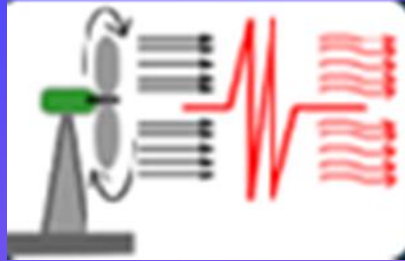


AT SOWBAL AEROTHERMICS



WE CHANGE THE TEMPERATURE

ECONOMICALLY

About Us

Sowbal Aerothermics is a forward-thinking, research-oriented manufacturing unit nestled in the industrial suburb of Secunderabad, India. With a dedicated focus on innovation, our small-scale unit specializes in the development of cutting-edge products related to electrical heating and cooling systems.

Our Mission

At Sowbal Aerothermics, our primary objective is to redefine industry standards through continuous research and development. We are committed to pioneering solutions that enhance efficiency, sustainability, and performance in electrical heating and cooling technologies.

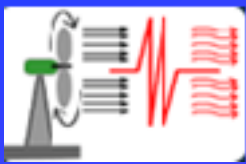


SOWBAL AEROTHERMICS

Key Highlights

- +
 - **Innovation Hub:** We take pride in being a hub for innovation, fostering an environment where creativity thrives. Our team of experts is dedicated to pushing the boundaries of what's possible in electrical heating and cooling.
 - **Research-Driven:** Our commitment to research is at the core of everything we do. By staying at the forefront of technological advancements, we aim to deliver products that not only meet but exceed the evolving needs of our clients.
 - **Quality Manufacturing:** Sowbal Aerothermics is synonymous with quality. Our state-of-the-art manufacturing processes ensure that every product leaving our facility adheres to the highest standards, guaranteeing reliability and longevity.





Collaborative Innovation and Patented Excellence

Ceramic Honeycomb-Based Air Heater

Sowbal Aerothermics takes pride in announcing a groundbreaking achievement in collaboration with M/s ARCI, an autonomous body under the Department of Science & Technology, Government of India. Together, we have developed and patented a revolutionary Ceramic Honeycomb-Based Air Heater.

Partnership with ARCI

Our collaboration with ARCI signifies a union of expertise and innovation. ARCI, as an esteemed research institution, brings a wealth of knowledge to complement our industry-focused approach. This joint effort has resulted in the creation of a state-of-the-art air heater that stands at the forefront of technological advancement.

Technopreneur Promotion Program Grants

Sowbal Aerothermics has been recognized and supported by the Technopreneur Promotion Program, administered by TIFAC (Technology Information, Forecasting, and Assessment Council) under the Department of Scientific & Industrial Research. This acknowledgment has been instrumental in advancing our efforts in developing prototypes based on the Ceramic Honeycomb-Based Air Heater.

Commitment to Innovation

The grants received have allowed us to further our commitment to innovation. With a focus on the Technopreneur Promotion Program, we are dedicated to transforming cutting-edge ideas into tangible solutions. The development of prototypes based on these heaters is a testament to our dedication to pushing the boundaries of what's possible in electrical heating technology.

7. Sanitary Pad Incinerator for Individual Homes

- **Indian Patent Issued:** February 15, 2022 (

Status: Indian Patent No 388543)

8. Improved Double Chamber Sanitary Napkin Incinerator

- **Application Year:** Not Specified

Status: Patent application in process

9. Hot Air Sterilizer for Reuse of Infected PPE Kits and Similar Applications

- **Application Year:** Not Specified

Status: Patent application in process

10. Device for Disinfecting and/or Decontaminating Personal Protective Equipments

- **Joint Patent Application with ARCI (DST – Govt of India)**
- **Application No:** 202011020124 **Date:** May 13, 2021

Status: Patent application in process

11. High-Temperature Sterilizer for Disposing PPE Kits

- **Joint Patent with ARCI (DST – Govt of India)**

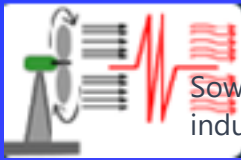
Status: Patent application in process

12. CFC/Freon-Free Low Power Air Conditioner

- **Indian Patent**
- **US Patent Issued:** August 15, 2023 (US Patent No 11,725,835B2)

Status: Pending

US Patent Issued: August 15, 2023 (US Patent No 11,725,835B2)



Sowbal Aerothermics takes pride in not only developing innovative technologies but also successfully bringing them to the market, meeting the needs of various industries and contributing to energy efficiency in both domestic and industrial settings.

Commercialization of Innovations by Sowbal Aerothermics

1. Monopoly in Confectionery Industry

- **Achievement:** Absolute monopoly in specific fields, particularly in the confectionery industry, based on IPN 200787.

2. HOWER – Hot Air-based Welding Rod Oven

- **Client Base:** Established a large client base in the steel fabrication industry with HOWER, a hot air-based welding rod oven.

3. Improved Heaters Technology (US Patent No US 8,987,643 B2)

- **Client Base:** Gained a significant client base in the engineering industry with the commercialization of improved heaters based on US Patent No US 8,987,643 B2.

4. Diverse Product Portfolio

- **Global Reach:** Various prototypes commercialized and exported to different countries.

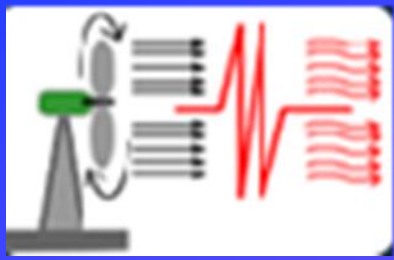
5. Sanitary Napkin Incinerator

- **Government and Private Organizations:** Successfully commercialized the sanitary napkin incinerator, supplying in bulk to both government and private organizations.

6. Domestic Individual Home Model Sanitary Napkin Incinerator (Indian Patent No 388543)

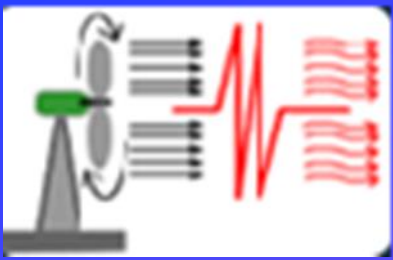
- **Energy Efficiency:** Commercialized the domestic individual home model sanitary napkin incinerator (Indian Patent No 388543), contributing to significant energy savings for homes and offices compared to conventional incinerators.

7. **LONG LIFE ELECTRIC INFRARED HEATERS:** These heaters likely provide efficient and durable infrared heating solutions. The mention of leading up to the development of electric infrared shawarma machines suggests a specialized application, possibly in the food industry.
8. **VERY HIGH TEMPERATURE COMPRESSED AIR HEATERS:** These heaters are designed for research applications, indicating a focus on meeting specific temperature requirements for scientific or industrial processes.
9. **VERY HIGH TEMPERATURE HIGH VOLUME HOT AIR BLOWERS UP TO 800 Deg Cent FOR INDUSTRIAL APPLICATIONS:** This product seems to be designed for industrial settings, providing high-temperature, high-volume hot air for various applications.
10. **SUPERHEATED STEAM WITHOUT A HIGH PRESSURE BOILER:** This innovation suggests a technology that can produce superheated steam without the need for a traditional high-pressure boiler. This could have implications for efficiency and safety.
11. **QUICK ACTION WOOD/COAL IGNITER WITH HOT AIR GUN:** This product is likely designed for quickly igniting wood or coal, possibly catering to industries or applications that require rapid and efficient ignition.
12. **DC POWERED HOT AIR BLOWERS:** These blowers likely operate on direct current (DC) power, which could be useful in applications where DC power sources are preferred or required.
7. **HUMIDIFIERS FOR MUSHROOM AND SERICULTURE INDUSTRY:** These humidifiers are likely tailored for specific industries, such as mushroom cultivation and sericulture (silk production).
8. **MINIATURE AIR HEATERS FOR HIGH ALTITUDE SPY CAMERAS AND MEDICAL INSTRUMENTATION:** These miniature air heaters seem to have versatile applications, including use in high-altitude spy cameras and medical instrumentation where compact heating solutions are crucial.



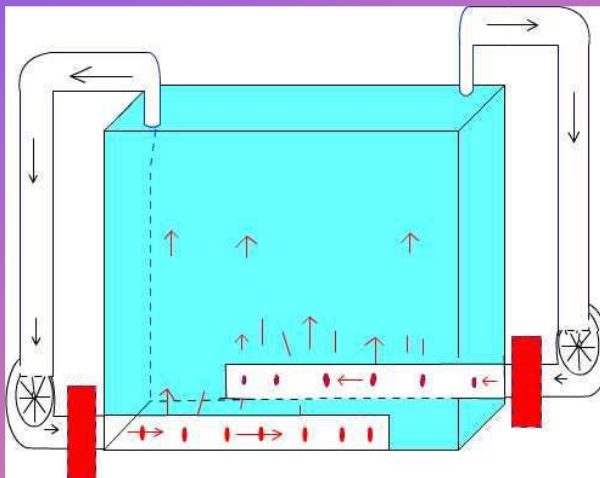
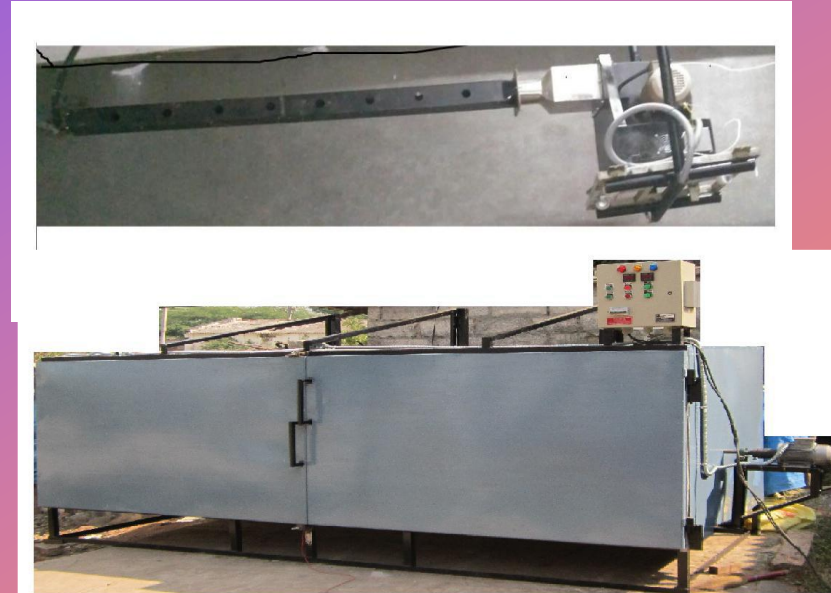
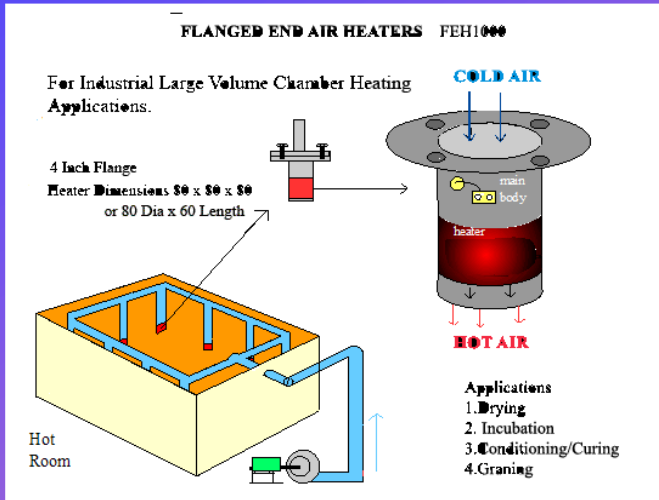
LET US VIEW OUR PRODUCTS



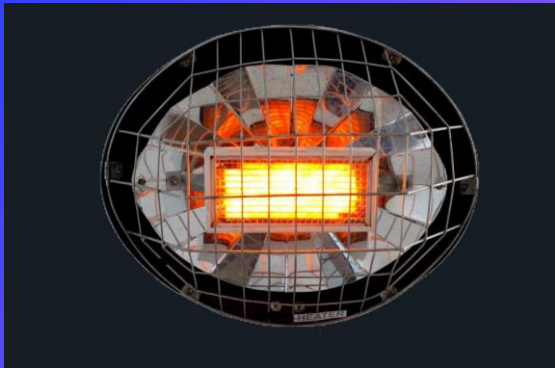


SOME OF THE ENERGY EFFICIENT DESIGNS

All these designs have been commercialized successfully

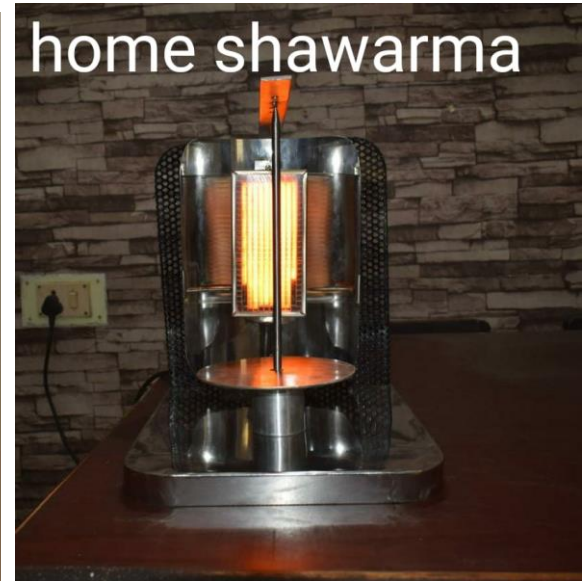
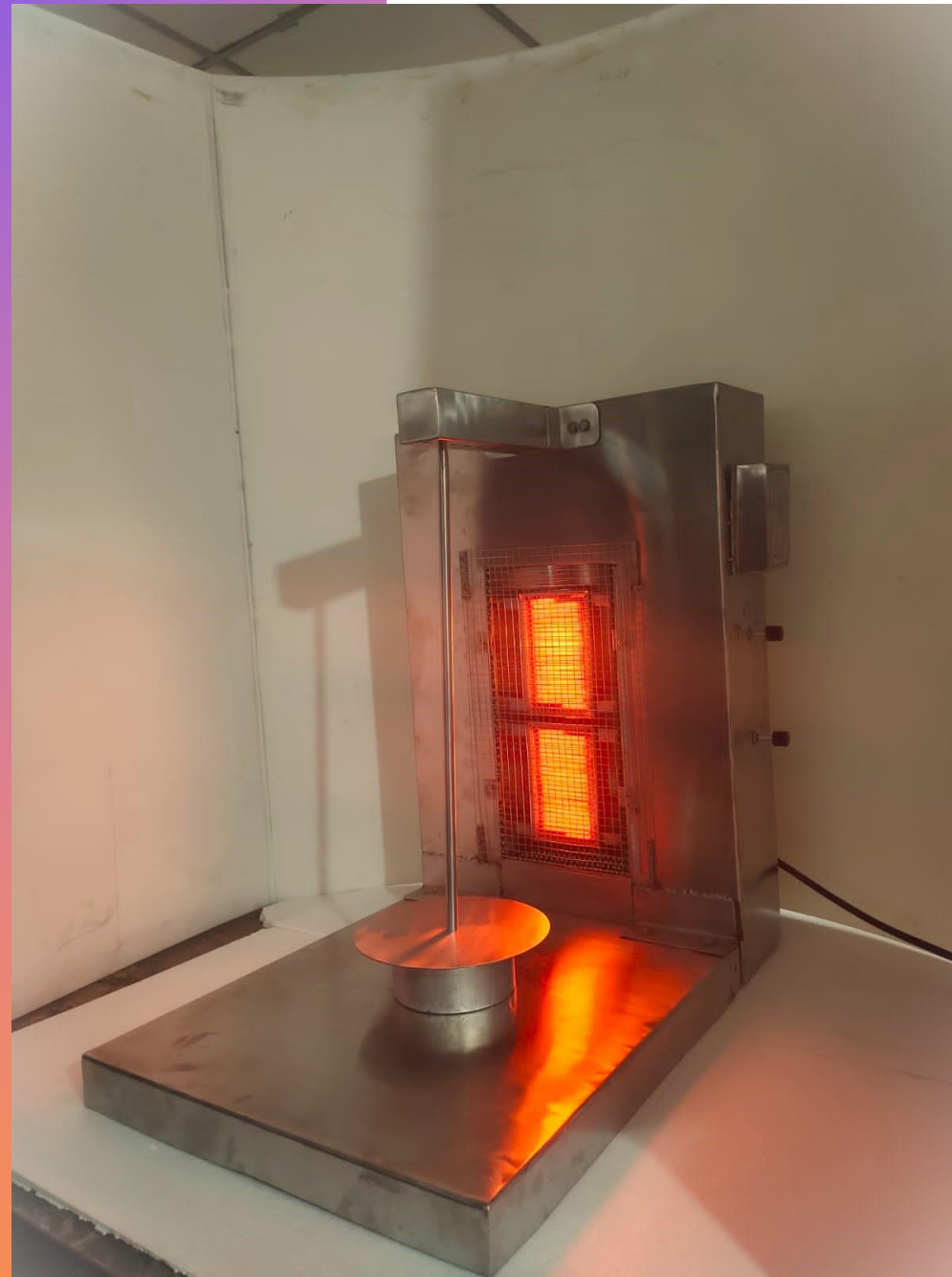


Wall mounted Infrared Heater



Unique Patio Heaters

CERAMIC HONEYCOMB INFRARED HEATERS



home shawarma



panner shawarma for home

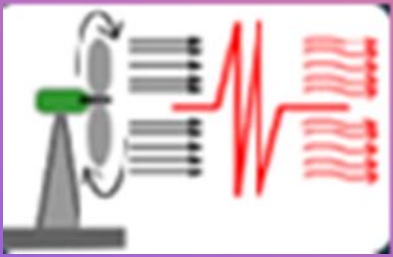
PRESENTATION TITLE



SUPPORTING THE FOOD AND AGRICULTURAL INDUSTRY

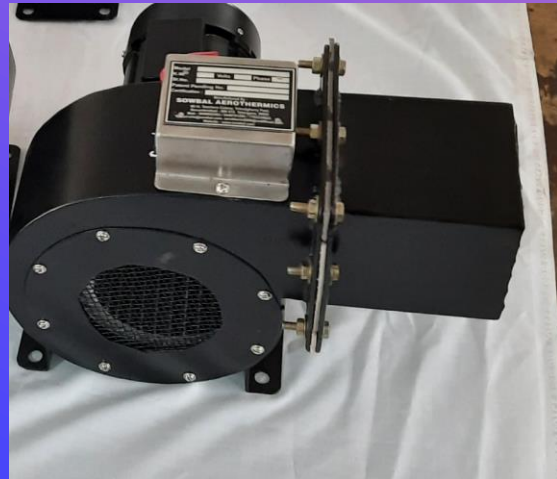
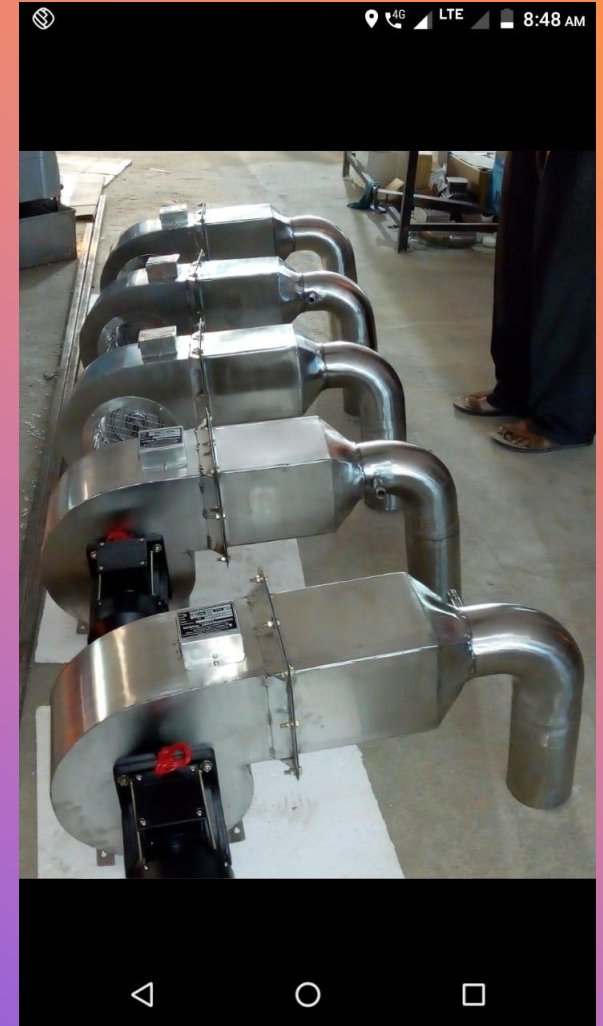
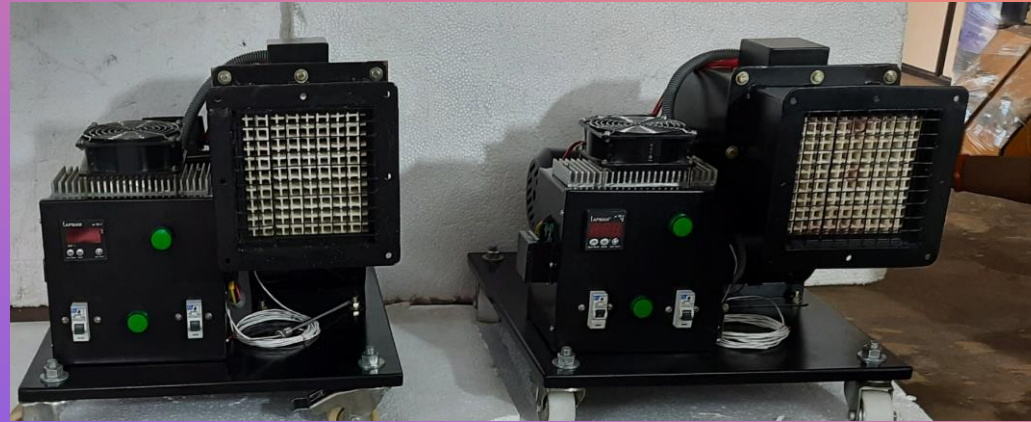


GRAIN DRYERS & ROASTERS



HOT AIR BLOWERS

CERAMIC HONEYCOMB BASED AIR HEATERS



9/3/20XX

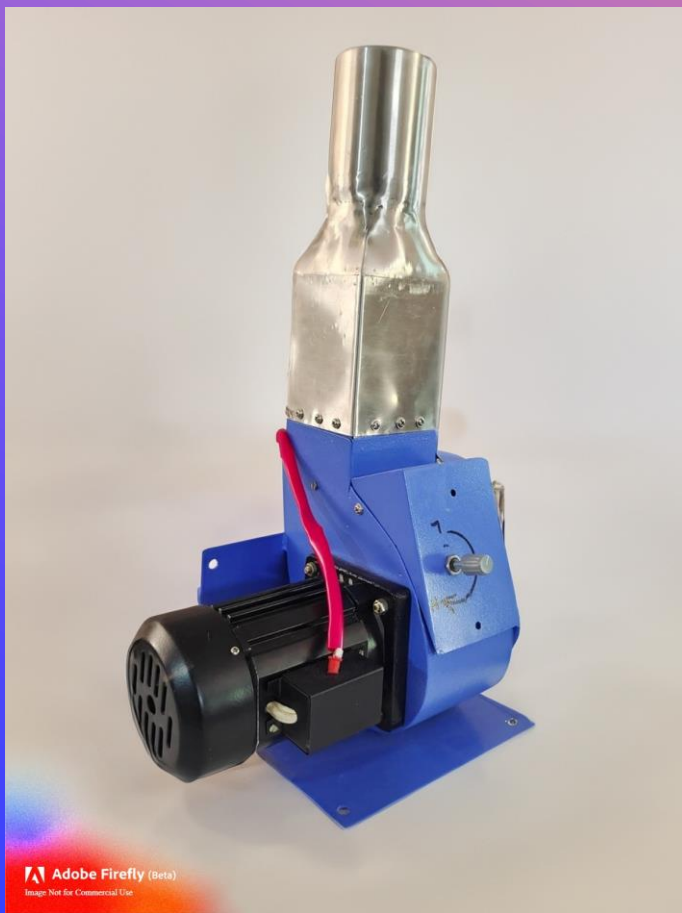
HOT AIR BLOWERS WITH CERAMIC HONEYCOMB AIR HEATERS FOR CONFECTIONERY INDUSTRY - MINIATURE MODELS



TEMPERATURE ACHIEVED IS MORE THAN 350 DEG CENTIGRADE

9/3/20XX

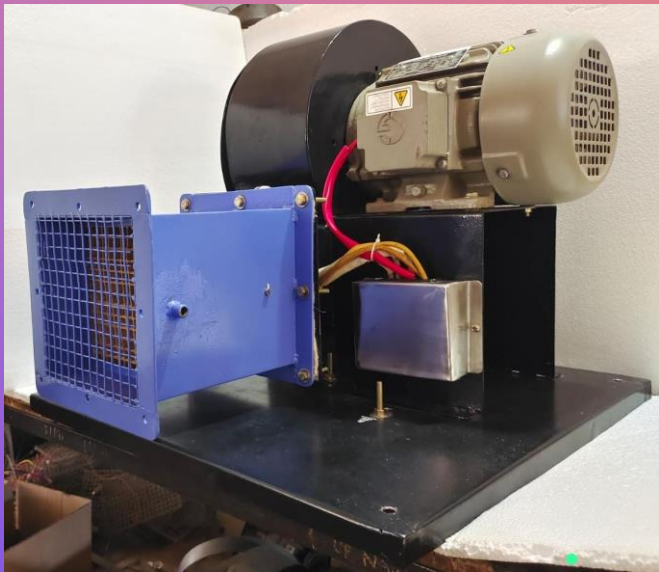
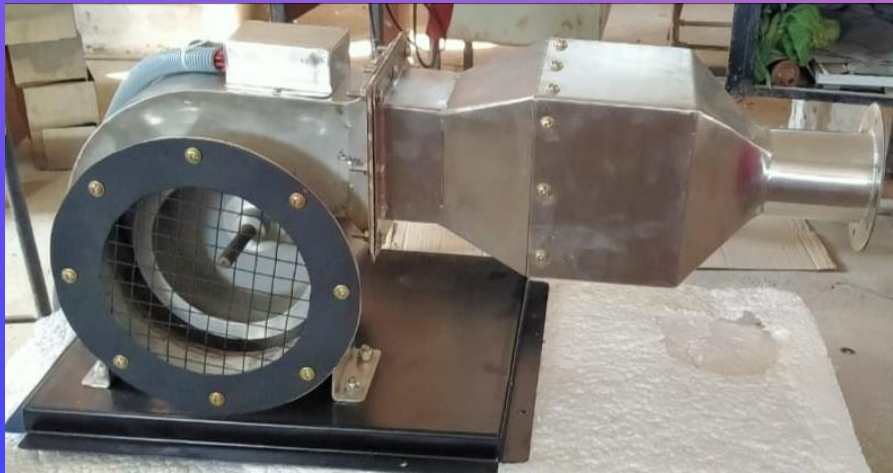
HEAT BLOWERS



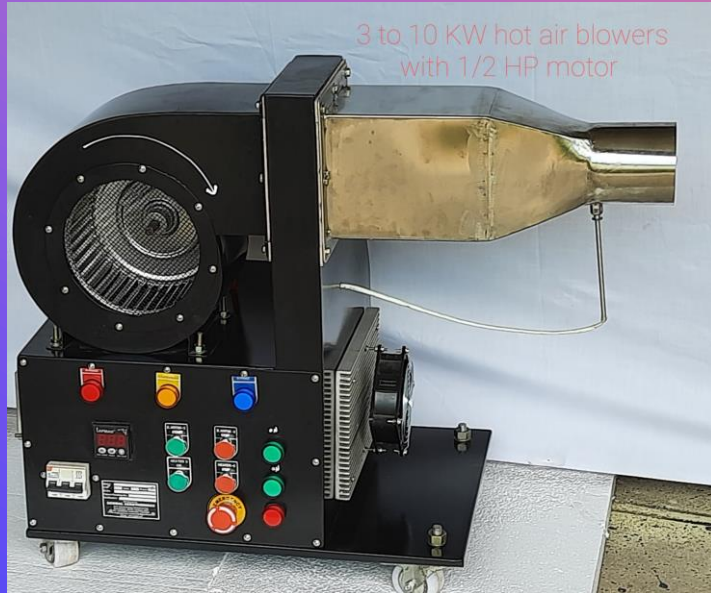
9/3/20XX

CUSTOMOZED HOT AIR BLOWERS

PRESENTATION TITLE



HOT AIR BLOWER ON WHEELS



FROM 6 KW TO 20 KW

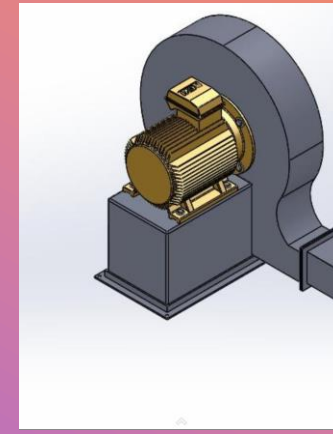
MORE OF THE MODELS



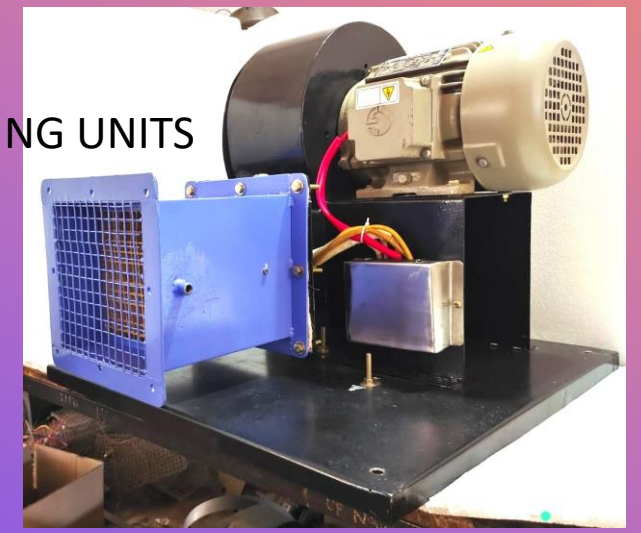
PRESENTATION TITLE



15kw heater/
1.5 HP blower



HAB 15KW FOR PRINTING UNITS





POULTRY , MUSHROOMFARM, GREENHOUSE HEATERS

PRESENTATION TITLE

These are stand alone Hot air blowers designed for Mushroom farms ,Poultry brooders, and Green house heating application.

A suitably designed heater with air blower fan to generate air at 40to 60 degrees centigrade comfortable air to create a good climate within the desired area.

A sensor with 3 mtrs cable and a temperature indicator to provide the chamber temperature is provided by default.



Some customized installations



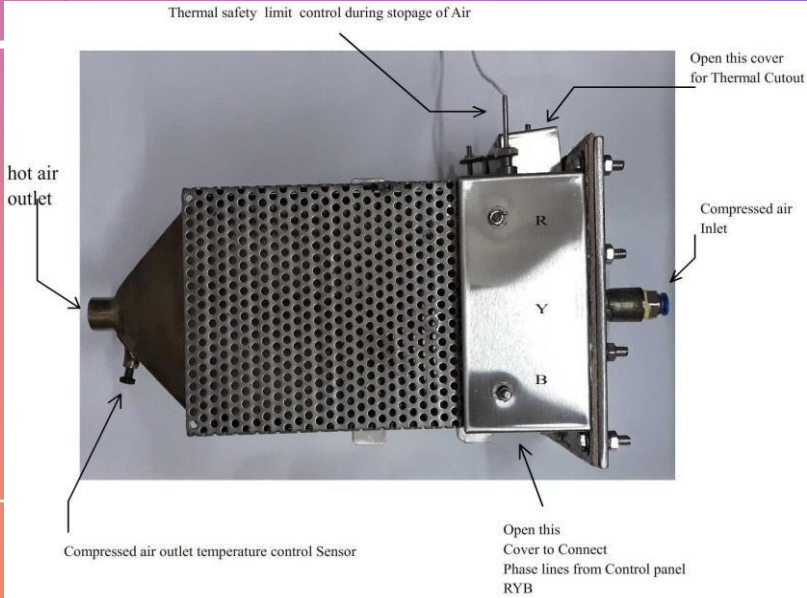
IN LINE AIR HEATERS

THESE HEATERS CAN BE SIMPLY INSERTED IN EXISTING LINE BY MAKING SPACE FOR THEM

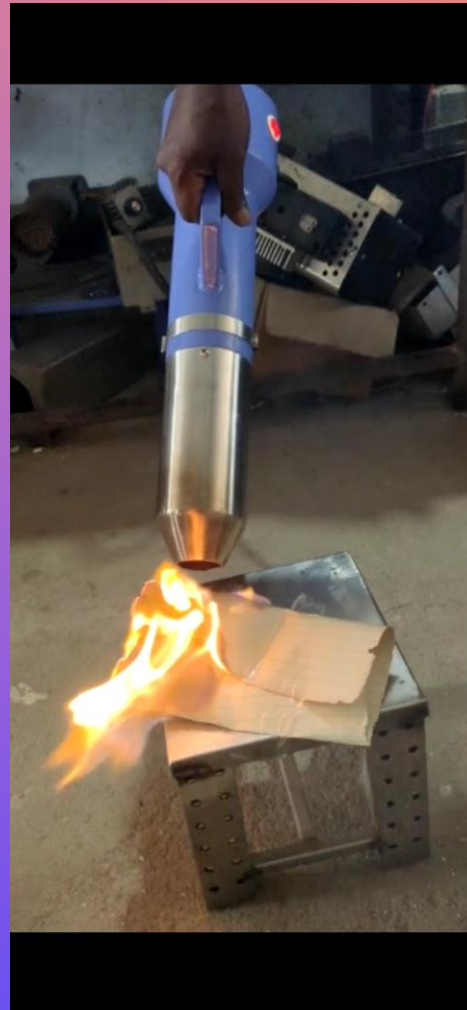
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○



COMPRESSED AIR HEATING



HAND HELD WHITE FLAME HEATERS



THIS HAS A HEATER RATING OF 1500 WATTS / 230 VOLTS (110 VOLTS ALSO AVAILABLE ON REQUEST) VERY CONVENIENT TO IGNITE COAL AND BIO BRIQUETTE. COMPLETELY ELIMINATES KEROSENE/DIESEL FOR IGNITION START UP. No messy and stinky kitchens AND FIREPLACES. CAN IGNITE BIO BRIQUETTE IN LESS THAN 30 SECONDS. CAN OPERATE CONTINUOUSLY FOR 60 MINUTES AT A STRETCH Air temperature of 750 deg cent ignites any organic material Please view its performance in the below mentioned Youtube link

<http://youtu.be/XcPEDw14pKc>



Associating with the Steel Fabrication Industry

Hot Air Based welding Rod Ovens

Capacities

25 Kgs – 1 KW - 60 Minutes output

15 Kgs --- 500 W – 60 minutes output

High efficiency

Satisfied clients through out South India.



(19) World Intellectual Property Organization
International Bureau



PCT

(10) International Publication Number
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(53) International Application Number:
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(22) International Filing Date: 8 March 2006 (08.03.2006)

(25) Filing Language: English

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(50) Priority Date:
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AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GL, GM, GR, GU, HK, HU, IL, IN, IS, JP, KR,
KG, KH, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LV,
LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG,
NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, RO, RS, RU,
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(84) Designated States (unless otherwise indicated, for every
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FR, GB, GR, HU, IE, IS, IT, LI, LU, LV, MC, MT, NL, NO,
PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

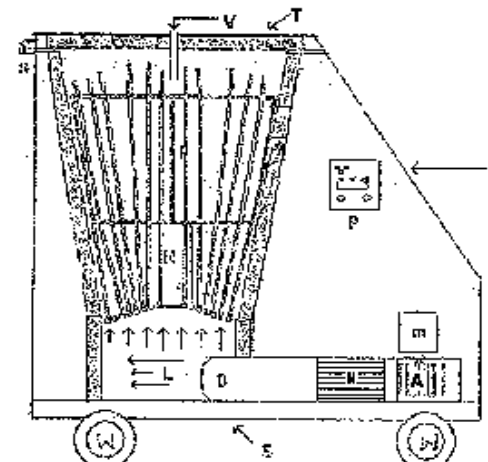
(72) Inventor and
(75) Inventor/Applicant (for US only): RAO, Vempati,
Venkat, Sankarababai Nagar, 8 Old Bewerapaly, Sankarababai Nagar, Andhra Pradesh (IN)

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of inventorship (Rule 4.17(a))

Published:
with international search report
before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments

[Continued on next page]

(54) Title: IMPROVED DEVICE FOR HEATING / DRYING WELDING RODS



(57) Abstract: The present invention relates to an improved device for heating / drying welding rods (W), preferably flux coated welding rods, using forced convection heat transfer by means of ceramic non-oxidant based air heaters (H). The device of the present invention is useful for heating flux coated and some non flux coated welding rods (W) so as to reduce their moisture content, the flux coating and for raising the temperature of the welding rods as the case may be, immediately before the welding operation. The heating device of the present invention is non-polluting, operationally and a large electric power free, simple in design, portable with excellent trouble free usage, and includes a wire rod holder (A) which is made of successive elements (ring) of narrowing diameters and assembled in such a manner that they form a tapered cone with gaps in between the rings to support the welding rods which are to be heated (A) and when positioned vertically over the support (B).

WO 2007/105230 A3

PRESENTATION TITLE

WELDING ROD OVEN
SOWBALHOT 25

SOWBAL AEROTHERMICS

Our contribution to the welding Industry

- 1) Avoid Hydrogen Embrittlement*
- 2) improve welding joint strength*
- 3) reduced spatter*
- 4) uniformity of drying*
- 5) Energy efficient Heating*

Reduced Power and Time of Operation



*15 kgs- 1kW
25 Kgs 1.5KW*



Contact

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info@sowbalthermo.com

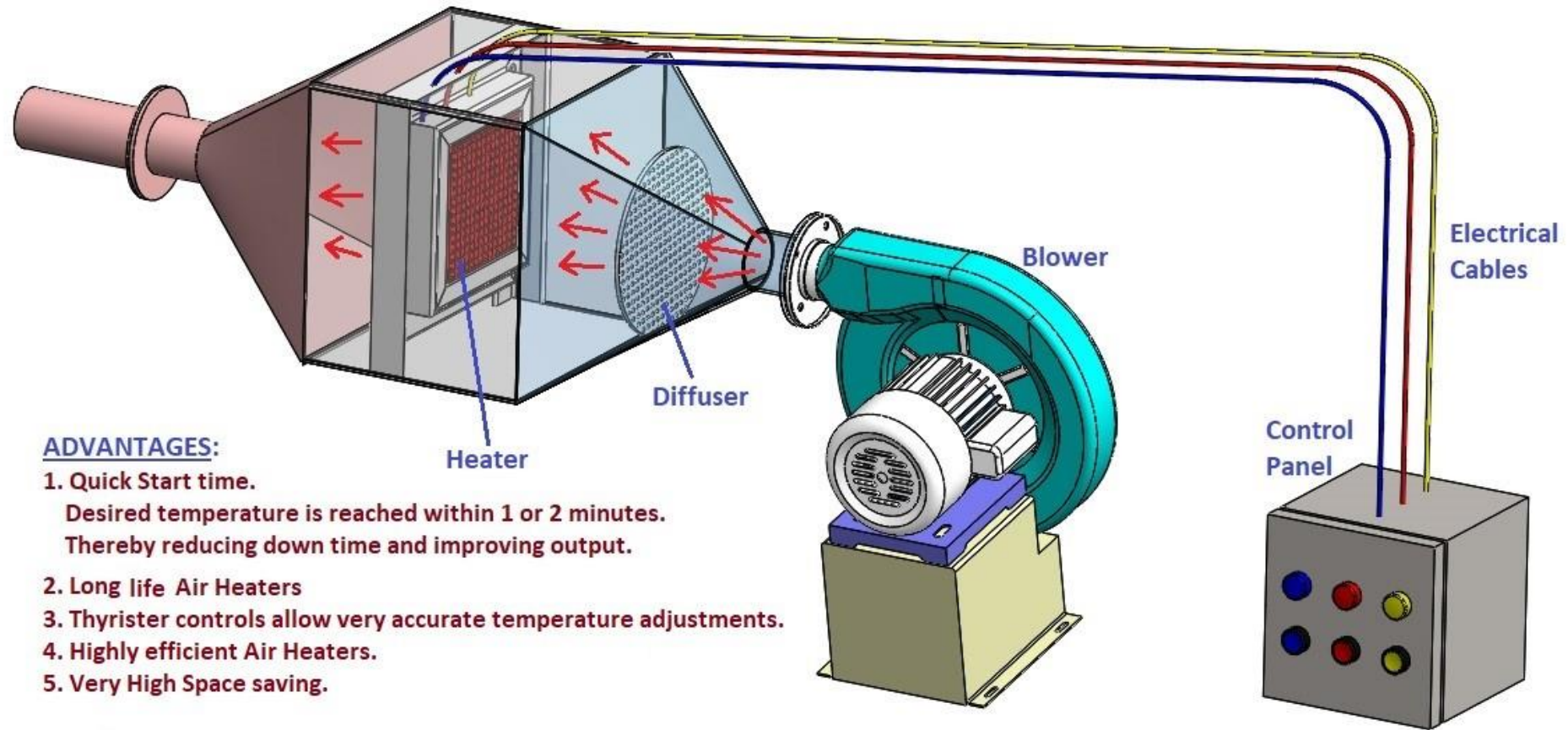
+91

9949052453

8978056462

www.sowbalthermo.com

THE TOTAL HEATING SYSTEM



ADVANTAGES:

1. Quick Start time.

Desired temperature is reached within 1 or 2 minutes.
Thereby reducing down time and improving output.

2. Long life Air Heaters

3. Thyristor controls allow very accurate temperature adjustments.

4. Highly efficient Air Heaters.

5. Very High Space saving.



Humidifiers cum heaters
For Sericulture Industry

+

o



- Chocolate Mould Pre-heaters

OTHER PRODUCTS TO THE INDUSTRY

PRESENTATION TITLE

+



ECO FRIENDLY

INCINERATORS FOR SCHOOLS & HOSTELS



GREENDISPO MIDI

IMPROVED ECO-FRIENDLY & ENERGY EFFICIENT ELECTRIC
SANITARY PAD INCINERATOR
IPAN : 2018210214301

सशक्त नारी स्वच्छ पर्यावरण
Empowering Women
to save *Environment*

TECHNICAL SPECIFICATIONS




BENEFICIARIES



JOINTLY DEVELOPED BY



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CSIR-NATIONAL ENVIRONMENTAL
ENGINEERING RESEARCH INSTITUTE
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Contact: +91 9949 052 453, +91 97032 01002

SANITARY PAD INCINERATOR FOR INDIVIDUAL HOMES



SAFEECO-Mini

POWER REQUIRED 300 watts / 230 volts

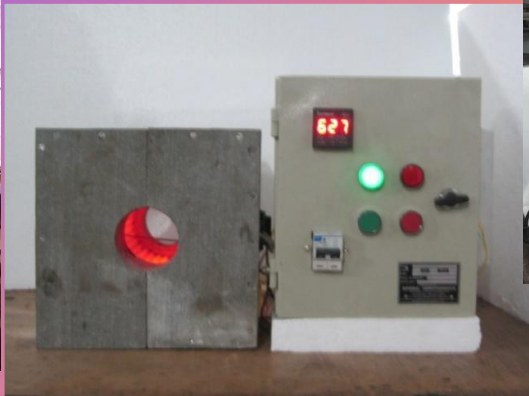
Heater "ON" for 2 minutes Only , Burning capacity 1 pad per batch

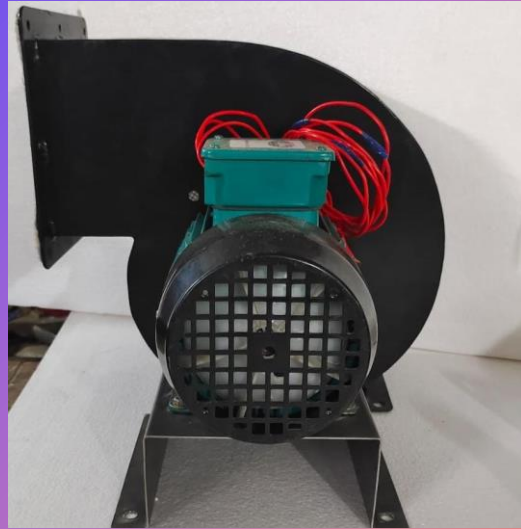
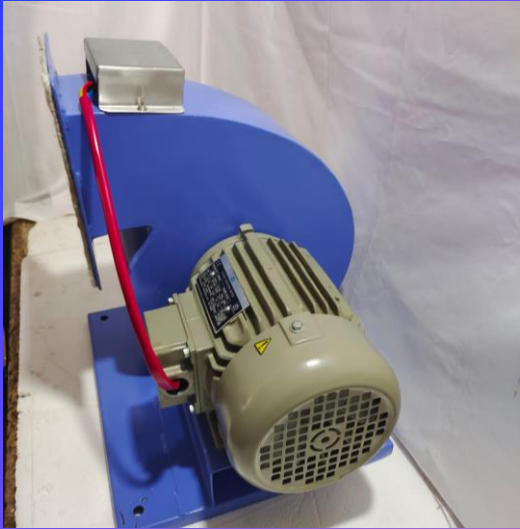
Drop each pad after 60 minutes Wall mounted model

Very useful for Working Women and staff rooms

Laboratory Equipment

Like High Temperature Furnaces ,
Ovens . Chemical Lab Ovens Etc .





Air blowers

Different capacities including

Low pressure blowers

High volume blowers

Silent blower for air heating

9/3/20XX

PRESENTATION TITLE

+



RESEARCH

o



PROTOTYPE

•



PRODUCTION



MARKETING

Thank you

CONTACT US

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- Besides Akshara School
- Shivsai Nagar
- Kushaiguda
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- HYDERABAD – 500062, Telangana
- Ph – +91 9949052453 , 9440761294