CU-120
100% CONTENT UNIFORMITY
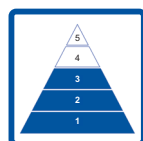
API's

WEIGHT

HARDNESS

THICKNESS

≤ OEB3

New and innovative in-line solution designed to ensure the quality of each individual tablet, by combining two main control methods: API's fraction and weight.

The **CU-120** analyses individual dosage from each single tablet up to a speed of 120.000 tablets per hour. The data can be used to control an upstream process application, e. g. a tablet press, continuous mixer in a QbD (Quality by Design) approach and all non-compliant products will be rejected.

The ideal tool for Content Uniformity Inspection and RTD (Real Time Decision).
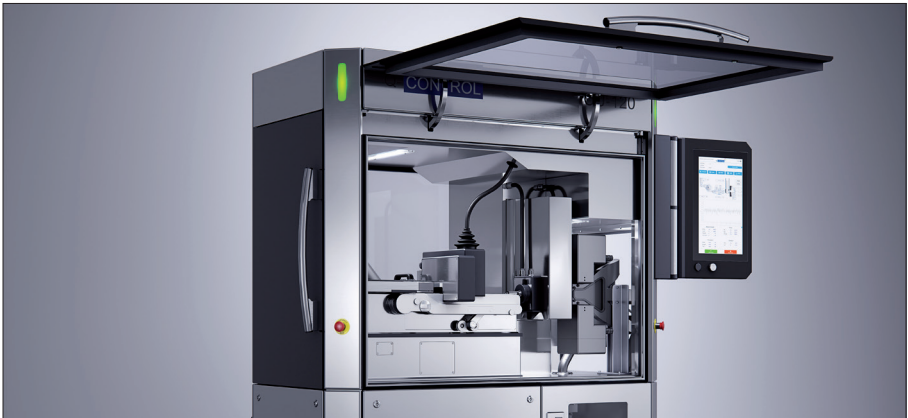
ADVANCE BY TECHNOLOGY

NIR-SRS AND 3D MICROWAVE: TWO POWERFUL TOOLS FOR YOUR PROCESS SAFETY

Each product is inspected by the multipoint **NIR-SRS** "near-Infrared spatially resolved technology" **probe to predict APIs fraction**, and a 3D **microwave resonator** allowing to **measure individual weight**. Various extensive repeatability **tests campaigns and industrial case studies have shown that the predictions are within the required error boundaries**.

The unit include an **encapsulated weighcell** or a **highly accurate 4-P tester** (measuring weight, thickness, hardness, and diameter), for automatic calibration of the weight measurement instrument. A linear regression is performed to warranty that the accuracy remains inside the **machine accuracy of +/-1mg (3 Sigma)**.

Data are processed and analysed by highspeed processors and stored in an **user-friendly "step by step" CFR21 acquisition software**. Data can easily be **exported, and process data can easily be exported to an up-stream machine or software through OPC UA** (e.g. connection to a SIPAT infrastructure or a third-party process equipment).

NIR-SRS probe and 3D microwave resonator

Measured weight [mg]			Range		
Actual	mg	357.27	Min	mg	355.49
Count	#	100	Max	mg	359.78
Sampled	#	0	Average	mg	357.53
Out of spec.	#	0			

Throughput			Deviation		
Actual	#/sec	0	Sabs	mg	0.89
Average	#/sec	0	Srel	%	0.25
Total	#/sec	0			

Embedded 4-P tester

WEIGHT

THICKNESS

HARDNESS

DIAMETER

NIR SRS TECHNOLOGY SPATIALLY RESOLVED SPECTROSCOPY FOR
API'S FRACTION PREDICTION

PHARMA TECHNOLOGY

Equipped with the fastest NIR-SRS technology and an highly precise 3-D microwave weight measurement station this equipment is dedicated to provide you a **very accurate Content Uniformity prediction,** and to remove 100% of non-compliant products from good products, **allowing RTD (Real Time Decision)**

The machine can also be used for **R&D developments, batch recovery/saving, mix-up and counterfeit products**.

The unit has been developed with an utmost care to the mechanical design allowing **fast changeover and affordable format changes**.

An utmost care has been taken to **simplify the equipment to allow use in a production environment**.

Designed to comply with the European Union's CE Guidelines, they are supplied with a manual, safety instructions and wiring diagram.

Our company can assist you for installation on site and help you to develop chemometric models.

- 100% Content Uniformity test of your products

- 100% Thickness and Diameter/Length measurement by Laser Scanner

- 100% Advanced Hardness measurement

- Quality by Design approach

- Permit Real Time Decision

- Ideal for proving final quality on batch or CM

- Shorten your reject strategy process

- Test physical attributes of your tablets based on conventional sampling methods (weight, thickness, hardness, and length/diameter)

- Inspection machine for batch recovery, prove global batch quality, detect counterfeit product

■ Light Source
■ Collection channels
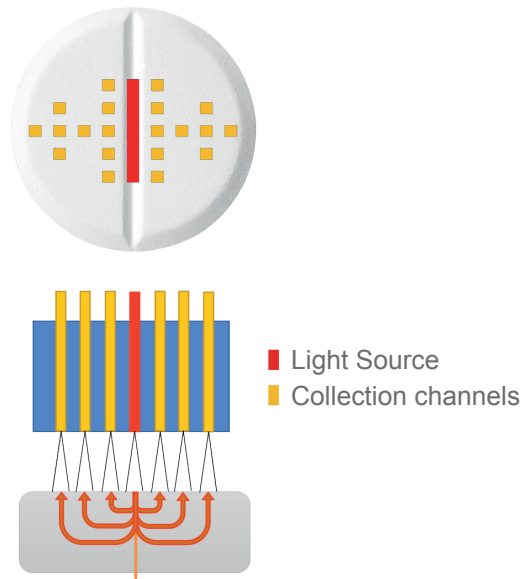
NIR-SRS multipoint tablet illumination

ADVANCE BY TECHNOLOGY

Good products

Non-compliant products
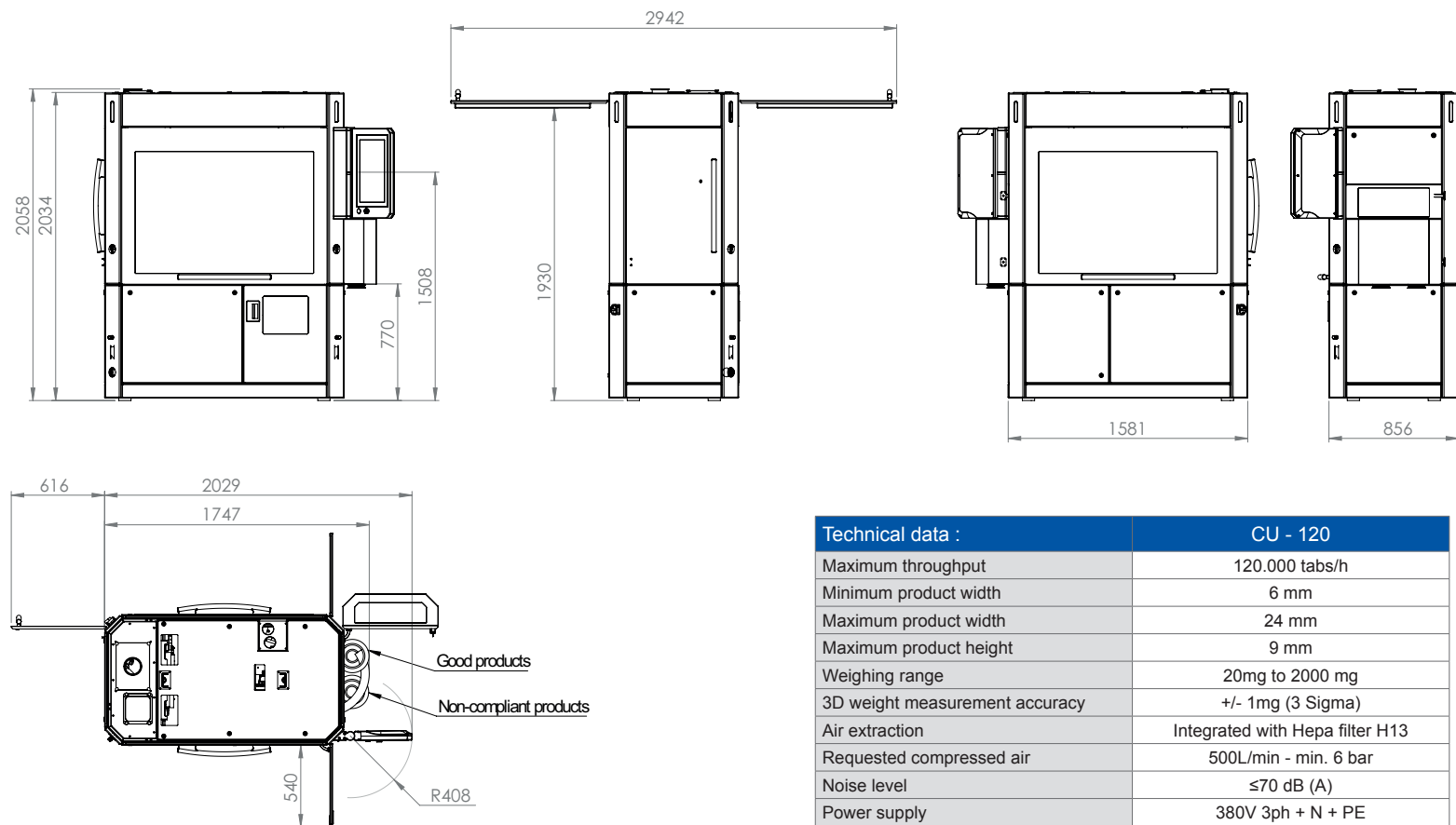
Technical data :	CU - 120
Maximum throughput	120.000 tabs/h
Minimum product width	6 mm
Maximum product width	24 mm
Maximum product height	9 mm
Weighing range	20mg to 2000 mg
3D weight measurement accuracy	+/- 1mg (3 Sigma)
Air extraction	Integrated with Hepa filter H13
Requested compressed air	500L/min - min. 6 bar
Noise level	≤70 dB (A)
Power supply	380V 3ph + N + PE
Frequency	50 Hz / 60 Hz
Polymer contact parts	FDA approved

PHARMA TECHNOLOGY