Easy-Laser®

# Shaft documentation sheet

CAUTION
LASER RADIATION
DO NOT STARE INTO BEAM
DIODE LASER
1 mW MAX OUTPUT AT 635-670 nm
CLASS II LASER PRODUCT

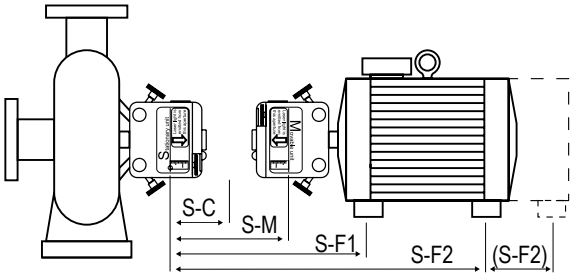
Always read the safety instructions in the main manual before using the measurement system.

## Preparations

1. Mount M-unit on the movable machine.
2. Mount S-unit on the stationary machine.
3. Press to start Display unit.
4. Select program EasyTurn™ (12) or Horizontal (11).
5. Enter distances.

**File information**

| | |
|---|---|
| File no. | |
| Machine no. type | |
| Operator | |
| Date | |

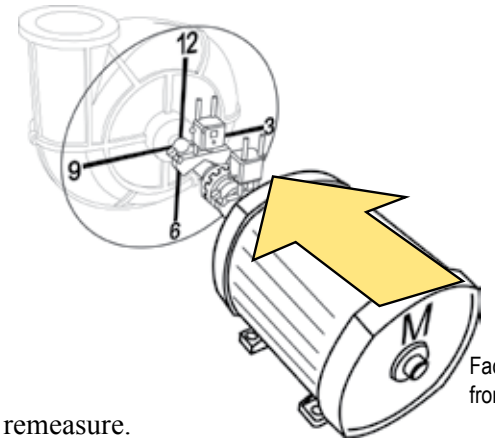



**Distances**

| | | |
|---|---|---|
| **S-M** | S- and M-unit. | |
| **S-F1** | S-unit and feet pair 1. | |
| **S-C** | S-unit and centre of coupling. | |
| **S-F2** | S-unit and F2. | |
| **(S-F2)** | S-unit and third feet pair. | |

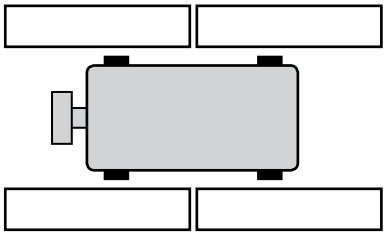
## Softfoot

1. Select program Softfoot (13).
2. Turn to position 12.
3. Adjust laser beams to centre of target.
4. Open targets and press .
5. If desired, press to zero set.
6. Release and tighten the first bolt.
7. Press .
8. Redo Steps 1-5 for all feet.
9. Result is displayed.
10. Press to start measuring or press to remeasure.




Face the stationary machine (S) from the movable machine (M).

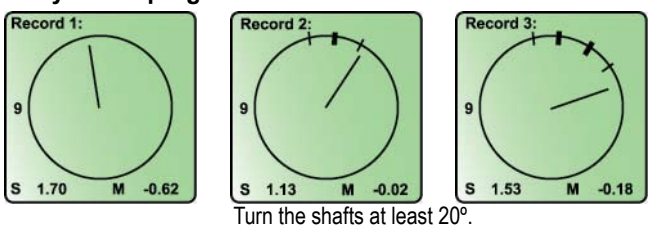
**Softfoot result**



## Measure

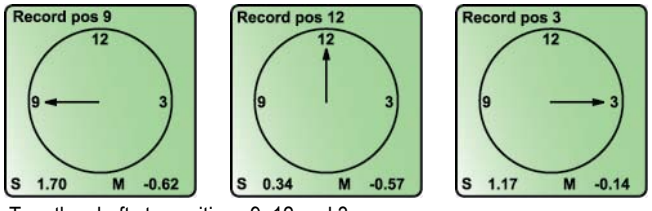
1. Place the measuring units so that the marks are on top of each other (or almost on top). Adjust the laserbeams to the closed targets.
2. Open the targets.
3. Press to record the first measurement value. (Horizontal program: at position 9 o'clock.)
4. Turn shafts beyond the 20° mark (or to position12 o'clock) and open the target.
5. Press to record the second measurement value.
6. Turn shafts beyond the 20° mark (or to position 3 o'clock).
7. Press to record the third measurement value.

**EasyTurn™ program**




Turn the shafts at least 20°.

**Horizontal program**




Turn the shafts to positions 9, 12 and 3.

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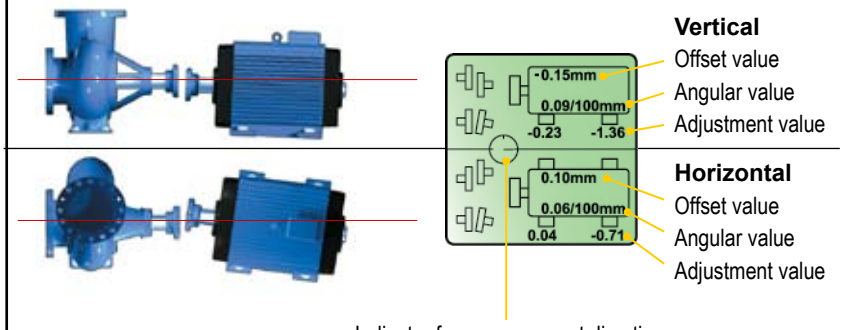
EASY-LASER®

# Results

The result is displayed. Horizontal and vertical positions for the movable machine are shown both digitally and graphically. The values now updates continuously (live), indicated by filled foot symbols.

The result from a measurement of a horizontal machine displays the position of the movable machine, and how to shim and adjust to align the machine.




Indicator for measurement direction.

EasyTurn™ program: shows the real position of the units.

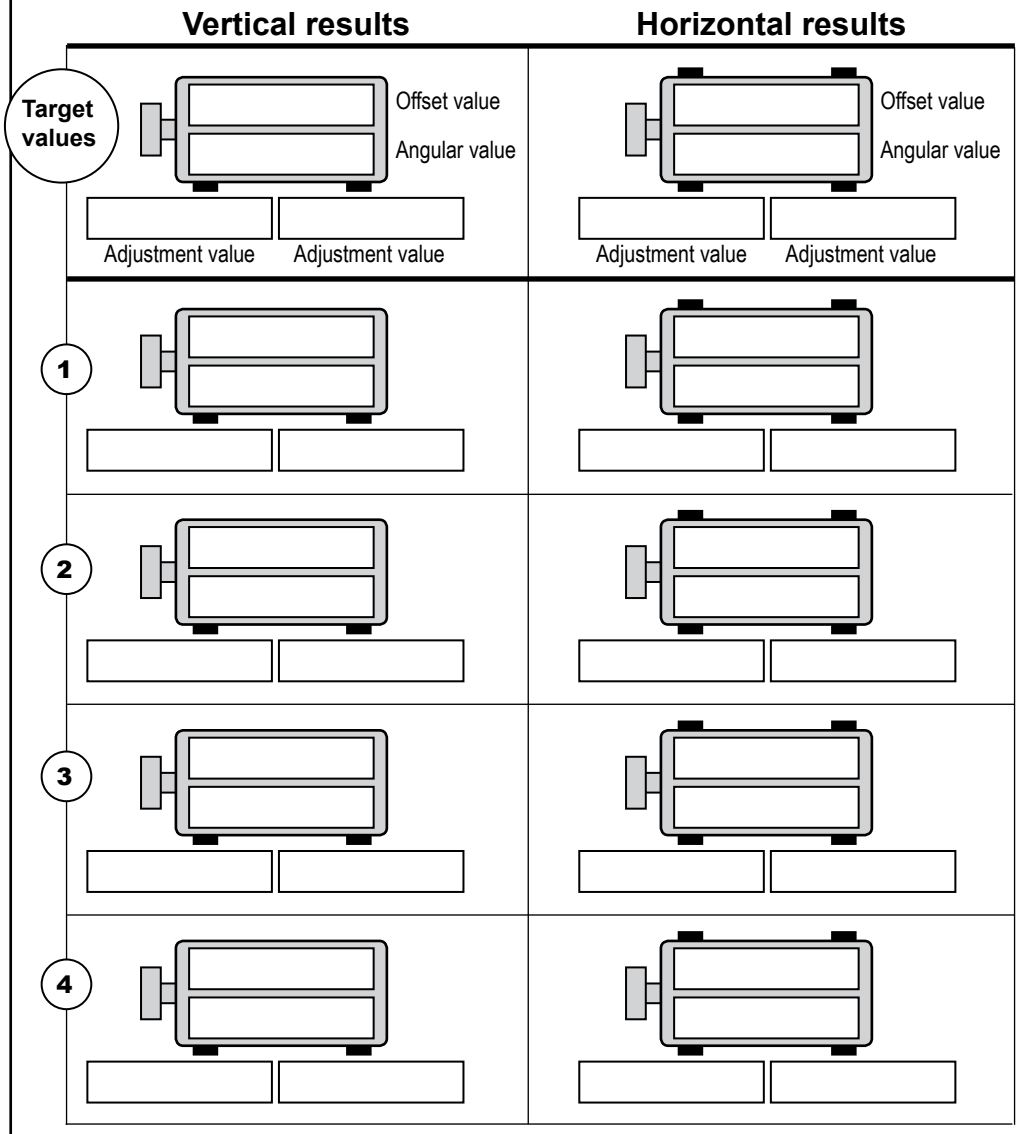
Horizontal program: the indicator shows how the units have to be positioned for live values ± 1.5°.

## Offset Tolerance

| | Excellent | | Acceptable | |
|---|---|---|---|---|
| rpm | mils | mm | mils | mm |
| 0000-1000 | 3.0 | 0.07 | 5.0 | 0.13 |
| 1000-2000 | 2.0 | 0.05 | 4.0 | 0.10 |
| 2000-3000 | 1.5 | 0.03 | 3.0 | 0.07 |
| 3000-4000 | 1.0 | 0.02 | 2.0 | 0.04 |
| 4000-5000 | 0.5 | 0.01 | 1.5 | 0.03 |
| 5000-6000 | <0.5 | <0.01 | <1.5 | <0.03 |

## Angular error Tolerance

| | Excellent | | Acceptable | |
|---|---|---|---|---|
| rpm | mils/” | mm/100 | mils/” | mm/100 |
| 0000-1000 | 0.6 | 0.06 | 1.0 | 0.10 |
| 1000-2000 | 0.5 | 0.05 | 0.8 | 0.08 |
| 2000-3000 | 0.4 | 0.04 | 0.7 | 0.07 |
| 3000-4000 | 0.3 | 0.03 | 0.6 | 0.06 |
| 4000-5000 | 0.2 | 0.02 | 0.5 | 0.05 |
| 5000-6000 | 0.1 | 0.01 | 0.4 | 0.04 |




| | |
|---|---|
| 4 | Tolerance check. |
| 5 | Horizontal program: changes between Horizontal and Vertical live values. |
| 6 | Thermal growth compensation. |
| 9 | Remeasure. |