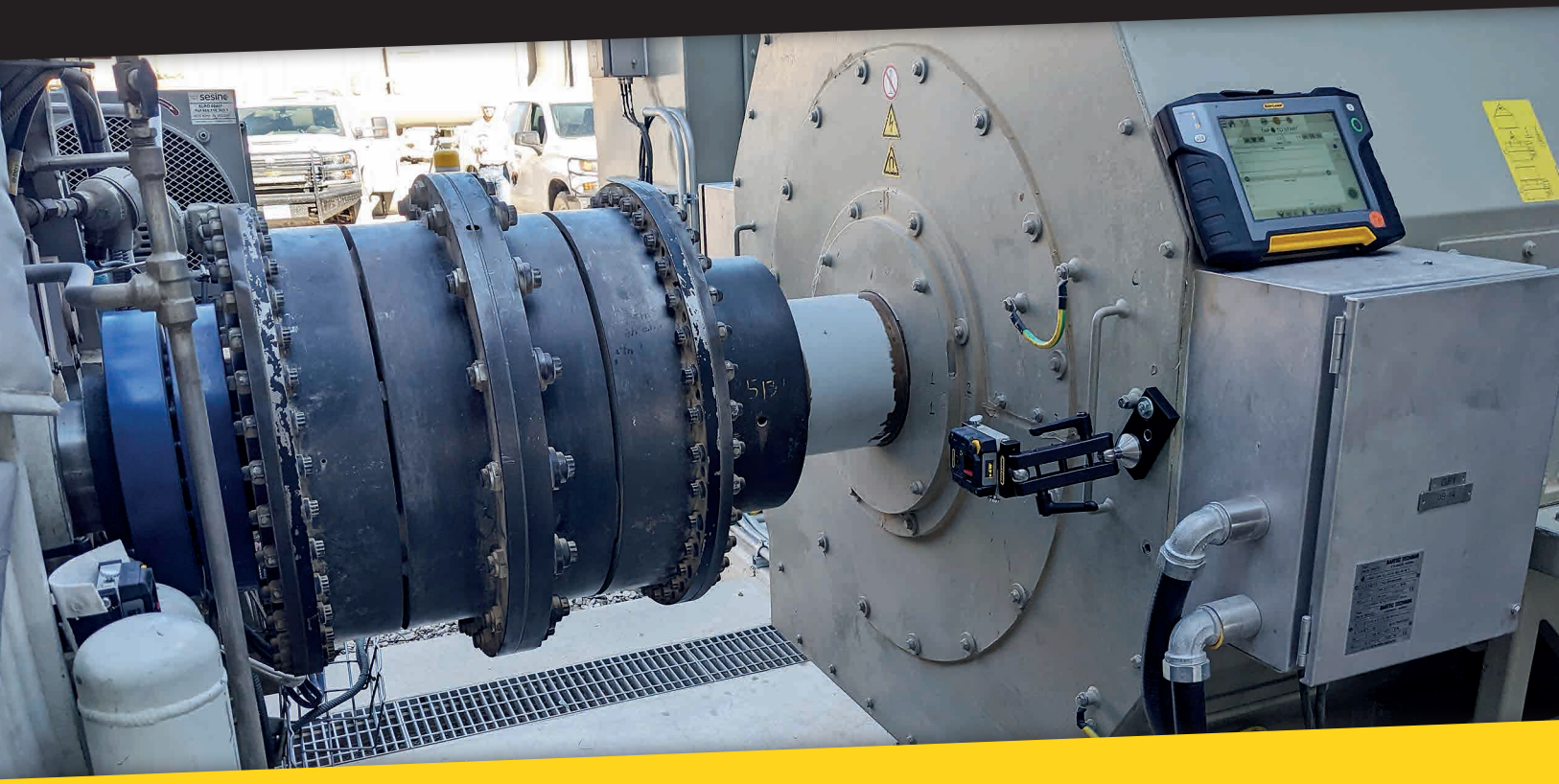


Dynamic measurement

PREVENT MACHINE FAILURES

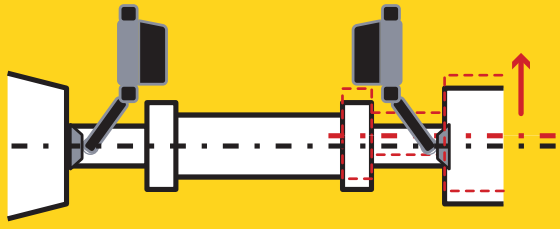
Dynamic measurement is about finding unwanted movement, it always results from forces. All excessive forces like thermal growth or contraction, pipe strain (dynamic and static), additional heavy loads (e.g. silencers) will generate stress in the machine casing, and this might cause them to move or change the designed geometry of the machines. It may cause misalignment, internally and externally. Leakages will appear, and a distorted casing might lead to internal contact between stationary and rotating components. Uncorrected, this will inevitably lead to machine failure. If you do a dynamic measurement all of this can be avoided.

RECORDING ANY MOVEMENTS

EasyTrend is a specific Easy-Laser® application which measures and documents any movement (angle and offset) of rotating machinery in both horizontal and vertical axes, in real time. Recording of movements can be set to desired time intervals. The complete measurement can be documented for future reference and troubleshooting.

WHEN TO MEASURE

The dynamic measurement should be performed at SAT (Site Approval Test) before starting the operation, or every time the equipment has been removed for overhaul and placed back. This way you ensure a reliable machinery installation, and prevent possible costly downtime.



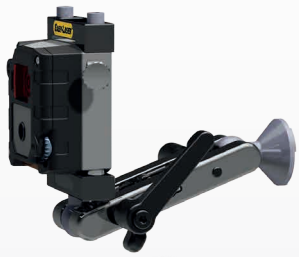
The EasyTrend™ program for XT shows the movement over time for both Horizontal and Vertical direction (offset and angle).

DM BRACKETS

For the dynamic measurement to be reliable, special DM brackets need to be mounted on the machinery. One measuring unit is mounted on the driving machine and the other on the driven (see cover image). The kit includes two types of attachment plates, one to be glued onto the machine, the other to be bolted. Choose the one that suits your application best. Then the actual DM bracket is screwed onto the plates. After measurement, the brackets are removed, and if wanted, also the plates.

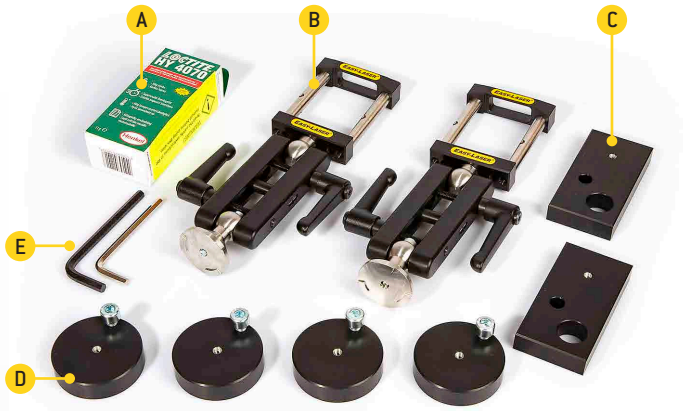
SYSTEM REQUIREMENTS

Besides the DM Bracket Kit and the XT Alignment App, you also need the XT70-M and -S units, included with system XT770. Sometimes bracket extensions (F) are needed to be able to position the measuring units correctly. Please consult your local Easy-Laser distributor for support.



MORE ABOUT PIPE STRAIN

We recognize two types of pipe strain: static pipe strain and dynamic pipe strain. Static pipe strain is the condition when the pipe flange is misaligned to the inlet/discharge flange. This is due to a poor assembly procedure or inadequate pipe support, and maybe because no flexible connections/compensators are installed. Dynamic pipe strain occurs when the system is in operation, and is due to thermal expansion, plus weight and pressure of the media/fluid, plus inadequate pipe support.

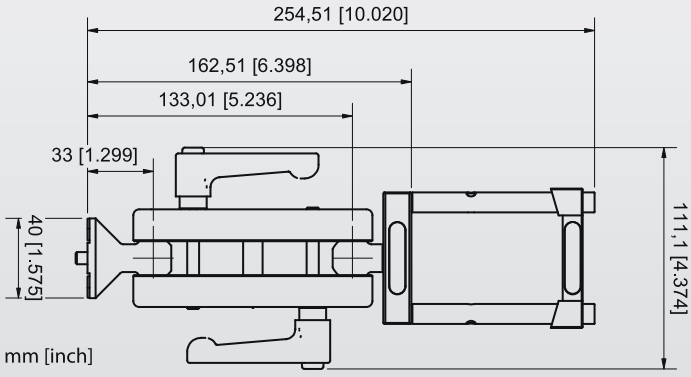


A. Glue Locktite 4070
B. DM brackets
C. Mounting plates rectangular, for bolt
D. Mounting plates round, for glue
E. Allen keyes 5 and 6 mm
F. DM Bracket extension, Part No. 12-1129 (accessory)
G. Complete kit, with space also for two extensions

F

G

Easy-Laser® DM Brackets (Complete kit), Part No. 12-1130	
1	Glue Locktite 4070
2	DM Brackets
2	Mounting plates rectangular, WxHxD 3.9x1.95x0.6" [100x50x15 mm]
4	Mounting plates round, diameter 2.4" [60 mm], Thickness 0.6" [15 mm]
2	Hexagon wrenches, 5 and 6 mm
4	Screw M8x20
1	Quick manual
1	Carrying case
	Dimension WxHxD: 13.0x11.2x5.3" [330x285x135 mm]
	Weight (complete kit): 9.2 lbs [4180 g]



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