

Controlled Size Pick-Up

SINGLE SIZE BOX
DOUBLE SIZE BOX

SizeControl
CIMATIC



Size pick-up AS120 - Box 1



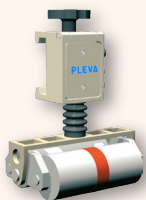
Size pick-up AS120 - Box 2



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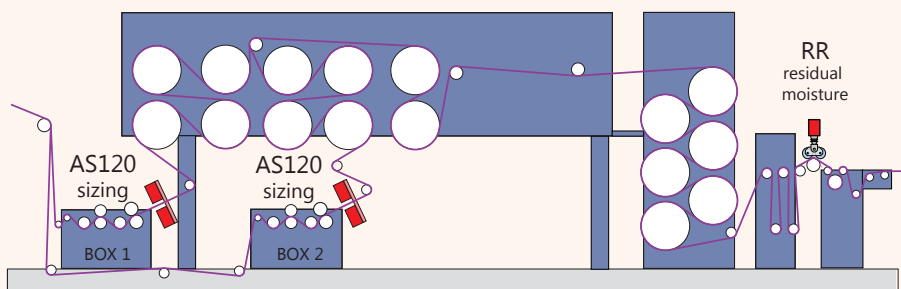
Size pick-up



Residual moisture RR



Residual moisture



Measurements and Components

Size application measurement Type AS120

The water content of the size warps is measured online, contactless, continuously and accurately behind each sizing box. The amount of absorption of microwave is a measure of the absolute moisture content. Thus, the size pick-up is also measured if the bath concentration is constant.

A continuous monitoring and therefore a reproducible adjustment of the size pick-up is achieved.

Electronics and warm air generator Type CV (standard) and Type LV (special)

The measuring heads AS120 are protected against the steam vapours occurring downstream of the size box and the high temperature by a special warm air generator. This generator is mounted together with the evaluation electronics in one cabinet (standard version CV).

As a special version LV the electronics and the generator can be supplied separately.

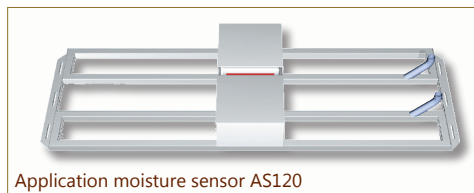
Residual moisture measurement Type RR3.1

The RR with 3 set of tandem roller sensors is based on measurement of the electrical resistance. This increases exponentially as the residual moisture decreases.

The type RR3.1 measures the maximum moisture value of 3 tandem roller sensors (side/centre/side) to control the drying level behind drying cylinder.

Incoming moisture measurement Type RF120, AS120

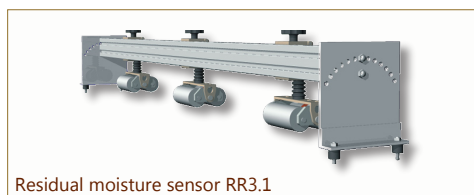
The incoming moisture is measured with the contactless microwave measurement to monitor and control the result of pre-drying (RF120) or pre-wetting (AS120).



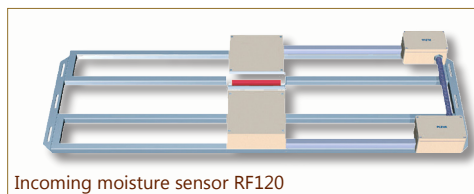
Application moisture sensor AS120



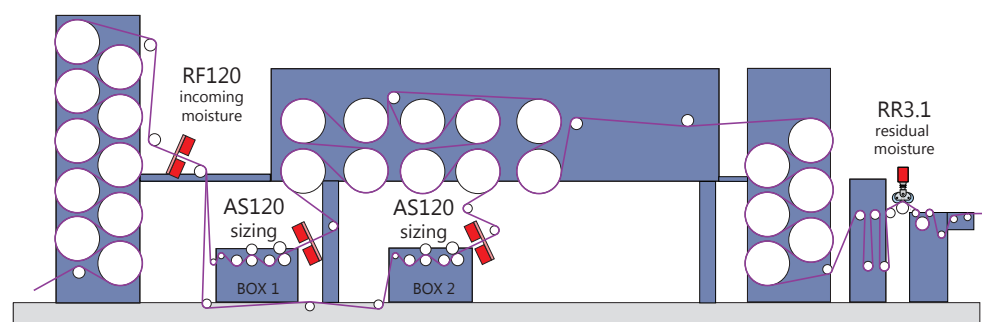
Warm air generator LV (special version)



Residual moisture sensor RR3.1



Incoming moisture sensor RF120



Sizing machine with double size box, size application and residual moisture control (optional incoming moisture)



Size application measurement AS120



AS120 warm air generator CV with electronics

Sensors

FEATURES OF AS120

- Contact-free measurement
- Measuring non-hazardous
- Very high sensitivity over a huge measuring range (from filament to Denim)
- Condensation on the measuring frame is avoided by temperature controlled warm-air shield
- Avoidance of measurement errors resulting from steam vapours
- Flapping or splitted warps do not effect measurement

FEATURES OF RR

- Measurement of very low residual moisture values
- For natural fibres and blends with synthetics
- Protected against electrostatic charges
- Spring / dampening system

BENEFIT FOR CUSTOMER

- Very fast contactless online measuring and controlling
- Uninterrupted size pick-up recording
- Minimization / Optimization of sizing agent consumption
- Avoidance of undersizing and oversizing
- Increased weaving efficiency
- Optimize your process quality, efficiency and reproducibility
- Perfect residual moisture control (optional)

SizeControl

Type CIMATIC

Application moisture

Type AS120 Measuring frame

Warm air generator / electronics

Standard version AS120 CV:
Electronics and warm air generator
in one cabinet

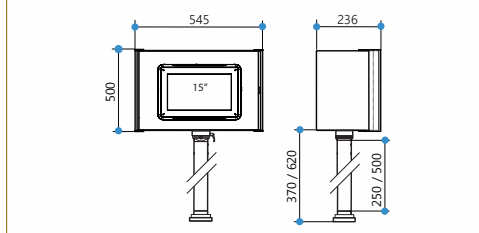
Special version AS120 LV:
Electronics and warm air generator
separately

Residual moisture sensor

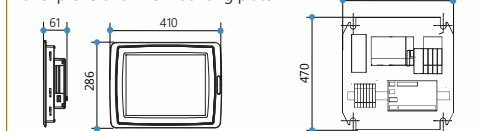
Type RR 3.3 • RR 3.1 • RR 1.1 with side plates and frame

Technical Data

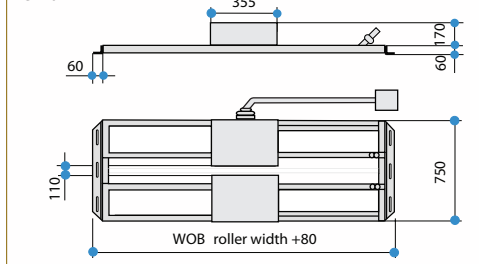
Protective cabinet with panel pro15 and PLC inside



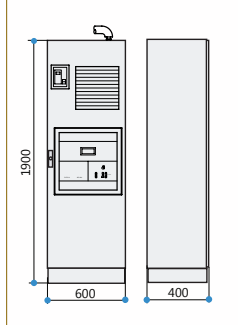
Panel pro15 and PLC mounting plate



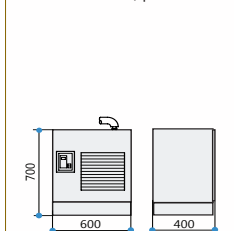
AS120



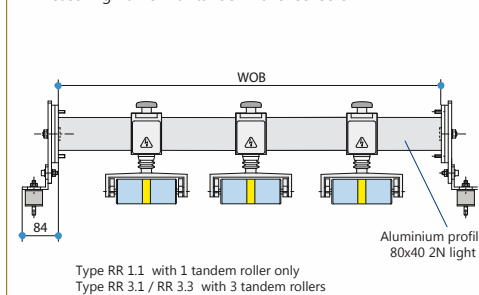
Warm air generator CV in stand cabinet with electronic AS120



Warm air generator LV as a stand alone unit (special version)



RR measuring frame with tandem roller sensors



Optional

- **Pneumatic package** for size boxes
- **Network data interface** (CSV datafile transfer by USB stick or Ethernet LAN)

Available machines, measuring and control systems for different applications

- **StraightLiner** for high-tech automatic straightening
- **StructureDetector** for distortion analysis, pick/course density and width measurement
- **Add'nDry** for coating, drying and heat-treatment processes with multiple sensors
- **Dens'nDry** for drying and fixation processes and pick/course density
- **DrumDryControl** for cylinder dryers
- **SizeControl** for controlled size pick-up
- **PadderControl** for continuous dyeing and cold pad batch dyeing
- **Sensors** for fabric temperature, exhaust humidity, oxygen, application and residual moisture

SizeControl CIMATIC

Ambient temperature: max. 60 °C
Power supply: 230 V AC (+/- 10 %), 50/60Hz
Power consumption: approx. 220 VA

Panel type pro15: 15.4" touch screen coloured
Display: 1280x800 pixel (16:10)

Weight protective cabinet: 25 kg
Option: Stand socket variable according to customer requirements

Panel pro15 with mounting plate and PLC only

Weight pro15 panel: 4 kg
Weight PLC mounting plate: 5 kg

AS120 measuring frame with microwave sensor

Ambient temperature sensor max. 50 °C
Measuring frame: max. 75 °C (only if warm air generator is switched ON)

Measuring range AS 120: 0 .. 20 g H₂O/m²
up to: 0 .. 1000 g H₂O/m²
(using calibration curve)
Measurement accuracy: +/- 1 % of measuring range
not better than
Adjustment time: +/- 0.5 g H₂O/m² absolute
inertia free
Weight approx.: 80 kg (frame width 2000 mm)

AS120 CV and LV

Ambient temperature max. 50 °C
Warm air generator:
Power supply: 3x400 V AC
Power consumption: max. 1500 VA
Electronics:
Power supply: 230 V AC (+/- 10 %), 50/60Hz
Power consumption: approx. 130 VA
Weight:
Warm air generator LV: approx. 43 kg
Weight:
Stand cabinet CV:
incl. microwave electronics: approx. 110 kg

RR measuring frame with tandem roller sensors

Measuring range sensor RR: 1.0 .. 20 % at Cotton
0.1 .. 5 % at Synthetics
0.2 .. 10 % at Polyamide
1.2 .. 35 % at Viscose

Type RR 1.1: 1 Tandem roller sensor
1 HIMA8 preamplifier
Type RR 3.1: 3 Tandem roller sensors
1 HIMA8 preamplifier
Type RR 3.3: 3 Tandem roller sensors
3 HIMA8 preamplifiers
Frame construction: made of aluminium

