

» *Training*

Become an alignment expert

» *Laser focused*

Meet one of the Easy-Laser users

» *Alignment*

The complete reliability solution

ALIGNED #1

A magazine from

EASY-LASER®

—
Are maintenance engineers environmentalists?
—

Our clients are the ones who really change the game
—

Out to make a difference:

Roman Megela is spreading the word of reliability

What we do – and why

» Mikael Turner/CEO Easy-Laser

“To help the end user to a problem-free and sustainable production”. That’s the Easy-Laser vision, and one we take VERY seriously. One of present times’ greatest challenges is to slow down, and possibly reverse the effects of climate change. In order to achieve this task we need swift action from individuals and industry alike. At Easy-Laser we want to be an active part of the solution.

The city of Gothenburg has a proud history of industry and entrepreneurship. Even though Easy-Laser isn’t nearly as big as our hundred-year-old industrial brethren, SKF and Volvo, we all stem from the drive and passion of an entrepreneur. In the case of Easy-Laser, we inadvertently made climate change action more achievable.

At Easy-Laser, one of our core values

is, “We are innovators”. We define this as the use of a new idea or method that adds value. If it doesn’t add value, it’s not much of an innovation in my book. That is precisely what we do here at Easy-Laser. We supply user-friendly and innovative measurement solutions for advanced industrial applications that add value.

The process of aligning two shafts to one another is also a process of improving your plant efficiency, increasing uptime and lowering your power consumption – things that have a great impact on your CO₂ footprint. This simply makes sense. A smoother, better running process is also a more reliable process.

Of course, measurement and alignment have been around for much longer than lasers. So, what does Easy-Laser really bring to the table? A tool that is truly easy to use, that will allow your mechanics, the true heroes of reliability, to get the job done!

This is how we help the end user, our customer, to a problem-free, reliable and more sustainable production!



Mikael Turner



Did you know?


That we got three prestigious awards for Easy-Laser XT products: Red Dot design award, iF Design award (both for our tablet) and HaxardEx award (for the XT550 system)?

That the photo of Roman Megela on the cover of this magazine was taken on location while shooting the latest Easy-Laser film?

That you can find Easy-Laser on Facebook, Instagram, YouTube and LinkedIn?

 facebook.com/EasyLaserAB

 [@easylaser](https://instagram.com/easylaser)

 youtube.com/easylaserab

 linkedin.com/company/easy-laser-ab

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Man on a mission

In the world of laser alignment, he's probably one of the most familiar faces there are. Get to know Roman Megela, Senior Reliability Engineer at Easy-Laser.

Engineers or environmentalists?

Precision alignment leads to less damage, longer service life and a more efficient machine. Is it time to upgrade the work description for maintenance engineers? Get the perspectives of Geir from Norway and Joost from Singapore. **p.6**

Bringing Easy-Laser worldwide

Our wide network of distributors are there to support you whenever needed. Meet Christo Van der Walt, our distributor in the Sub-Saharan region. **p.22**



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Aligned with the planet

We have always strived to be sustainable. But, it's not the most important thing about what we do. What is important is that the products and services we deliver completely change the game for our clients.

Meeting the end user

He has been an avid Easy-Laser user since 2012. With decades of experience of helping prevent power loss, Fredrik Thulinsson has seen a changing industry who's starting to realize the importance of aligned machinery. **p.10**



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A system for every need

In our product line-up you find everything you need for a reliable machinery installation and continued maintenance work.

Our company



Easy is in our DNA

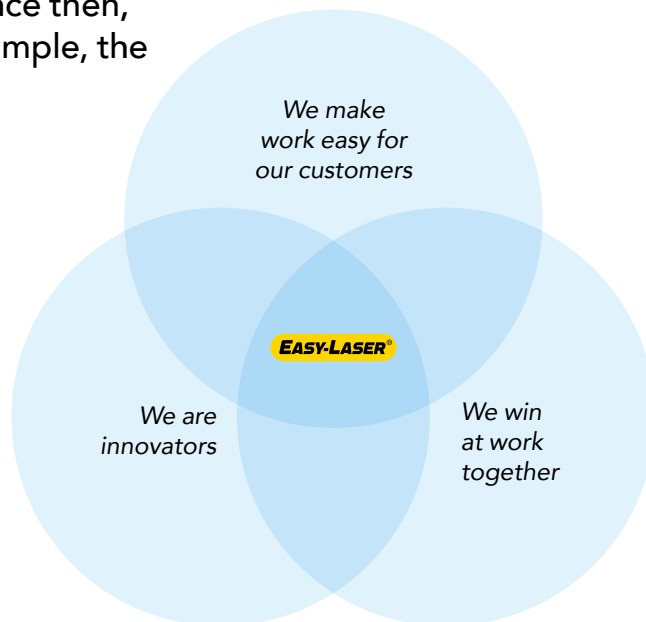
It is nearly 30 years since Easy-Laser was founded. A lot has happened since then, but some things remain. For example, the reason for our name.

It is no coincidence that we and our products are named Easy-Laser. It has always been about making it easy for our customers and users – when in contact with us as a company or when using our measurement systems. We are present globally in around 80 countries, ready to quickly support with local service and support. We want to offer an as frictionless experience as possible, from the first contact with us when looking for an alignment solution and further on during the whole product life cycle.

Since 2006 Easy-Laser is included in the Indutrade Group of industrial companies. With them we have a committed owner, who still let us run our daily business in our own way. Their portfolio consists of hundreds of companies with solutions for a wide range of industrial needs.

Indutrade of course measures the progress in many economic aspects, but they also highlight good efforts in important issues that affect future business, and the world as a whole. In 2022 Easy-Laser received the top award for Indutrade Sustainability Awards – Category People and also Best Large Manufacturing Company 2021. Something that of course makes us very proud! Adding to this a fantastic growth during recent years with thousands of new customers all over the world makes it even better! I am convinced that all those things are related to each other.

Another thing, which in fact has always been with us, is the connection to sustainability. These days it is a must for companies in the forefront. As I see it, “sustainability” can be many things: a product that lasts for a long time, a product you can expand and adapt to your needs as times go by, a product



which when used will contribute to sustainability in an environmental perspective, etc.

Also, the well-being of our employees and the possibility for them to grow their skills are vital parts of the company's sustainability work. Everyone has the opportunity to exercise during work hours and is given the opportunity to influence via various forums. We try to foster a family feeling where everyone takes part, is involved and is able to see the complete picture of our business. And therefore, contribute to our success on a higher level. Which in turn is naturally related to the success of our customers. I have been with the company for over 20 years, and so have many of my colleagues. I think that is proof of a great company culture, and a fun place to work. I hope we manage to share this feeling also with our customers. Together we face the future! This applies to the highest degree to our core value “We make work easy for our customers”. “Easy” is not just in our brand name, it is in our DNA. ■



Rustan Karlsson
Marketing Manager



'We are environmentalists'

Precision alignment leads to less damage, longer service life and a more efficient machine. Is it time to upgrade the work description for an entire workforce?

"We are just as much environmental workers as engineers," Geir Jöran Bakke says, Senior Supervisor Alignment for Bømlo Skipsservice in Norway.

As a consultant Geir never forces any client to take any measures. He recommends, and at some occasions insist on, certain actions.

"In the end it's up to the individual to make the decision for their company. At least I have documented my findings and the following advice," he says.

Working on the Norwegian west coast as a maintenance engineer his main line of work revolves around the naval sector where he aligns equipment on large ships and offshore platforms using laser equipment exclusively. And with decades of experience, he takes a lot of pride in his work.

"There is a difference between precision and high precision. If the acceptable tolerance is 0.5 millimeters, then we always try to align within at least half of that. It should always be as close to zero as possible. Especially when something is rotating."

If you ask Geir, precision alignment has several direct upsides. Longer service life. Less damage and fewer breakdowns. That's why he would like to take it a step further.

"We are environmental workers just as much as we are engineers. The most expensive investment a company can make is a misaligned machine. If you ask me if we are sustainability heroes I would say yes. If a machine both has a longer service life

and doesn't need something replaced, you'll save natural resources on producing machines and spare parts. If the machine runs more efficiently, you'll consume less energy which is an economic benefit. We contribute to a more sustainable industry and we need to be more vocal about the issue."

Even though Geir is convinced that precision alignment leads to more economic and environmental sustainability, he is also aware of the difficulty to quantify exactly how much.

"It all depends on the circumstances. Let's say that something is misaligned on a machine on a ship. The misalignment causes vibration on the entire ship which affects all of the other equipment and every member of the crew. Potentially a breakdown. In one scenario a spare part costs a few dollars and is always accessible. In another, the part could cost millions and take months to produce. As soon as you align outside the acceptable tolerance the reliability disappears."

"There are still a lot of people who don't see the connection. A perfectly aligned machine is the most economical investment a company can make."

Geir is not alone. Thousands of kilometers away in the busy area of southeast Asia and the island of Singapore the alignment engineer Joost van Doodewaard, who even though necessarily wouldn't call himself a sustainability hero, shares the opinion that alignment has positive effects.

"What we do leads to more sustainability. It is true that a machine will use less energy when it's properly aligned. It is also true that it will last longer and have less wear and tear. However it's

hard to put a number on it. But if you can make a coupling or bearing last for a couple of years instead of months you will reduce carbon emissions by producing fewer spare parts. You don't have to fly in the engineers as often which saves time and money."

Just like his Norwegian colleague, the main clients for Joost and his colleagues at On Site Alignment can be found out to sea where they help interna-

» The most expensive investment a company can make is a misaligned machine. If you ask me if we are sustainability heroes I would say yes «

tional shipowners with both counseling and the actual hands-on machine alignment.

When discussing sustainability and precision alignment also Joost feels that the conversation needs to be broadened to maintenance as a whole.

"Proper precision alignment is a crucial part of maintenance. The shipping industry has set ambitious goals to reduce the carbon emission from all vessels. Which is great. At that same time the industry needs to invest in measuring the effect of the alignment on for example fuel savings and spare parts for everyone to understand the real impact." ■



Bømlo Skipsservice is a modern and well-equipped shipyard for service of large commercial vessels, situated by the beautiful Bømlo fjord. The latest addition is a boat lift with a 1100 metric ton lift capacity.

Our clients are the ones who really change the game

Easy-Laser has always strived to be sustainable. But it's not the most important thing about our operation. What is important is that the products and services we deliver completely change the game for our clients. We help our clients become significantly more sustainable.

And how does that work? Well, Easy-Laser is not your average laser aligner. While there's no denial we're in the alignment industry, it actually makes a lot of sense to look at it from a different angle as well. We have long suspected that the good our products do exceeds the impact they have. But we wanted this confirmed, which is why we contacted an external consultant to perform a life cycle analysis of one of our most sold products.

The company Miljögiraff is an environmental consultant specialized in life cycle assessment and ecodesign. Their method leads to a reliable assessment of potential environmental effects, through measurability in environmental work.

Climate conscious and economic

Climate consciousness comes in many shapes, some of them less expected. In the case of Easy-Laser, Miljögiraff's study landed in some very interesting results. It's when our products reach their users that the real effects become apparent. Once measurement and alignment are in place, machines run on less energy, deliver more uptime, and live longer. This is the real gain. This truly is sustainability put to practice. And, as more and more of us have come to understand, sustainability and economy walk hand in hand. All in all, this means Easy-Laser's products come in extremely high in total sustainability. The small footprint we inevitably cause during manufacturing is eliminated many times over when our products are being used.

A crucial point in time

According to many, a crucial point in time has arrived. A point where a rising number of people show an interest in companies and products mainly for sustainability reasons – as opposed to profit or economy.

Looking at what we actually do here at Easy-Laser, it's a matter of perspective. Many of our clients over the years have chosen us for economic reasons. That's great! We welcome every customer who knows that a dollar saved is a dollar earned. Fact is, the more our clients earn by using our products, the better for the planet.

This of course goes for all our clients who choose us primarily for sustainability reasons, as well. The only difference is, the money they earn is more of a bonus, not the main purpose. We see a tipping point here. More and more of our new clients seem to be interested in Easy-Laser for sustainability reasons. That is a sign of the times, no doubt.

So, whether we're first and foremost in the alignment or the sustainability industry is not an issue. The two are connected, and we're in both. What's important is, we can truthfully say that we're actively contributing to a world where things last longer. ■



Silje Langhelle
Vice President
Sales & Marketing

The XT770 life cycle analysis

- » **System Boundary: From cradle to grave (Whole Life Cycle)**
- » **Standard: ISO 14040/14044**
- » **Method Used: Environmental Footprint 3.0**



An analysis of a whole life cycle includes raw material, manufacturing, transportation, use, and end of life.

The study presents the total environmental footprint of the Easy-Laser system, XT770, from a life cycle perspective. The environmental impact of the XT770 comes mainly from the production of raw materials. The XT770 system includes a display unit, XT12, that carries most of the system's impact together with the plastic case in which the system is stored. The overall electricity consumption during a cradle-to-grave period of time is the system's second most impacting factor. While these facts are well worth noting, and have in part already been considered by Easy-Laser*, the overshadowing fact still is that the XT770 in the hands of the end user leads to great savings, economically as well as ecologically.

* As an example, most of our system carrying cases will soon have a new foam interior. It's made of a more sustainable material which contains at least 80% recycled material.



The end-user perspective

Finding the energy

He has worked with manufacturers, energy suppliers and even the Swedish defense. With decades of experience of helping prevent power loss, Fredrik Thulinsson has seen a changing industry which is starting to realize the importance of aligned machinery.

He remembers the event vividly. The production rate of the concrete company had declined and fallen below the profitable level. As a result the management had taken the decision to replace the entire production line and the industrial saw in particular which had been deemed exhausted.

"I examined the machine and came up with a suggestion," Fredrik Thulinsson says, who had been invited to the factory for one last assessment.

By consulting all of his previous experience he quickly came to the conclusion that the machine not only could be repaired but at the same time be more efficient and reliable than ever before. All it needed was a complete reinstallation. The production manager reacted reluctantly. However since the production already had stopped and the company potentially was facing fines what more could the company do?

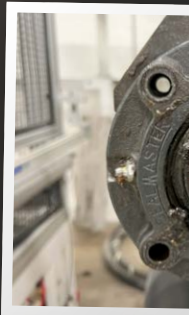
Fredrik was given the green light. He gathered his best team who disassembled the entire construction, aligned every moving part, readjusted and re-installed the machine.

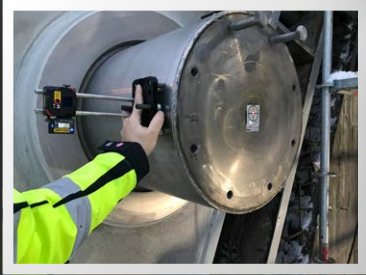
A couple of weeks later he revisited the plant. Out of curiosity he asked to see the deviations report.

"Usually the report would contain a page-full of deviances each week. But when I read the report I could only find four or five in total."

Not only was the machine running more efficiently than ever with the five small engines using 26 percent less energy. The production line had under the same period reached a record setting production rate while the company simultaneously was saving resources due to fewer unexpected production stops.

The episode may be one of the most memorable of his career. But as a maintenance engineer and aligning all kinds of rotating machines on a daily basis, Fredrik has experienced several similar encounters. With energy suppliers. With manufacturers. Even the Swedish Defense where emphasis on precision alignment has given the customer exponentially positive effects.





With decades of experience and 17 years on his own two feet with his company TechMea Fredrik summarizes his profession as a chase. For he says they can be found everywhere. Sources of power loss. In a sloppy installed machine. In a skewed pipe. In a loose frame. Where each complication can have everything from no effect or devastating consequences.

"It's all connected. A misaligned shaft, an uneven surface, or an untightened screw can all cause vibration and unnecessary damage to a machine. More vibration leads to power loss which consumes energy. Damage leads to breakdown which requires repair and spare parts. Which costs resources in the shape of time and money. By chasing down the different power leakages a company can make major savings."

When Fredrik started out in the late 90's the craft mostly consisted of analogue dial indicators methods. Today he has been an avid Easy-Laser

user since 2012 when he completed his first training with the company's products making up around half of his total tool set.

Among his collection one can find a shaft alignment system with 2-axis dot laser units. Units that also work for geometrical measurements. You will also see tools for measuring vibration, a digital level and you'll also discover extra accessories which gives him additional reach while aligning all kinds of rotating machines and carrying out geometry measurements.

"The reason I prefer Easy-Laser is the flexibility where I can pick and choose parts to create my preferable set. I have one display unit which communicates with all the products. This way I just need to invest in what I need." ■

i TechMea:

Founded: 2006

Based in: Östra Ljungby, Sweden

Experts in: Laser based measurement

Previous clients include: The Swedish Defense, energy suppliers and the car industry.



The complete reliability solution

Pictured is a typical rotating machine, highlighting what has to be checked to achieve reliable machinery operation, and what can be measured with Easy-Laser. The combustion engine can of course instead be an electrical motor, and the compressor a 4 throw or more model. Most applications in the image can also be found on other common installations like a motor and pump, propulsion drive lines, etc. Easy-Laser has solutions for all types of machinery.



Flatness. In this application, top plane flatness is measured to verify bore straightness of the compressor. If found not flat this can indicate a twisted housing.



Bearing play. On the compressor, we need to measure the main bearing clearance and the connecting rod bearing clearance. The clearance space is measured by lifting the shaft/rod and measuring the gap.



Hot spots. A thermal image can reveal possible alignment problems. Add a before and after image to your alignment report.



Flatness. Flatness of sole plates. A non-flat surface might cause soft foot. Depending on machine type, the flatness requirements differ. Follow manufacturer recommendations.



Co-planarity. Check that machine sole plates are co-planar. If not, this can be a source for soft foot.



Level. The base and the machine frames have to be level within tolerances to ensure proper operation and lubrication.



Soft foot. Always check for and eliminate different kinds of soft foot to get a reliable installation. Soft foot is the "silent machinery killer".



Pipe strain. Check the influence of pipe connections to verify that correct alignment can be made without adding pipe strain.



Shaft alignment. Alignment of coupled, rotating machinery. Measurement programs for horizontally arranged, vertical/flange mounted, cardan/offset mounted and machine trains. Easy alignment with live values.



Bore ovality. Checking the roundness/ovality to find severe wear and tear.



Bore straightness. Measure straightness of cam and crank shaft bearing journals. Or bearing journals and stern tube on a ship, for example.



Straightness. Checking the straightness and possible sag of base frames and engine housing. A bent housing will affect bore straightness.



Dynamic measurement. Detect unwanted movement caused by thermal growth, pipe strain and other dynamic forces. This should always be done during commissioning.



Belt alignment. Alignment of cooling fan drive. By aligning your belt drives you lower energy consumption and prolong the life of belts.

You will need:



Shaft alignment systems
XT440/XT550/XT660/XT770.



Shaft alignment systems
XT440/XT550/XT660/XT770.



Vibrometer XT280.



Digital belt alignment system XT190.



XT770 GEO with laser transmitter
XT20 or XT22. E-series GEO system.



XT770 GEO with laser transmitter
XT20 or XT22. E-series GEO system.



XT770 GEO with laser transmitter XT20
or XT22. Digital precision level XT290.



XT770 with Dynamic brackets.



XT770 with bore brackets.
Or E-series GEO system.



Shaft alignment systems with dot laser,
XT550/XT660/XT770. For some measure-
ments XT20 or XT22 is also needed.



XT Display unit with Thermal camera (IR).



XT770 GEO with laser transmitter XT20
or XT22. Digital precision level XT290.



E-series GEO system.



Flatness. Flatness of foundation and sole plates. Flatness on parting surfaces to ensure cylinder head gaskets will be able to do their job as intended.



Vibration check. Check for early signs of wear and diagnose faults such as unbalance, misalignment and looseness.

EASY-LASER®

For an overview of our systems, take a look at pages 24–25

The story of a passionate man

‘Reliable machinery installation is sustainability put to practice’

In the world of laser alignment, Easy-Laser’s Roman Megela is probably as close as it gets to being the poster boy. Traveling the world to inspire others, he has become a familiar face to professionals in the industry. Many of the people he meets share backgrounds with Roman. They are the true backbones of daily operations, without whom everything would rapidly go south. They are maintenance engineers.

Sitting down with Roman Megela, Senior Reliability Engineer at Easy-Laser, we do it with the aim to get insights from someone who has gone deeper than most into the vaults of reliability.

So, we have heard you say, more than once, that reliable machinery installation is your passion. Could we start off with a definition?

"By all means! Passion is a strong and barely controllable emotion."

Ha ha, yes, tell me about it! But I meant reliable machinery.

Reality walks in

"I know you did. Well, it's the ability of a machine to consistently perform in the way it's intended to, when we want it to and without any problems. It's actually very down to earth, but then reality walks in and things start to happen. That's why I like to take almost philosophical precautions! When I meet new people working on a site, I really can't stress the importance of installation enough."

OK, and what's so important about it?

"Absolutely everything. It's the very starting point of reliability. It begins with integrity, and definitely in the philosophical meaning of that word. Integrity is the practice of being honest and showing a consistent and uncompromising adherence to strong moral and ethical principles and values."

Are we really talking about machines here?

"Indeed we are, and I will tell you why. The things I talk about on my travels are not to be taken lightly. It takes a lot of honesty and grit to succeed, plus of course motivation. With all of that in place, we can start discussing how to go about it."

» Passion is a strong and barely controllable emotion «

All right, and after integrity comes ...?

"Strategy. I define that as a high-level plan to achieve one or more goals under conditions of uncertainty. It includes several subsets of skills including tactics and logistics."

And the next step?

"Planning. This is a fundamental function, which involves deciding beforehand, what is done, when it is to be done, how it is to be done and who is going to do it."

» It breaks my professional heart every time I see valuable things being handled carelessly «

The secret to some serious sustainability

In all honesty, this means quite a lot of requirements on the people involved, doesn't it?

"It absolutely does, yes! It takes conviction to carry out what's necessary to run a tight ship. No pain, no gain, as the saying goes. But it's not rocket science. You just (just! – Roman chuckles) need to start from the very beginning and work your way through every step of the machinery. Unless you're satisfied with perpetual failures and breakdowns, then you need to take good care of your mechanical equipment. The only happy ones, otherwise, will be your machine supplier, who gets the opportunity to sell you new machines every time you overhaul them.

Speaking of overhauls, that should be a planned thing rather than something random. All machinery needs to be taken apart from time to time, and it should be scheduled. And so should everything else, too. Once you realize that you can make machines live ten times longer or more just by handling them correctly, then you've cracked the secret to some serious sustainability. And, when you implement your insights into your daily work, you have earned the right to call yourself responsible. Because in the end, that's what we all need to be, responsible professionals and human beings."

Man on a mission

So is it safe to say that you're on a mission here?

"Oh, most definitely! It breaks my professional heart every time I see valuable things being handled carelessly. And it never ceases to astound me that so few companies out there, big or small, are ready to do what it takes to achieve and maintain a sustainable operation. Even after I show them exactly how they could go about making their business more efficient, and more lucrative, they still choose to do things as they always have. Inefficient, unprofitable, unsustainable! But, you know, then I meet someone who listens and actually wants to do something about it. That's the one who makes my day!"

A world where things last longer

Is that how you keep this passion alive?

"Yes! At the end of the day, I find it very satisfying to work with something so close to my heart. I never chose my line of work with a conscious sense of wanting to work with sustainability. I just felt I wanted to pursue a career where I could focus on reliability. And what could possibly be wrong with actively contributing to a world where things last longer?"

The philosophy of reliable machinery installation

#1

The ability of a machine, or system to consistently perform its intended or required function or mission, on demand and without degradation or failure.

#2

A correctly installed machine will reach its full, operational life span, which it was designed for.

#3

The installation has direct impact on machinery. It will determine the operating conditions, the performance and the life cycle cost.



Although reliable machinery installation is more craft than science, it's still a complex process. Starting with the foundation is always a good idea, according to Roman Megela.

I will take that as a rhetorical question!

"And rightly so! We're not talking about making a minor difference here. Reliably installed machinery, regularly checked and maintained, will last for many, many years. At some of the sites I visit, new machines are bought and installed every three months, all because nobody takes responsibility. What great business for those who deliver the machines! And what a waste! And it's not the original intention. These machines are built to endure. Let's give them a chance to do that."

A rule of thumb

So, for those who are starting to consider all of this, where should they begin?

"A handy little rule of thumb is to start with the foundation. It's a little bit like the perfect paella. You need to have the right gear and all the right ingredients. Then you put them together in the right order. Start with the foundation. Make sure your paella pan is perfectly aligned, ha ha! But seriously, it's not unimportant to find a flat surface for your pan. I do this on weekends in my garden with family and friends, and I guess I can't help doing even a leisurely thing like this as reliably as possible. And I'm actually quite sure it plays a part in the results. My paella is very appreciated, and also very*

» Reliably installed machinery, regularly checked and maintained, will last for many, many years «

consistent. There simply are no shortcuts to perfect results. Not with paella, not with machines."

Could sustainability put to practice actually save the planet? Well, are meatballs a Swedish specialty?

We all know there's no such thing as business as usual anymore. All of us, professionally as well as privately, realize there are things we absolutely need to change in the short term if we still want there to be a long term. Reliable machinery installation according to Roman Megela may be but one contributing factor—but such an important one! ■

*Don't miss the paella recipe à la Roman on p.34.



Onward and upward

Easy-Laser and the ripple effect

Easy-Laser has been around for the better part of three decades. Slowly but surely we have become the global market leader in laser alignment, with things speeding up considerably over the last decade. None of this would have happened, were it not for our sales organization. Not that they are the only reason, but it's hard to overlook their vast influence on our growth. So, who are they?

Hanna Graffman has stayed true to Easy-Laser since 1999, while Jan Oscander started his career at the company a handful of years later.

"Well, I guess that says something," Jan says, with Hanna nodding to corroborate. "Easy-Laser may not be a huge company, but there have been plenty of career opportunities. That makes it easy to want to stay on."

"Definitely," says Hanna. "I started here in my early twenties, at the production department. I had a toolmaker's education, and that's what got me

qualified for the job. But since then I've changed positions a number of times. Reception desk, order department, sales ... and then area sales manager since 2022."

"And I had some of that journey before coming to Easy-Laser, where I became area sales manager more or less from the start," Jan fills in.

What area sales managers do

When not working, what do you like to do?

"Well, I'm a mother of four, so I never really run out of things to do! But I used to have a big interest

in Icelandic horses, that I passed on to my daughters. Nowadays when I do get the time I love downhill skiing," Hanna tells us.

"We have a thing or two in common", Jan chuckles. "I'm kind of a moonlight farmer with horses and tractors. I have also always had a passion for tools and machines, for understanding them and using them the way they were intended. It's not a complete coincidence that I work with what I do ... nor Hanna, for that matter."

While everyone understands what sales is, it may be less clear just what the specifics of the area sales manager profession are. It does include staying in contact with clients, as in having a lot of meetings, be they live or digital, writing and reading emails, providing distributors with sales support, technical consultation. Overall it is influencing their business to align our common goals and strategies ... Did that cover it?

"Not far from it! I would like to add one thing, though. I guess it could sort under technical consultation, but to be more exact: Helping clients optimize their machinery, in order to achieve high availability," says Jan. "Whenever they want the machine to run, then run it shall. That's a vital part of my work, anyway."

Challenges and the typical working week

What does your typical working week look like?

"There's just no such thing!" says Hanna. "When there's a fair or exhibition, that whole week's just gone. Other weeks I spend on site, working closely with colleagues and departments here at Easy-Laser. And naturally I travel to meet clients, because there's only so much you can do digitally. Sometimes you really need to meet people in real life, for educational purposes, for example."

"In my case," Jan adds, "I actually do have typical weeks. They usually involve education of some kind. It's something we try to include when we sell a product. Half a day, or a full day of training with the client. Then of course contacting existing and potential clients. I guess

the most typical thing about my weeks is that they're always packed with work."

What about challenges?

"Oh, I don't think very much about those things anymore," says Hanna. "It's more like everything and nothing. Over the years, I have come to adopt an attitude where I always keep both my feet firmly on the ground. This has to do with me being a woman in a very male-dominated industry. For that reason it seems to be more important that the things I say are based on facts. I'm happy to say that

"Easy-Laser has been under the microscope for the climate footprint, and that went well for us," Hanna starts. "But sustainability is more than climate. There's the social one, where factors like how people feel about the workplace and such. Gender equality, of course."

"What we at Easy-Laser are doing is good for sustainability", Jan continues. "It's definitely something on the global agenda these days, which is really good, but above all of course also necessary. To me it's mostly about common sense.

» Women are not few at Easy-Laser these days, and gender equality is a given thing «

I'm fully backed by my employer here. It's a company where contemporary, basic values prevail. Women are not few at Easy-Laser these days, and gender equality is a given thing."

"Well ... there's sometimes that one person, you know," Jan says. "I come to the client and give a well-prepared presentation. Everything goes well, or at least that's what I think, but someone is yet not prepared for a change. And I don't even ask much; just refine this one detail and you'll increase your uptime, use less energy and be more profitable. 'Why do we need this? We have done this for a long time. What could you possibly contribute?' Not everyone is open to change. I'm happy to say, though, that a lot of these people become content once they've seen the advantages."

Sustainability and common sense

What's your view on sustainability?

I've always loved fixing and repairing and maintaining things, as opposed to discarding them as trash. These are valuable machines, built to last – which they will, granted that they are looked after. Which is exactly what we do here at Easy-Laser. We help people give their machines the long life and functionality they were intended for. Sustainability put to practice!"

We'll leave that as the conclusion. Contributing to saving the planet is common sense. In the case of Easy-Laser, it's the ripple effect more than anything else that is the key factor. The moment we get to help a client with one of our products, not only do they save energy, equipment, and money. They also instantly become much more sustainable. Talk about win-win. ■

Meeting the distributor

Our man in Durban

The emphasis on precision alignment is growing. And the demand for Easy-Laser products is joining in. With the help of a wide network of distributors the company is supporting users around the globe.

If you were to travel from Durban on the South African east coast to Nairobi, the capital of Kenya you would have to cover a distance of 4500 kilometers while crossing at least five country borders. For Christo Van der Walt, CEO of Engineering Dynamics, that trip is nothing unusual. As an authorized distributor for Easy-Laser in the Sub-Saharan area, Christo and his team are used to visit clients across the continent.

Today the main part of Easy-Laser products are designed, developed and manufactured in the facilities in Mölndal/Gothenburg, Sweden. But in order for the product to reach its end-user it has to pass through one of the designated distributors. Where Engineering Dynamics covers a lot of the African market, they have a counterpart for each and every market. In Australia GVS Reliability Products. In Canada Benchmark PDM. And on the US market Ludeca Inc, renown provider of reliability solutions for decades. Today the distribution network spans over 80 countries where Easy-Laser is

responsible for educating their distributors on the products in order for them to be able to offer the best training possible to the end-users. For Easy-Laser this ensures quality while at the same time having a local presence. In return the distributors can keep Easy-Laser updated about application solutions and product requirements.

With a background as a mechanical engineer, Christo has for the last two decades worked with reliability to help companies prevent machine failure and to prolong the lifespan for machines. And for the last five or six years he has experienced a remarkable increase of awareness of good maintenance practices in general and precision alignment in particular.

"People understand that when you bring two machines together, connect them and make them run at any speed, you must use precision alignment," Christo says and points out that understanding mainly comes from an economic motivation. Poor

alignment will lead to dire consequences with a negative economic impact in the future.

Today Christo and his team have collaborated with Easy-Laser for 20 years.

“The reasons why I enjoy working with Easy-Laser is first of all of course the products. Compared to its competitors they are easy to use, accurate and allows the user to carry out the work efficiently. That’s the important thing and why people enjoy the products. Easy-Laser is not stagnant. They are growing and they produce new exciting equipment.”

Apart from the high-quality hardware Christo values the personal aspect between the organizations.

“That is the second thing. The support they provide. For me as a distributor I can pick up the phone at any time with any question and I know there will be somebody on the other end of the line ready to give me an answer. We have spent a lot of time together and they understand where we’re going as a company and what we’re trying to do. We South Africans are very straightforward people and I think Swedish people are too. That’s why I enjoy working with Swedish companies.”

From the dual headquarters in Durban and Pretoria, Engineering Dynamics not only acts as a supplier but also conducts training for the same Easy-Laser products and laser alignment in general.

“We have a number of simulators that are used for our four-day competency course which are run monthly either at the office or onsite. Course students go through a very intensive theoretical and practical training and when they write the exam and go through the practical tests they have to achieve 80% to pass. The theoretical part is also available as an online eLearning course.”

And if you completed our course you can confidently go into any plant and align the machines. So that’s what we do and we do that obviously all on Easy-Laser tools.

Looking forward, Christo thinks the demand for precision alignment and Easy-Laser will grow furthermore.

“It’s a result of both stricter installation requirements from the manufacturers when it comes to warranties, a stronger focus on machine reliability and also that more people appreciate the benefits of aligned machines.” ■



As one of our distributors globally, Christo van der Walt and his company Engineering Dynamics in South Africa are responsible for distribution and training of measurement technicians in their area.

Engineering Dynamics

Business: Experts in alignment, vibration and calibration. Distributes and conducts training of the Easy-Laser products

Market: Sub-Saharan Africa

Based in: Durban and Pretoria, South Africa

Founder: Christo van der Walt, CEO.

NORTH PACIFIC OCEAN

SOUTH ATLANTIC OCEAN

SOUTH PACIFIC OCEAN



Service center



Where we are represented

Benchmark PDM, Inc.
CANADA
Toronto, Ontario

SPM Instrument B.V.
NETHERLANDS
Drunen

dB Vib Instrumentation
FRANCE
Vienne

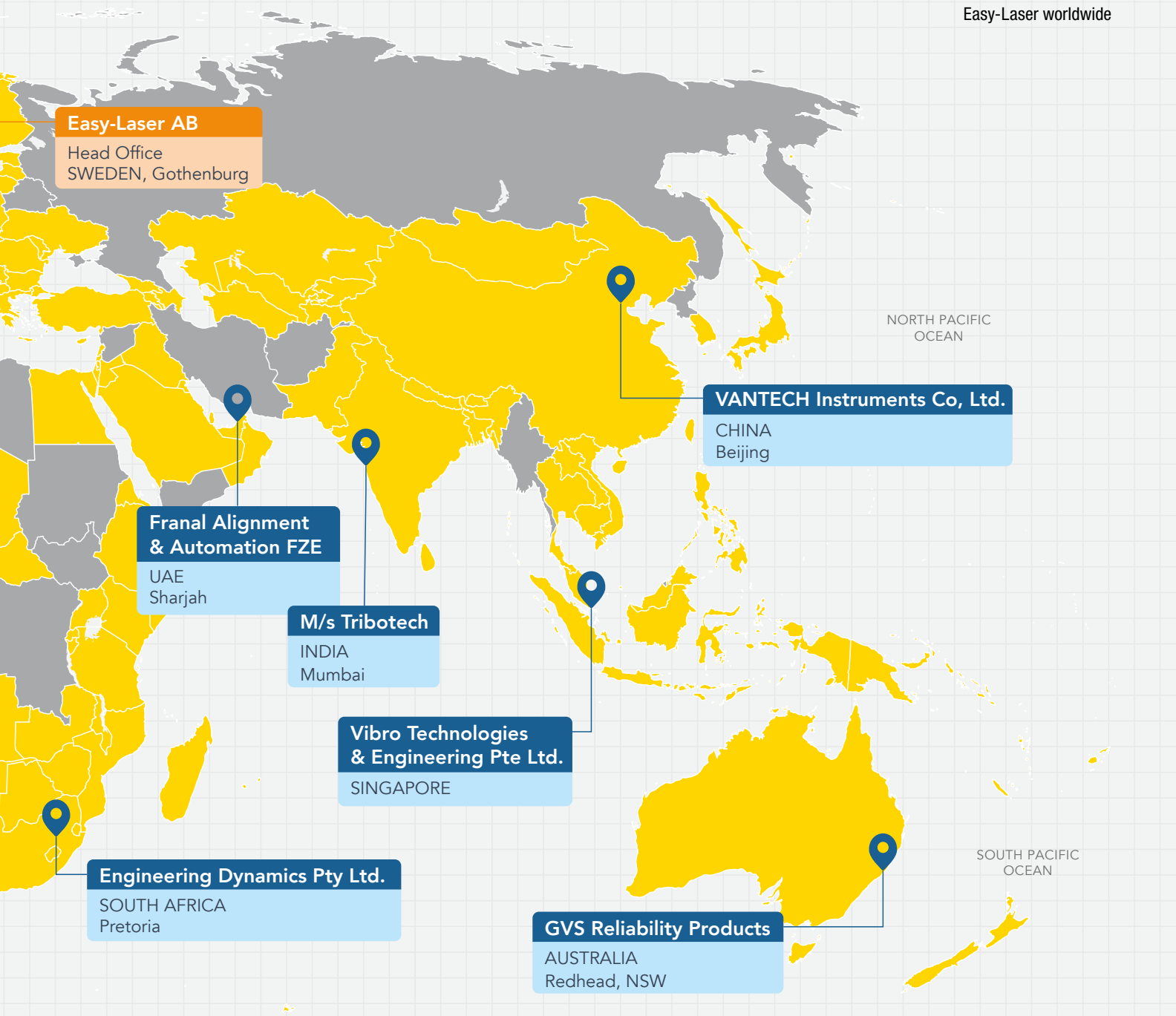
Ludeca, Inc.
USA
Miami, Florida

Ademinsac
PERU
Lima

EasyVector
BRAZIL
São Paulo

We are right where you are

We are global and local, big and small – at the same time. And that's exactly how we want it. You will find us all over the world, from Alaska in the west to New Zealand in the east. No matter where you are, you can be sure that you will get the help you need from experts with broad competence in measurement and alignment. Solutions tailored to your needs and your budget.



Easy-Laser

Easy-Laser's products are developed and manufactured in Sweden, where we also have our own sales team. In addition, we have subsidiaries in Germany and Singapore.

Our distributor network

We work closely with distributors in over 80 countries. They are a natural extension of our own sales organization and some we have worked with since the very beginning. It is important to us that our partners have knowledge of various applications and solutions and really understand the customer's needs.

Therefore, we ensure that they receive continuous training on both products and applications, so that they can provide first-class local support.

Service Centers

Several of our partners have well-equipped Service Centers where you can send your measurement gear for service or regular calibration. We want to be able to provide this as close to you as we can, so that you get your equipment back as soon as possible. We know that time is money.

A system for every need

In our product line-up you find everything you need for a reliable machinery installation and continued maintenance work. These pages give you a quick overview of the product features. Please scan the QR code to go directly to our website for more extensive information and technical specifications.

XT770 Shaft alignment

Dot laser technology. With XT770 you can align all types of rotating machines. With the unique EasyTrend™ and Twist programs you will be able to check base condition and dynamic forces that may affect reliability. The system comes with a wide range of brackets as standard.

XT770 Shaft alignment + GEO

Same functionality as the standard XT770, however it also sports a flatness laser with digital levels. This is the preferred system for reliability professionals all over the world. You get full control of all important steps of machinery installation and maintenance.



XT660 Shaft alignment

The mid-range system which beats most others when it comes to performance/price ratio. The dot laser technology makes it an outstanding tool, providing both precision and versatility for industries of all kinds.



XT550 Shaft alignment

The only intrinsically safe shaft alignment system on the market where you choose the tablet of your choice. At least as long as it is EX/ATEX approved to your requirements! With dot laser technology and programs for all type of rotating machinery.



XT440 Shaft alignment

Our basic shaft alignment system. Still, it has loads of functions and features which you normally only get with much more expensive systems. Utilizes line laser technology. And of course it runs with our fantastic XT Alignment app!



Systems for Gearbox – Generator alignment in wind turbines

With these special wind turbine systems, alignment is made with locked rotor/blades, making it much safer for the technician working in the nacelle. The brackets are manufactured with very high tolerances for precision alignment of the drive train.

XT Display unit with thermal camera (IR)

The industrial grade Easy-Laser XT Display unit has the option to add a thermal imaging (IR) camera along with the standard 13 MP digital camera. Shoot a thermal image before and after alignment and include with the documentation!

**Geometric measurement and alignment**

The GEO systems cover it all: flange flatness of wind towers, turbines, bores, marine propulsion, plastic extruders, sawmills, rolls in pulp and paper industry. XT- and E-series systems.

**XT290 Level**

Digital precision level. An essential tool for everyone setting-up and aligning machines. Use it stand-alone or connect to the XT Alignment app which can read up to four digital levels at the same time, and provides the possibility to document the result.

**XT280 Vibrometer**

Easy-to-use vibration analyzer that quickly diagnoses vibration level, unbalance, misalignment and looseness. The direct readout of 1x, 2x, 3x RPM, total level as well as bearing condition provides necessary information during installation and alignment.

**XT190 Digital belt alignment**

The best tool for exact alignment of belt transmissions. With digital readout you align to specified tolerances and document the result. With a separate display unit (e.g. your smartphone) you follow the adjustment live at the point where you adjust instead of going back and forth numerous times to check the laser targets.

**D92 Belt alignment**

For easy alignment of belt transmissions. Visual readout on targets. Affordable precision which measures at up to 10 meters [33'].

XT20 Geo laser transmitter

Flatness and straightness laser transmitter with electronic digital levels. Super-easy to set-up and use. With any of the two XT laser transmitters you satisfy the requirements for flatness and level mentioned in standards (e.g. ISO and ANSI/ASA).

XT22 Geo laser transmitter

The complete geometrical laser transmitter; measure straightness, flatness, squareness and level. XT22 provides even higher accuracy and precision thanks to fiber laser technology. Super fine turning of laser beam simplifies beam positioning to detector on very long distances like the 40 m [132'] maximum.



Learn more on our website »



XT programs and features

The Generation XT products cover most tasks for reliable maintenance work and machinery installation. The graphics below shows the different programs and features offered. We constantly develop both the XT Alignment app and the hardware line up, therefore please check out our web site for the latest information about system configurations and functionality.



XT440

XT550/XT660

XT770

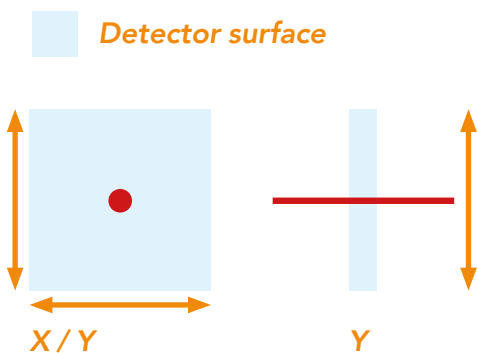
Horizontal	Vertical	Soft foot	V 0.00 H 0.00 Values (Digital dials)	Cardan/Offset mounted*	3 machine train	Machine train**	EasyTrend*
Multi- lingual	Wide live adjustment	9-12-3	EasyTurn	Multipoint	Uncoupled sweep	360° live adjustment	Adjustment guide**
Built-in help	Belt alignment*	Vibration*	Level*	Continuous sweep	Twist	Basic flatness*	Straightness*

*Accessory required **Also with XT550.

Dot laser vs. Line laser

For shaft alignment systems many manufacturers use line laser technology, mostly because it is very easy to use and lowers cost. So do we in our entry-level system XT440. However, using a line laser has its drawbacks and limitations. That is why Easy-Laser prefer dot laser technology. Rough alignment on long distances is much easier with a dot laser. Also, if not careful when measuring, an angle error when positioning the line laser units might cause wrong readings. Dot laser combined with a PSD equipped measuring unit minimizes the influence of backlash. All in all, with a dot laser you are more in control.

For industry reliability professionals who know that shaft alignment itself is just part of the job, dot laser systems is the way to go. You can use a dot laser unit not only for shaft alignment, but also geometrical measurements. For example, check straightness and flatness of machine bases. And bearing play. Doing it all with one system is cost effective!





Become an alignment expert

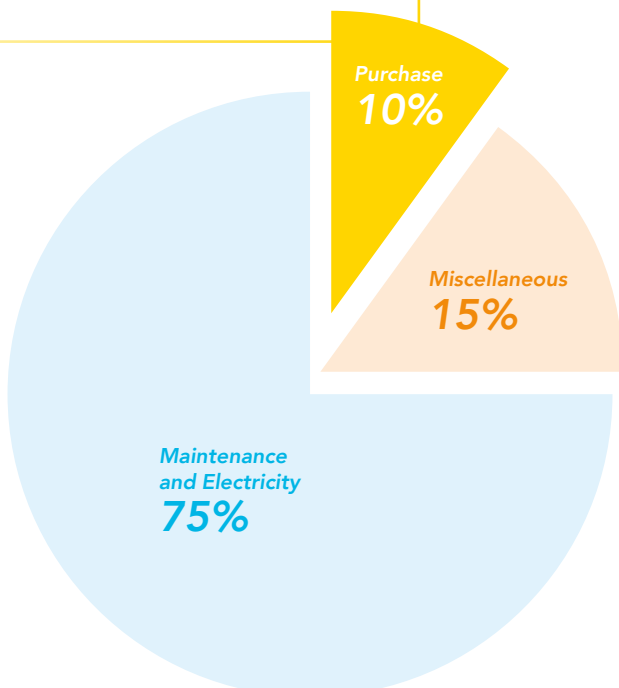
Your most profitable investment is knowledge

Did you know?

The purchase price of a machine usually only accounts for around 10% of the machine's total life cycle cost.

Instead about 75% of the costs are for maintenance and electricity consumption.

The right knowledge can significantly reduce that amount.



It's easy to think that a new tool will solve a problem that you are facing. However, having equipment that can handle the task is not enough. It's equally important to know how and why to use it.

We help you with customized training

We and our partners provide customized training in laser measurement and alignment for individuals of all levels, from beginners to professionals seeking to expand their expertise. We offer training either on site or at our well-equipped training premises, tailored to meet the specific needs of your company. In our training you will get:

- » Increased understanding of the significance of alignment to the condition of your machine and solid advice for your daily work.
- » Theoretical knowledge of laser and measuring technology, which is always mixed with practical exercises on real machines in order to simulate reality as accurately as possible.

Get in touch with us and let us know what you want to learn!

Your digital alignment toolbox

The XT Alignment app is at the center of the Generation XT universe. The hardware, with advanced laser technology and optics, is obviously vital to a precise and reliable measurement. But it's in the software the magic happens.

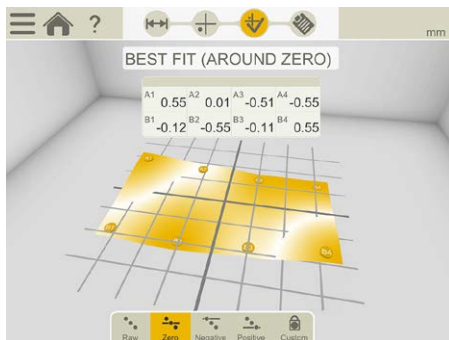
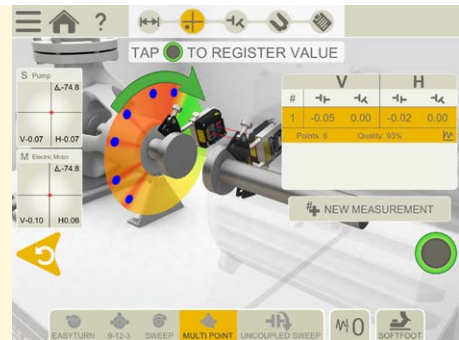
The XT Alignment app gives you all the functionality you need to properly install rotating machinery, and to

make sure it operates at full capacity, year after year.

You can use this software with any of our Generation XT products, whether it's a shaft alignment system, vibrometer or a precision level. That way, you only need to learn one tool, and since it's free you don't have to worry about any license hassle. Easy!

« Shaft alignment »

In the app you find all the tools you need for alignment – whether the shaft is horizontally or vertically mounted, or cardan. Want to measure many machines that are coupled together? Then the Machine train program is for you.

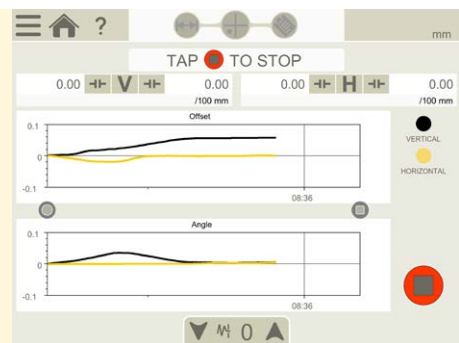


« Twist and Basic flatness »

With the Twist and Basic flatness programs, you can measure the foundation to make sure that the machine you place on top of it sits perfectly flat. This is vital if you want to avoid future problems with wear and tear of bearings, shafts, and the machine as a whole.

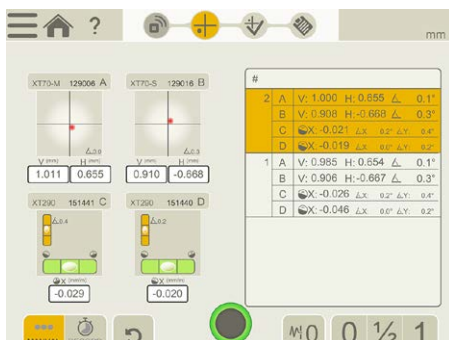
« EasyTrend »

Use the EasyTrend program to perform a dynamic measurement, where you keep track of machine movement over time. This is to make sure your equipment remains free from stresses such as thermal expansion and pipe strain that can cause severe damage.



« Values »

If you want to dig into the numbers, take a look at the Values program. It turns the measuring units into two digital dial gauges. What you get is measurement values, straight up and down. With this program you can measure and align almost anything you can think of.





Document your work

Let the app do the boring work for you. After a measurement is completed, you automatically get a full report with all measurement data (before and after alignment), and you can add photos or even thermal images to give the full picture.



Built-in manual

Got stuck? No matter where you are in the measurement process, the built-in manual is only a click away and will take you straight to the correct help section.



Run on any device

The XT Alignment app works on virtually any iOS or Android device, as well as our own industrial grade tablet.



Want to try it out?

Download for free from the AppStore or Google Play!

App Store



Google Play

Adaptable and intuitive

Daus Studenberg and Carlos Bienes from our US distributor Ludeca Inc. discussing future products and improvements with Julia Eriksson, Product Owner and Peter Sandström, Head of Product Management.

Product development is about solving the needs and requirements of the users in the best way by combining existing attributes with new and innovative solutions. How do we do this?

Our brand promise declares: We develop user-friendly, adaptable, precise and reliable instruments. What does this mean in reality? One thing is that we listen to our users and ask for their feedback, to learn from their experience. That is obvious to us. Another is to break new ground, finding new solutions. Smarter solutions. An example of this is that the development department allocates 15% of their time just for innovation and exploration of new ideas. As a developer you can suggest your own projects to run and try to realize. Then you often do this together with other developers (mechanics, electronics, software, etc) and sometimes with co-workers at other departments as well. As a company we believe this is a great opportunity for both us and the people here.

The most important question to ask when a new idea is presented is "why" we should do this, if at all? At this stage it is important to understand the actual need. Passing this gate the next question is "how" can we do it? Finally, we get to the last phase - "what" kind of product we actually are going to develop.

When we say "product" this can be separate

units like for example a detector, or it can be a complete system with hardware and software. Generally speaking, all systems consist of a laser transmitter, a detector unit, brackets to mount those reliably on the measurement object, and software to handle different types of machines and applications. And some kind of tablet to run the software of course. We put great effort into making the measurement programs intuitive and easy to use. The easier the systems are to use, the faster and more reliable the measurements will be!

Beside the feedback we gather before and in each new project we also rely on our extensive, decades long experience of measurement and alignment. And not the least, the experience of machinery, mechanics and industrial systems. The reality in which the product is to be used. This experience tells us that the variation of machines is literally unlimited. The Easy-Laser measurement systems are therefore designed to be extremely versatile and adaptable to your needs, now and in the future.

To combine user friendliness and versatility with measurements of microns is a challenge. But just as our brand promise says, this is what we do all the time. ■



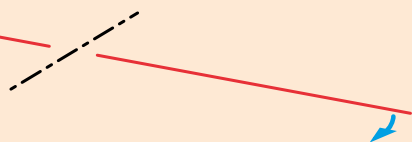
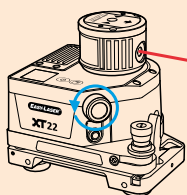
Peter Sandström
Head of Product Management



The inventors of laser sheave/pulley alignment

Did you know that we mount the laser and detector on the outside surface of the sheave instead of in the groove where the belt runs? The reason for this is that wear and tear in the groove can affect the accuracy of the measurement. For decades the alignment of belt driven machinery was made by using a straight edge or string along the two sheaves/pulleys. This was of course not very precise, and most often needed two people to do the work. In the late 1990s Easy-Laser invented the first laser-based sheave/belt

alignment tool, the BTA. The first model was pure visual read-off on targets, but still much more precise and faster to use. Our latest model, the XT190 BTA, is a digital tool where you follow the alignment in real time on e.g. your smartphone. Digital also means you can align to the tolerances specified by belt manufacturers. This way you extend both belt and sheave life even more. But maybe equally important these days, you lower the energy consumption with sometimes up to 10%.



Different skills – one goal

The XT22 laser transmitter can be used to measure on distances up to 40 m (132 feet). When turning the laser head to point the laser beam to the detector on very long distances all of you who has done this knows the frustration of trying to hit a small target and passing by it, then going in the opposite direction, time after time. But not anymore with the super fine turning mechanism in the XT22 transmitter. It has a gearbox with a 1:1320 ratio! This makes a huge difference and saves both time and frustration. The XT laser transmitters also have digital precision levels, making it super easy and reliable to set up, compared to previous analogue technology. The XT Alignment app even guides you on screen how to do it!

This is a perfect example of how our skilled developers collaborate to make mechanics, optics, electronics, software, app user interface, etc work together in one product to make the life of the measurement technician easier!



Get your words *ALIGNED*



Are you up for a challenge? Test your knowledge with our crossword puzzle! Some of the answers can be found within the pages of this magazine, so keep your eyes peeled as you search for clues. Don't worry if you get stuck – the solution is just a page away.

Let's get aligned! »

Down

1. Upkeep
3. Your most profitable investment
5. The world's leading event for woodworking
6. Not crooked
8. 90 degrees
10. Arrangement in a straight line
11. Not the same as flat
12. Easy-Laser's headquarters
13. Spinning
15. Drives forward
17. Look for errors
19. Piece of metal
21. XT280
22. Can be manual
26. Power
29. The maintenance engineer
31. A bad sign

Across

2. Not straight
4. Our development department allocates 15% of their time to this
7. Is reliable machinery installation
9. Side by side
11. Can be red or green
14. Digital XT Alignment toolbox
16. Wankel
17. Wind or water
20. Axle
23. Megelas first name
24. Rotates
25. Without cables
27. Is in our DNA
28. Dynamo
30. XT22



Join the conversation

Learn about the latest innovations in the industry

With our global network of distributors, we are bringing top-of-the-line measurement solutions to users all over the world. Want to join the conversation? Come see us at upcoming events near you and get the chance to experience our products firsthand with a hands-on demo.



CMC, Latin America

CMC (Congreso de Mantenimiento & Confiabilidad) is a congress that has been dedicated to maintenance and reliability for more than 15 years. It provides a platform for exchanging ideas, showcasing innovations, and offering networking opportunities through a network of industry experts.



HUSUM WIND, Germany

Established in 1989, HUSUM WIND is Germany's premier renewable energy industry show. Showcasing all segments of the industry, from onshore and offshore wind power to green hydrogen, storage, digitalization, and financing infrastructure.



LIGNA, Germany

LIGNA is the world's leading trade fair for wood-working and wood processing industries, exhibiting the latest machinery, plant, and technology. With global market leaders showcasing their plant and machinery in operation, LIGNA offers valuable insights and live demonstrations to visitors from around the world.



Maintec, Great Britain

Maintec, with 40 years of experience, is a trade show that unites maintenance professionals from industrial, building, transport, and supply chain sectors. As the UK's largest maintenance engineering event, it provides a unique platform to learn about the latest tools, technology, and innovation and connect with a diverse audience.



SMM, Germany

SMM (Shipbuilding, Machinery and Marine Technology trade fair) is the leading international trade fair for the maritime industry. SMM is an essential event for anyone involved in the maritime sector looking to network and explore the latest trends and innovations in the industry.



Underhållsmässan, Sweden

With over 250 exhibitors, Underhållsmässan is Europe's largest trade fair in operations and maintenance. The event provides an opportunity to establish new contacts, gain inspiration for new ideas, and learn from the best in the industry.



Find your next event!

Our authorized distributors are located in around 80 countries, which means we have a global reach for events. Check out our website for more information about the upcoming exhibitions that we and our distributors will be attending. Scan the QR code to get started!





Paella Valenciana

à la Roman Megela

Key Ingredients: Rabbit, chicken, pork ribs, garlic, tomato, green beans, butter beans, olive oil, paprika, saffron, salt, and rice. Sometimes I also add duck. The best rice to use is Bomba, Calasparra or Senia. They all work great. Ready?

Put your well-aligned paella pan on medium-high heat. Add olive oil. Sprinkle the salt in a circle towards the edge of the pan to keep the oil from splashing. Add the meat you have chosen. Brown it for 20 minutes. If pieces stick to the pan, they will come off after you add the tomato and water.

Move the browned meat to the sides of the pan. The olive oil should pool in the center. Add the green beans, cut into one inch pieces. Sauté for a few minutes.

Push the beans aside. Add the garlic. Fry until fragrant. Add the butter beans. Let them coat in the oil and garlic until a bit browned.

Next, add the paprika and gently fry for a minute. Finally, add the crushed tomatoes and start to mix everything together. The tomatoes should start to deglaze the pan, meaning that any stuck bits will be unstuck and contribute to flavour. Help them with a good scrape, if they won't let go.

As you mix in the tomatoes, you can also add the saffron. The saffron will have its best effect if you soak it in warm water for ten minutes or

more before adding it to the paella. Next, you add enough water for a nice stock.

Now add the rest of the water. Simmer on medium for about 10 minutes, and then lower the heat to a slow simmer for another 10 minutes. In these 20 minutes the liquid will reduce and you'll be left with a flavorful meat stock that is key to this paella recipe. So, add the rice and stir to make sure the rice is all covered by broth and evenly distributed. After this, no more stirring.

Now cook the rice on medium-high for the first 10 minutes, and then medium-low for another 8-10 minutes.

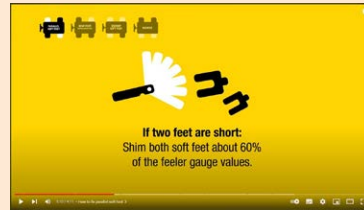
To achieve the socarrat (the crispy, caramelized bottom), turn the heat up at the very end of the cooking process. You'll start to hear a popcorn/rain noise – let it go on for about 30 seconds.

Take the paella off the heat and cover it with a kitchen towel. Let it rest for five minutes. Then it's time to eat! Make sure to scrape the bottom of the pan and give everyone some socarrat!

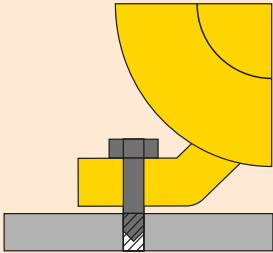
The 4 different types of soft foot



Soft foot is a term we often use when we talk about shaft alignment. In fact, you must always perform a soft foot check before the actual alignment work can start; it is an essential part of securing a reliable installation. By soft foot, we mean that the machine is not resting evenly on all feet. Another expression you may have heard is "machine frame distortion".

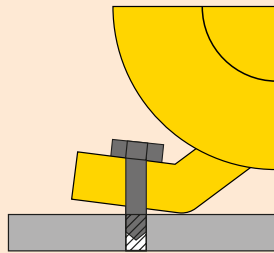


To understand the reasons for each type of soft foot, and how to correct it, please take a look at our video on YouTube.



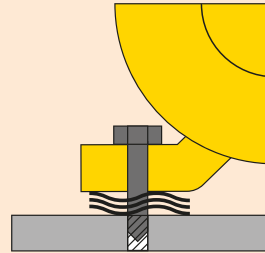
1. Parallel soft foot

Parallel soft foot (sometimes also referred to as rocking soft foot) means that not all four feet are on the same plane.



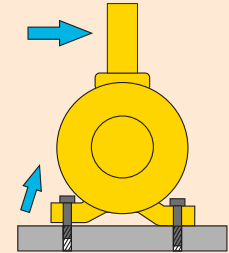
2. Bent foot / outside angled soft foot:

This is a common type of soft foot that occurs when the foot's bottom is at an angle relative to the base.



3. Squishy foot:

Squishy foot is sometimes also known as spring foot. The problem is usually that the space between foot and base is filled with too many shims, dirt or rust.



4. Induced soft foot:

Induced soft foot is caused by external forces like for example pipe strain that affect the machine frame, and it can be hard to detect.

The product catalogue

Have you had a look in our Product Catalogue? There you can find most parts with a short description, technical data and for some also drawings with measures. For example, brackets and detectors. This way you can decide if they fit your application. Also, good when looking for a spare part.

Download it from:
easylaser.com/en-us/support/catalogues

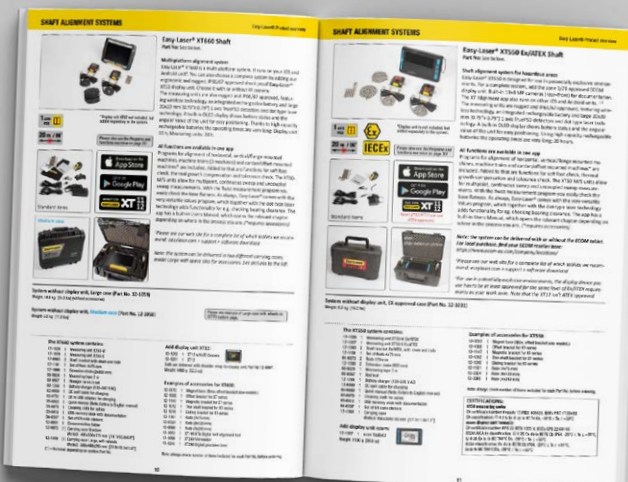


Down

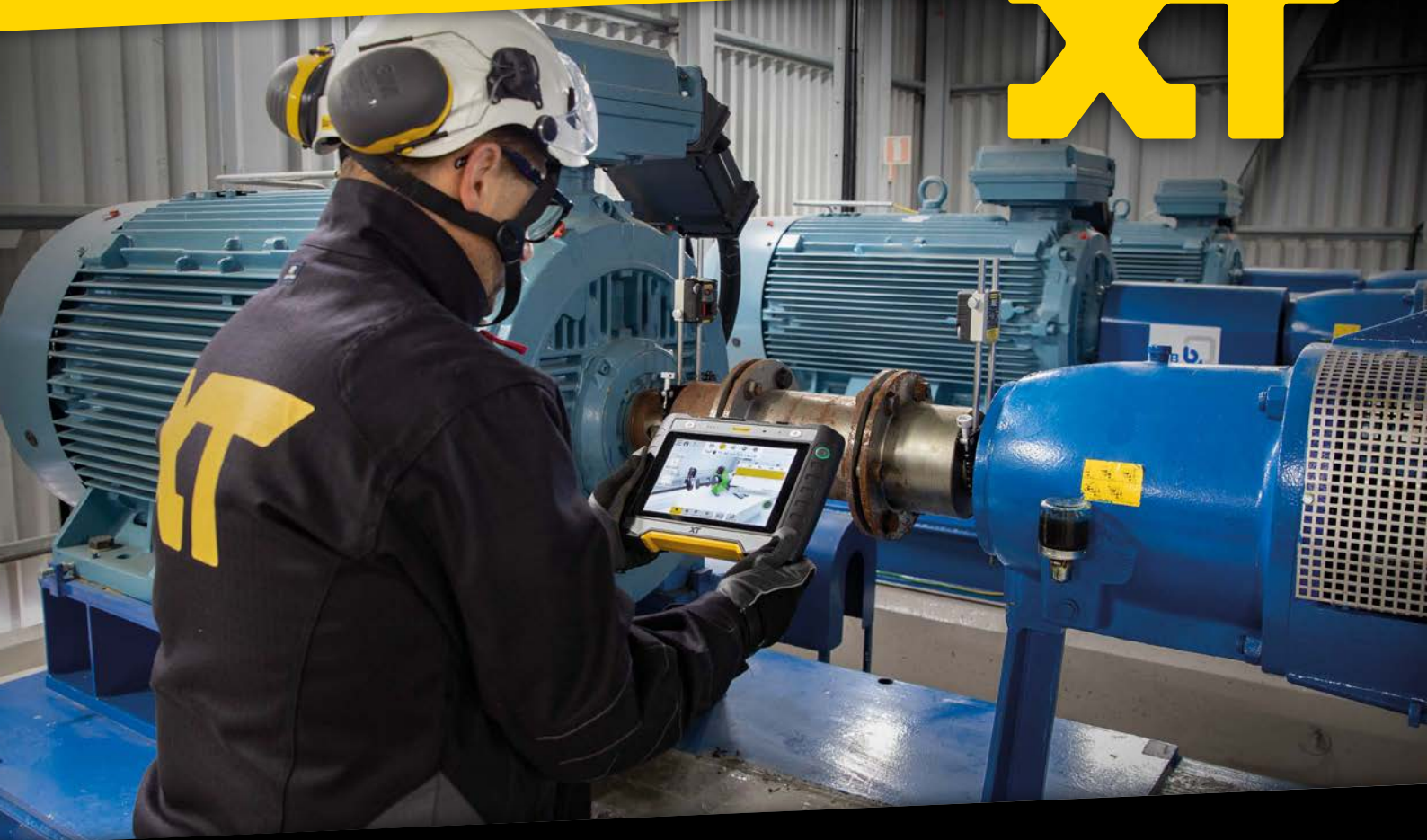
1. Maintenance
3. Knowledge
5. Ligna
6. Straight
8. Perpendicular
10. Alignment
11. Level
12. Sweden
13. Rotating
15. Propeller
17. Troubleshoot
19. Shim
21. Vibrometer
22. Transmission
26. Energy
29. Hero
31. Softfoot

Across

2. Misaligned
4. Innovation
7. Important
9. Parallel
11. Laser
14. App
16. Engine
17. Turbine
20. Shaft
23. Roman
24. Bearing
25. Wireless
27. Easy
28. Generator
30. Transmitter
28. Dynamo
30. XT22



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