



## Think small. Achieve bigger!

*Make your mark with Titus™,  
the smallest, lightest and easiest-  
to-integrate laser marking head  
in the world.*

*For bigger integration flexibility,  
bigger usability, bigger throughput  
and bigger savings.*



Weight: ~640 g marking head



Size: 205 mm with 0° beam exit

Size: 214 mm with 90° beam exit

Laser Marking +  
Engraving Solutions



1:1

ORIGINAL SIZE

Ø 41.3 mm



FOBA Titus™ – The world's smallest laser marking head  
Get more details, visit → [www.titus-laser.com](http://www.titus-laser.com)

**FOBA®**  
Laser at your service

Laser Marking +  
Engraving Solutions



## FOBA Y.0200-xs/Y.0300-xs

*Uncover your parts marking potential with Titus™:  
The smallest, lightest and easiest to integrate laser marking  
head in the world – and a true game changer in its field!*

### Give it a try!

*Make your mark with Titus™:  
→ Just take him with you to your production  
line and see how nicely this small guy fits.*

*Think small. Achieve bigger!*

**All big things start small.** Like Titus™. Titus™ will stay small, because this is what makes him so great. Titus™ stands for "tiny tubus" and represents the smallest, most lightweight and easiest-to-install, easiest-to-integrate and easiest-to-operate laser marking head in the world.

Whenever manufacturing space is at a premium, Titus™ is THE solution. With Titus™, the novel 20 W and 30 W fiber laser markers are not only incredibly small, but also dramatically simplify integration and open new areas of application for fast direct parts marking – especially for manufacturers in the automotive, aerospace or electronics industries.

**By offering full integration flexibility, high throughputs and decisive TCO savings, Titus™ will help you uncover and unleash your full laser part marking potential.**

Think small. Achieve bigger.

*From our Customers we learned  
that easy mechanical integration  
and a really small sized mark-  
ing head will  
→ solve the biggest direct parts  
marking related problems of  
our clients and will help them  
→ achieve bigger integration  
flexibility, bigger throughputs  
and bigger savings.*

### Your product benefits

- **Small size:** up to 90% less size and weight compared to current market offerings; designed and built for small spaces and seamless and easy line integration
- **Easy to integrate:** easiest integration and speedy setup through small size and innovative features: 0° and 90° beam orientations for installation in tight spaces; 3 m fiber laser umbilical length for flexible integration and 10 m for more complex setups; clamp'n go-laser head brackets; integrated pilot laser and focus finder for quick job setup and focus adjustment; wide range of communication protocols and interfaces
- **Easy to use:** three easy-to-use user interfaces (FOBA Go, FOBA Draw, FOBA MarkUS) for simple to complex marking job needs

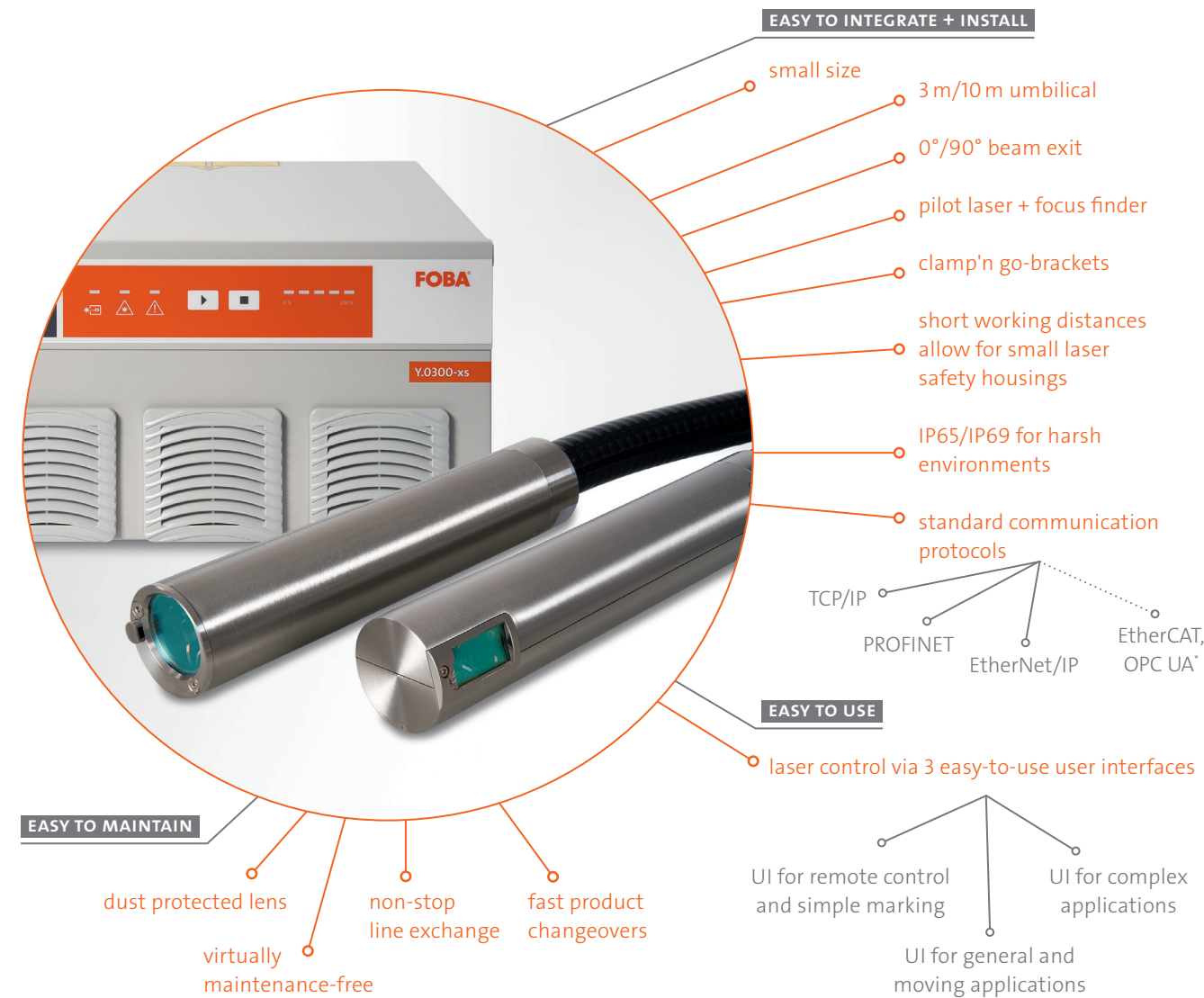


Browser enabled GUI FOBA Go





## Titus™ facts and benefits at a glance



## Size and speed advantages: The world's smallest laser scan head



Titus™ is extraordinary small but at the same time extremely mighty. When integration in size-limited production environments is needed, the world's smallest vector scanning laser marking head has a threefold advantage: 1) it fits easier into manufacturing lines, 2) it cuts installation time and costs, and 3) it expands the range of installation opportunities for laser markers.

### Titus™ fits the most restrictive spaces

- Titus™ is the smallest and lightest fiber laser marking head on the market
- Titus™ is up to 90% smaller in size & weight compared to current state-of-the-art market offerings
- Titus™ offers simple integration at reduced installation cost and full installation flexibility

### Titus™ is made for ultra fast marking

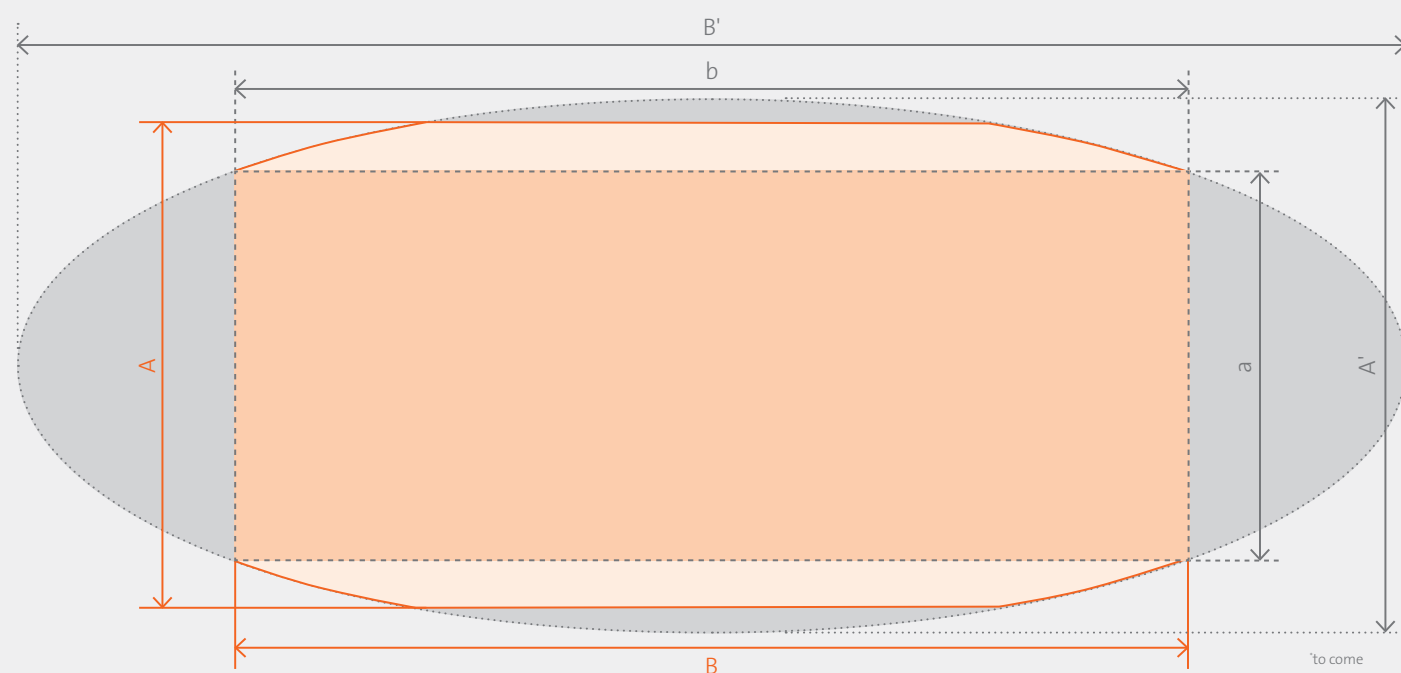
- Small laser with high marking performance
- Marking at up to 2,000 characters per second\*
- Excellent beam quality and marking results on various materials incl. plastics and metals
- Three marking fields per marking head: S, M and L



"Fascinating form and size!"



"The very high marking quality this tiny laser achieves on so many materials is impressive!"



### Marking Fields

Scan Head™	Working Distance (mm)	Marking Field (mm)		Elliptical Mark. Field (mm)		Square Mark. Field (mm)	
		A	B	A'	B'	a	b
CFS-S	72	37.01	63.58	39.70	121.62	33.84	63.58
CFS-M	112.5	48.27	89.30	51.91	141.42	40.24	89.30
CFS-L	171	64.46	126.30	70.79	183.85	51.44	126.30
CFT-S	89	37.01	63.58	39.70	121.62	33.84	63.58
CFT-M	129.5	48.27	89.30	51.91	141.42	40.24	89.30
CFT-L	188	64.46	126.30	70.79	183.85	51.44	126.30

← Largest available field

← Largest available field

← 1:1 illustration of largest available marking fields

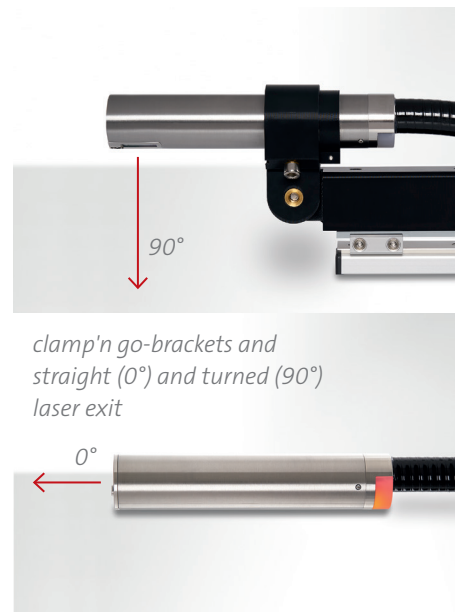
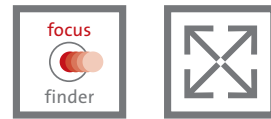




## Integration and setup advantages: The new standard for ease of laser integration

When manufacturing space and time are limited, you need an innovative and versatile laser marking solution. The new Y.0200-xs and Y.0300-xs fiber laser markers and their tiny scan head Titus™ redefine ease of laser integration for parts marking lines.

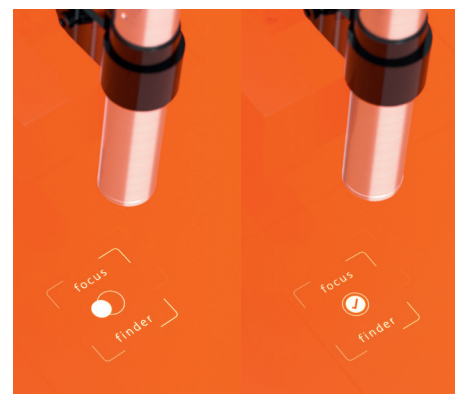
You need ...	Titus™ offers ...
simple mechanical integration with minimal space requirements	→ the <b>smallest and lightest fiber laser scan head</b> → <b>clamp'n go-brackets</b> for non-stop installation/exchange → easy-to-use user interfaces for quick job setup
fast installation and setup	→ up to 90% <b>installation time reduction</b> with small component size and reduced bracketry → an integrated <b>focus finder</b> for quickly finding the right focus during laser and job setup → a <b>pilot laser</b> for marking content simulation
full integration flexibility ...	→ marking head with <b>straight-out (0°) and turned (90°) beam exit</b> options for easy and flexible integration → <b>3 m and 10 m fiber laser umbilicals</b> – <i>10 m cords are a complete novum on the market and allow for setups where the supply unit is placed further away from the point of marking</i> → short working distances for much smaller laser safety housings → a <b>wide range of communication protocols</b> , incl. TCP/IP, PROFINET, EtherNet/IP (EtherCAT and OPC UA to come)
... even in harsh environments	→ <b>IP65 and IP69 rated</b> Titus™ marking head → no additional housing or protective equipment needed
easy serviceability and product changeover	→ <b>clamp'n go-brackets</b> for quick and easy marking head adjustment and repositioning → an integrated focus finder for quick focus finding → a pilot laser for marking content simulation



clamp'n go-brackets and straight (0°) and turned (90°) laser exit

To sum it up: When manufacturing space and time are at a premium and you wish to increase the range of laser installation opportunities, FOBA Titus™ is the solution. **The miniature laser marker scan head ensures an easier, faster and error-free laser installation, setup and service process and quick product changeovers, both for production lines and OEM and complex equipment.**

*Ultra quick job setup with built-in pilot laser that is used as a focus finder and marking content simulator*



## Operation advantages: Simple usability – for daily use, maintenance and service



The Y.0X00-xs fiber laser markers will make industrial part marking much easier. Clients can choose between three easy-to-use and easy-to-connect interfaces: FOBA's MarkUS GUI enables custom user interfaces; clients who value utmost flexibility will benefit from remote control on various devices with FOBA Go; and clients with marking-on-the-fly applications can select FOBA Draw. With standard communication protocols such as TCP/IP and I/Os, connecting customer software is as flexible as it can be.

### Simple to operate

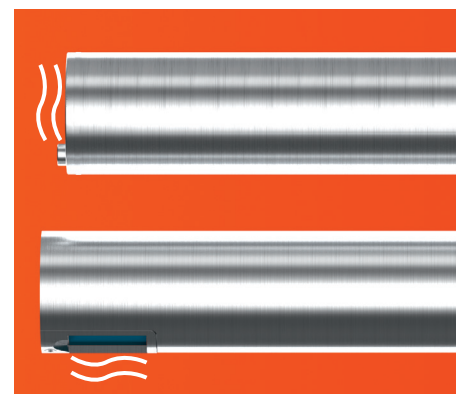
Available User Interfaces		
FOBA Go	FOBA Draw (Smart Graph)	FOBA MarkUS
Browser enabled GUI for remote laser control from either a PC, the FOBA Touch display, a mobile or a tablet	PC based interface	PC based interface
→ For <b>simple marking jobs</b> with <b>remote connectivity</b> and <b>marking on the fly</b> → Multi-laser functionality with web browser → Software installation is not needed	→ For <b>general marking applications and marking on the fly</b> (serial numbers, barcodes, 2D codes)	→ For <b>more sophisticated and complex markings</b> → Intuitive high-performance laser marking software → Customized user workflows (AOP Advanced Operator Plugin)
FOBA Draw users can import marking jobs into FOBA Go		



### Simple to service and maintain

- Titus™ features a **dust protected lens** – a constant air stream keeps the lens free of dust, daily lens cleaning intervals belong to the past and do no longer interrupt production
- Titus™ is so easy to mount that **line and product changes can be done in minutes** and are nothing to worry about any longer
- Virtually **no maintenance** due to very few wear parts and thus reduced number of parts
- Benefit from a range of **preventative products and services**: fume extraction, filters, end-user changeable protection window, FOBA Remote Services (i.e. for application consulting, user training)

*The integrated air knife ensures a constant air stream that keeps the lens dust-free*



## FOBA Y.0200-xs/ Y.0300-xs Fiber Laser Markers

### Technical Data

#### Marking features

##### Marking heads

- CFS – straight out (0°) beam exit
- CFT – turned (90°) beam exit
- 3 precision optics for focusing (S, M, L)
- 3 marking fields per marking head (S, M, L)
- Up to 2,000 characters/sec.

##### Marking fields

##### Marking speed\*

#### Laser

##### Type

- Pulsed Ytterbium fiber laser, 20 W and 30 W
- Pulse frequency range 1 kHz – 400 kHz
- Wavelength within 1,040 – 1,090 nm

##### Laser class

- 4 (acc. to IEC 60825-1)

#### User Interfaces

- PC UIs FOBA Draw and FOBA MarkUS
- Browser-enabled Touch Control UI FOBA Go (optionally on FOBA Touch Display)

#### Interfaces

- Communication protocols (TCP/IP, PROFINET, EtherNet/IP; EtherCAT and OPC UA to come)
- Control interfaces (Trigger, Encoder, I/O customer interface)

#### Supply

##### Electrical requirements

- L/N/PE 100 – 240 VAC, 50/60 Hz

##### Power consumption

- 360 VA max.

##### IP rating

- Marking head and umbilical IP65, IP69
- Supply unit IP21

##### Umbilical length

- 3 m (20 W and 30 W) → 10 m (30 W)

##### Cooling

- Air-cooled

##### Cleaning

- Self-cleaning of lens with air blade

##### Temperature

- 5 – 40 °C

##### Humidity

- 10 – 90 %, non-condensing

##### Weight

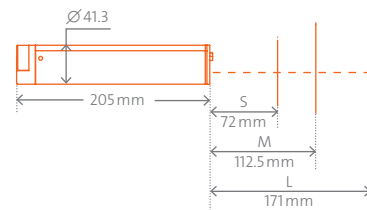
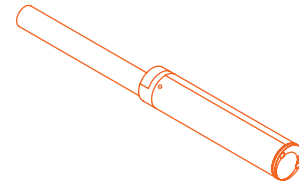
- Titus<sup>TM</sup> marking heads ~0.64 kg
- Supply unit with 3 m umbilical 23 kg
- Supply unit with 10 m umbilical 27 kg

#### Scope of delivery

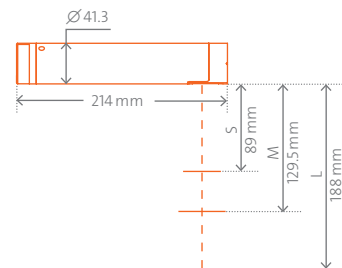
- Fiber laser marker with Titus<sup>TM</sup> marking head (0°/90°)
- Fully integrated pilot laser for focus finding and simulation of marking content

#### Options, accessories

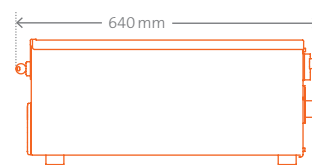
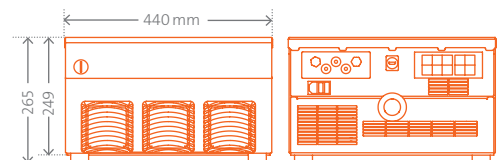
- Exhaust units
- Integration brackets
- FOBA Touch display for FOBA Go UI



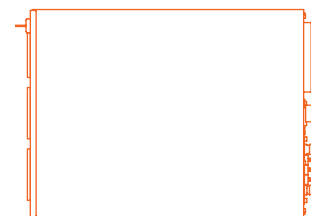
0° Marking head (CFS)



90° Marking head (CFT)



Supply unit



\* Depends on the application

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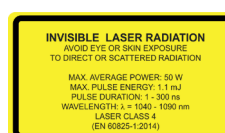
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Laser at your service



Solution Partner  
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APPROVED  
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PROVIDER



Management  
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