

launching edition 2006.03.15

# **FIXTURLASER**

## **EXPRESS ALIGNMENT**



# **ALIGNMENT IN POLE POSITION**

**"Wireless"**





# EXPRESS ALIGNMENT

## Back on track - as fast as possible

A car racing heat can be settled during the pit stop. The mechanics have to perform the needed overhaul/service as quickly and correctly as possible, in order to get the racing car back on track again and win the heat. The same reality is valid for the competitive industry of today. Compare a maintenance stop, a machine break down, or a machine installation to a pit stop at the racing track. The maintenance technicians stop the machine (STOP), perform maintenance (OVERHAUL) and start up the machine again (START). The faster they perform the three above-mentioned steps, the faster the machine is back on track producing again.

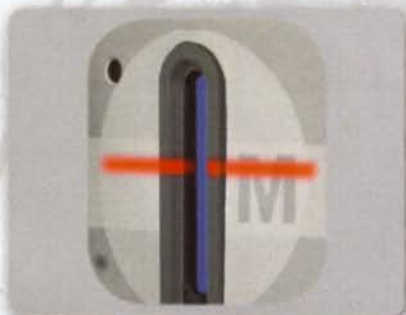
## Express alignment - the new way to approach alignment

The pre- and postalignment phases: mounting, set up and dismantling are inevitable and time consuming. Machines are often checked and aligned under stressful circumstances or on scheduled shutdowns, when time is priceless and high efficiency vital. This is where the alignment "pit-stop", here called Express Alignment, comes in. Express Alignment includes all the three phases and therefore brings us closer to the core of our customers' problem, to solve an alignment problem at site as fast as possible and as accurately as required. Below we present some of the Express benefits of Fixturlaser XA:

### 1. STOP



**Express set up.** The fixtures are premounted in the case and the measuring units use fast snap-on clasps. The use of wireless communication means no cables need to be attached.



**Express zero setting.** Fixturlaser XA offers a no need for zero setting of laser due to the X-large CCD receiver. This will save you both time and effort.



**Express rough alignment.** The X-large receiver provides for minimum rough alignment. Having a large angular misalignment or measuring at large distances, will not cause you any problems.

### 2. OVERHAUL



**Express measurement.** Automatic registration of measurement points. Colour animations show you exactly how far you have to rotate the shaft before taking next measurement.



**Express display of result.** The result screen shows you directly the full measurement result, both vertically and horizontally, informing about exact position and correction value. Colour codes highlight any need for action. Oversized key data.

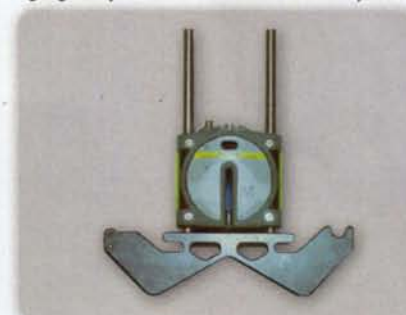


**Express align.** You will always hit the X-large detector, even when there is a large misalignment. The result screen uses high lighted arrows to show you exactly how and how much the machine has to be aligned, both horizontally and vertically.

### 3. START



**Express documentation.** By using the USB port and a memory stick (USB) or a network printer, you will have a fast and flexible documentation.



**Express disassemble.** The premounted fixtures will help you to disassemble the Fixturlaser XA fast and accurate. No need to look for missing rods or other components....



**The Express alignment mechanic.** Ready for next express (pit) stop.



# BY FIXTURLASER



## Fixturlaser XA - the alignment system in pole position

Fixturlaser XA is an alignment system developed for a competitive industrial environment, both for today and in the future. The measuring units, the display unit, as well as the case, provide for an alignment operation as fast as possible. Read more about the system and its features below.



### Robust and handy case

The case is manufactured in high impact ABS plastic and it is water- and airtight. The weight of the case is low and it is convenient to handle. Shoulder strap and backpack are optional. The fixtures and sensors are premounted in the case.

- Convenient to handle
- Case with room/space for premounted fixtures
- Water- and airtight
- Comfortable strap (optional)
- Backpack solution (optional)

### Thin measuring units with X-large detector

The measuring units have large 30 mm detectors, with a physical size that is thin, small and low weight. Their small size facilitates mounting when there is a lack of space. The measuring units are both equipped with inclinometers for alignment of non-coupled axes and they are not sensitive to bright light. A battery pack for wireless communication with the display unit is optional.

- Thin and small laserheads with X-large detector
- Express snap-on mounting
- Rugged measuring units made of aluminum and rubber
- Battery pack for wireless communication

### X-large display with high resolution colour touch screen

The display unit is manufactured in a robust design for industrial use and is equipped with a large 6,4" high resolution touch screen. The screen is a TFT LCD backlit screen with 640 x 480 resolution. The front is made of aluminum and rubber and the unit is IP65 classified. It uses rechargeable lithium batteries.

- X-large high resolution colour touch screen
- Equipped with 2 USB connectors
- Equipped with Ethernet connectors (TCP/IP)
- Field upgradeable firmware
- Displaybox equipped with stand for three (3) positions (see pictures to the right)
- Software with colour animations highlights operations
- Laser transmission and status indicators



Three different views of the display unit: from the side, from the bottom and from the top.

### Express and accurate with CCD detector

The Fixturlaser XA is using a CCD detector. The use of this technique means several advantages, affecting the alignment process' speed as well as quality, e.g. high linearity, high resolution and for the post-processing "edge detection", "side spot rejection" and "background light suppression". As a result of the CCD technique, the system delivers a constant measuring accuracy. Wherever the laser beam hits the CCD detector, the accuracy is still the same even if the beam hits detector border. Find out more about the user benefits of the CCD detector in the opposite section "Express Alignment".





## PIONEERS OF MODERN LASER ALIGNMENT

Fixturlaser has more than 20 years of experience within alignment. We are the pioneers in modern laser alignment by being the first supplier using visible laser for alignment and also the inventor of the dual laser systems. We were also the first supplier using a touch screen with icons in laser alignment.

The forerunners of the Fixturlaser XA are the internationally well known Digilaser Combi, Combilaser and Fixturlaser Shaft. The Fixturlaser headquarters is situated in Mölndal, Sweden. This is also the location of development and production.

## INTERNATIONAL SERVICE CENTERS AND GLOBAL DISTRIBUTION

Fixturlaser markets and distributes precision alignment systems in more than 70 countries around the globe. Our distributors are experienced, skilled engineers and measurement technicians.

One of Fixturlaser's strongest features is the after sales service. Owners of a Fixturlaser system will always have access to assistance in operation and application support throughout our organization. Our certified service centers around the world perform maintenance and calibration of our laser systems. Fixturlaser also offers all customers product and application training.

## ISO 9001 AND ISO 14001 CERTIFIED

Fixturlaser is certified according to ISO 9001 and ISO 14001. We are continuously working with our routines, when it comes to quality and environment. Fixturlaser is also authorized supplier of EX-certified alignment systems.

## QUICK PAYBACK TIME

A production stop can be costly, when resulting in lost production and high costs of repairs. An investment in a Fixturlaser XA alignment system result in a short pay back time. Depending on the number of rotating machines, energy prices and cost of spare parts, the payback time can be as short as a couple of months. In order to find out the payback time for your specific operation, we suggest you use our software Fixturlaser Payback. For more information, contact your local representative.

## BENEFITS OF PRECISION ALIGNMENT

Misaligned machines result in vibrations and premature wear of bearings, seals and couplings. Machines with rotating shafts are designed to run under optimal conditions. Misalignment will lead to harmful forces, deteriorating the machines' performance. It can also be most costly.

On the other hand precised aligned machines will result in:

- Reduced vibration levels
- Increased meantime between failures
- Reduced maintenance cost
- Reduced energy consumption
- Increased production quantity and quality

**Fixturlaser XA**  
Express alignment system including components and case according to technical specification as below (excluding optional accessories).



## TECHNICAL SPECIFICATION

### Fixturlaser XA

Weight (incl. all standard parts): 7,9 kg  
Storage Temp: -20 to 70°C

#### Case

Material: High Impact ABS Plastic  
Sealing: Dust-, water- (5m), and airtight with air pressure compensation valve  
Drop Test: 3 m onto concrete floor  
Dimension: 460 mm x 365 mm x 185 mm

#### Display Unit

Housing Material: Anodized aluminum and high impact PC/ABS plastic overmolded with TPE rubber  
Operating Temp: 0 to 40°C (32 to 104,00°F)  
Relative Humidity: 10 - 90%  
Weight: 1,5 kg (3,31 lbs) with batteries  
Dimensions: 244 mm x 188 mm x 55 mm (9,6 in x 7,4 in x 2,1 in)  
Environmental Protection: IP 65  
Processor: Intel X-Scale, 400 MHz  
RAM: 64Mb  
Flash storage memory: 128Mb  
Display: Colour TFT-LCD backlit with wide angle viewing technology  
Display Size: 6,4" diagonal (131 x 98 mm)  
Display Resolution: Full VGA 640x480 pixels  
Colour Depth: 262 000 colours  
Interface: 6,4" Polyester laminated touch screen with enhanced transmission  
External Interface: 2 RS-485  
1 USB host port, 1,5 / 12 Mbps, OHCI v1.0  
1 USB slave port, 12 Mbps compliant  
1 Ethernet 10/100BaseT RJ45  
Optional Class II Bluetooth transmitter with multi-drop capability  
Power Supply: Dual high performance rechargeable Li-Ion batteries and external power supply  
Operating Time: 20 hours typical use  
LED Indicators: Unit state and battery state indicators

#### Measuring units

Housing Material: Anodized aluminum and high impact PC/ABS plastic overmolded with TPE rubber  
Operating Temp: 0 to 50°C (32 to 122°F)

Relative Humidity: 10 - 90%  
Weight: 186 g (3,53 lbs) with batteries  
Dimensions: 79 mm x 77 mm x 33 mm (3,1 in x 3,0 in x 1,3 in)  
Environmental Protection: IP 65  
Laser: 650 nm class II diode laser  
Laser Line Fan Angle: 6°  
Laser Power: < 1 mW  
Measurement Distance: Up to 10 m (33 feet)  
Detector: CCD  
Detector Length: 30 mm (1,2 in)  
Detector Resolution: 1 µm  
Measurement Accuracy: 0,3% ± 7 µm  
Ambient Light Protection: Optical filtering and sunlight signal rejection  
Inclinometer Resolution: 0,1°  
Inclinometer Accuracy: ±0,5°  
LED Indicators: Laser transmission and status indicators  
Laser Safety: See yellow label below

#### Shaft brackets

Fixture: V-fixture for chain, width 18 mm (0,71 in)  
Material: Anodized aluminum  
Shaft diameter: Ø 20-450 mm (3/4"-18")  
Rods: 4 pcs 85 mm and 4 pcs 160 mm (extendable to 245 mm)

#### Cables

Length: 2 pcs 3 m (10 feet)

#### Optional equipment

**Wireless package:**  
Housing Material: PC/ABS plastic  
Operating Temp: 0 to 50°C (32 to 122°F)  
Weight: 60 g (2,1 oz) without batteries  
Dimensions: 97 mm x 47 mm x 36 mm (3,8 in x 1,85 in x 1,4 in)  
Wireless Communication: Class II Bluetooth transmitter  
Power Supply: 3 AA (LR6) batteries  
Operating Time: 5 hours continuously  
LED Indicators: Transmitter and battery status indicators

**Note!** Specifications are preliminary and subject to change without further notice.

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