MEASURING BENCH PS15/16/17

Benefiting from long experience acquired through contact with our demanding Swiss watchmaking customers, Sylvac has developed a range of measuring benches enabling most small external and internal dimensions to be checked precisely and quickly.
As the miniaturisation of components nowadays affects all industrial fields, Sylvac is in a position to provide a reliable solution with these instruments for the most unlikely of applications.

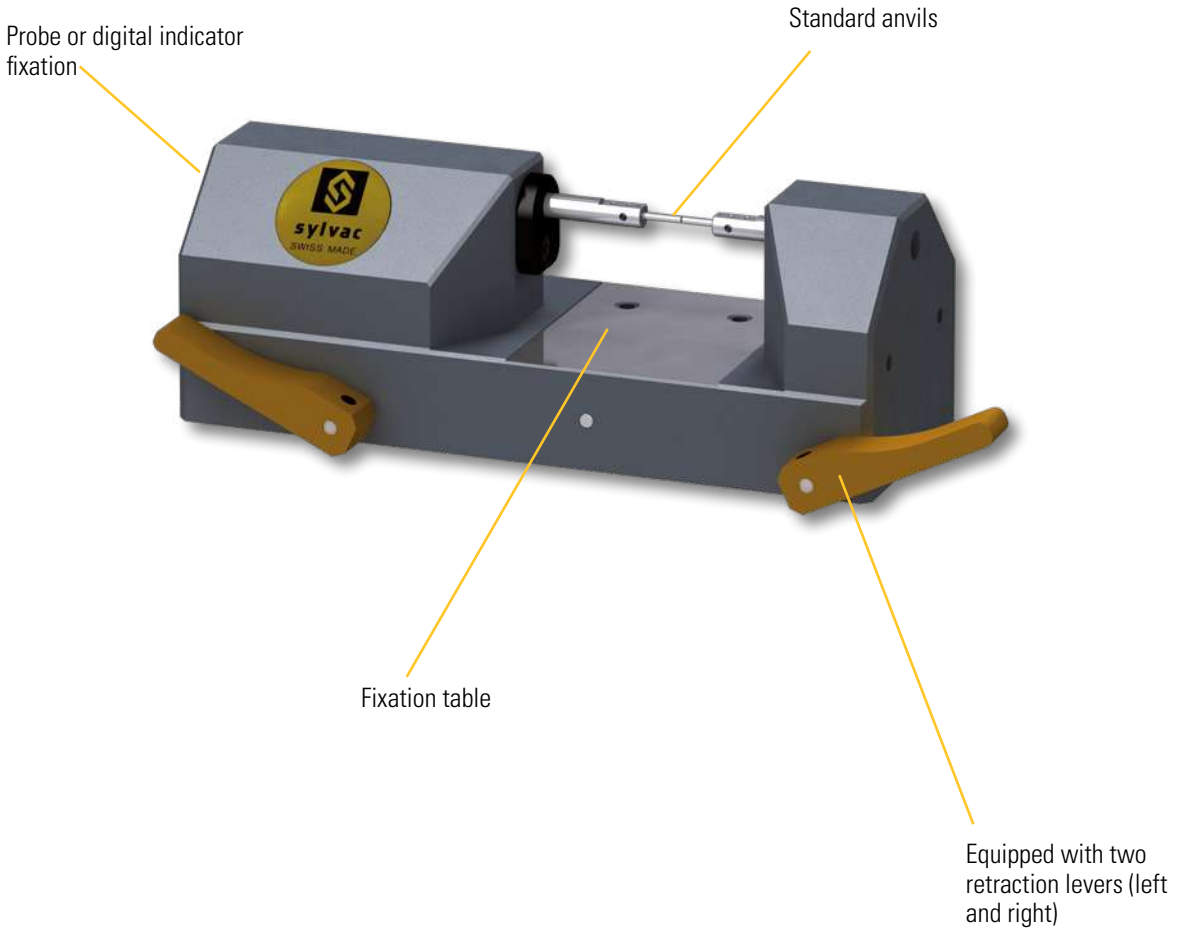
GENERAL CHARACTERISTICS :

- **PS15 and PS17 measuring benches to be equipped with a digital indicator or a measuring probe**
- **PS16 V2 measuring benches with integrated display**
- **Powered by lithium battery type CR2477/CR2032 (PS16 V2)**
- **mm/inch conversion on all models**
- **Working temperature +5° to +40°C**

Bench table PS15

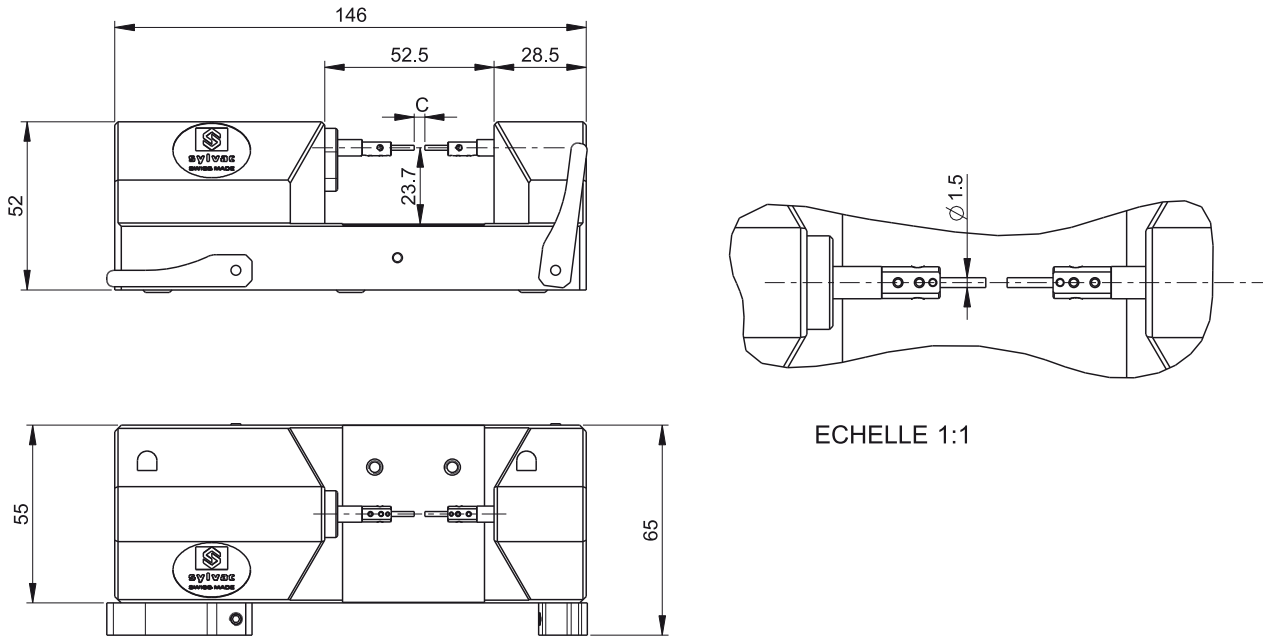
DESCRIPTION

- Horizontal precision bench for measuring small external dimensions
- Can be equipped with either a digital digital indicator or a Sylvac measuring probe.
- Robust cast iron construction
- 2 ergonomic levers for moving the movable axis with ball-bearing guide
- Compatible with Sylvac Ø 1.5 mm and Cary type anvils
- Supplied with hard metal measuring anvils Ø 1.5 mm
- Adjustable measuring force 0.3-1.0 N
- Measuring capacity 20 mm, measuring range 10 mm
- Wide choice of measuring anvils and support tables



Bench table PS15

DIMENSIONAL DRAWINGS



TECHNICAL SPECIFICATIONS

		808-1215
Type		PS15BH
Max. Capacity C	mm	20
Measuring range	mm	10
Adjustable measuring force	N	0.3 - 1.0
Max. error	µm	Probe P10 : 0.6µm / Digital indicator S_Dial : 1.6 - 3µm
Weight	kg	1.8
Measuring direction		Horizontal
Anvils fixation		Ø 1.5 mm
Cary Compatibility		●

STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Ø 1.5 mm (908-2175)
- Allen anvils 2 and 2.5 mm
- Dust cover

Bench table PS15

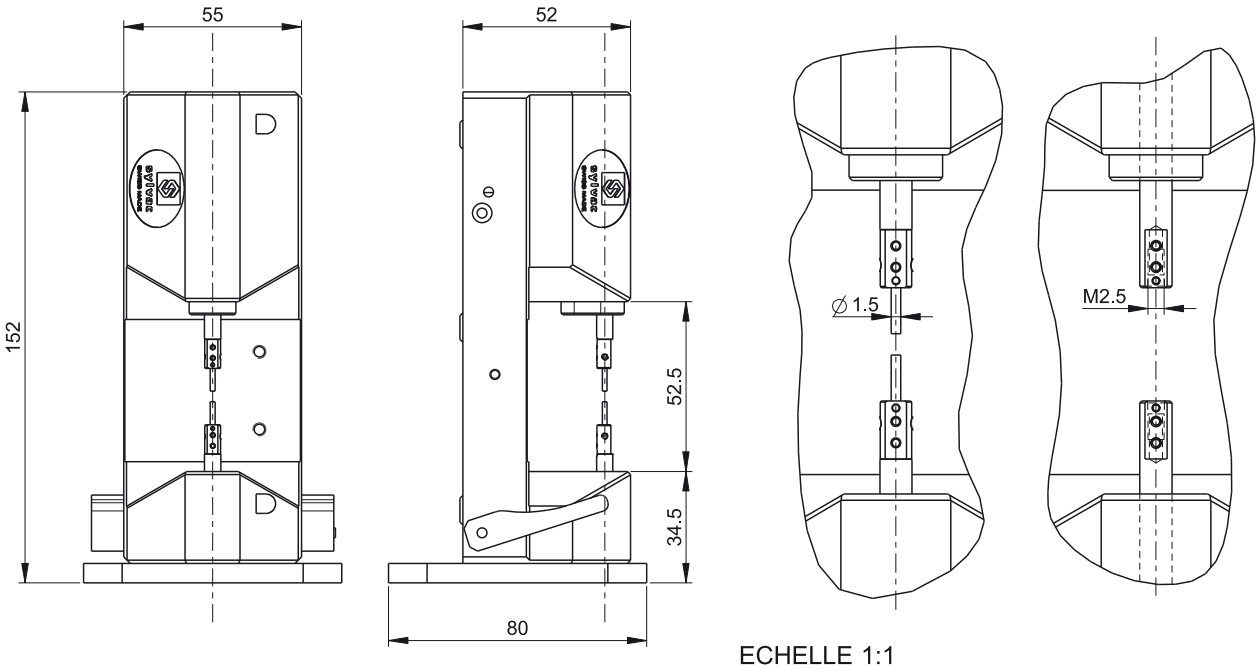
DESCRIPTION

- Measuring bench similar to the horizontal bench but prepared for vertical use, with support base and levers positioned to the left and right of the bench.
- This bench is generally equipped with either a flat round table 908-2165 or a rotary hole table 908-2172 with 25 bores Ø 0.2 to 5 mm for measuring shoulder heights. These tables are to be ordered separately
- Supplied with hard metal measuring anvils Ø 1.5 mm

SWISS MADE

Bench table PS15

DIMENSIONAL DRAWINGS



TECHNICAL SPECIFICATIONS

		808-1216	808-1218
Type		PS15BV	PS15BV +
Measuring scale	mm	10	10
Adjustable measuring force	N	0.3 - 1.0	0.3 - 1.0
Max. error	µm	Probe P10 : 0.6µm / Digital indicator S_Dial : 1.6 - 3µm	
Weight	kg	1.8	1.8
Measuring direction		Vertical	Vertical
Anvils fixation		M2.5	Ø 1.5 mm
Cary Compatibility		●	●

STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Ø 1.5 mm or Ø 5 mm (depending on model)
- Allen anvils 2 and 2.5 mm
- Dust cover

Bench table PS15

TABLES, PLATES AND LAPPING

N°	Designation	PS15BH	PS15BV / BV+
908-2170	Supporting table adjustable in XYZ	•	
908-2160	Supporting table with fine adjustement XYZ	•	
908-2161	Supporting table with fine adjustement Z	•	
908-2166	Floating table	•	
908-2172	Rotating table with 25 bores		•
908-2165	Plain table only		•
908-2162	Cylindrical plate with 25 bores from 0.2 to 5 mm		•

ACCESSORIES

N°	Designation	PS15BH	PS15BV / BV+
908-2198	Replacement lapping stone for 908-2199	•	
908-2199	Lapping device (3 stones and lapping liquid included)	•	

Lapping device

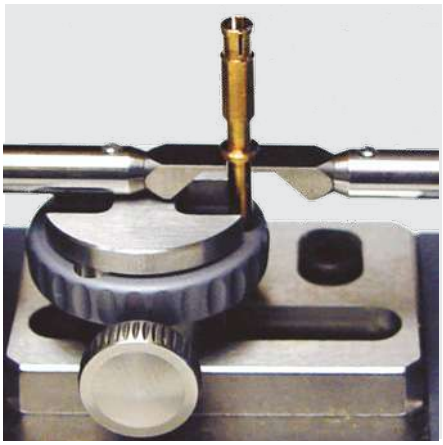
- Device for lapping the anvils on the PS15 BH, PS16 V2 and PS17 measuring benches, enabling perfect parallelism of the anvils for greater measuring accuracy.
- Set consisting of a movable element with linear guide and a motorised rotary drive system for the honing stone
- Delivered complete with 3 honing stones and a bottle of honing liquid.

ANVILS

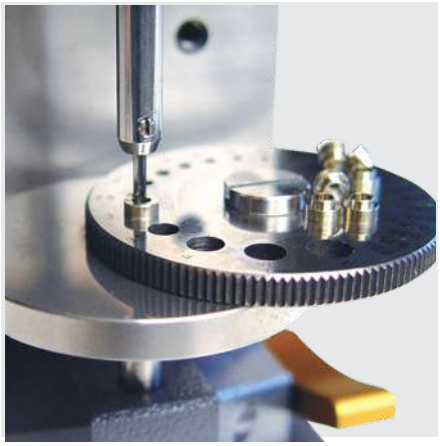
Compatible anvils list at the end of this chapter.

Bench table PS15

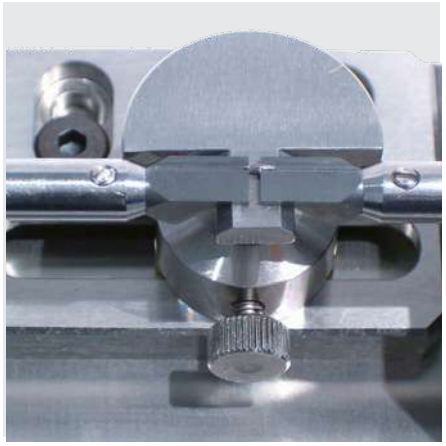
APPLICATIONS



XYZ table with plate with fine adjustment.



Measurement of small parts with PS15V+and rotation 25 holes support



Special anvils

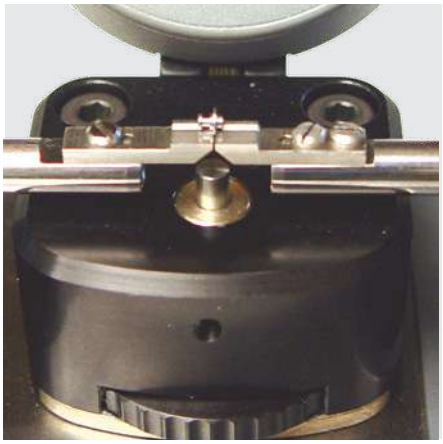
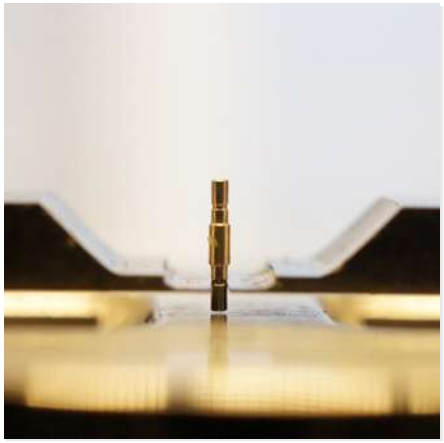


Table with plate Ø 3 mm and fine adjustment. Indication of the height integrated.

Multi-functional measuring station



Gear measuring anvils. On request

Bench table

PS16 V2

DESCRIPTION

SMART

- Precision horizontal measuring bench for the measurement of external dimensions
- Robust cast iron construction
- New design with integrated Bluetooth® system
- Large display resolution 0.0001 mm (0.1 µm) with tolerance status indication by colour LEDs
- Three buttons, including the central button with selectable favourite function
- 2 ergonomic, position-adjustable levers for moving the movable axis with ball bearing guide
- The position of the levers can be used to adjust the backward movement of the mobile axis.
- Compatible with Sylvac Ø 1.5 mm and Cary type anvils
- Supplied with hard metal measuring anvils Ø 1.5 mm
- Adjustable measuring force 0.1-0.6 N
- Measuring range 25 and 50 mm
- Additional data outputs Power and Proximity
- Protection class IP67

SWISS MADE

Built-in Bluetooth

USB

PROXIMITY

WATER RESISTANT

IP67

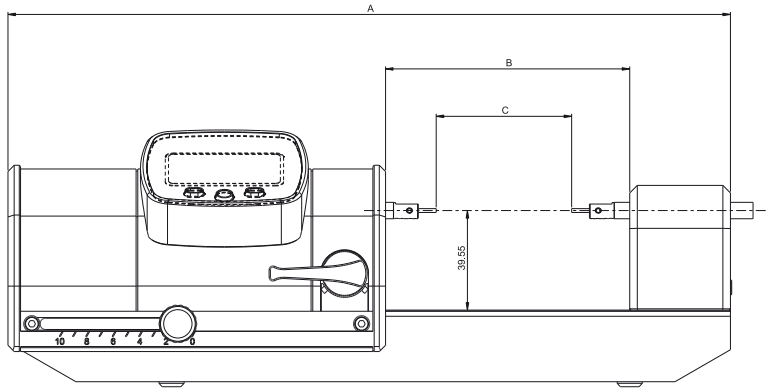
Cable output mini-USB to USB
(926-6001)

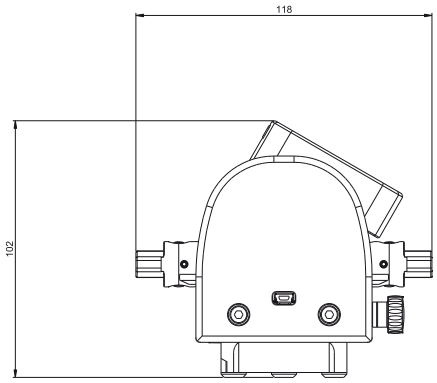
Bench table

PS16 V2

DIMENSIONAL DRAWINGS

SMART





TECHNICAL SPECIFICATIONS

External measurement		**808-1231**	**808-1232**
Max. Capacity C	mm	25	50
Max. Error	µm	1.5	2.0
Repeatability	µm	0.2	0.2
Resolution	µm	0.1	0.1
Measuring force (Adjustable)	N	0.1 - 0.6 [1]	
Weight	kg	3.6	4.2
Output data		Bluetooth® wireless technology* / RS232 / USB	
Anvils clamping dimension	mm	Ø 1.5	
Cary compatibility		●	
A	mm	232	287
B	mm	66	97

[1] ± 20%

STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Calibration certificate
- Table not included
- Anvils Ø 1.5mm (908-2175)
- Dust cover

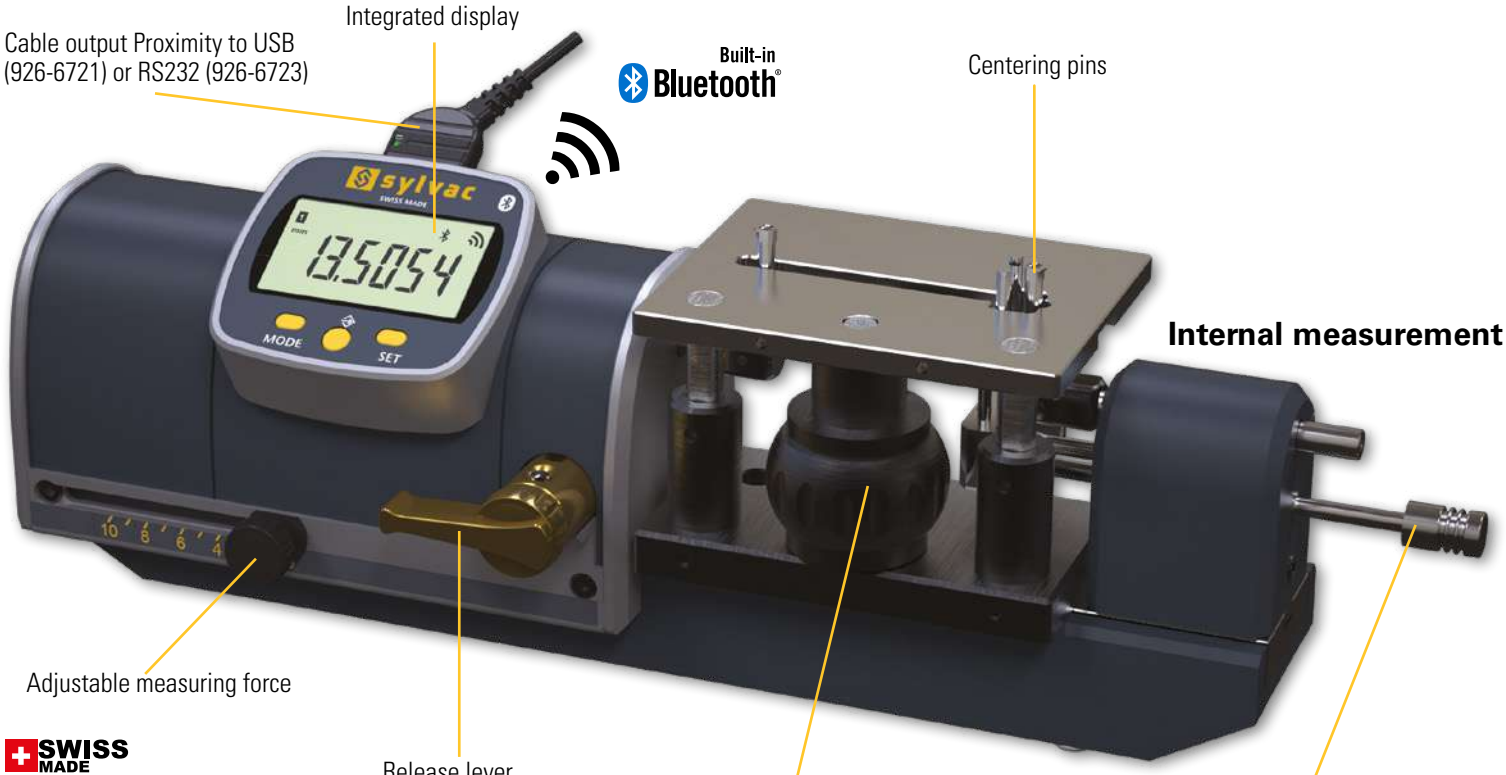
Bench table

PS16 V2 LV

DESCRIPTION

SMART

- Measuring bench similar to the PS16 V2 bench, but equipped with a table and anvils assembly allowing to measure large internal diameters up to 74 mm.
- Originally designed for measuring watch cases, it is also suitable for measuring rings and thin parts.
- 2-point measurement with positioning of the workpiece in the measuring axis by 2 movable centring pins
- Table height adjustable by up to 20 mm (a mini dial indicator can be mounted on the table to check its movement)
- Available in 3 versions :
  - 808-1233: version for measuring internal diameters from 12 to 62 mm
  - 808-1234: execution for measuring internal diameters 24 to 74 mm
  - 808-1235: special version for measuring outside diameters 0 to 50 mm
- Supplied with 0.4 mm thick measuring anvils.



SWISS MADE

Built-in Bluetooth

USB

PROXIMITY

WATER RESISTANT

IP67

External measurement

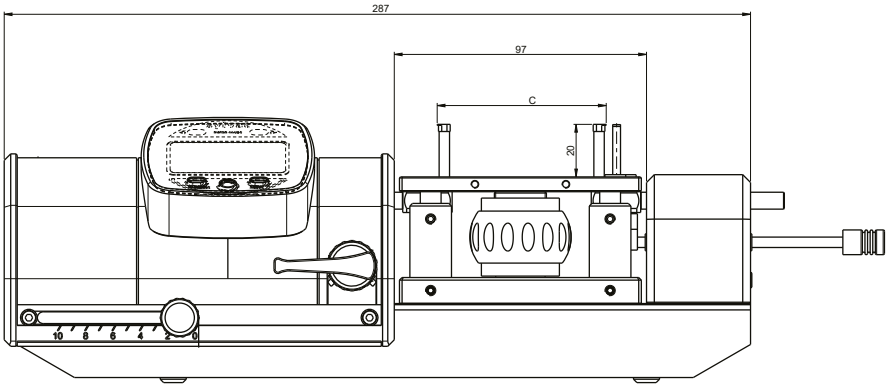
Cable output mini-USB to USB (926-6001)

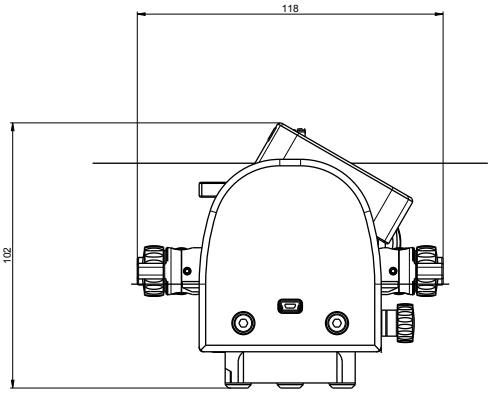
Bench table

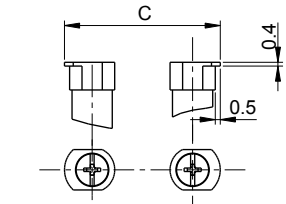
PS16 V2 LV

DIMENSIONAL DRAWINGS

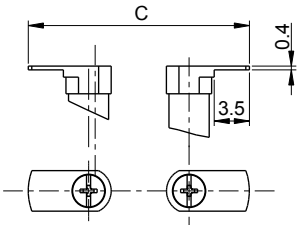
SMART



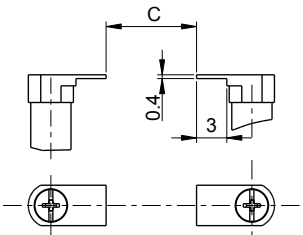




808-1233 (Anvils 808-2183)



808-1234 (Anvils 808-2184)



808-1235 (Anvils 808-2185)

TECHNICAL SPECIFICATIONS

External and internal measurement		**808-1233**	**808-1234**	**808-1235**
Max. Capacity C	mm	Ø 12 - 62	Ø 18 - 68	Ø 0 - 50
Measuring type		Internal measurement		External measurement
Max. Error	µm	6.0	6.0	6.0
Repeatability	µm	1.5	1.5	1.5
Resolution	µm	0.1	0.1	0.1
Measuring force (Adjustable)	N	0.1 - 0.6 [1]		
Weight	kg	5.1	5.1	5.1
Output data		Bluetooth® wireless technology* / RS232 / USB		

[1] ± 20%

STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Instruction manual
- Calibration certificate
- Anvils 0.4mm and LV table included
- Dust cover

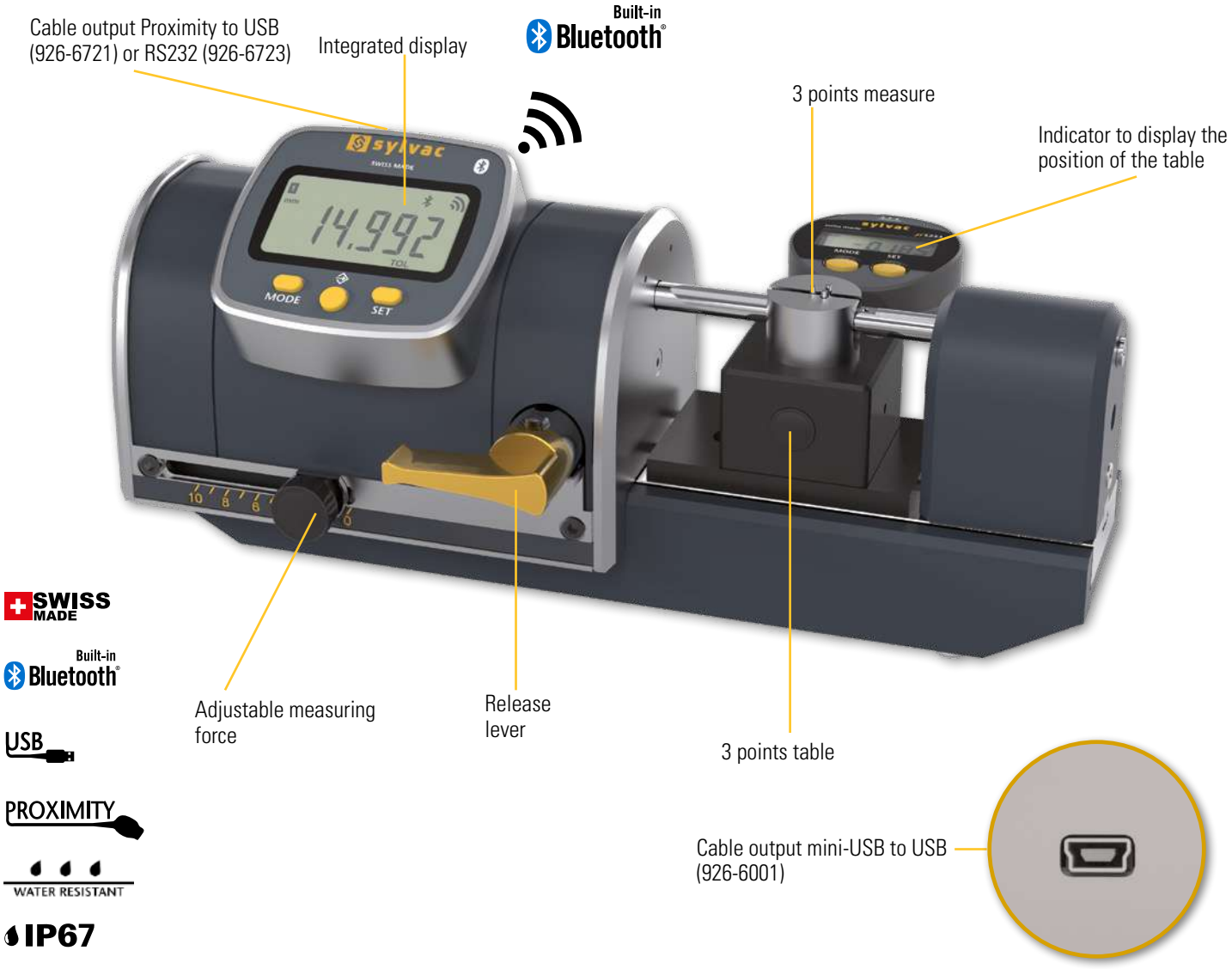
Bench table

PS16 V2 3-Points

DESCRIPTION

SMART

- Measuring bench similar to the PS16 V2 bench, but equipped with a table and anvils assembly allowing very small shallow internal diameters to be measured at 3 points, thanks to an electronic calculation function.
- Calibration using 2 rings supplied with the bench
- Table with fine height adjustment up to 3 mm with mini digital indicator for precise movement control
- Available in 5 versions :
  - 808-1335: version for measuring internal diameters 0.8 to 1.3 mm
  - 808-1336: execution for measuring internal diameters 1.3 to 2.5 mm
  - 808-1337: execution for measuring internal diameters 2.5 to 4 mm
  - 808-1338: execution for measuring internal diameters 4 to 8 mm
  - 808-1339: execution for measuring internal diameters 8 to 12.5 mm
- It is possible to obtain the placemats and anvils separately and to change them according to the dimensions to be measured, but this delicate operation requires a certain amount of dexterity.



SWISS MADE

Built-in Bluetooth

USB

PROXIMITY

WATER RESISTANT

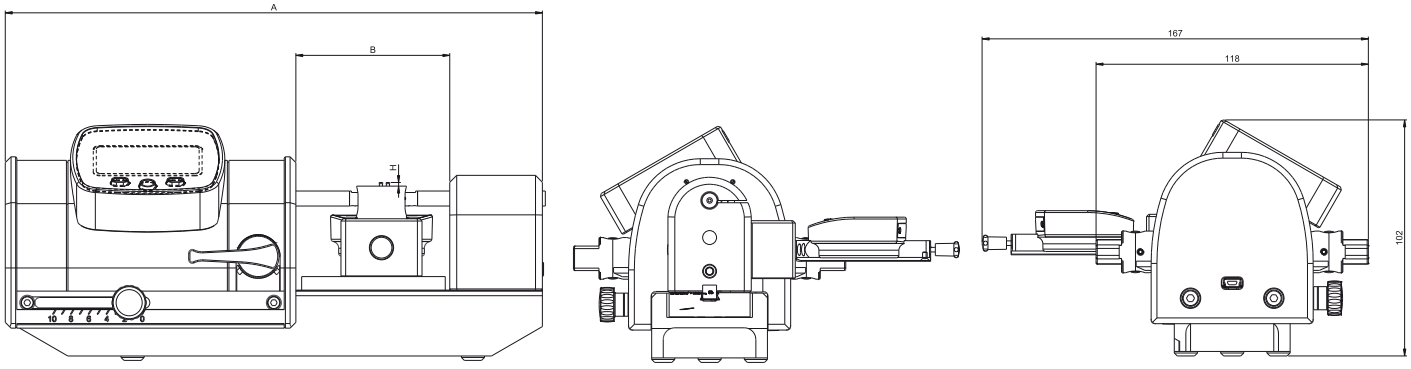
IP67

Bench table

PS16 V2 3-Points

DIMENSIONAL DRAWINGS

SMART



TECHNICAL SPECIFICATIONS

Internal measurement		**808-1335**	**808-1336**	**808-1337**	**808-1338**	**808-1339**
Max. Capacity C	mm	Ø0.8-1.3	Ø1.3-2.5	Ø2.5-4.0	Ø4.0-8.0	Ø8.0-12.5
Max. Error	µm	1.5				
Repeatability	µm	1				
Resolution	µm	0.1				
Measuring force (Adjustable)	N	0.1 - 0.6[1)]				
Weight	kg	4.1				
Data output		Bluetooth® wireless technology* / RS232 / USB				
Anvils clamping dimension	mm	Ø1.5				
A	mm	232				
B	mm	60				

[1)] ± 20%

STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Instruction manual
- Calibration certificate
- Table and anvils according to technical specification
- Mini indicator and 2 setting rings included
- Dust cover

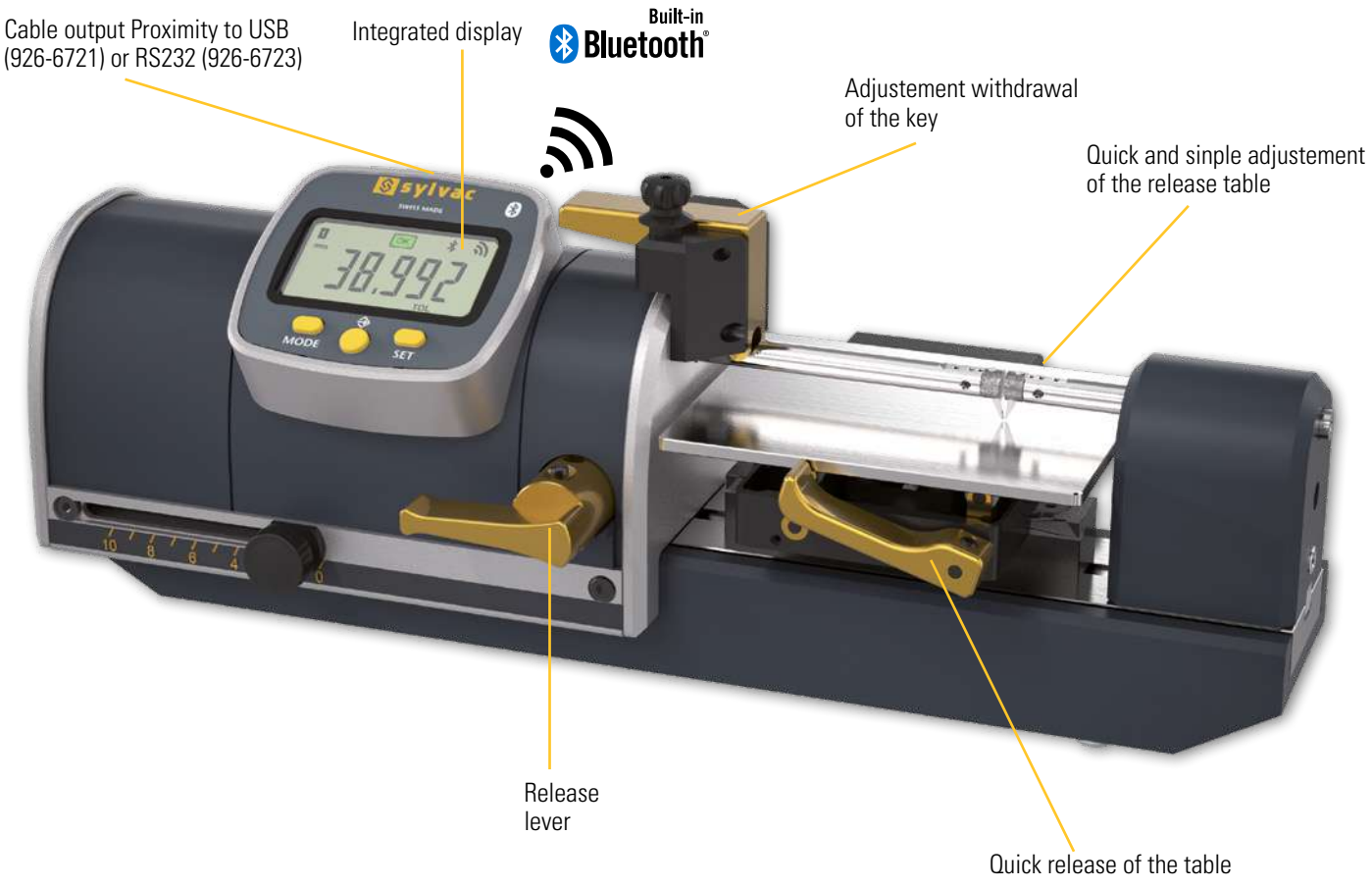
Bench table

PS16 V2 Goutte

DESCRIPTION

SMART

- Measuring bench similar to the PS16 V2 bench but equipped with a table and anvils set specially designed to measure small pivots (called drops in the watch industry) on watch plates.
- Equipped with height-adjustable table, quick-release lever and key removal system
- Delivered complete and ready to use for this particular application



SWISS MADE

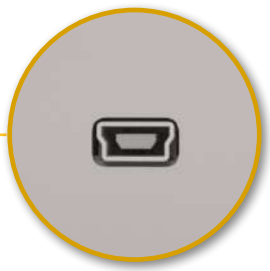
Built-in Bluetooth

USB

PROXIMITY

WATER RESISTANT

IP67

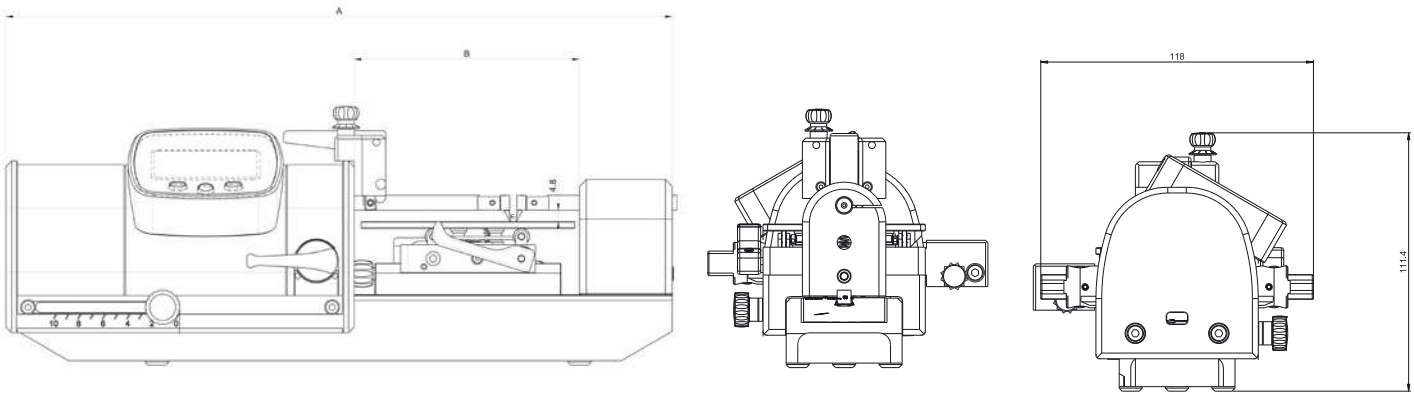


Bench table

PS16 V2 Goutte

DIMENSIONAL DRAWINGS

SMART



TECHNICAL SPECIFICATIONS

External measurement		**808-5213**	**808-5413**
Max. Capacity C	mm	25	50
Quick clearance	mm	7	7
Measuring range E	mm	3	3
Resolution	µm	0.1	0.1
Max. Error	µm	2.5	3.5
Repeatability	µm	0.5	0.5
Table dimensions (lxL)	mm	58x70	92x70
Measuring force (Adjustable)	N	0.1 - 0.6[1)]	
Weight	kg	4.0	4.7
Output data		Bluetooth® wireless technology* / RS232 / USB	
A	mm	232	287
B	mm	66	97

[1)] ± 20%

STANDARD DELIVERY

- Instrument according to technical specifications
- Lithium battery CR2477 included
- Adapter for Lithium battery CR2032
- Instruction manual
- Calibration certificate
- Table and anvils according to specification
- Dust cover

Bench table PS16 V2

TABLES, PLATES AND LAPPING

N°	Designation	PS16 V2 25	PS16 V2 50	PS16 V2 LV	3 points	Goutte
808-2190	Supporting table XYZ	•	•			
808-2302	Supporting table adjustable XZ	•	•			

ACCESSORIES

N°	Designation	PS16 V2 25	PS16 V2 50	PS16 V2 LV	3 points	Goutte
908-2194	Digital indicator holder (display height / depth)			•		
908-2198	Replacement lapping stone for 908-2199	•	•			•
908-2199	Lapping device (3 stones and lapping liquid included)	•	•			•
808-2196	Setting ring Ø20mm			•		
808-2197	Setting ring Ø30mm			•		

Lapping device

- Device for lapping the anvils on the PS15 BH, PS16 V2 and PS17 measuring benches, enabling perfect parallelism of the anvils for greater measuring accuracy.
- Set consisting of a movable element with linear guide and a motorised rotary drive system for the honing stone
- Delivered complete with 3 honing stones and a bottle of honing liquid.

ANVILS

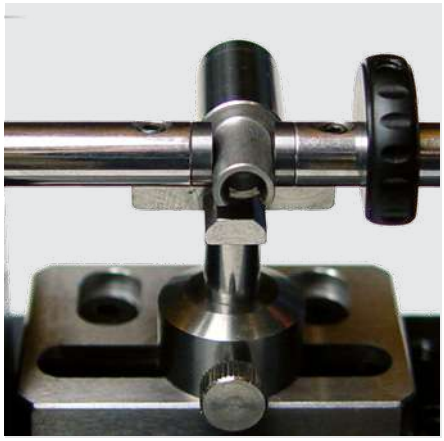
Compatible anvils list at the end of this chapter.

Bench table

PS16 V2

APPLICATIONS

Internal measurement in 2 – points with auto-centering of the part on LVS 50



External measurement with anvils Ø 6.5 and XYZ table

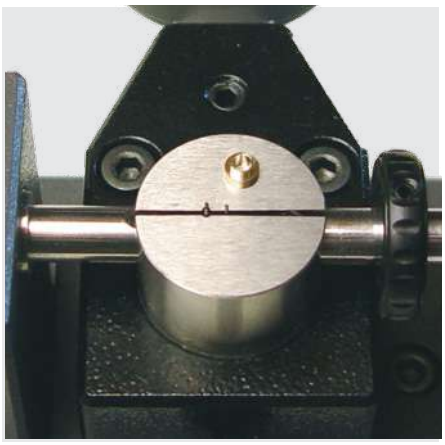


Table and anvils for internal measurement in 3 - points 1.3 - 2.5 mm

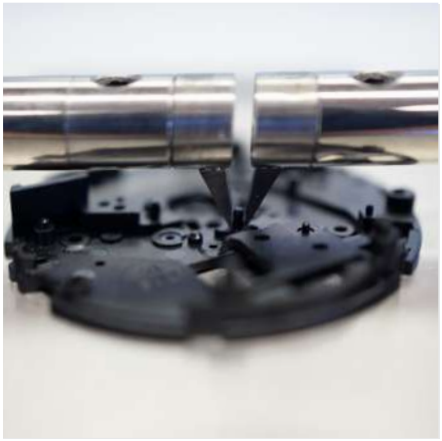
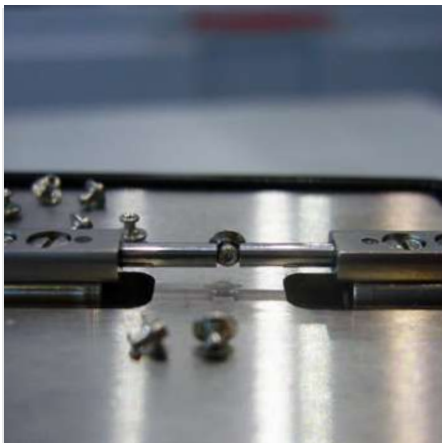


Table with adjustable plate (height). Different Ø plates available



Measurement of a small external diameter

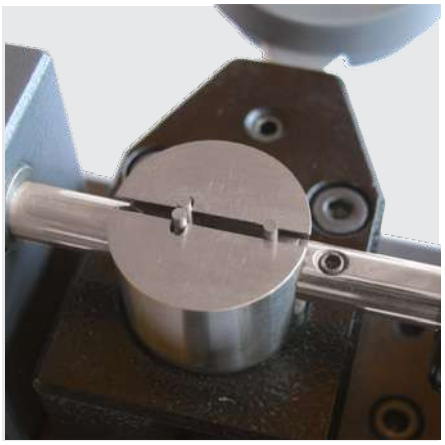
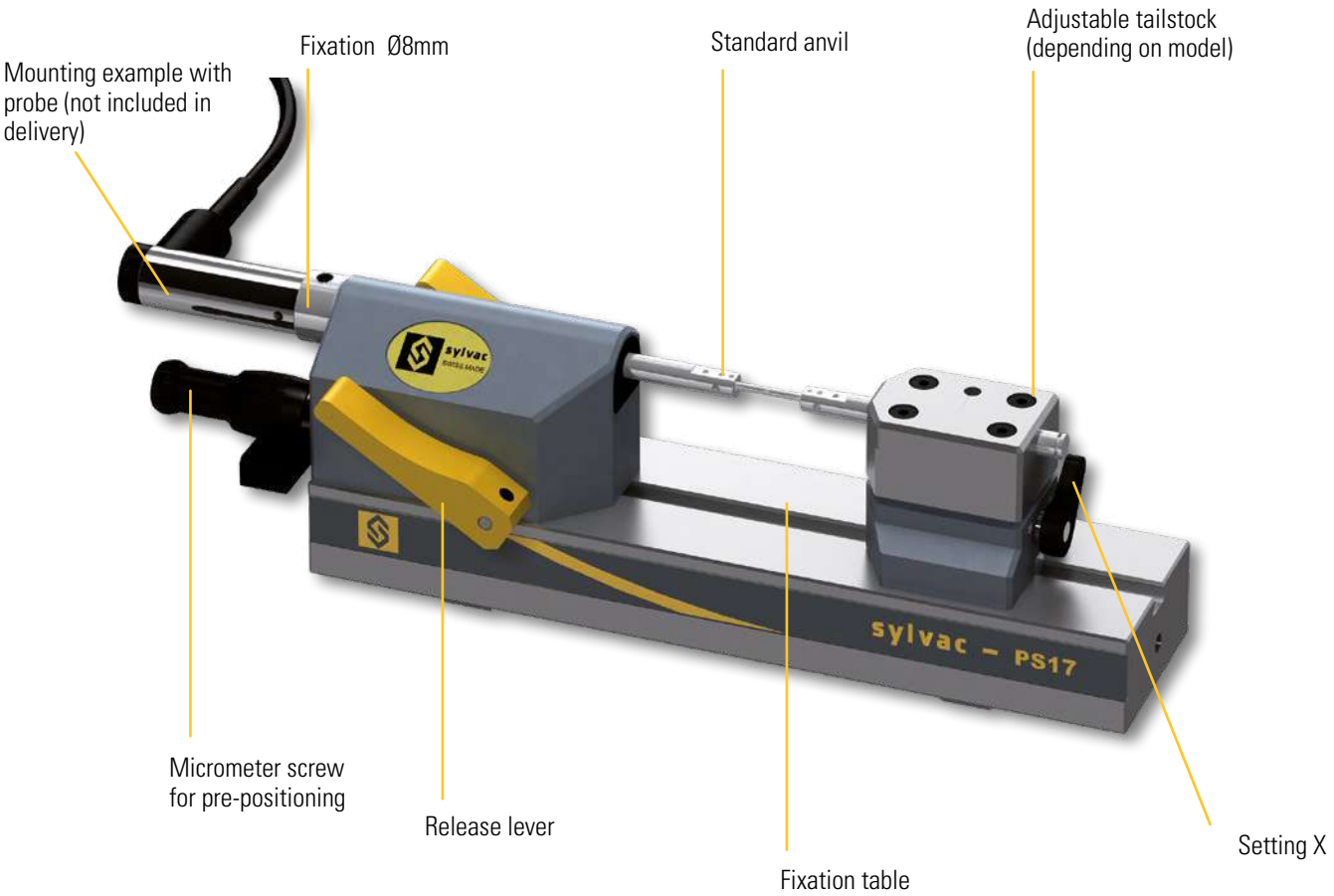


Table and anvils for internal measurement in 3 - points 2.5 - 4 mm

Bench table PS17 VS

DESCRIPTION

- Horizontal precision bench for measuring small external dimensions similar to the PS15 bench, but with a tailstock.
- Can be equipped with either a digital digital indicator or a Sylvac measuring probe.
- Robust cast iron construction
- 2 ergonomic levers for moving the movable axis with ball-bearing guide
- Equipped with a micrometric screw to control the recoil of the mobile axis.
- Compatible with Sylvac Ø 1.5 mm and Cary type anvils
- Supplied with hard metal measuring anvils Ø 1.5 mm
- Adjustable measuring force 0.2-1.0 N
- Measuring capacity 37 mm, measuring range 10 mm

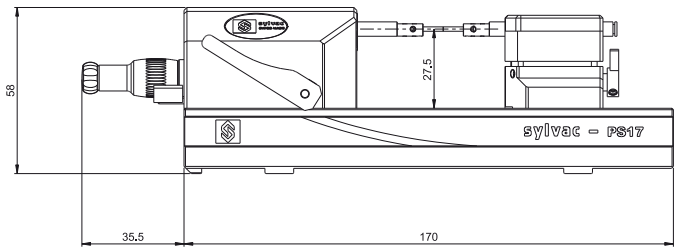


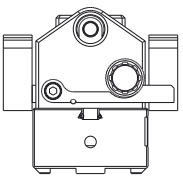
SWISS MADE

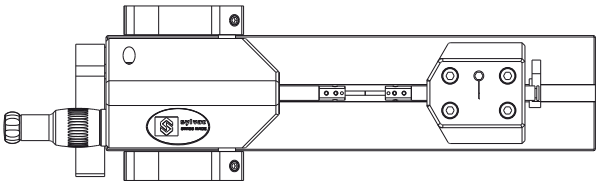
Bench table

PS17 VS

DIMENSIONAL DRAWING







TECHNICAL SPECIFICATIONS

		908-1242
Type		VS [1]
Measuring system		at choice [2]
Tailstock adjustable in Z ±1.75 mm		●
Measurement capacity C	mm	37
Measuring scale	mm	10
Adjustable measuring force	N	0.2 - 1.0
Weight	kg	1.4
Clamping anvils Ø 1.5 mm		●
Compatibility with Cary		●
Micrometer screw		●

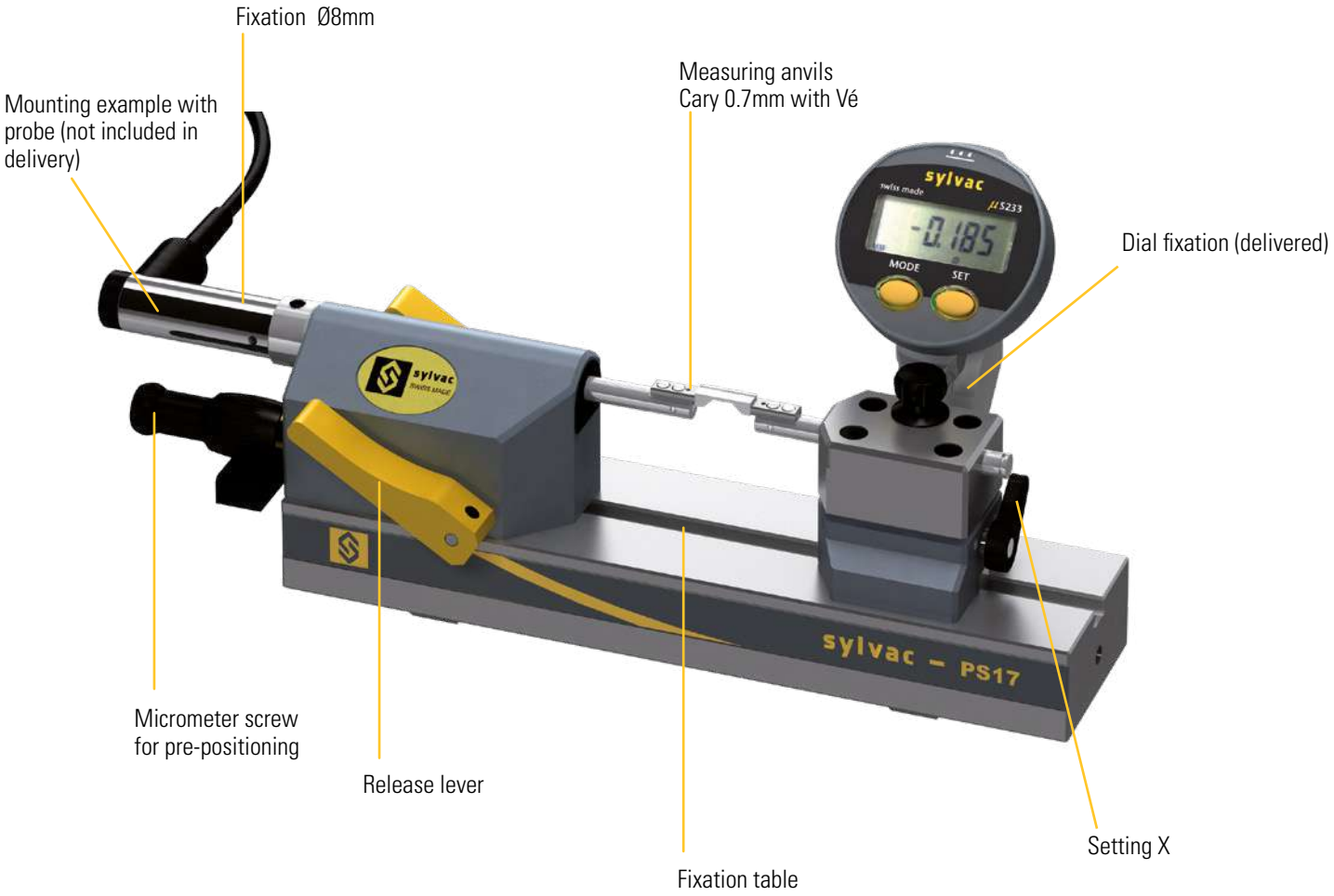
STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Ø 1.5 mm (908-2175)
- Dust cover

Bench table PS17 Entre-portée

DESCRIPTION

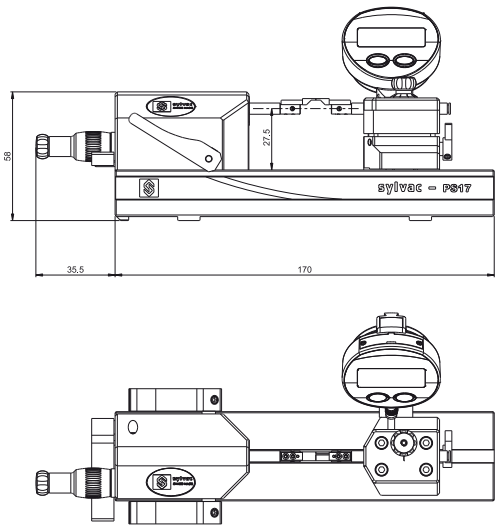
- Measuring bench with great flexibility of use for external dimensions
- Tailstock adjustable in X axis and in Z
- Mini indicator to display the position in Z axis (height) of the tailstock
- Delivered with carbide anvils 0.7mm with 90°V for the measure of distance width
- Accurate micrometer screw for pre-positioning
- Compatibility with Sylvac anvils (Ø1.5mm) and Cary type anvils
- Several accessories available

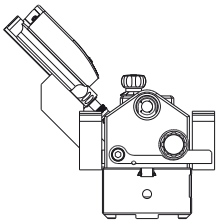


SWISS MADE

Bench table PS17 Entre-portée

DIMENSIONAL DRAWINGS





TECHNICAL SPECIFICATIONS

		908-1244
Type		VS
Measuring system		at choice [1]
Tailstock adjustable in Z ±1.75 mm		●
Measurement capacity C	mm	0 - 37
Measurement scale	mm	0 - 10
Measurement force	N	1
Working temperature (storage)	°C	5 - 40 (-10 - 60)
Weight	kg	1.4
Cary Compatibility		●
Micrometer screw		●

[1] No-included on delivery

STANDARD DELIVERY

- Instrument according to technical specifications
- Instruction manual
- Measuring anvils Cary 0.7mm with Vé (908-2220)
- Mini digital indicator
- Dust cover

Bench table PS17

TABLES, PLATES AND LAPPING

N°	Designation	PS17 VS / VP
908-2290	Supporting table adjustable XYZ	•
908-2301	Supporting table adjustable XZ	•
908-2296	Floating table	•

ACCESSORIES

N°	Designation	PS17 VS / VP
908-2310	Kit for low and strong measuring force	•
908-2198	Replacement lapping stone for 908-2199	•
908-2199	Lapping device (3 stones and lapping liquid included)	•

Lapping device

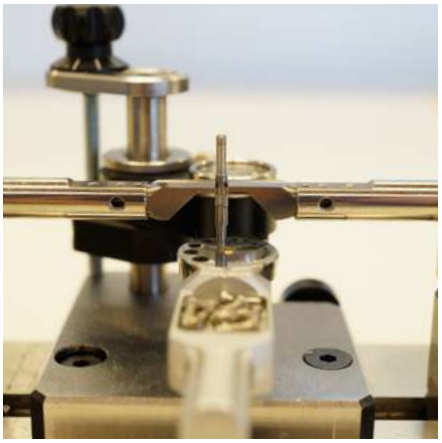
- Device for lapping the anvils on the PS15 BH, PS16 V2 and PS17 measuring benches, enabling perfect parallelism of the anvils for greater measuring accuracy.
- Set consisting of a movable element with linear guide and a motorised rotary drive system for the honing stone
- Delivered complete with 3 honing stones and a bottle of honing liquid.

ANVILS

Compatible anvils list at the end of this chapter.

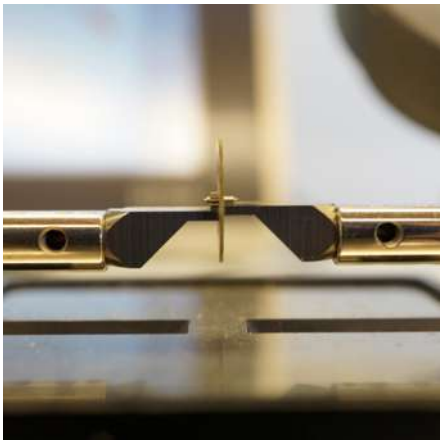
Bench table PS17

APPLICATIONS STANDARD



Measure of a small part on a floating table

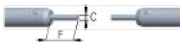
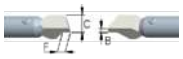
Multifunctional control station



Measure of a distance width with the Z axis adjustable tailstock.

ANVILS

Anvils Ø1.5

	N°	Designation	B	F	C	PS15 BH	PS15 BV	PS15 BV+	PS16 V2	PS16 V2 LV	PS 17
	908-2175	Cylindrical anvils TC Ø 1.5 mm	-	8	Ø 1.5	●		●	●		●
	908-2176	Cylindrical anvils TC Ø 2 mm	-	8	Ø 2	●		●	●		●
	908-2177	Cylindrical anvils TC Ø 6.5 mm	-	2	Ø 6.5				●		
	908-2174	Knife-shaped anvils TC 0.7 mm	0.70	2.2	4	●		●	●		●
	908-2178	Knife-shaped anvils TC 0.4 mm	0.40	2.2	4	●		●	●		●
	908-2179	Knife-shaped anvils TC 0.3 mm	0.30	2.2	4	●		●	●		●
	908-2180	Knife-shaped anvils standard TC 0.2 mm	0.20	2.2	4	●		●	●		●
	908-2181	Knife-shaped anvils standard TC 0.14 mm	0.14	2.2	4	●		●			●
	908-2182	Knife-shaped anvils standard TC 0.1 mm	0.10	2.2	4	●		●			●
	908-2201	Knife-shaped anvils TC 0.7 mm/V	0.70	2.2	4	●		●	●		●
	908-2202	Knife-shaped anvils standard TC 1.5 mm	1.5	2.2	4	●		●	●		●

Bench table

PS15/PS16/PS17

ANVILS

Anvils Cary

	N°	Designation	B	F	C	PS15 BH	PS15 BV	PS15 BV+	PS16 V2	PS 17
	908-2214	Knife-shaped anvils TC 0.10 mm	0.10	2.2	4	●				●
	908-2221	Knife-shaped anvils TC 0.12 mm	0.12	2.2	4	●				●
	908-2215	Knife-shaped anvils TC 0.14 mm	0.14	2.2	4	●				●
	908-2213	Knife-shaped anvils TC 0.15 mm	0.15	2.2	4	●			●	●
	908-2216	Knife-shaped anvils TC 0.20 mm	0.20	2.2	4	●			●	●
	908-2217	Knife-shaped anvils TC 0.30 mm	0.30	2.2	4	●			●	●
	908-2218	Knife-shaped anvils TC 0.40 mm	0.40	2.2	4	●			●	●
	908-2219	Knife-shaped anvils TC 0.70 mm	0.70	2.2	4	●			●	●
	908-2220	Knife-shaped anvils TC 0.70 mm/vé	0.70	2.2	4	●			●	●
	908-2223	Knife-shaped anvils TC 1.5 mm	-	6	Ø1.5	●			●	●
	908-2224	Cylindrical anvils TC Ø 1.5 mm	-	6	Ø2	●			●	●
	908-2225	Cylindrical anvils TC Ø 2.0 mm	-	6	Ø3	●			●	●
	908-2222	Cylindrical anvils TC Ø 3.0 mm	1.50	2.2	4	●			●	●