

**Conversion of Measured Alignment Condition Results
at the Coupling into Dial Indicator Readings**



Introduction

This TechNote is designed to guide you through the procedure for converting alignment condition results (offsets and gaps) at the coupling that were measured with the laser into dial indicator readings. Only two illustrative examples will be covered, the Reverse Indicator setup and the Rim & Face setup from Left to Right, although other setup options are available in the Pro. These will be very similar, so a good understanding of the following examples will enable you to use the other setups as well.

Overview

The idea is to take readings normally, using the laser, and obtain condition results at the coupling, in whatever display format you choose. Then, convert these measured results into the commensurate dial indicator readings for the specific setup format and locations where your dial indicators are mounted, taking into account any sag such setup might have. The procedure below will guide you step-by-step through the process of obtaining these readings.

Procedure

- 1) Once laser readings have been taken and results obtained, press , then .

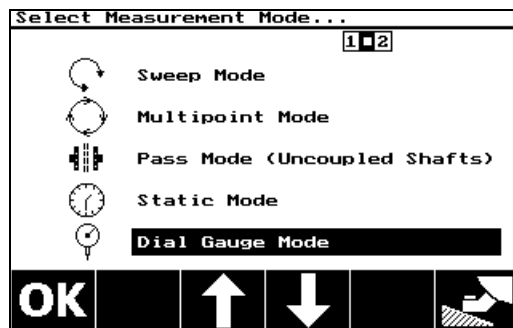


Figure 1

- 2) Using the  key, select Dial Gauge Mode and confirm with . See Fig 1.

Note: ROTALIGN[®] PRO is a registered trademark of Prüftechnik AG.

The Reverse Indicator Setup (“Double-Dial” Method)

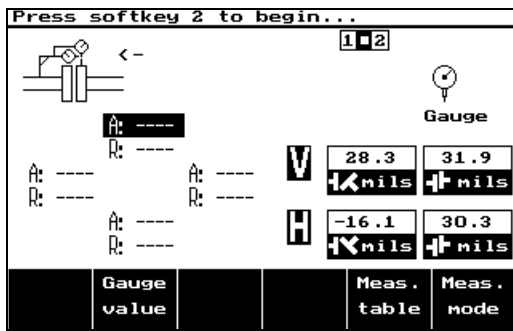


Figure 2

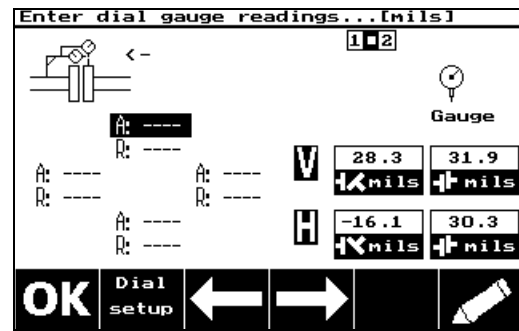


Figure 3

3) Press the **Gauge value** softkey (see Fig. 2).

4) Press the **Dial setup** softkey. (See Fig. 3). Now press the **←** softkey until the entire dial indicator setup icon is highlighted (see Figure 4).

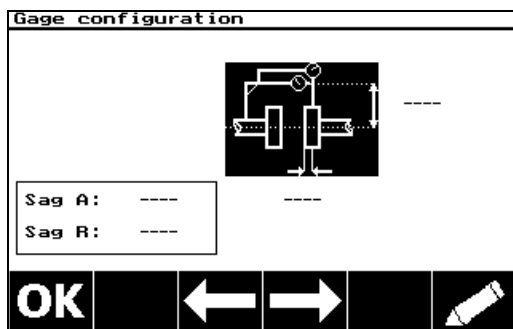


Figure 4

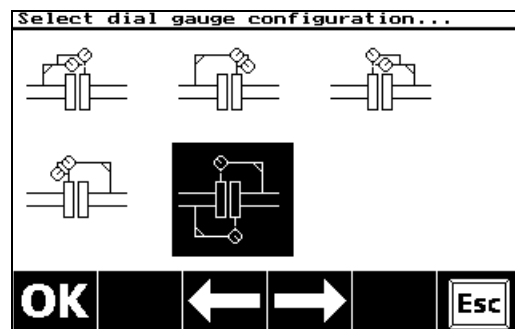


Figure 5

5) Press the **pencil** softkey. (See Figure 4).

6) Select the desired dial indicator setup using the **→** softkey. For this example, we will select the Reverse Indicator or “double dial” setup (See Figure 5). Confirm your selection with **OK**. (Note: For an example of the “Rim & Face setup” see page 4.)

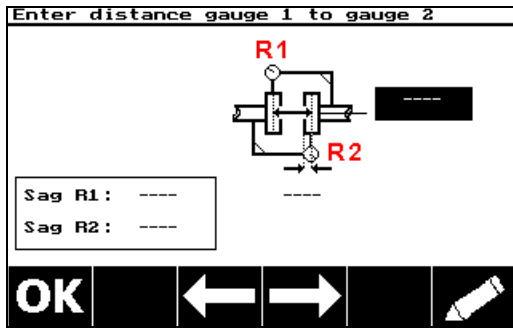


Figure 6

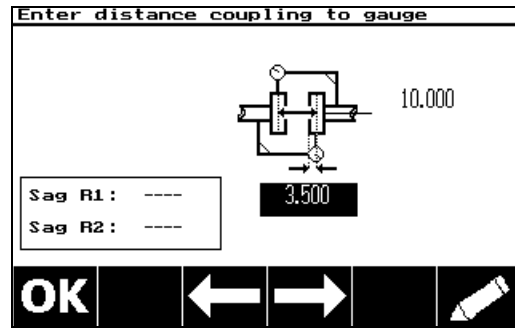


Figure 7

7) Key in the distance between rim indicator stems R1 and R2 and confirm with . (See Figure 6).

8) Now key in the distance between rim indicator R2 and the coupling center and confirm with . (See Figure 7). For short flex couplings, this is the location at which your offset results are given for the readings taken with the laser, or, in other words, the location specified by the distance between the ROTALIGN[®] PRO's Receiver and the coupling center. (See Figure 8). For spacer couplings, key in the distance from R2 to the right hand coupling center, or to the point of power transmission closest to the R2 indicator. This location would be the same as that specified by the distance between the ROTALIGN[®] PRO's Receiver and the coupling when using spacer coupling type (See Figure 9).

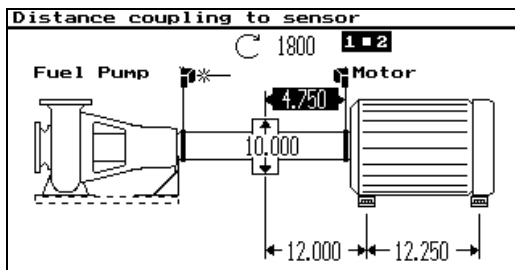


Figure 8

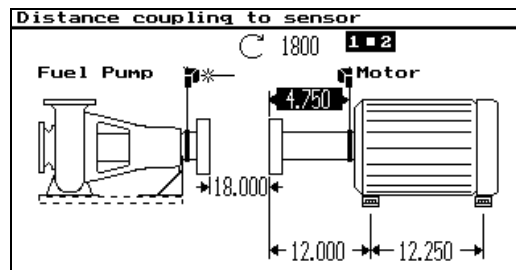


Figure 9

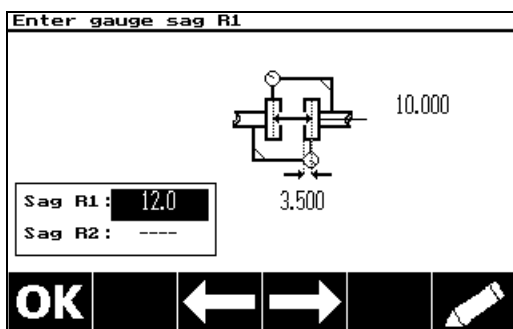


Figure 10

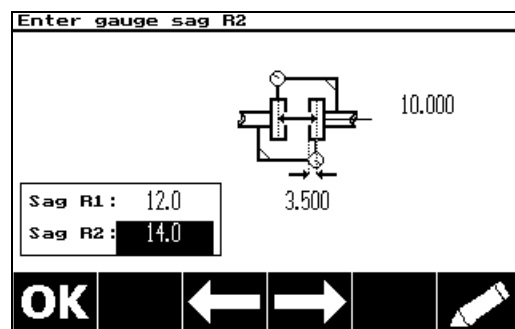


Figure 11

9) Now key in the sag values for the R1 and R2 indicators, confirming each of them with , and then press . (See Figures 10 and 11).

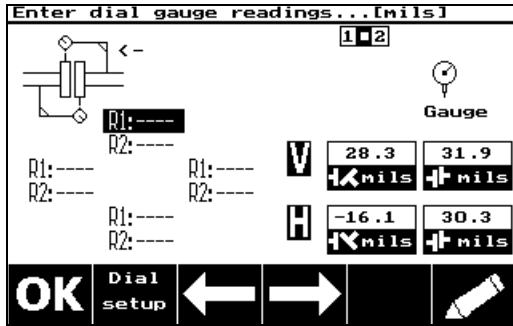


Figure 12



Figure 13

- 10) Now press the **OK** softkey again and obtain your converted dial indicator readings, as shown in Figure 13.

The Rim & Face setup (from left to right)

Begin by performing steps 1 through 4 of the Procedure. For this example, we will select the Rim & Face setup from left to right. This means the bracketing hardware holding the dial indicators are mounted on the left machine shaft, and the indicators indicate on the right machine. Since this setup is the default setup for the Dial Gauge Measure Mode, we can dispense entirely with steps 5 and 6 of the procedure, and then continue with step 7 as follows:

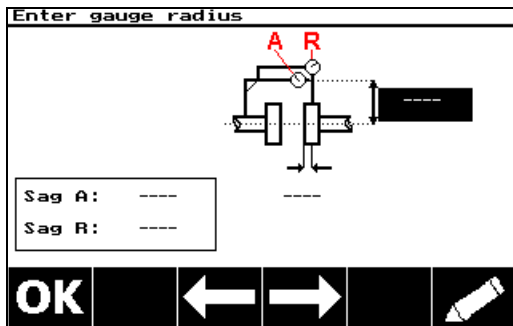


Figure 14

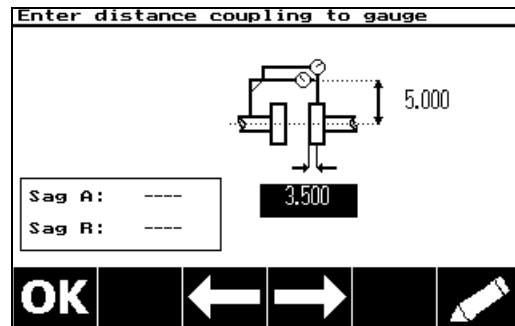


Figure 15

- 7) Key in the travel radius of the Face (or Axial) Indicator (A) and confirm with **ENTER**. (See Figure 14)

- 8) Key in the distance from the Rim (or Radial) Indicator (R) to the coupling center and confirm with **ENTER**. (See Figure 15). For short flex couplings, this is the location at which your offset results are given for the readings taken with the laser, or, in other words, the location specified by the distance between the ROTALIGN® PRO's Receiver and the coupling center. (See Figure 8). For spacer couplings, key in the distance from the Rim Indicator (R) to the right hand coupling center, or to the point of power transmission closest to the rim indicator.

9) Key in the sag values for the Face (A) and Rim (R) indicators and confirm with **ENTER**.

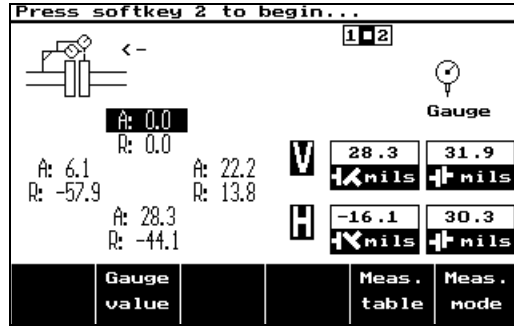


Figure 16

10) Now press the **OK** softkey and obtain your converted dial indicator readings, as shown in Figure 16. (In this example, sag values of zero were entered in step 9).

A Final Note:

For all Rim & Face indicator setups, when dealing with short flex couplings, the distance from the radial indicator to the coupling center will always be to the center of the flex plane or point of power transmission, using the same criteria for establishing this location as you would use in determining the distance from Sensor to Coupling Center, when using the laser-based measure modes. For spacer couplings, the distance from the radial indicator to the coupling center will always be the distance to the right hand flex plane, regardless of which Rim & Face type setup you selected. ☐