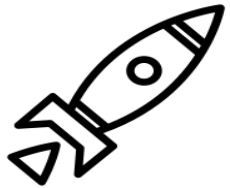
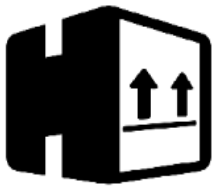





Complete Engineering Solutions...

Who are we…

Conceptualized and shaped in 1976

One of the most admired and valuable company for customer satisfaction.

We are pioneer in application and implementation engineering

40+ years experience in engineering excellence.

Immense expertise in providing engineering solutions.

Witnessed growth in revenue and team strength YoY

We are accredited by…

Member of AIMCAL	Member of IHEA	Strategic Partners of Emitech Italy	IAF Certified For Quality
			IAF MLA signatory for Certification of Persons, Product Certification and Management System Certification (QMS, EMS, ISMS, EnMS, FSMS)
Recognized and Rated by CRISIL	CRISIL Verified	Member of A.M.P.E.R.E. (Europe)	Associated with Institute of Chemical Technology

ISO 9001:2008 | ISO 9001:2015 | OHSAS 18001 | EMS 14001

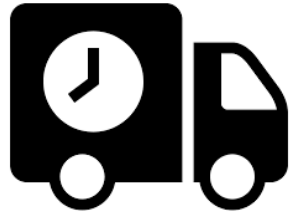
Why We...

Highly Customized Product

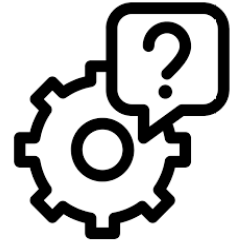
Adherence to Standards

Cost Effective Solutions

Sound Infrastructure

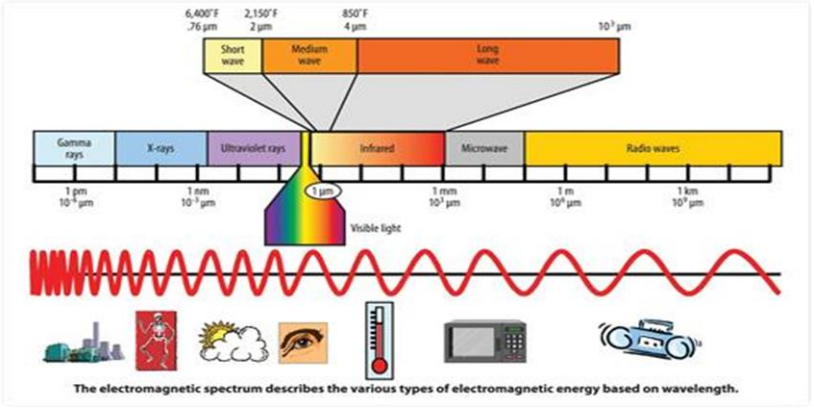


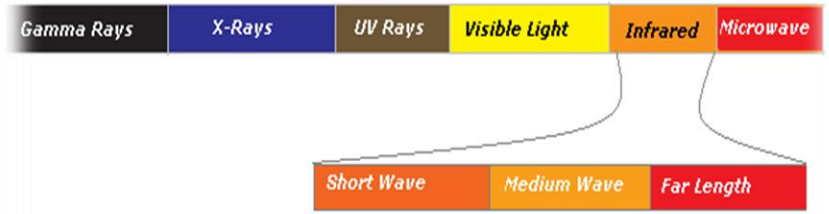
Timely Delivery



Great After Sale Support

Introduction of Infrared





Infrared Heating System are basically classified based on its emitting wave length :

Far Infrared (3000 nm and Above)	Medium Wave (1400 nm and 3000 nm)	Short Wave (780 nm to 1400 nm)

- Infrared Heating System are part of Electromagnetic heating family.
- Infrared heaters uses IR radiating waves falls just below visible light spectrum.
- Infrared radiators heats produces heat on the surface of material.
- Heat is transferred from outer surface to inner body.
- Infrared heating system produces heat same as ‘SUN‘ from hot surface to cold surface.

Infrared Based PET Crystallizer – Working Principle

Input PET flakes are fed into Kerone's advanced sensor based feed mechanism that ensures continues supply of adequate quantity only within the IR dryer

Transport PET flakes to be dried are transported through the surface of rotary drum using internal helix

Exposure The drum is fitted in such as manner to get the maximum and equal IR exposure to each PET flakes

Heating IR lamps produce the infrared wave that produces the heat when it strikes the material

Drying IR rays penetrates within the PET flakes and starts removing moisture from inside-out

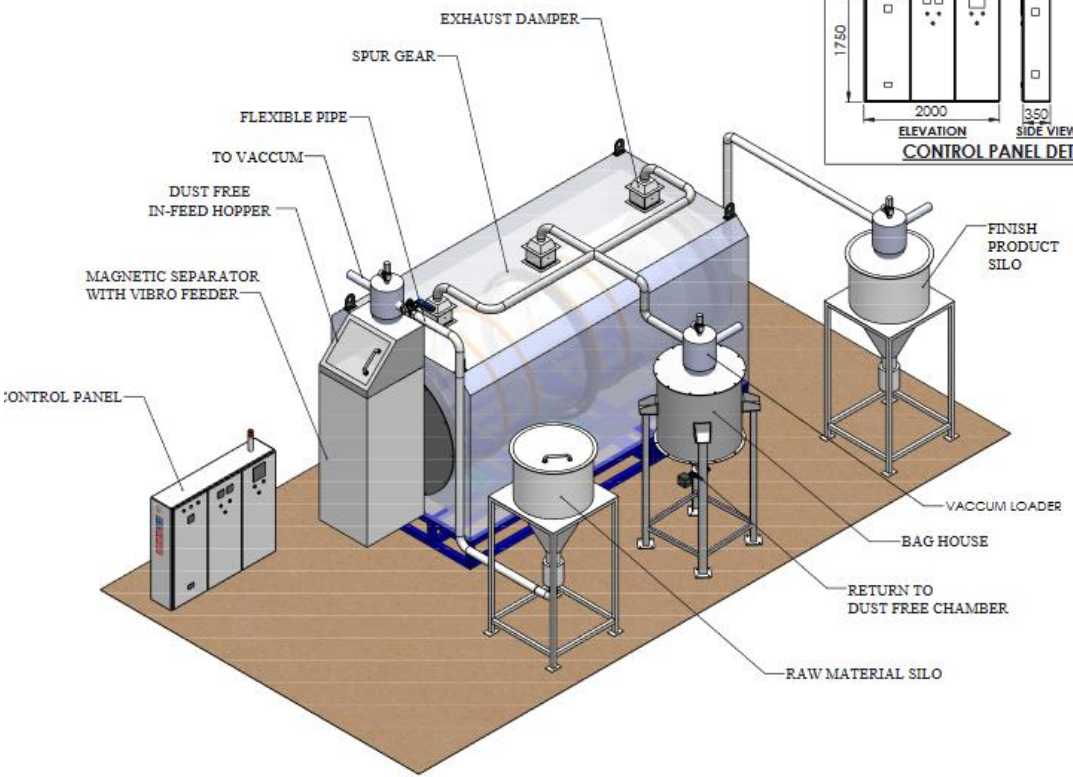
Moisture removal Moisture gets out of the flake and are removed from drum with flow of air

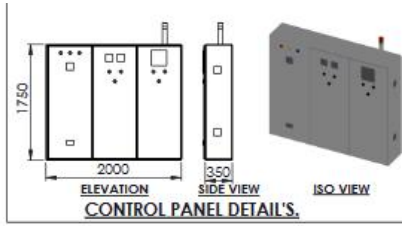
Output Crystallized PET transported to output chamber and collected there.

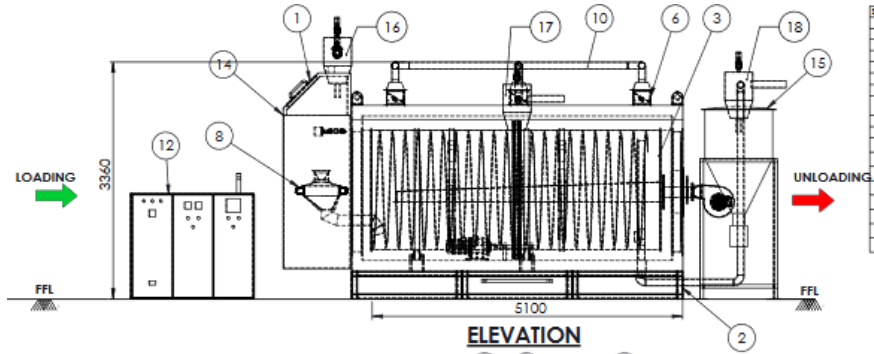
Control

Entire process is monitored and controlled by very easy to understand and highly sophisticated control mechanism with LCD screen and touch based control

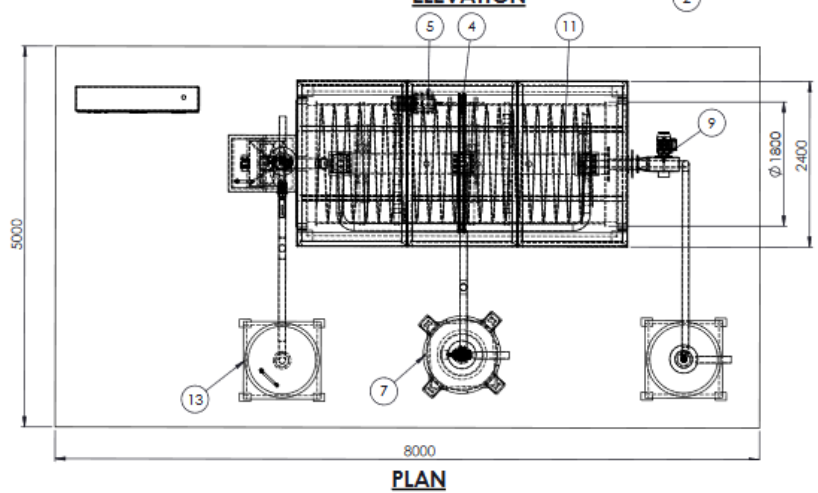
Infrared Based PET Crystallizer – Schematic







SR.NO.	DESCRIPTION	REMARK	QTY
1	HOPPER WITH VIBROMOTOR	SS304	1
2	SUPPORT STRUCTURE	MS PAINTED	-
3	ROTARY DRUM	SS304	1
4	SPUR GEAR	MS	-
5	GEAR MOTOR DRIVE	REPUTED MAKE	1
6	EXHAUST DAMPER	MS PAINTED	2
7	BAG-HOUSE	MS PAINTED	1
8	VIBRO FEED MOTOR	CASTED	2
9	BLOWER	MS PAINTED	1
10	DUCTS	MS PAINTED	1
11	IR HEATERS	QUARTZ INFRARED	-
12	CONTROL PANEL	MS POWDER COATED	1
13	RAW MATERIAL SILO	MS PAINTED	1
14	MAGNETIC SEPARATOR	MS PAINTED	1
15	FINISH MATERIAL SILO	MS PAINTED	1
16	VACUUM LOADER 1	SS 304	1
17	VACUUM LOADER 2	SS 304	1
18	VACUUM LOADER 3	SS 304	1



Infrared Based PET Crystallizer – Features

One Step Process

- IR based systems are capable of crystallizing and/or drying up to 4000 lb/hr (1800 Kg/hr) in single stroke

4-5 times faster than conventional System

- IR systems reduces moisture from over 3500 ppm to less than 50 ppm in about an hour.
- Conventional systems requires 5-6 hrs

Energy Savings

- IR crystallizers provide energy saving of up to 45% as it dries in single run and in minimum time

Quick Change over

- Unlike conventional systems it does not requires 5-6hrs for processing. Drying takes place within one hour only.

Less floor area consumption

- IR systems offers upto 400% space saving less in-process inventory and smaller footprint

Digitally controlled

- 100% digital control mechanism, quick start and stop

Infrared Dryer Myths

Myth	Realty
• Infrared rays destroy the IV properties of PET flake	•Shorter exposure to heat in IR dryer helps in preserving the properties

Myth	Realty
• Installation Cost of IR dryers are huge compared to Conventional	•Initial costs of IR dryers are marginally high but profitable in long run compared to Conventional

Myth	Realty
•IR dryers can reduce the moisture only up to 50ppm	•Moisture level of less than 50 ppm is reached in just one hour and the moisture content can be controlled to higher levels if required

Myth	Realty
• IR technology is only applicable on low throughput applications	•IR dryers are capable of drying over 4,000 lb/hr.

Myth	Realty
• IR is new and maintenance cost is high	•More than 100 are running successfully and maintained efficiently

Myth	Realty
• Application is limited to PET only	•Kerone has provided the IR systems for more huge type of applications

Infrared Heating System Vs Conventional Heating System

Infrared Heating System	Conventional Heating System
IR heating systems are fast heating system, results in saving of time.	Conventional heaters have slow hating rate, heat is transferred via means of air.
Instant heating of the material, hence no warm up time.	Instance heating does not takes place, it requires warm-up of surrounding.
Environmental friendly and green heating solution, no carbon emission.	Produces carbon or toxic gases hence not much environmental friendly heating solutions.
100% energy utilization, Heats only desired spot of material.	100% energy utilization is not possible, as material is heated by surrounding hot air.
Better floor utilization index.	Poor floor utilization index.
No Temperature loss in surrounding, ambient workplace.	Surrounding air temperature rises with rise in heater temperature.

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