AVV-711 Shaft Alignment and Geometrical Measurement System

ALVIB sistemas

Advanced Versatile Precise

The **AVV-711** is a high-performance shaft alignment and geometrical measurement system, engineered for demanding industrial applications.

Designed with precision and usability in mind, it provides fast, accurate alignment of rotating machinery, as well as geometrical measurements including bore centerline, straightness, flatness, squareness, plumbline.

Functions and Features

- **Horizontal machines alignment**
- **Vertical machines alignment**
- **The Spacer Shaft Alignment**
- **Cardan/Offset mounted machines alignment**
- **Bore Centerline**
- **Flatness**
- **Straightness**
- **Squareness**
- **Plumbline**

FeetCtrl™ – smart guidance for base- and boltbound situations with autmatic foot correction suggestions for faster, more accuratealigments

SoftCtrl™ – detection and correction guidance for soft foot conditions to ensure stable, precise machine alignment from the start

SmartMerge™ – unified compatibility across all qb, AVV, and TXV systems for seamless use of displays, transducers, and accessories

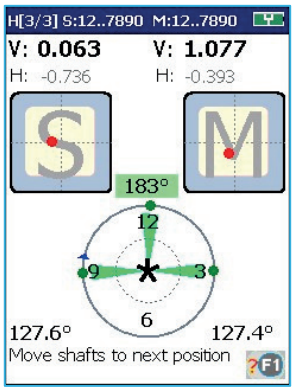
FlexLink™ – seamless dual-mode transducer's connectivity that lets you switch between cabled and wireless connections for maximum flexibility in any environment

ShimAssist™ – shim simulation that displays the remaining misalignment when using the nearest standard shim

HotCtrl™ – compensates for thermal growth by applying preset or measured values, ensuring precise alignment under true operating conditions

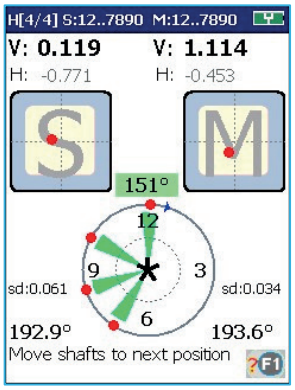
Live2D™ – live alignment in both horizontal and vertical planes, measured and corrected simultaneously

Measuring methods and useful features



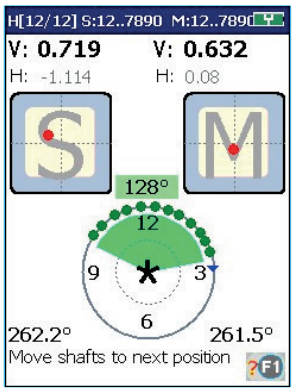
3-point method

In the 3-point method the alignment state is calculated by taking three points in a 3 clock positions within 180° or in 3 arbitrary positions within 60° or more



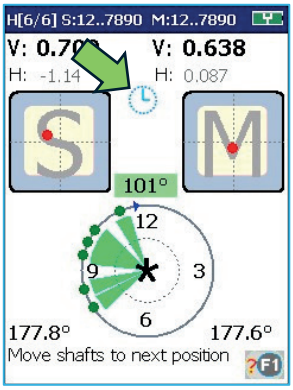
4-point method

In the 4-point method the alignment state is calculated by taking four points in arbitrary positions within 60° or more



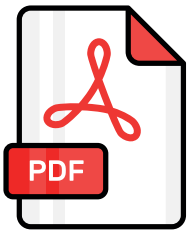
Multipoint method

Multipoint Method – start measurements from any rotational position and record multiple points for more accurate results. Perfect for turbines, sliding bearings, and other demanding applications



AutoShot™

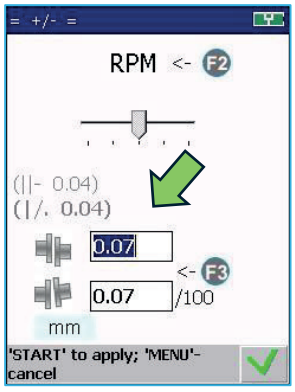
automatically captures alignment data when shaft is rotated to the next position

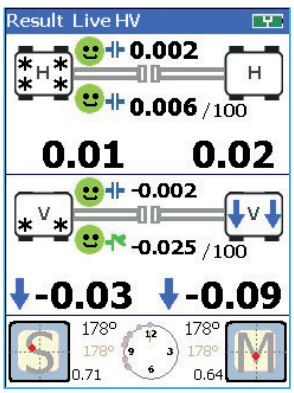


PDF Report Generator

Built-in function that instantly creates measurement reports in PDF format for easy sharing and documentation

Preset or User-defined tolerances





Live2D™

Real-time update of alignment condition as you adjust the machine, ensuring precise and efficient corrections on the spot

Specifications

Trasducer type	TSW S/M
Laser	650 nm class II diode laser
Laser power	< 1 mW
Measurement distance	80 mm to 10 m
Detector	Dual axis PSD, 10x10 mm
Measurement resolution	1 µm
Measurement accuracy	1% ± 5 µm
Ambient light protection	Optical filtering
Inclinometer	3-axial MEMS inclinometer
Inclinometer accuracy	±0,1 °
Battery type	LiPo, rechargeable
Operating time	10 h continuous use (measuring)
LED indicators	Sensor, battery, wireless link state
Communication	Wireless or Cables
Wireless communication range	10 m (33 ft)
Charger / Firmware update connector	Micro USB
Operating Temp	-10 to 50 °C (14 to 122 °F)
Storage Temp	-20 to 70 °C (-4 to 158 °F)
Relative humidity	10 – 90 %
Environmental protection	IP65 (Dust tight and protected against watere jets)
Housing Material	Impact resistant ABS plastic, Anodized Aluminum
Weight	180 g (3,7 oz)
Dimensions	65 x 58 x 48 mm (2,6 x 2,3 x 1,9 in)

Display unit	AVV-711
Display	Color IPS, sunlight readable, 320x240 px, 3.5"
CPU	Freescale Vybrid 500 MHz
Storage memory	8 GB, >100,000 measurements
External interfaces	USB host (thumb drive <32GB)
USB device for PC connection and battery charging	Wireless for S & M transducers
Battery	Li-Ion rechargeable, operating time up to 15 hrs
Ingress protection	IP65 (Dust tight and protected against watere jets)
Enclosure	ABS with TPE impact protection
Temperature range	-10 ºC ... +50 ºC (14ºF .. 122 ºF)
CE conformity	Directives: 2014/35/EU, 2014/30/EU
Dimensions	210 x 102 x 41 mm
Weight	365 g (12,9 oz)

Kit content

- Display unit
- **TSW** unit S
- **TSW** unit M
- V-bracket x2
- Chain assembly x2
- 90 mm rods (stackable) x4
- 150 mm rods (stackable) x4
- Cables 1.5m x2
- Tape measure 3m
- Allen key x2
- 3-port USB wall charger
- USB-micro cable x3
- Carry case

System versions and options

AVV-711

Shaft Alignment System

AVV-711GEO

Shaft Alignment and Geometrical Measurements System

D50 - Optional 5" display unit with IPS, sunlight readable display

Optional hardware

KRL-25
swiveling laser for measurement of Squareness, Plumbline, Flatness on rectangular surfaces or flanges

CBK-3
cardan brackets kit

BBK-3
bore brackets kit for Bore Centerline measurement

KB8004
Offset adapter

KB8006
Offset adapter

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