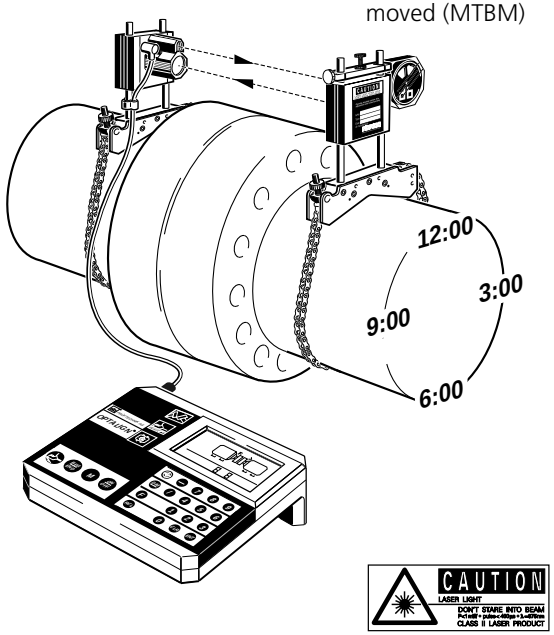
1. Mount OPTALIGN® V

Press ON/OFF and press I (for inch mode)

Laser
on stationary machine

Prism
on machine to be moved (MTBM)



NOTE: Use inclinometers on both shafts if there is coupling backlash or when aligning uncoupled.

Important Note: The serial numbers of the Laser (Transducer) and Computer must match on an Optalign® V to have an an accurate system!

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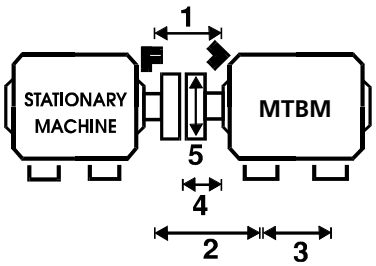
Productive maintenance technology

2. Enter dimensions

Press ENT or press DIM



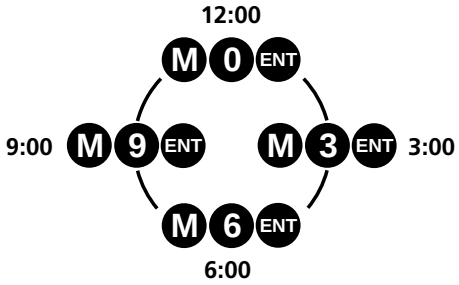
1		ENT	**Laser to prism**
2		ENT	**Laser to MTBM front foot***
3		ENT	**Front foot to back foot**
4		ENT	**Coupling center to prism**
5	10"	ENT	**Coupling diameter**

*Use laser sidebeam to assist measurement.
Fractions of an inch can be entered using the slash
e.g. 9.75" can be keyed in as 9 3 / 4

3. Measure

a) Press M, use red dust caps to track beam. Adjust prism along posts and with thumbscrew until 0 0 displayed.

b) Measure in at least three of the four quarter-hour clock positions, as viewed towards the stationary machine:



4. Coupling misalignment

Press . ENT cycles through vertical and horizontal offset and angular misalignment.

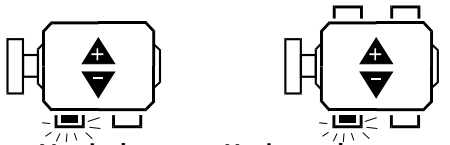
A positive offset means MTBM is higher or towards 3 o'clock.

Angular misalignment is in terms of the gap size. Positive means open above or towards 3 o'clock.

If values are within required tolerances then the machines are aligned!

5. Foot corrections

Press . ENT cycles through vertical shimming, then horizontal move corrections.



Shim feet to the vertical values. Repeat measurements (see 3.) before proceeding to horizontal move.

6. Horizontal move

a) Press and turn shafts to 1:30 o'clock position, press ENT .

b) Adjust prism to display 0 0, press ENT .

c) Move each highlighted foot until both front and back are aligned.

For very large horizontal corrections adjust horizontally before shimming.

OPTALIGN® V selected special functions

Soft Foot

a) Press [shaft] and rotate shaft to 3 or 9 o'clock.

b) Adjust prism until 0 0 displayed and press [ENT] .

c) Unbolt the displayed foot, record movement, retighten; press [ENT] and repeat with the next foot.

d) The results must be carefully analyzed to determine the correct shimming. See examples in the manual.

Extend measurement range

If END or OFF appear during rotation,

a) turn shaft back until numbers just reappear. Press [BEG END]

b) Keeping shaft steady, re-zero prism.

c) Press [BEG END] again and continue with measurements.

This function can be used similarily with MOVE (part 6.)

Target alignment at coupling

Press [⊕], enter offset and gap target values for MTBM, following sign conventions in 4. overleaf.

F2 Continuously rotating shafts

F3

Semi-automatic measurement with just one keypress in each clock position.
F2 = Clockwise, F3 = Anti-clockwise

Press [M] and chosen start position e.g. [9]

Press [ENT] as shaft rotates past start position, and again at each subsequent clock position.

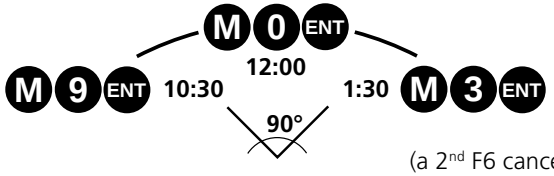
F4 Thermal growth at machine feet

Press F4 and enter expected MTBM foot growths.
12 and 3 o'clock are positive.

F5 Vertical machine (see manual)

F6 90° restricted shaft rotation

If normal clock positions are not possible, press F6 to display ⊾. Measure at 10:30, 12:00 and 1:30, but entered with the 9, 0 and 3 keys, thus:



(a 2nd F6 cancels)

F7 2 coupling plane offsets (see manual)

F8 Alignment tolerances

a) Press F8 and enter RPM (from 1 to 7200), press [ENT].

b) If alignment is within tolerance '**o.k**' flashes otherwise computer beeps twice.

Storing and Printing

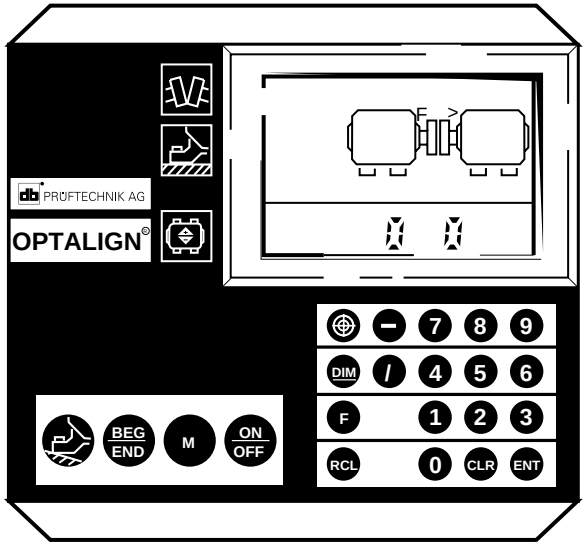
F90 Stores up to 5 sets of data.

F92 Prints first set of stored data. [ENT] prints next set.

F94 Transfers all stored data to a PC.

OPTALIGN® V

Short Instructions



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