

AVV-711™ Pro

FIRST CLASS IN MACHINERY SHAFT ALIGNMENT



- ▶ **Coupling shaft alignment**
- ▶ **Train alignment**
- ▶ **Spindle alignment**
- ▶ **Cardan shaft**
- ▶ **Flatness measurement**
- ▶ **Straightness measurement**
- ▶ **Parallelism measurement**
- ▶ **Bore and engine pockets alignment**



Unlimited
Detector EXTEND

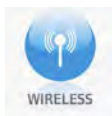
3 Year Warranty



Multi-Language
Select

 KohTect
Conspect™
Software

ISO9001:2008
CERTIFIED



REAL-TIME
Display



Direct to PDF

Free Firmware
Update Support

ASIA PACIFIC
SINGAPORE SERVICE
CENTER


SAVES PRECIOUS TIME AND MAINTENANCE MONEY!

AVV-711Pro is based on a three-level system design with user-friendly interface. A light-weight compact, reliable and affordable system for all rotating equipment requirement. It offers the benefits of a dynamic precision laser shaft alignment on machinery with minimal waste of time and essentially without stretching the maintenance budget.

Proper alignment eliminates the leading cause of machine breakdown and pays for itself. Diminishes the cost of spare parts, protects assets and production lost due to downtime!

AVV-711Pro now packed with powerful high-end features that include the shims simulator and user defined tolerances selection. AVV-711Pro can be upgraded to wireless advance geometrical alignment for machinery train, flatness, bore, straightness, squareness, cardan, spindle, etc (with only optional hardware add-on).

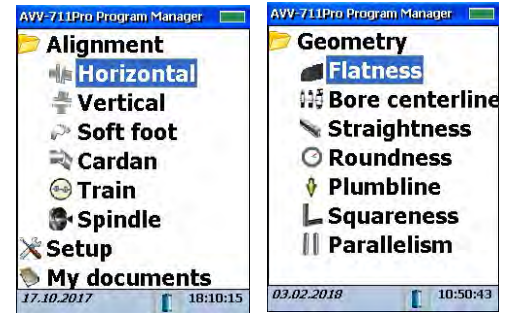
STANDARD FEATURES IN DEVICE

- ✓ **HORIZONTAL** Alignment of horizontal machine train at any position with the powerful universal multi-point mode at even 40° rotation angle.
- ✓ **VERTICAL** For alignment of vertical and flange-mounted machines by any position of 9,12,3 or 6'clock or any 45° rotation angle method.
- ✓ **VIBRATION FILTER** Setting of filter value help to control over measure with greatest stability and accurate alignment results.
- ✓ **SOFT FOOT** Step by step guide to check whether machine is properly standing on all feet and correct "soft-foot" if occur.
- ✓ **THERMAL GROWTH** Input of cold coupling target for the thermal alignment compensation, considering difference in thermal growth between machines.
- ✓ **SHIMS SIMULATOR** Shims simulation function that allows to check the possibility of use with minimum shims to achieve goods alignment and save total time.
- ✓ **TOLERANCE SEL.** Built-in alignment tolerance for evaluate according to machinery alignment condition, machine RPM or specification to user defined values.
- ✓ **SENSORS EXTEND** Unlimited offset to extends detectors measurement range to handle large misalignment and long spacer shaft, ensure smooth work process.
- ✓ **MACHINE TRAIN** Machine train alignment up to 15 machines and fixed machine select.
- ✓ **LOCK FEET** Flexible rectification by change of machine feet.
- ✓ **DIRECT PDF REPORT** Auto save report in PDF USB memory (upto 32GB).
- ✓ **WIRELESS**  Wireless interface capability option makes AVV-711Pro convenient to user's mobility and offer flexible application requirement.

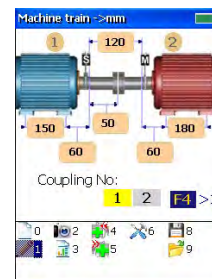
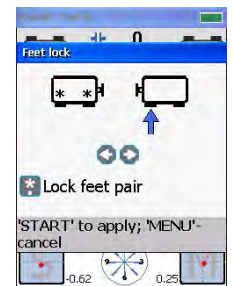
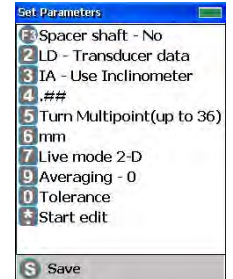
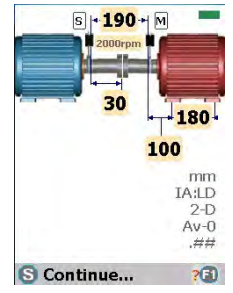
POWERFUL AUTO SWEEP MULTI-POINT MODE HORIZONTAL ALIGNMENT



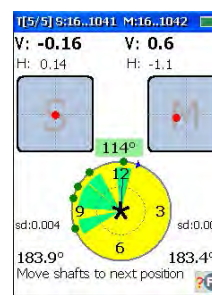
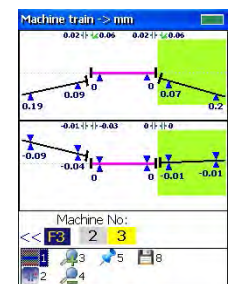
- Data is automatically during sweep / user trigger collected as the shaft is rotated from any position in any operational direction. Shaft rotation restrictions are overcome as only a turn of min.40° is required with any 3 or more points for result.
- This mode can records up to 36 points, it is versatile, easy and highly accurate for any type of machinery bearing.
- The "LIVE" result shows clearly in single screen for the adjustments that are needed to remove misalignment.
- User can use the active built-in electronic inclinometer or put the shafts into the fixed positions for uncoupled coupling / flanges mount machine.



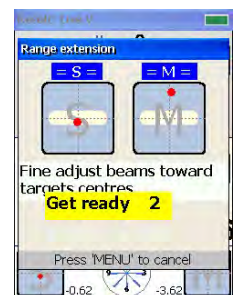
Avv-711Pro Standard Built-in Program Illustration



Machine train illustration, up to 15 machineries



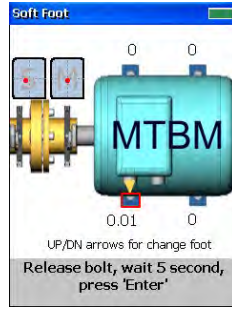
Multi-Point mode Illustration



Sensor extend Illustration

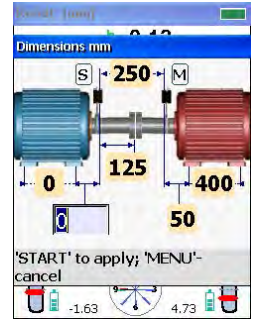
SOFT-FOOT STEP BY STEP

On screen guide for step-by-step to Soft-foot check and correction.



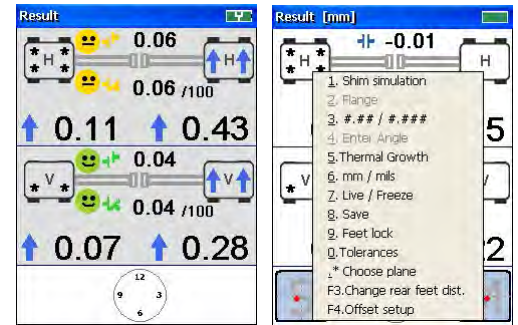
RESULT FOR MULTIPLE FOOT MACHINE

Adjust of rear feet distance.



LIVE MODE WITH READINGS AND DYNAMIC SMILEY FACE & ICON ASSIST USER IN ALIGNMENT ADJUSTMENT CONCURRENTLY

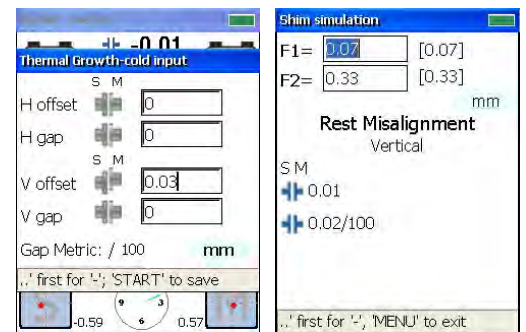
Just move machine feet according to arrow signs on screen (Push machine front feet 0.11mm and rear feet 0.43mm away from user). Insert shims and move machine vertically (Add 0.07mm to front feet and 0.28mm to rear feet.) Color coupling icon and 😊 face provide visual indication and update alignment quality status during live correction. Instant F1 pop-up menu guide always ready, no memorizing of functions key required.



THERMAL GROWTH

This unique feature allows consider of variation between machine thermal shifts when changing from a cold state to normal operating temperature by input cold alignment target.

AVV-711Pro calculates the corrected shims and horizontal movement values considering this variation. The thermal growth alignment target values for the machines are supplied by the manufacturers or machine design specification.

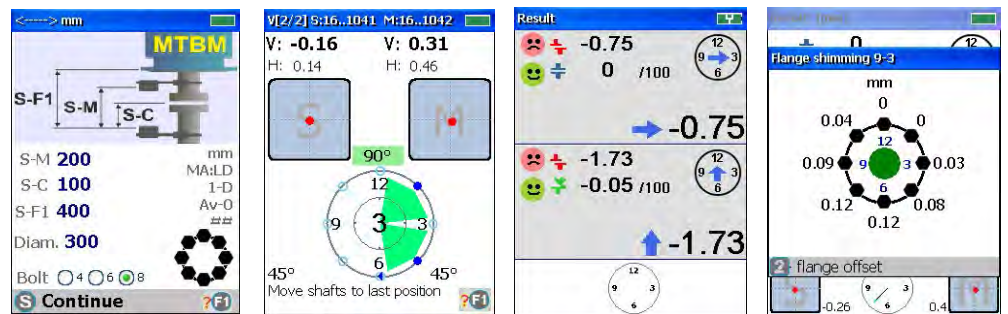


ALIGNMENT SHIM SIMULATOR

This function allows shims simulation to check for the possibility of use of the present shims in case they differ from the results of the calculations hence reducing alignment time.

VERTICAL & FLANGE ALIGNMENT

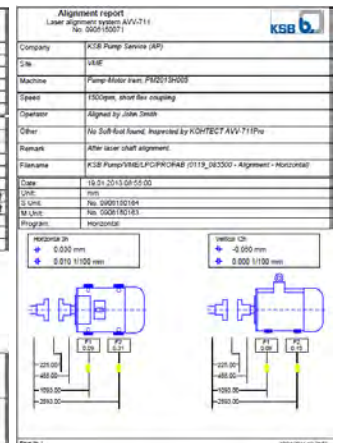
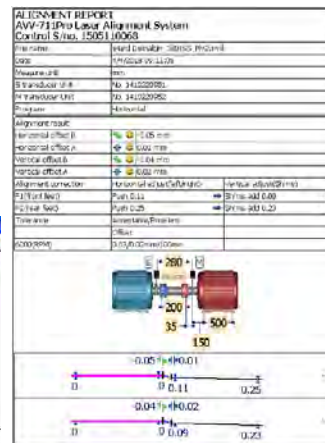
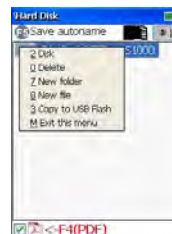
Vertical program is used for the alignment of vertical and flange mounted machines. Display live target and readings shown center Offset, Angular error and shim correction value at each bolt.



DIRECT PDF REPORT IN DEVICE OR CONSPLECT PC SOFTWARE FOR NEW WINDOWS 10

Equipped with Consplect software, the user is able to generate customize data reports and backup measurements files in PC / thumbdrive. The generated reports can be printed on any available printer with user logo, remarks and task detail.

The Windows OS allows data files save within device/ external USB memory disk. Save result as PDF or upload to PC for printing customise professional ISO report, archiving files and PC database management.



AVV-711Pro TECHNICAL DATA

Control Display	
CPU	Ultra low power ARM Processor running at 533 MHz
Memory	64 MB RAM, 256 MB Internal Flash, 4GB Ultra High Speed Memory
Display	(Sunlight-readable) backlit TFT colour graphic display with AR coating Resolution: QVGA, 320 x 240 Pixel; Dimensions: 3.5 inch diagonal Keyboard elements: Navigation cursor cross with up, clear and menu keys; Alphanumeric keyboard with dimensions, measure and results hard keys
LED indicators	On-screen Icon indicator for laser status and alignment condition 2 LED (Red+Green) for wireless communication and battery status
Power supply	Operating time: 10 hrs (Li-ion low self-discharge rechargeable battery) 13 hrs (disposable batteries) typical use (based on operating cycle of 25% measurement, 25% computation and 50% 'sleep' mode) Industrial Li-ion rechargeable battery: 3.7 V, 3400 mAh
External interface	1 x USB host for external memory (up to 32GB) 1 x USB slave for PC communication / Power bank quick charge Direct cable (parallel/ series connect) for S & M transducers Integrated wireless communication Class 1 transmitting power 100mW AC charging adapter /Direct USB charging
Environmental protection	IP 65 (dustproof and water spray resistant), shockproof Rubbed grip chassis
Temperature range	Relative humidity 10% to 90% Operation: 0°C to 55°C [32°F to 131°F] Storage: -20°C to 60°C [-4°F to 140°F]
Dimensions	Approx. 215 x 102 x 38 mm [8 7/16" x 4" x 1 1/2"]
Weight	Ultra-light 365 grams (without battery)
CE conformity	EC guidelines for electric devices (2004/108 EWG) are fulfilled
Transducers	
S & M Sensor Particulars	5-axis receiver: 2 planes (4 displacement axis) Environmental protection: IP 67 (submersible, dustproof) Ambient light protection: yes Storage temperature: -20°C to 80°C [-4°F to 176°F] Operating temperature: 0°C to 60°C [32°F to 140°F] Sensor area: Dynamically extendible by Offset Resolution: 1 µm (0.04 mil) for 2D Accuracy (avg): > 98%
S & M Laser Particulars	Type: GaAlAs semiconductor laser Beam divergence: 0.3 mrad Environmental protection: IP 67 (submersible, dustproof) Beam power: < 1 mW Wavelength (typical) 675 nm (red, visible) Safety class: Class 2, FDA 21 CFR 1000 and 1040 Safety precautions: Do not look into laser beam Power supply not required unless using wireless module Storage temperature: -20°C to 80°C [-4°F to 176°F] Operating temperature: -20°C to 60°C [-4°F to 140°F] Dimensions: approx. 64 x 58 x 45 mm [2 1/2" x 2 1/4" x 1 3/4"] Weight: approx. 223 g [7.86 oz.]
Carrying case Particulars	Standard: ABS, drop tested 2 m [6 1/2 ft]) Case dimensions: approx. 456 x 355 x 133mm [17 15/16" x 14" x 5 1/4"] Weight, including all standard parts: approx. 8 kg [17.6 lb]
Wireless interface module for communication w/ transducers (optional) Particulars	Class 1 connectivity, BT4 transmitting power 100 mW Transmission distance: 100 m [330 ft.] Complies with FCC rules part 15.247 LED indicators: 2 LED (red+green) for wireless communication and for battery status Power supply: Batteries Li-Ion BL-5B Operating time: 16 hours typical use (based upon an operating cycle of 50% measurement, 50% standby) Operating temperature: -10°C to 50°C [14°F to 122°F]
Environmental protection	IP 65 (dustproof and water spray resistant), shockproof
Dimensions	Approx. 73 x 58 x 15 mm [2 7/8" x 2 1/4" x 9/16"]
Weight	Approx. 66 g [2.3 oz.] including batteries and cable

AVV-711Pro™



3 Year Warranty **KohTect**
Conspect™ Software
WIRELESS **Multi-Point** **Windows 10 Compatible**
ASIA PACIFIC SINGAPORE SERVICE CENTER **Rugged Construction** **Direct to PDF** **REAL-TIME Display** **Laser radiation Class 2 Laser product Do not stare into beam!**

Optional Accessories:

KB-8006: Compact magnetic bracket for rotate & non-rotate shaft

KB-8004: Offset adaptor

KB-8003: Bolt hole bracket

METZ™ A, B and C sizes Alignment Precut Stainless Steel 304 Shims in Suite Case

LATEST! 107Bi (5-in-1) Ultra Compact FFT Data Collector for Spectrum & Bearing diagnostic, Tachometer, IR Temp. and CONSPECT Software

Pulley PRO® Laser Pulley Alignment System and **MBTPro** Optical Laser Belt Tension System

METZ™ L100-APN9, BPN9, CPN9 and DPN8 Alignment Shims complete with compact case package

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* Specifications are subjected to change without notice.