

ZAYNDU CEA RANGE

- Advanced Seed Health Systems for CEA
- Cold plasma boosts seed health and crop yield
- Using only air and electricity, no added chemicals
- Low operating power consumption (typically <200W)
- Designed for Vertical Farms & Greenhouses



Designed for the needs of vertical farms and greenhouses, Zayndu CEA systems are intended to support and improve crop productivity by boosting seed vigour without the need for additional fertilisers.

Harnessing the power of nature, the low energy cold plasma seed treatment systems re-create the natural phenomenon that is lightning (plasma) in a controlled environment and only require a standard office electric outlet (110V or 240V options). Treatment costs are amongst the cheapest in the industry.

THE COLD PLASMA PROCESS

Zayndu's treatment process uses cold plasma to boost overall seed health. It is effectively a priming process, improving germination rates and speed ensuring increased yield for the grower.

In the process, seeds are placed in a drum, containing only air. The Zayndu system generates cold plasma within the drum. This in turn creates "Activated Air", which is a blend of Reactive Oxygen and Nitrogen Species (or RONS for short). This delivers a boost to seed vigour. At the end of the process, the Activated Air is returned back to normal atmospheric air.

Process control is critical. Sensors measure humidity, temperatures, pressures, and gas concentrations throughout the system and use sophisticated control algorithms designed to deliver consistent results. The monitoring systems also highlight areas which may need maintenance in the future, helping to ensure that every treatment is done effectively.

The treatment is both cool and dry – no water is introduced in the process, and the advanced cold-plasma systems used ensure the seeds are not exposed to temperatures outside of 18-24°C.

CLOUD ENABLED

Zayndu systems are cloud-connected, which enables Zayndu's remote machine monitoring service – detecting issues before they become problems. The cloud connection enables remote control of the system, bringing the possibility of both remote monitoring - or training new staff without a Zayndu engineer coming on-site. Note that the systems use the cloud connection dynamically to check licences, download software updates and report their status to the monitoring service. Operation without an internet connection is not possible.

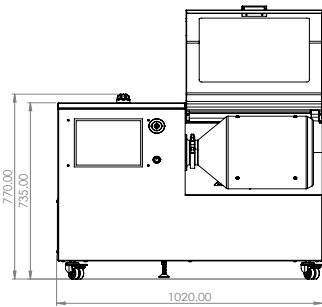
Model Details

Z10

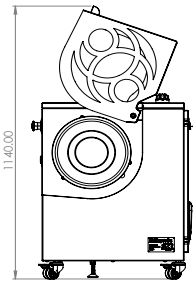
- 10 Litre Drum
- Treatment Capacity 2 Litres
- Single Plasma Generator System

PRODUCT SPECIFICATION

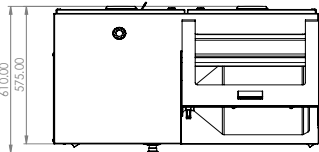
Drum Size	Z10	10 litres
Treatment Capacity	Z10	2 Litres (approx 1Kg)
Treatment Times	Programmable from 30 minutes to 48 hours	
Drive System	Belt-driven geared variable speed motor	
User Interface	10.4" touchscreen control panel	
Warm-Up Time	Approximately 5 minutes from power-on (may vary according to ambient temperature)	
Network connection	1Gbps Ethernet Options for remote management and integration into factory automation systems.	
License Management	Cloud based	
Dimensions	Length: 1020mm (40.1") Depth: 610mm (24") Height with wheels and hood lifted: 1140mm (44.8") Weight: 142Kg (313 lbs) All dimensions approximate.	
Operating Environment	18°C to 25°C (64°F to 77°F) 40% to 75% RH, non-condensing	
Power Requirements	Single Phase Typical 200W operation UK & EU versions: 240V AC US versions: 110V AC	
Certification	UKCA & CE Pending. UL Approval Pending	



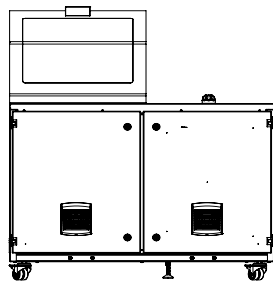
Front



Side



Top



Rear

ORDER INFORMATION

Product Code	ZCEA	
Version	Version Number	Set to 000 unless ordering an older version
Capacity	Drum Size in Litres	010
Generators	Number of Plasma Systems	001
Network	Internet Connection Type	LAN
Region	Version (including regulatory scheme and operating voltage)	US (UL compliant, 110V) EU (CE compliant, 240V) UK (UKCA compliant, 240V)

Example: A 25-litre system (which must have two plasma generators), operating at 110V and UL compliant for the US market – with a LAN connection - would be: ZCEA-000-025-002-LAN-US

Z10 Datasheet v. 3.0