650, and 651 Dial Indicators and 657Y Indicator Attachment to 657X Rod.
- D. 657X Rod. 1/4" (6.3mm) diameter x 6" (150mm) long. Accommodates Starrett 708, 709, 811 and 711F Dial Test Indicators and 657S Sleeve.
- E. 657Y Indicator Attachment. 1/4" (6.3mm) O.D. one end, other end threaded and fits lug backs of all AGD indicators (81, 25, 655, 656) and 80 Miniature Indicators.
- F. PT18724 Snug. 3/8" (9.5mm) diameter post hole. 1/4" (6.3mm) diameter gripping hole accommodates 657X Rod.



657Y with lug-on-center back



657AA with 196B1 Universal Dial Indicator



657AA Magnetic Base Indicator Holder - Individual Components

| Photo Key | Description | Cat. No. | EDP |
|-----------|-------------------------------------|----------|-------|
| A | Magnetic Base Only | 657P | 52757 |
| B | 7-7/16" Upright Base Post Only | 657G | 52753 |
| C | Snug with Two 1/4" (6.3 mm) Holes | 657S | 52759 |
| D | Rod | 657X | 52764 |
| E | Indicator Attachment | 657Y | 52765 |
| F | Snug Complete - 1/4" and 3/8" Holes | PT18724 | 50710 |

657AA Magnetic Base Indicator Holder - Complete Set

| Description | Cat. No. | EDP |
|--|----------|-------|
| Magnetic Base with All Attachments - A, B, C, D, E, F | 657AA | 52743 |
| Base and Post Assembly with 650B1 Indicator, 657S Snug, and 3 Contact Points | 657-650Z | 65259 |



657AA with 711FS Last Word® Dial Test Indicator



SPECIAL FUNCTION INDICATORS

668 SHAFT ALIGNMENT CLAMP SETS

The 668 Shaft Alignment Clamp is designed for fast, precise alignment of motors, pumps, compressors, etc. This system is capable of addressing radial and angular misalignment problems and can be set up within minutes.

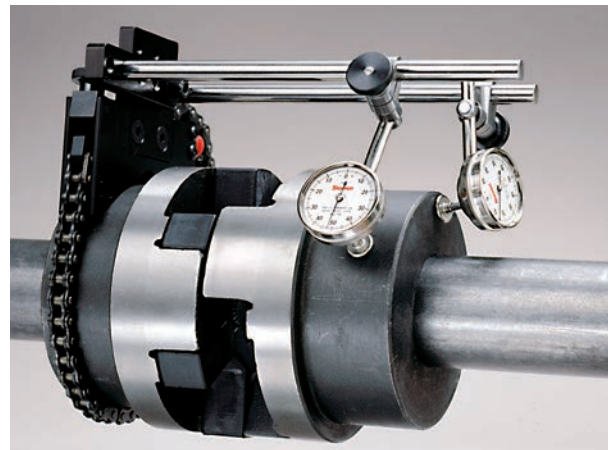
| 668 Shaft Alignment Clamp Sets | | |
|---|----------|-------|
| Description | Cat. No. | EDP |
| 1 each: Chain Clamp, Extension Plate, Posts (5", 7-7/16", 9"), without Case | S668A | 67150 |
| 2 each: Chain Clamp, Extension Plate, Posts (5", 7-7/16", 9"), with Fitted Case | S668BZ | 67151 |
| 2 each: Chain Clamp, 196B5 Indicator, PT18724 Snug, Extension Plate, Posts (5", 7-7/16", 9"), with Fitted Case | S668CZ | 67152 |
| 2 each: Chain Clamp, 81-141J Indicator, 657Y Indicator Attachment, PT18724 Snug, Extension Plate, Posts (5", 7-7/16", 9"), with Fitted Case | S668DZ | 67153 |
| Extra Length Chain: 24" #35 ANSI Chain with Link | 27984-0 | - |



FEATURES

- Lightweight clamp design made of black anodized aluminum
- Rigid 3/8" diameter stainless steel indicator posts provided in three lengths (5", 7-7/16", and 9")
- Extension plate allows for added radial clearance
- Heavy-duty roller chain can accommodate up to a 7-1/2" diameter shaft
- Sets are available with either two 196B5 or 81-141J Indicators
- Excess roller chain can be secured to the side of the chain clamp
- A second shaft alignment clamp can be mounted across from the first clamp to act as a vertical "target" for face alignment

| 668 Shaft Alignment Clamp | | | |
|---------------------------|-------------------------------|----------|-------|
| Photo Key | Individual Components | Cat. No. | EDP |
| A | Chain Clamp Only | 668 | 67155 |
| B | Extension Plate Screw, Washer | PT99529 | 67454 |
| C | 5" Post | PT27981 | 67302 |
| D | 7-7/16" Post | 657G | 52753 |
| E | 9" Post | PT27982 | 67303 |
| F | Snug Complete | PT18724 | 50710 |
| G | Indicator Attachment | 657Y | 52765 |



SURFACE GAGES

56 SMALL SURFACE GAGES

(HARDENED STEEL BASE)

- Smaller base and spindle than other surface gages and is designed for lighter work
- Two frictionally held gage pins in the hardened steel base which can be pushed down and used against the edge of a surface plate or T-slot for linear work
- Weighs only ten ounces (0.28kg.) and takes up very little space in a toolbox
- Only 1-3/8" (35mm) high, including the lower sleeve in the rocker arm
- Scriber has a 3/32" (2.4mm) diameter and is 3-1/4" (82mm) long

56 Small Surface Gages

| Spindle Inch | mm | Base Inch | mm | Cat. No. | EDP |
|-----------------|---------------|--------------|-----------|----------|-------|
| 4" | | | | 56A | 50289 |
| Two, 4" and 7" | 100 and 175mm | 2 x 1-1/2" | 50 x 38mm | 56B | 50290 |
| 7" | | | | 56C | 50291 |

57 Full-sized Surface Gages

| Spindle Length | Base - Length x Width | Cat. No. | EDP |
|-----------------------------|----------------------------|----------|-------|
| 9" (225mm) | 3 x 2-9/16" (75 x 65mm) | 57A | 50292 |
| 9" and 12" (225 and 300mm) | | 57B | 50293 |
| 12" (300mm) | 3-3/4 x 3-3/8" | 57C | 50294 |
| 12" and 18" (300 and 450mm) | (95 x 85mm) | 57D | 50295 |

Spindles, Scribers and Standard Snugs for 57 and 257 Surface Gages

| Fits | Spindles | Scribers | Standard Snugs* |
|----------------|--|------------------------------|--|
| A and B Models | 5/16 x 9" and 12" (8mm x 225 and 300mm) | 9/64 x 6" (3.6 x 150mm) | PT18718 (EDP 50709) with 5/16" post hole† |
| C and D Models | 3/8 x 12" and 18" (9.5mm x 300 and 450mm) | 5/32 x 8-1/2" (4 x 216mm) | PT18724 (EDP 50710) with 3/8" (9.5mm) post hole |

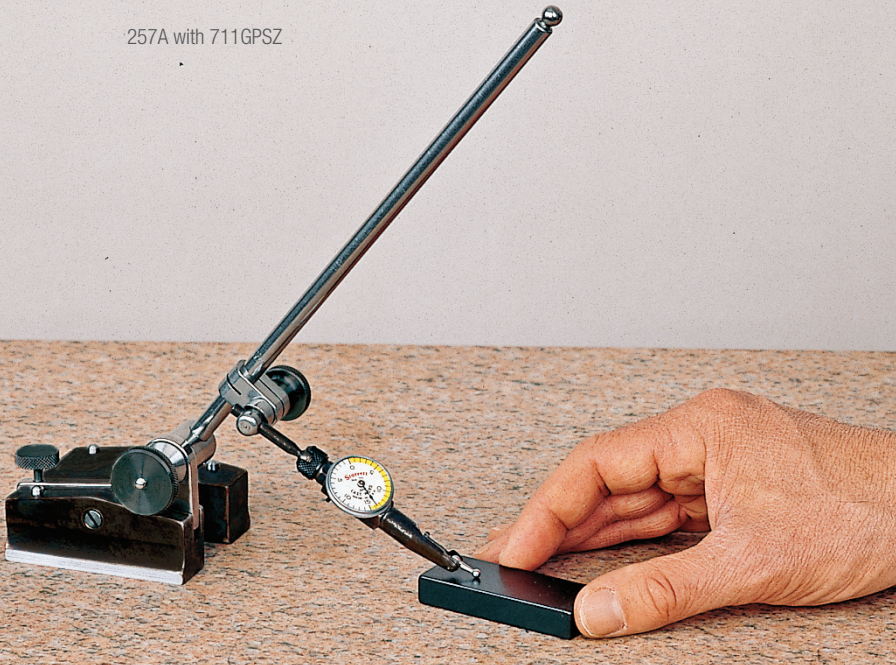
† For snug with 8mm post hole diameter, order PT27171, EDP 66457.

* Will hold scribers, rods or indicator stems ranging from 3/32-1/4" (2.4-6.35mm) and allows use with these test indicators: 196, 651, 711**, 564**, 708**, 811**, 650, 709**

** Snugs must be used with the proper indicator holder.



257A with 711GPSZ



SURFACE GAGES

Surface Gages are designed for a wide variety of uses. This is a basic tool for machinists and toolmakers. The main uses are for accurately scribing lines, transferring measurements and for probing surfaces in inspection work.

Lines can be scribed to heights and depths. Lines can also be scribed on horizontal surfaces referenced from gage pins on the tool.

Scribers are usually set in relation to rule graduations (our 62 Rule Holder is valuable in this respect) or height gages.

Marrying one of these tools with one of our test indicators makes easy work of checking flatness, parallelism, height and depth.

