



TEXTILE



NONWOVENS



PAPER



PLASTIC

MECHANICAL

MEASURING FRAME TYPES

UNIVERSAL APPLICATION

Principle of operation

A frequency-controlled AC gearmotor drives via a shaft one or two vertically arranged drive belts (one each top and bottom). These are fixed to the scanners' platform-type carriages, which in turn are attached laterally or diagonally to the supports and which can be traversed on accurately pre-adjusted precision profile rails and bearings. As the scanner traverses the moving web, it provides a cross-machine direction profile of basis weight, thickness or moisture on the display console that is a cross-section of the manufactured product. The scanning width can be predetermined in recipe, or the the product edges can be automatically tracked by the standard edge detectors to eliminate any effects of web wander.

Since the measurement-related data supplied by the sensors is processed immediately by a real-time computer in the traversing frame, it can be transferred to the central control computer via an easy-to-run network cable.



WebPro L

The WebPro L traversing frames represent the pinnacle of the Mahlo® scanning frame family. They are available in traverse widths of up to 8 meters, and can run up to five Mahlo® sensors continuously, precisely and rapidly across the online product. Applications range from the production of nonwovens at line-speeds of up to 1000 m/min, and textiles, the manufacture of fiberglass matting, various coating applications under challenging ambient conditions, paper impregnation for the makers of upholstery sheeting and laminates, PVC calendaring for floors and carpet coating, right through to the manufacture of artificial leather and plastic sheet and film extrusion coating.

WebPro M

WebPro M traversing scanners are found on a wide variety of web processing applications in an assortment of industries, and are legendary for their robust construction and superior reliability providing a low cost of ownership. Scanners of this type can handle products of up to 4 meters in width with up to a total of 3 different measurement sensors. Their compact design and ultra-precise traverse mechanisms enable them to be installed even where space is at a premium and at any angle to suit the given product / web flow.

Potential applications range from nonwoven production lines, coating lines for textiles, paper, film or floor coverings, to installations involved with the manufacture of artificial leather and extruded cast and / or calendared film or sheet.

Customer benefits

- ✓ Easy to install and connect
- ✓ A minimum of upkeep and maintenance costs, along with high availability and long service life
- ✓ The ultra-precise carriage-guide mechanism guarantees really accurate measurements from the various sensors
- ✓ Accident-proof thanks to the continuous monitoring of motor current and integrated safety cutout

Product-highlights

- ✓ Intelligent scanning frame with integrated real-time computer
- ✓ Extremely rugged, mechanical construction assures trouble-free operation and long service life
- ✓ Maintenance-friendly design
- ✓ Available in several versions, tailored for the specific application
- ✓ Constructed with commonly available standard components to ensure optimum availability of replacement parts

MECHANICAL



TEXTILE



NONWOVENS



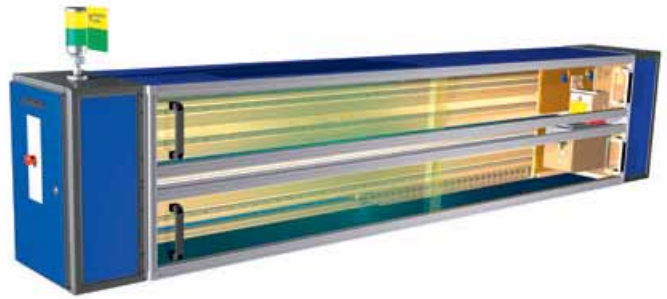
PAPER



PLASTIC

MEASURING FRAME TYPES

UNIVERSAL APPLICATION



WebPro S

The WebPro S traversing frames have been designed specifically to provide an exceedingly compact but rugged and reliable traversing platform for situations where space limitations would rule out the use of a conventional O-frame. The main applications are for high-speed coating machines whose compact construction leaves very little space for installation of traditional scanning frames. These include ranges for producing adhesive tapes, label rolls, self-adhesive film, light-proof coated textile and nonwoven substrates. The WebPro S scanning frame is also to be found in the film industry.

Customer benefits

- ✓ Easy to install and connect
- ✓ A minimum of upkeep and maintenance costs, along with high availability and long service life
- ✓ The ultra-precise carriage-guide mechanism guarantees really accurate measurements from the various sensors
- ✓ Accident-proof thanks to the continuous monitoring of motor current and integrated safety cutout

UniScan M / UniScan S

The UniScan M or UniScan S traversing frames are the single-sided counterpart to the double-sided O-frames of the WebPro series, and have been specially designed to accommodate the single-sided sensing devices of the Mahlo® QMS family. This single-sided arrangement enables the frame to be easily retrofitted to existing systems, with the measuring sensors arranged above, below or at the side of the measuring frame. Possible applications include film calendering, nonwovens, pulp drying, extrusion coating and the coating or impregnation of paper, cardboard, films / foils or textiles.

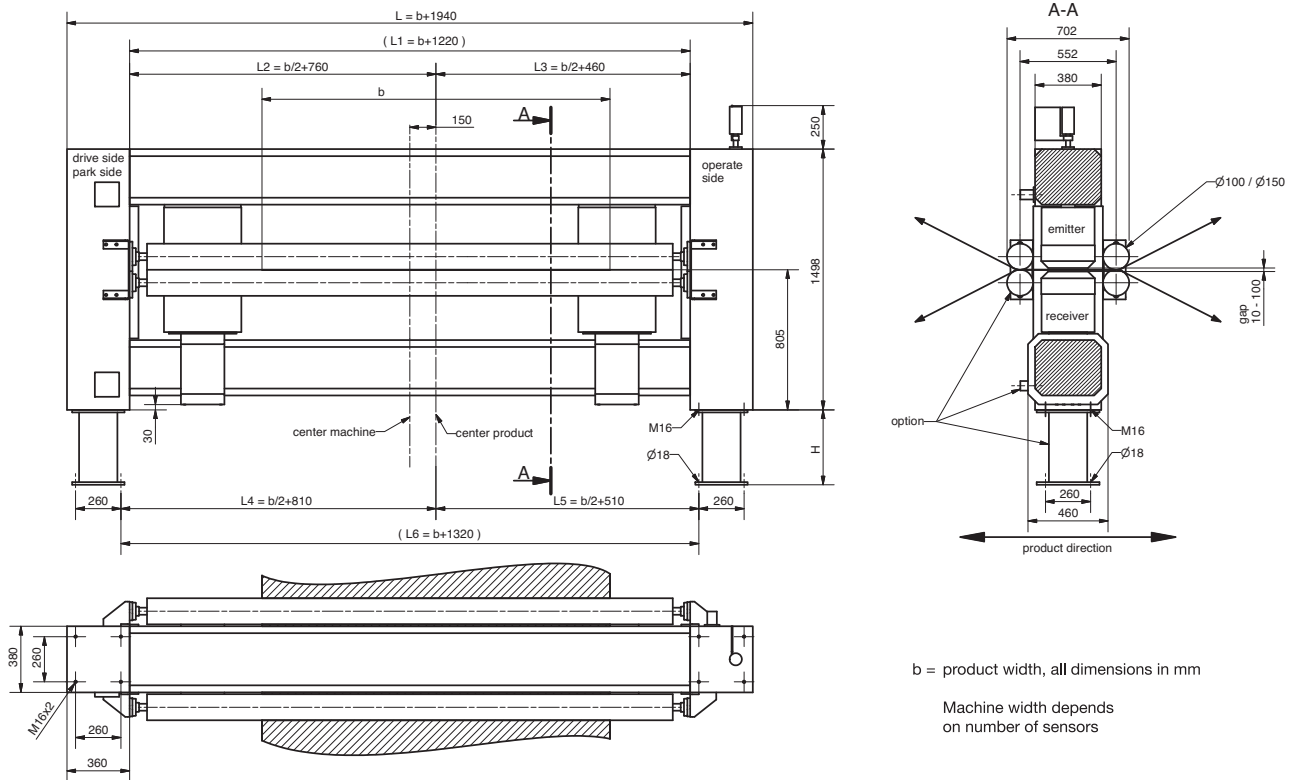
Product-highlights

- ✓ Intelligent scanning frame with integrated real-time computer
- ✓ Extremely rugged, mechanical construction assures trouble-free operation and long service life
- ✓ Maintenance-friendly design
- ✓ Available in several versions, tailored for the specific application
- ✓ Constructed with commonly available standard components to ensure optimum availability of replacement parts

TECHNICAL DATA | WEBPRO L

Scanning frame	WebPro L
Scanner width	Web width: 800 – 6400 mm
Scanning speed	50 – 500 mm/s
Sensor payload	Five sensors, both upper and lower carriages
X-, Y-, Z-axis runnout	X (scan axis [CD]), $\pm 300 \mu$ (± 0.3 mm) Y (machine axis [MD]), $\pm 100 \mu$ (± 0.1 mm) Z (vertical axis), $\pm 150 \mu$ (± 0.15 mm)
Scan location repeatability	$\pm 250 \mu$ (± 0.25 mm)
Operating temperature (without cooling)	0 – 45° C
Cooling scanning frame	Air purging with cooled compressed air
Cooling sensors	Scanner is plumbed as standard for compressed air or liquid cooling (some components optional)
Intrinsic safety	1. Air purging to meet class 1, division 1 requirements U.S. National Electric Code (optional) 2. Purging & pressurization for explosion proof environments, according to ATEX zone 1 or zone 2, category 2
High corrosion environment	Full stainless steel protective covers available (optional)
Power	230 V AC, 50 Hz or 115 V AC, 60 Hz (to be specified with order)
Interface	TCP/IP (Ethernet)

Dimensions



Measuring frame WEBPRO L
91-015020-01



FIRST AID

You can count on our service team, especially when "first-aid" is required. A call is all it takes to get our technicians on-site. Around the clock – and around the globe. So that you can concentrate on your work without having to worry.



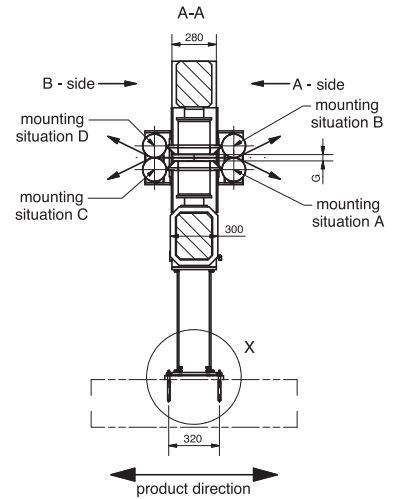
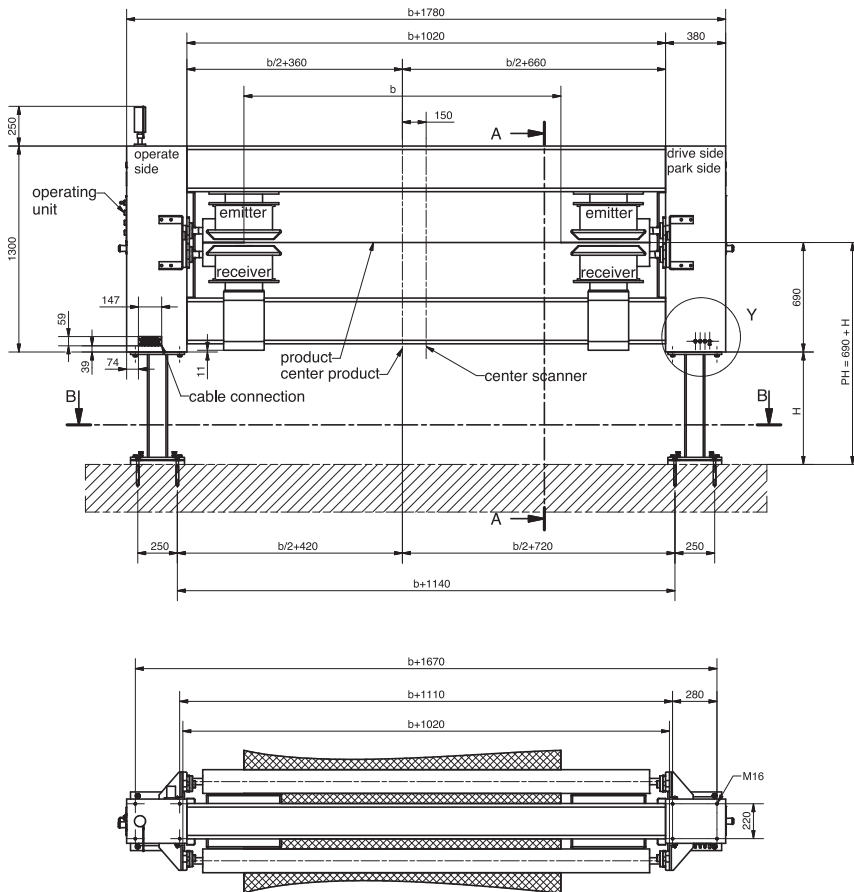
Online-Support:
SERVICE@MAHLOAMERICA.NET

Support-Hotline:
+1-864-576-6288

TECHNICAL DATA | WEBPRO M

Scanning frame	WebPro M
Scanner width	Web width: 800 – 4000 mm
Scanning speed	20 – 300 mm/s
Sensor payload	Three sensors, both upper and lower carriages
X-, Y-, Z-axis runnout	X (scan axis [CD]), < 300 μ (< 0.3 mm) Y (machine axis [MD]), < 100 μ (< 0.1 mm) Z (vertical axis), < 150 μ (< 0.15 mm)
Scan location repeatability	\pm 250 μ (\pm 0.25 mm)
Operating temperature (without cooling)	0 – 45° C
Cooling scanning frame	Air purging with cooled compressed air
Cooling sensors	Scanner is plumbed as standard for compressed air or liquid cooling (some components optional)
Intrinsic safety	1. Air purging to meet class 1, division 1 requirements U.S. National Electric Code (optional) 2. Purging & pressurization for explosion proof environments, according to ATEX zone 1 or zone 2, category 2
High corrosion environment	Full stainless steel protective covers available (optional)
Power	230 V AC, 50 Hz or 115 V AC, 60 Hz (to be specified with order)
Interface	TCP/IP (Ethernet)

Dimensions



b = product width
G = gap
H = height pedestal
PH = product height
F = force

Measuring frame WEBPRO M
91-015450



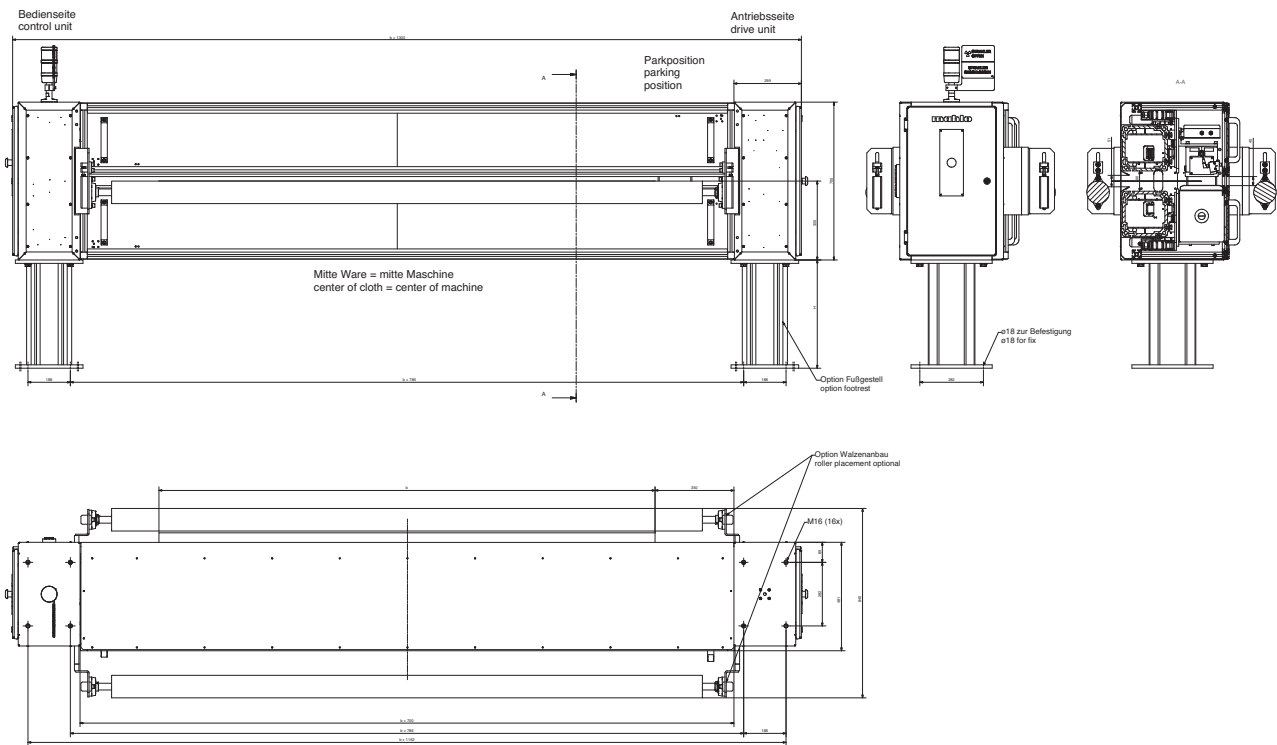
PERSONALITY

You're not just a number to us. Your individual needs and special requirements are our highest priority. We are there for you with our expertise, trend-setting technology and full dedication. So you can always play to win.

TECHNICAL DATA | WEBPRO S

Scanning frame	WebPro S
Scanner width	Web width: 600 – 3400 mm
Scanning speed	30 – 300 mm/s
Sensor payload	Two sensors, both upper and lower carriages
X-, Y-, Z-axis runnout	X (scan axis [CD]), $\pm 300 \mu$ (± 0.3 mm) Y (machine axis [MD]), $\pm 100 \mu$ (± 0.1 mm) Z (vertical axis), $\pm 100 \mu$ (± 0.1 mm)
Scan location repeatability	$\pm 250 \mu$ (± 0.25 mm)
Operating temperature (without cooling)	0 – 45° C
Cooling scanning frame	Air purging with cooled compressed air
Cooling sensors	Scanner is plumbed as standard for compressed air or liquid cooling (some components optional)
Intrinsic safety	1. Air purging to meet class 1, division 1 requirements U.S. National Electric Code (optional) 2. Purging & pressurization for explosion proof environments, according to ATEX zone 1 or zone 2, category 2
Power	230 V AC, 50 Hz or 115 V AC, 60 Hz (to be specified with order)
Interface	TCP/IP (Ethernet)

Dimensions



Measuring frame WEBPRO S
91-013104-02



AROUND THE CLOCK

We know every nut and bolt on our machines. Your replacement part will be on its way to you within 24 hours. We set everything in motion. Just so that you don't stand still.

Online-Support:

SERVICE@MAHLOAMERICA.NET

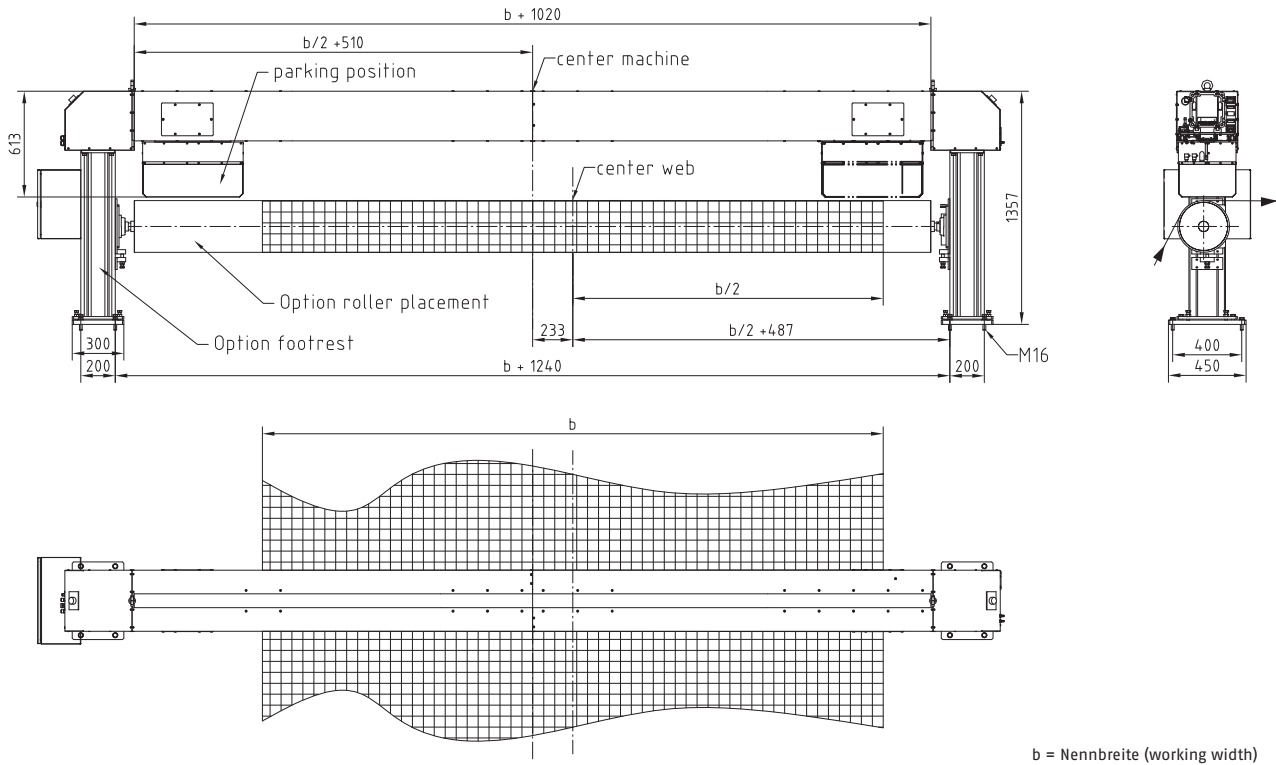
Support-Hotline:

+1-864-576-6288

TECHNICAL DATA | UNISCAN M

Scanning frame	UniScan M
Scanner width	Web width: 600 – 6400 mm
Scanning speed	30 – 300 mm/s
Sensor payload	Three sensors, mounted to the carriage
Scan location repeatability	$\pm 250 \mu$ (± 0.25 mm)
Operating temperature (without cooling)	0 – 45° C
Cooling scanning frame	Air purging with cooled compressed air
Cooling sensors	Scanner is plumbed as standard for compressed air or liquid cooling (some components optional)
Intrinsic safety	<ol style="list-style-type: none"> Air purging to meet class 1, division 1 requirements U.S. National Electric Code (optional) Purging & pressurization for explosion proof environments, according to ATEX zone 1 or zone 2, category 2
Power	230 V AC, 50 Hz or 115 V AC, 60 Hz (to be specified with order)
Interface	TCP/IP (Ethernet)

Dimensions

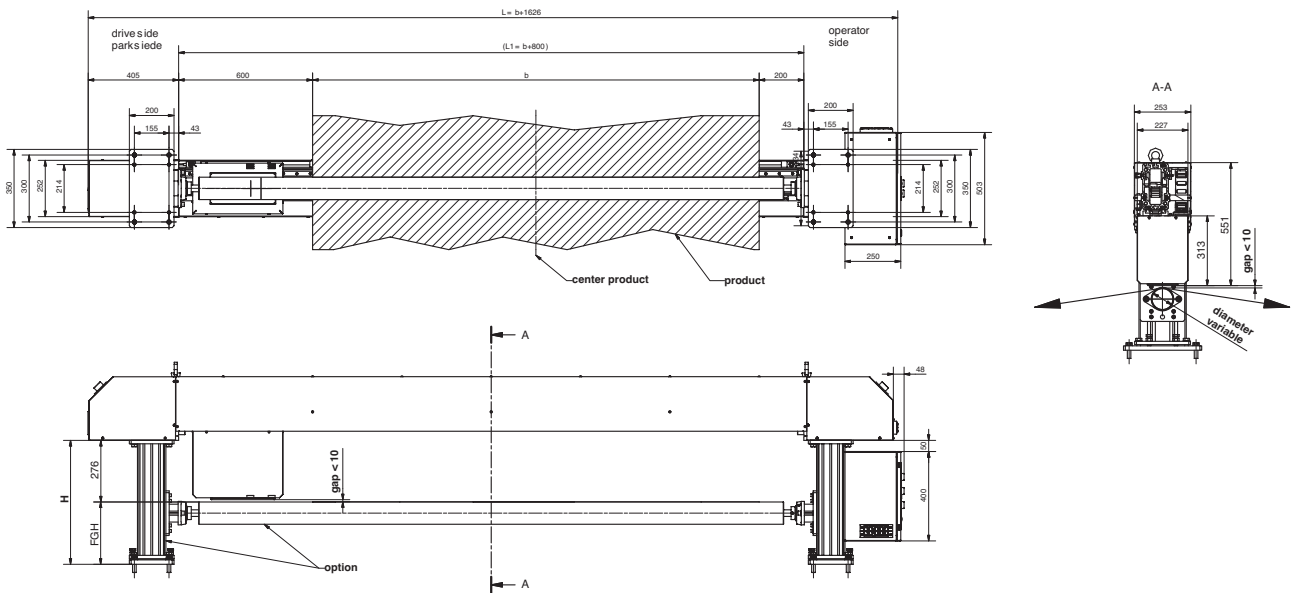


b = Nennbreite (working width)

Measuring frame UNISCAN M
for GRAVIMAT FMX sensor
91-013784

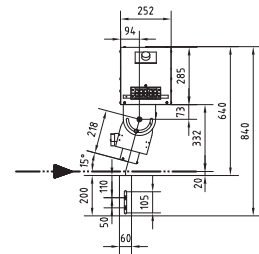
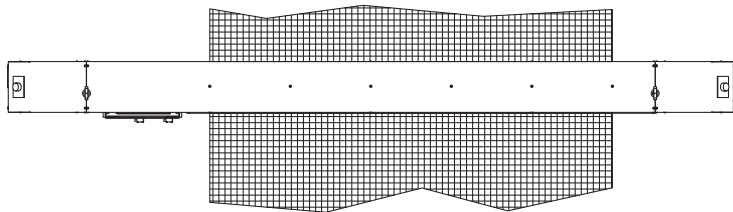
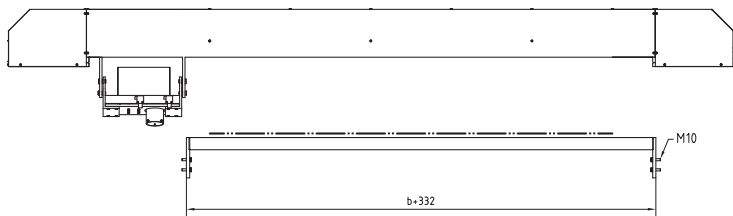
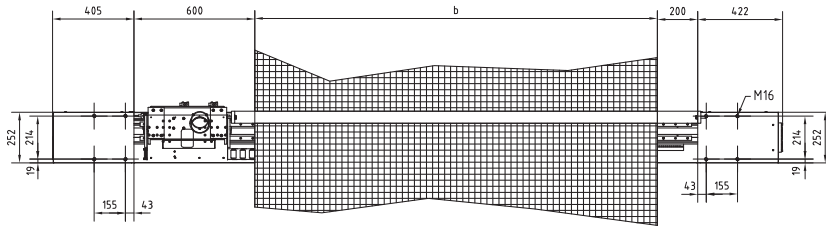
TECHNICAL DATA | UNISCAN S

Scanning frame	UniScan S
Scanner width	Web width: 600 – 3400 mm
Scanning speed	30 – 300 mm/s
Sensor payload	One sensor
Scan location repeatability	$\pm 250 \mu$ (± 0.25 mm)
Operating temperature (without cooling)	0 – 45° C
Power	230 V AC, 50 Hz or 115 V AC, 60 Hz (to be specified with order)
Interface	TCP/IP (Ethernet)



Measuring frame UNISCAN S for CALIPRO DML sensor
91-014959-02

Dimensions



b = Nennbreite (working width)

Measuring frame UNISCAN S for
INFRALOT IMF sensor
91-013511



DEVELOPMENT

To ensure high-performance capability and maximum customer benefit from our products, we rely on the latest technologies and maximum commitment to develop the products of tomorrow. So that the future can start for you today.