

ceramicx

HEATWORKS

ISSUE 9 MAY 2013

Chinaplas

国际橡塑展

“ CHINA IS SUCH AN IMPORTANT MARKET ”

Ceramicx to make fresh gains at Chinaplas 2013

“ SAVING ENERGY IN THE USA PLUS QUANTUM PRODUCTIVITY JUMP FOR US THERMOFORMER ”



“ THE BEST IS YET TO COME - IR HEAT TESTING AT K2013 ”



SPECIALISED CERAMIC DUST PRESS COMPONENTS

CERAMICX TARGETS UK MARKET FOR IR HEATING

HEATWORKS

Prosperity – and peace

It seems like no time at all that I was making my way back from the Far East – having enjoyed a very successful trip, taking in Chinaplas 2012 and some important Ceramicx customers in Korea.

And Chinaplas 2013 is once again upon us. To use a phrase borrowed from Brett Wehner, our US distributor, the Ceramicx belief in 'feet on the street' sees me returning to the world's 2nd largest plastics exhibition in Guangzhou province, as a seasoned exhibitor.

The virtual world is growing exponentially. However, there is absolutely no substitute for interaction between peoples; in business and in life. Ceramicx is therefore pleased and proud to be at Chinaplas in person. I look forward to making a significant contribution to our growing markets in plastics in the Far East.

Ceramicx and our friends at the British Plastics Federation have both worked hard in creating the new British and Irish Pavilion for Chinaplas this year. I take great encouragement from excellent and friendly relations between our nations.

Once upon a time it was less so; but modernity, prosperity and peace now represent an agenda that ties all three issues intimately together. This is a worldwide phenomenon; in the Far East; in the USA - where a manufacturing renaissance is epitomized in these pages with Weco's new successes –and in Europe. A settled economic outlook creates a peaceful society and vice versa. Long may it be so.

HeatWorks magazine itself has benefitted greatly from an expanding business throughout the world. With this issue, HeatWorks has now reached its 9th edition. Nine is indeed an auspicious number to take to China this year in this Year of the Water Snake.

I would like to pay passing tribute briefly here to the HeatWorks management of Cathál Wilson, Publisher and to the inputs of David Hayward, Art and Production Editor and Adrian Lunney, Writer and Editor.

We hope, as ever, that you enjoy these pages and we look forward to bringing you the next nine issues as our Infrared Heating industry goes forward and develops.



Many thanks again

Frank Wilson
Managing Director Ceramicx Ireland

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CERAMICX TO MAKE FRESH GAINS AT **Chinaplas®** 2013 国际橡塑展

CHINAPLAS is the largest plastics and rubber fair in the Asia Pacific region and one of the top International Plastics shows in the world. The 27th International Exhibition on Plastics and Rubber Industries, Chinaplas 2013, rotates back to Guangzhou this year and Ceramicx Ireland will again join the exhibitors.

This year the exhibition area of Chinaplas 2013 is expected to reach 220,000 sqm with over 2,800 exhibitors and 105,000 visitors. The BPF is offering companies the opportunity to exhibit within a British or Irish Pavilion, providing companies with an excellent, high profile and cost-effective way to explore and increase exposure in this exciting market.

“ CHINA IS SUCH AN IMPORTANT MARKET TO CERAMICX THAT WE SIMPLY CANNOT AFFORD NOT TO BE THERE. ”

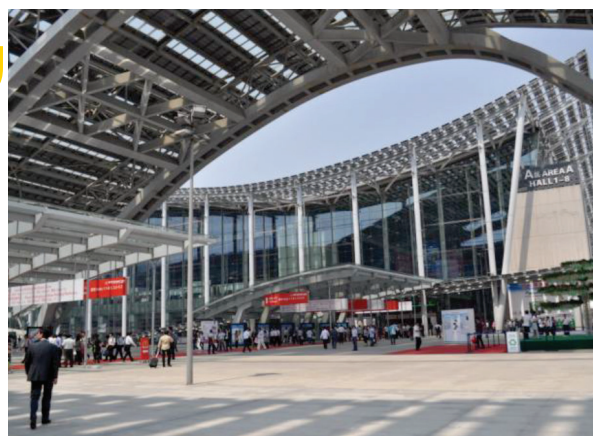
No longer a novice exhibitor, Ceramicx will be examining how to push further into all of China's industrial and commercial markets for Infrared heating.

Says Ceramicx owner Frank Wilson 'China is such an important market to Ceramicx that we simply cannot afford not to be there. I also feel that it behoves me to visit our partners and customers in that market at the show. Our presence – outlining and explaining advantages of Ceramicx-based IR heating – was much appreciated then. We have an increasing fund of IR know-how and applications engineering to impart yet again to a Chinese-based audience. I look forward to doing so at Chinaplas 2013.'

Several Ceramicx products – in hollow-based ceramic elements and in other custom-made projects – have been developed and further enhanced specifically for the Chinese market.

Ceramicx recently attained World-class manufacturing status and this fact has also played particularly well in Chinese markets. 'Our quality is the equal – if not more so - than any European-based producer. Each IR ceramic element has its own 'birth certificate' and performance data. In the exacting world of Chinese manufacture; these Ceramicx-led benefits are becoming ever more popular,' he adds.

According to Frank Wilson, 'the Chinaplas timing is near perfect for us and for our products. The Ceramicx investment in world-class quality systems, product traceability and performance has all yielded first class fruit - which is offered to the Chinese market at just the right time.



Chinaplas 2013 is being held at The China Import and Export Fair Complex, Pazhou Guangzhou, PR China.

Success in China now means supplying just these qualities into the Chinese marketplace. We believe that Chinese thermoformers, machine builders and Chinese plastics generally will be quick to see the advantages in quality infrared IR heating performance and in buying these products from Ceramicx.

ceramicx INFRARED FOR INDUSTRY

ceramicx 20 - 23 MAY 2013 **220,000m²**

Chinaplas 国际橡塑展

2,800 EXHIBITORS

105,000 VISITORS.

Wilson adds that 'over the page we have news from our importer in Beijing and our new distributor GSAE. Two years in the China marketplace is really starting to reap dividends for us all. Increased geographical market penetration of China is on target; as is our growth in the traditional thermoforming markets and also in new opportunities for IR heating in certain kinds of applications engineering.

“ WE LOOK FORWARD TO SEEING ALL OUR FAR EASTERN FRIENDS AT CHINAPLAS, ”

Last year saw China's manufacturing juggernaut level off its growth slightly. The resurgence in US manufacturing was perhaps unexpected and changing to a downward gear was perhaps not in the plan. However, current signs are that 2013 is back on the growth track; plastics included. The differentiator - at home and abroad - remains quality and quality assurance. This is a market feature that Ceramicx is entirely comfortable with. 'We look forward to seeing all our Far Eastern friends at Chinaplas,' says Frank 'and to new routes to profitable business'.

Ceramicx combines with BPF

Ceramicx has combined forces with the British Plastics Federation in order to launch the British and Irish Pavilion at Chinaplas this year.

The BPF has been organising visits to the China show for some years, not least because of the great opportunities in that market.

The development of plastics consumption in China has been truly extraordinary, growing at over 20% per annum. Meanwhile plastics product production has doubled over the last 5 years. The demand for plastic materials in China is so large that the local output of plastics materials and resins can only satisfy 50% of market demand.

Ceramicx owner Frank Wilson says that 'we are delighted to be exhibiting alongside our friends at the BPF; both of us helping our friends in China to enjoy growth and meet their production aspirations.'

Of necessity China needs to import large quantities of plastics materials each year and much processing technology beside. And with a population of approximately 1.4 billion, the potential for the plastics industry in China alone is immense.

Full details of the BPF and its membership www.bpf.co.uk



CERAMICX SHOWS CHINA COMMITMENT

On the eve of another Chinaplas HeatWorks magazine caught up once again with Ceramicx trade agent Xu Shan and with Mr. Li of GSAE about how his company and how Ceramicx products have grown in China in the last year - including the development of IR heating.

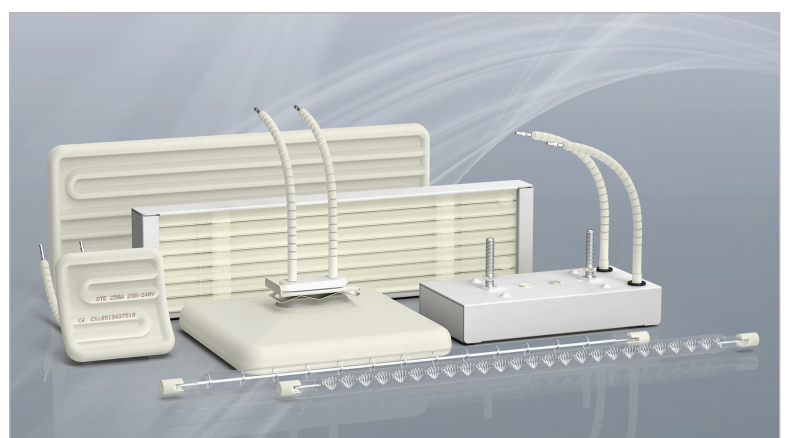
As Ceramicx exclusive agent in China, Guangzhou Salaimi Automation Equipment Co. Ltd (GSAE) has enjoyed a full two years operation from 2011 to the current moment.

Many product innovations have been led from the Chinese markets, where industrial quality is an increasing way of life.

In these two years, according to GSAE founder and director Mr. Li, sales and operations are functioning well and developing very fast. 'Our warehouse area,' he notes 'is already increasing 40% at the beginning of 2013 and the regular inventory also will increase 50% this year.'

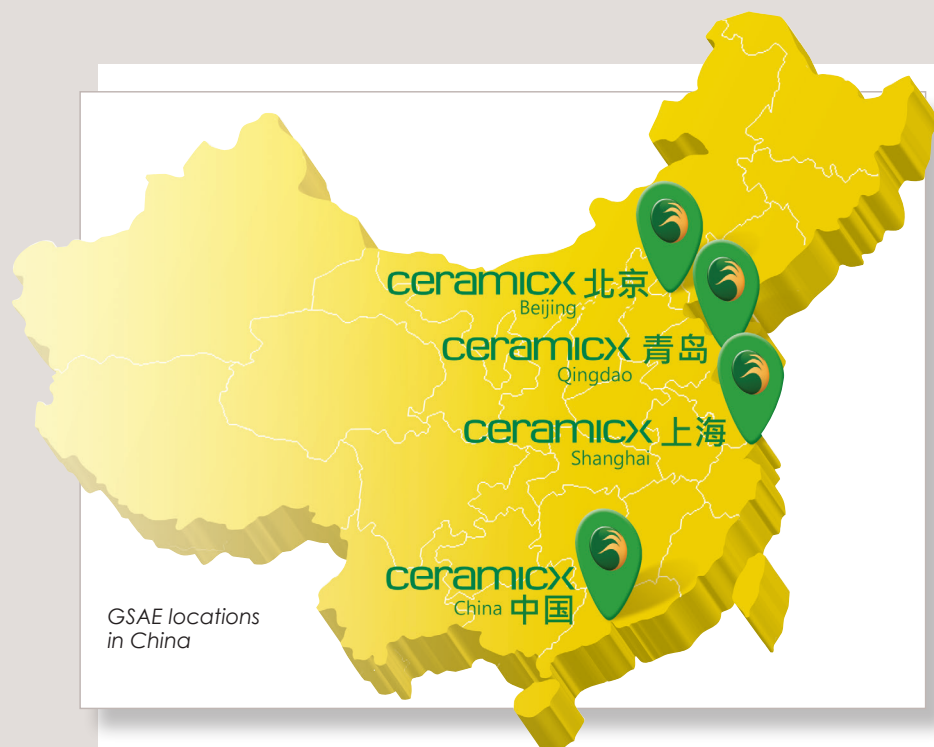
GSAE's target is to bring Ceramicx advanced IR heating technology to China and to give Chinese companies highly efficient, energy saving heating solutions. Also, GSAE is focused on working with Ceramicx technology in order to further the development of Chinese machinery and automation; in particular the Chinese IR heating industry.

When Ceramicx first entered China, it needed to raise its profile and prove its pedigree to Chinese companies. Under Mr. Li's guidance the Ceramicx market offering followed the QSPT principle (Quality, Service, Price, Time). According to Mr Li 'in 2012, the advantaged cost and the outstanding heating performance proved the value of Ceramicx products to Chinese companies.' Therefore, Ceramicx products are broadly accepted by Chinese companies. Compared with 2011, the sales quantity increased over 300%.'



Ceramicx range of short, middle and long wave heaters

GSAE is enabled in its IR heating sales works since Ceramicx is the only European producer which produce full infrared wavelength (short, middle and long) heaters. China's demand for high performance and automated plastics production equipment continues to rise. Chinese users require that infrared heating elements have more accurate control, longer life time, energy saving and environment protection - which is all to the good for Ceramicx.



GSAE locations
in China

GSAE is looking forward to Chinaplas for a number of reasons and is looking forward to welcoming a number of different kinds of visitors. Mr. Li says that 'in Chinaplas, I wish to see:

Firstly, companies which have new application demands for IR heating. This kind of interest can succeed in making our customer group wider and make our products' application field broader.

Secondly, we are of course looking forward to meeting with traditional thermoforming producers: Such business can build the brand and our popularity and can also make such customer more familiar with our advantages, thus promoting relationships.

In the same way we are looking forward to meeting the customers of our competitors. We look forward to showing them that Ceramicx products are clearly world class – and no less than what they are using now.'

Ceramicx in turn will be working alongside GSAE at Chinaplas 2013 to provide Chinese customers with upgrade products, advanced heating projects and also R&D high cost performance products suitable for the Chinese market.

Mr. Li states that 'in the past year, China and global market growth is not so good. But Chinese plastic industry is still keeping the unchallengeable position in the world and the demands of the Chinese plastic industry are still fuelling double-digit growth. In the fourth quarter of 2012 the Chinese market was already showing the signs of recovery. He adds that 'I believe Chinese plastic industry will have stronger growth in 2013 - exceeding that of 2012.'

GSAE recounts just one instance in China where accurate IR heating can help plastics process control. 'China is a big producer of toy and sport goods,' says Mr. Li. 'Successful production of these requires lots of heating elements: In order to get a perfect product, producing companies need a very high standard in advanced IR heating technology.'

Many GSAE customers need to produce toy covers and also sports helmets. These all currently need PC-based material thermoforming. There are also many patterns which need to be printed by a shrunken ratio in the surface of these materials in advance. After thermoforming, these patterns will be stretched to the standard sizes. Because the shape of each position is not the same, the stretching ratios also are different. In order to get the planned stretching ratio,

each working station needs to be set at a very accurate temperature according to demand.

In this particular case, Ceramicx elements offer a great help for this production process in China. Ceramicx heaters have a thermocouple structure which can control the temperature of each emitter very accurately. And in addition, every Ceramicx emitter has its own serial number, or 'birth certificate' which has its own unique and checkable online power specifications via the Ceramicx Website. In this way, the real power tolerance of the whole heating surface can be controlled to within 1%. So in every working station, customer can get the exact temperature which they needed. Then the products' qualified rate is increased and the production cost is reduced.

In the coming year – and from the Chinaplas 2013 platform – GSAE and Ceramicx, China will offer Chinese customers with customized non-standard platen frame and control system. Ceramicx Ireland will provide the platen frame's production standard and technological support. The frame production itself will be done inside China in order to lower the cost and give customers an acceptable price. China based production, says Mr. Li, 'will also give customers a more reasonable, more efficient and more convenient way to use the high quality heaters made by Ceramicx Ireland. If you have this particular demand, please get in touch or discuss it at Chinaplas. GSAE will do our very best to fulfil your requirement.

TOP 6 REASONS TO VISIT CERAMICX AND GSAE CHINAPLAS 2013

- 1 Visitors who are interested in new IR heating element and new heating methods
- 2 Visitors who have difficulties in heating technology. We can help them to resolve it.
- 3 Visitor who have confidence in European heating elements and wish to find high quality elements.
- 4 Customers who are using our products now. Then we can have further communications and learn their new demands.
- 5 Visitors who want to learn about our products generally and also collect our catalogue, which may help them in future.
- 6 Information exchange in the horizontal industries; visitors from new industries with demand for IR heating solutions .

NEW! WORLD-CLASS ELECTRICAL INSULATORS NOW



Samples of component shapes that are possible from ceramicx production with ceramic steatite material

Buyers of electrical steatite connectors need look no further than the competitive manufacturing and service now offered by Ceramicx

Thanks to significant new investments, Ceramicx now designs, produces tooling and manufactures specialized Steatite ceramic dust press components on its Dorst 6 Ton, 15 Ton and 30 Ton machines. These capacities and capabilities are used in mainstream Ceramicx production and – for the first time- the parts and capacities are now also available to purchase on the open market.

Thanks to new investments just made in state-of-the-art production machinery, we are now very happy to offer steatite-based electrical insulators to other manufacturers worldwide. We anticipate significant demand from companies that need to factor in quality electrical insulators as part of their product manufacturing. Ceramicx manufacturing is now measured and ranked as world-class. And so in our 21st year of business it feels entirely natural and right to offer a coming-of-age addition to our marketplace.'

Steatite ceramic dust has proven itself to be the material-of-choice for the manufacture of electrical insulators. It has good mechanical strength with good dielectric properties and a high temperature resistance of up to 1000°C. Steatite is most commonly used in applications where a high temperature electrical insulator is required.

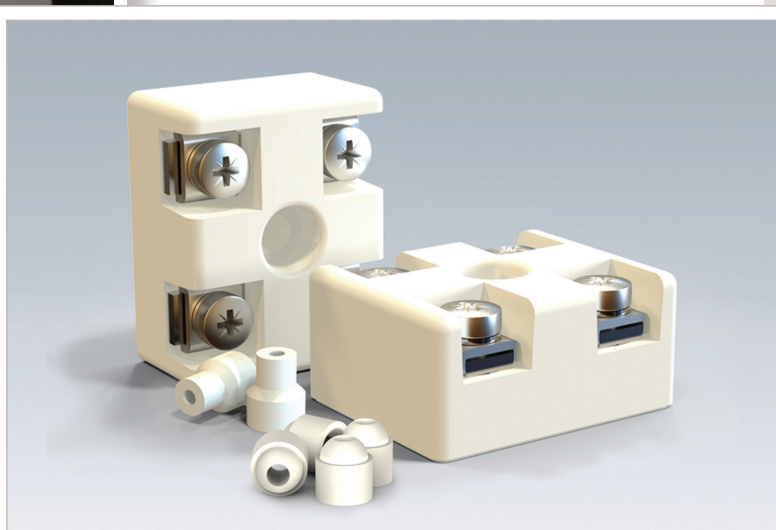
It operates very well in cold switching applications and is also an excellent high voltage insulator.

Wilson says that 'the new steatite ceramic dust presses now line up alongside our tool making capabilities and our metal working and pressing equipment; thus allowing the full production of metal-based parts that are often part of the Ceramic steatite solution.' The Ceramicx metal working and pressing machinery capabilities now



Dorst Dacs 30 and Dorst Dacs 15 installed in their new home

Says Frank Wilson, Ceramicx Owner, 'there comes a time in every company's life when it becomes entirely appropriate to share our product and our production output as business expands. That time has lately arrived with us at Ceramicx.



Some dust press components currently produced by Ceramicx

AVAILABLE FROM CERAMICX!

includes a Hurco Machining Centre, a Hurco 6 axis bar fed lathe, press machines between 25 and 75 Ton and ancillary tool making and processing equipment.

Steatite is typically used in applications where a high temperature electrical insulator is required. It operates very well in cold switching applications and is also an excellent high voltage insulator.



A view of some of the Steatite components lined up in front of the Ceramicx kiln

Ceramicx initially developed its dust press capacity as part of the company's full backward integration manufacturing policy; in order to produce parts such as beads, connector blocks and additional components for high-temperature Infrared heating applications.

Says Wilson, 'our own dust press capacity has grown organically and is part of the company's full backward integration manufacturing policy. We mainly produce parts such as beads, connector blocks and additional components for our high-temperature Infrared heating applications but as a result of our investments we are now in a position to offer these parts and others.'

The new Dorst investments enable Ceramicx to offer specialist Steatite part runs to companies that need quality insulators as part of their product manufacturing. For over twenty years Ceramicx has been shipping components and products to manufacturers in over 65 countries worldwide and so is well versed in international shipping and logistics. The usual Ceramicx service, confidentiality and world-class quality is offered, together with a unique know-how in developing and designing product solutions in Steatite Ceramic for customers where needed.

Wilson says 'we encourage you not to be shy in shopping with us! Contact Ceramicx directly for further details of insulators, IR heating and other parts and production solutions.

All designs and quantities may be ordered direct through the company using the usual sales channels and enquiries.



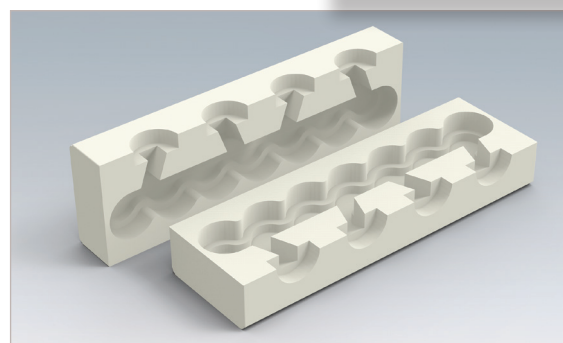
Gráinne Wilson, Brian Hanmore, Dorst, Marcin Milczarczyk, and Frank Wilson, pictured in front of Dorst Dacs 15 recently delivered with a Dacs 30

Ceramicx supplier partner, Dorst, has been at the forefront of most leading-edge developments in steatite manufacturing.

Dorst expertise in ceramic and metal powder production systems has been built up over a period of more than 100 years with main production centres based around the Munich area. The company employs some 400 people and currently has some 2000 customers in over 70 countries. Exports account for 80% of total company sales.

Following the Ceramicx equipment purchase, the Southern German company was on hand in Ireland to oversee the installation and commissioning of the two machines.

Frank Wilson says that 'thanks to our recent investments I am happy to report that all has gone well and that the Ceramicx/Dorst partnership has been refreshed and strengthened. Indeed I would hope that we have played our part in 'giving something back' in terms of their learning about the market and marketplace. Needless to say we count Dorst as a valued friend for the future.'



Ceramicx recently manufactured this specially made-to-measure Steatite block in order to help qualify its Far Eastern customer for medical-based manufacturing.

The previous component was part of a fibre-based holding mechanism within quartz medium wave IR heating cassette.

The new regime required equipment that would not be liable for loose fibre migration and will be available as standard in quartz medium wave IR heating cassettes in the near future.



ALL GOING SWIMMINGLY!

weco
international inc

How Weco's new IR heating system provided a quantum productivity jump for one US thermoformer of plastic parts

This Weco customer is a US-based manufacturer of high-end Spas, swim spas and pool steps. The business thermoforms products and parts and was having issues with their heating components and systems.

PROBLEM:

- 15 – 20 minute **HEAT TIMES** for spa moulding. 20 + minutes for swim spa moulding. 8 minutes for pool steps ● **SCORCHING SURFACE** of material to obtain forming temperatures on Swim Spa ● **UNABLE TO REDUCE OVEN OUTPUT** between cycles and during breaks ● **POOR FORMING** of parts
- **LONG HEAT-UP TIME** to production
- **POOR HEATER CONTROL**, 15 second cycle time ● Location of buttons on HMI Screen caused **RELEASE OF SHEET IN OVEN**
- **NO REFLECTIVITY** within old oven
- Terminations **OVER HEATING** and welding
- Broken terminations ● **SCRAP ISSUES**
- One sided heating ● All manual operation... **NO AUTO MODE**

SOLUTION:

- **REDUCE HEATING TIMES** with the introduction of a bottom oven ● **ELIMINATE THE SCORCHING** of the material surface
- Provide **ONE TOUCH BUTTON** for between cycles and breaks for **REDUCED ENERGY USAGE** ● **IMPROVE PART QUALITY**
- **FASTER TIME** to production on startup
- **IMPROVE HEATER CONTROL** ● Make **CLAMP FRAME RELEASE** control button inactive while material is in oven ● Install a **NEW TOP AND BOTTOM OVEN**; both with reflectors ● **REDUCE SCRAP** rates via **CONSISTENT HEAT** and **PROCESS CONTROL** ● Bring all **MACHINE CONTROL INTO ONE LOCATION** (New HMI) ● New oven with **FASTER RESPONDING QUARTZ MEDIUM WAVE HEATERS**

The customer's existing 12' x 17' Thermoforming machine had poor oven control and required very long heat times to produce the large spa parts and swim steps.

This oven was constructed of a ceramic fibre board backing with 408 - 650 Watt 480V mounted on the board. 265.2 kW. The terminations were located between heaters in direct line of sight of the IR. The Fibre board

provided no reflectivity and absorbed the IR emitted from the back of the ceramic heater.



A view of the old oven using a competitors components and no reflectors, that was replaced with a full system build from Ceramicx and Weco

The oven was divided into 8 large zones and provided no ability to adjust the leading edge zone which was located at the entrance side - and different from the rear zone. Therefore, to overcome losses on the leading edge the rear zone was extremely hot. The oven was operated at a consistent 50% for all zones.

In order to produce a large swim spa the part needed to be heated for a very long time at the same distance from sheet. The edges in the clamp frame would typically scorch before the material was ready to form. The large sheet sag also required the workers to lift the sagging plastic over the edge of the tool. The uneven heating did not allow the material to pull equally.

The customer's old oven was removed and the top machine frame was opened up to accept the new oven. The new oven consisted of 4 identical sections 72" x 205" each fitted with 204, 500 Watt 480V Quartz cassette elements. The top oven was hung on new supports and the bottom oven bolted to a 40" scissor lift fitted with sag eye detection. This allowed the bottom oven to track the sheet sag and maintain a consistent distance between the oven and the material.

A new Hetronik control panel was introduced using Sinus-Wave firing. This provided fast cycle times 30 times/second and a very consistent coil temperature. This new control provides the customer with:

- Lost heater detection
- Voltage phase loss
- Synchronized firing to reduce peak energy demand
- Fuse and triac failure,
- LED diagnostics which decrease energy usage and downtime.

The new zone layout could accommodate up to 48 total zones but the old zone layout of 8 zones was maintained for the top and introduced for the bottom, for ease of use with the introduction of a new zone (zone 9) located at the sheet entrance side of the oven. This allows the operator to maintain a consistent temperature regardless of the external influences. In addition a sheet temperature reading is displayed on the screen along with a countdown timer for consistent process parameters during manual mode.



A view of the new IR platen being fitted and the new top and bottom quartz platens in place



After installation and startup procedures were completed the first sheet was loaded and heated. Not knowing the exact effects of two sided v's single sided Weco estimated the sheet temperature required to form the spa. The first part was too cold to form properly. On the second attempt a spa shell was produced better than any other ever made. Even more impressively, the customer produced a shell in just over 4 minutes. Using the old oven the time to form was between 15 – 20 minutes depending on material type and colour. The zones were set between 42% and 50%.

In summary, the customer is very pleased with its decision to revamp its heating system. It is now forming better quality products to sell in the spa market.

Over time the customer will continue to track energy usage, scrap rate, production quotas and downtime. This business is also reviewing the idea of automating the production cycle in order to reduce the potential human error during the process. This can be implemented

TUNE UPS AS WELL AS RETROFITS

Recently a new customer contacted WECO for assistance with an older plastics thermoforming machine. The customer was preparing for their busy season and requested a "tune up" and evaluation of the machine.

ISSUES/PROBLEMS :

- Poor oven control
- Leaking air lines
- Leaking air valve
- Heater failure or bad terminations
- Cycle Times
- Zone layout

SOLUTION

- Customer oven was reprogrammed to reduce the cycle times for consistent coil temperature
- Air lines were inspected. It was then determined that the oil reservoir was empty.
- Weco filled the oil reservoir; performed several cycles on the clamp frame and the air leak stopped
- Several broken high temperature heater wire connections and several more high temperature wire rings were burned off
- Weco reviewed the wiring schematics and the PLC Program. Weco performed six hours of programming for new cycle times and zone configuration. Zone configuration allows for better profiling and allows the operator to shut off zones when not required for energy savings
- Weco provided customer a quote on upgrading the control system from the old mechanical contactors to SSRs based system
- Weco also quoted a 'before and after' energy analysis and committed to investigate local power utility rebate programs

In summary the customer is very pleased with the work performed and has high expectations that upgrading its control platform will lead to improved production rates, higher quality parts and reduced energy consumption.

and programmed via remote access to the systems Compact Logix PLC using a VPN connection.

WECO can also remote-troubleshoot and support this customer, thus eliminating travel time and cost. This is another instance of Weco enabling time and cost saving for the customer, together with better products and process control.

An image of the IR platens under construction at Ceramicx



WECO/CERAMICX RAMPS UP ENERGY SAVINGS IN USA

As HeatWorks reported at NPE 2012 last year, the mood in the US has changed. Energy efficiency, for so long the poor relation, is now on the front burner. Ceramicx partner Weco International is helping US manufacturing take full advantage. Not only are production efficiencies in sight, large rebate savings are also part of the prize.

In the USA a Ceramicx built IR oven and Hetronik control system, fitted and commissioned by Weco International and using new technology and energy efficient products has the ability to quickly pay back a capital improvement investment.

In addition to the monthly savings realized in an electricity bill many US local power companies offer rebate programs for energy efficient upgrades. This can lead to significant savings and help cash flow.

However, many US companies and Weco customers are often unaware of these programs offered by the local utility companies and some do not know how to begin the process. WECO and its distributor partners have now been successful on several recent upgrades assisting and even leading in the paperwork process required to obtain a rebate.

A recent project with a returning customer, involved the removal of a large inefficient electric forced air heating system in a press-forming operation. The entire project involved removal of the existing transfer and heating system.

A new transfer table, top and bottom hybrid Ceramicx quartz/ceramic style oven, fume hood, and necessary guarding were installed. Weco International distribution partner Terry Howe of Big Chief led the charge with the local power utility and was instrumental obtaining the necessary information including before and after power usage data. This data is critical to the amount of energy saved and, more importantly, the amount of the rebate check for instant return on investment.

“ **RETURN ON INVESTMENT IS CALCULATED TO BE LESS THAN 12 MONTHS EVERYTHING ONWARD FROM THAT POINT IS PURE PROFIT** ”

Using the collected energy saved data this particular Weco customer qualified for a rebate check from the local utility company for over \$66,000.00. In addition the old oven and control produced 25 parts per hour (pph) and now the parts per hour has increased to 45. Taking into account the current energy saving rate, rebate check, pph increase and reduced downtime the customer's return on investment is calculated to be less than 12 months. Everything onward from that point is pure profit.

In a combined effort with the customer a new kind of transfer table was designed in order to reduce tool change over by designing an adjustable high temp mesh top table to accommodate the varying product widths. The cumbersome adjustments of old required 2 workers, tools, multiple bolt removals and table adjustment. These procedures have now been reduced to a simple crank of a wheel to adjust the transfer table width for the correct material size.

All of this equates to big savings for the Weco customer, a speedy return on investment; continuous process improvements and improvements to the product.

A second and recent WECO success story involves a control-only upgrade. The customer is Wisconsin's 5th largest consumer of electricity. The business has an explicit target to reduce or contain its energy usage. WECO caught the customer's attention at the 2012 National Plastics Exposition show in Orlando, FL, last April.

Here Weco's customer was introduced to the best-in-class Hetronik multi-channel control system. The promotion of energy savings and on-board diagnostics piqued their interest. Three months later WECO received an order for their first upgrade system. The upgrade involved removal of an outdated unsupported machine control system. In its place a new Hetronik control system located in a new 2 door enclosure with complete new climate control system. The existing wires were used reducing the time for installation.

With programming completed ahead of arrival, and with help of open email and phone conversations accommodating the customer request, the new control system was running in just over 2.5 days and a 24 hour run off completed on the 4th day. The 2nd installation required only 2.5 days with some of the installation completed prior to WECO arrival for startup. WECO strives to make installation a simple process and reduce onsite time in order to save the customer the high cost of onsite support.

A ceramic and quartz platen in a shipping frame awaiting packing prior to dispatch from Ceramicx.





Control cabinet being installed by Weco on site

This customer also took advantage of a rebate program offered by the local power utility. Again, before and after the new fitting data was collected. To our surprise, the energy saving was great enough to qualify the customer for a \$34,000.00 rebate check.

In addition, this customer's downtime has decreased. Also, based on current 8 month running status, the machine has had zero downtime issues related to the new control system. In the past, trouble shooting was akin to finding a needle in a hay stack. Now a colour-changing status screen can point directly to a failed heater or power issue within the existing oven.

The customer noticed immediately that the output of the heaters reduced approximately 10% across the

zone profile to produce the same quality product. Needless to say, but the customer is extremely satisfied with their decision to upgrade and has scheduled two more system changes per year until all their eleven machines are finally upgraded.

LIKE SEEKS LIKE : growing with material success

As IR technology improves and the demand for energy savings increases, new markets continue to emerge for Ceramicx and WECO International.

One leading US client, for example, is expanding the scope of its successful thermoforming business.

This company recently hired an IR welding industry expert in order to help expand the range and scope of thermoformed products.

In a Joint effort between WECO, Ceramicx and the customer, a control and short wave IR oven system will be designed and used at the moulder's test facility in order to prove methods of material welding. This instils customer confidence in equipment they are purchasing. In addition, the Weco client has invested in capital equipment allowing them to compete successfully in the new emerging IR welding market. The Weco customer has completed plans for expanding manufacturing space needed due to growth over the past 2 years. This business is also booked solid through 2013 and continues to look for quality suppliers and associates

...AND IN WEST CORK

Cáthál Wilson's speaking engagements continue on from the NEC, UK with a paper in Ireland on June 22nd that confirms and celebrates the common ground between Irish and German manufacturing and SME-based companies.

The Ceramicx presentation will be given at the Celtic Ross Hotel as part of the proceedings at the Rosscarbery Summer School, Co Cork, June 21-23. The German ambassador to Ireland will open the School and there will be keynote speakers from Ireland, Germany and Austria.

Germany's critical mass of SME-based owner/occupier manufacturing and service companies is known as the Mittelstand; It comprises over 70% of the country's GDP and is reckoned to be a leading factor in Germany's continuing economic strength.

Cáthál Wilson's paper will argue the case for a similar strengthening in Ireland's SME base and will also make a case for an advantageous business climate in West Cork.

The West Cork region is certainly doing its best to create an environment in which start-up businesses can thrive. In addition to the idyllic location and enterprise culture of the region, capital manufacturing infrastructure development costs can be discounted to a maximum of 70% of the national standard development contributions.



The West Cork Enterprise Board is working hard to encourage new business initiatives from all corners of the world.

Further details of West Cork business opportunities from Cáthál Wilson at Ceramicx who is also the Manufacturing Representative at Skibbereen Chamber of Commerce www.skibbereen.ie



K 2013 - THE BEST IS YET TO COME



2013
16 - 23 October
Düsseldorf, Germany

HALL
II

STAND
AOI

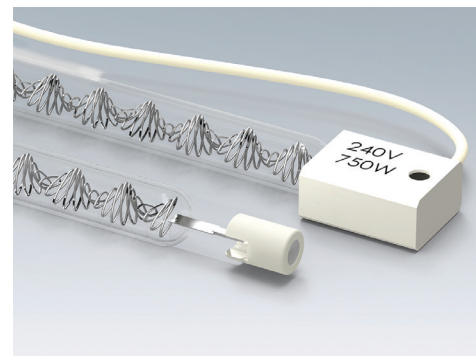
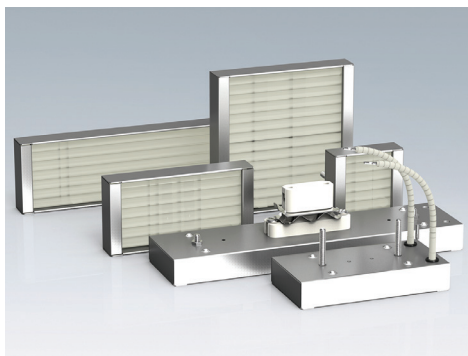
As Ceramicx and German company Friedr Freek both prepare to engage with their fourth K exhibition partnership, all the signs are that this will be the most successful exhibition yet for both companies.

The international purchasing dimension is expected to figure highly at the world-leading triennial plastics exhibition in Düsseldorf, this October 16-23.

The international dimension suits Ceramicx down to the ground. For the past twenty years Ceramicx has been supplying a variety of IR heating solutions to plastics thermoformers in

Frank Wilson. 'The coming K show gives us an excellent opportunity to communicate and reinforce this message.'

This methodology is but one part of the overall Ceramicx strategy – namely to design and manufacture all components and elements to a world class proprietary method and standard for thermoforming users. 'According to all independent measures, Ceramicx has now attained that world class manufacturing standard,' says Wilson. 'The K 2013 exhibition therefore gives us the perfect opportunity to



over 65 countries. The Ceramicx portfolio now covers all thermoforming needs, including ceramic elements; quartz, quartz tungsten quartz halogen elements and control systems.

This year – ahead of K 2013 - Ceramicx is also sending out a carefully targeted number of customer care preview packages; showing how well the range of Ceramicx-made elements fits the design of modern thermoforming machines.

Founder and director Frank Wilson says that 'our IR heating elements and fittings are proven to be second to none. We are therefore alerting machinery builders to our IR heating technology ahead of the K 2013 show.'

Ceramicx is a unique supplier of IR heating in that every ceramic element it produces is tested and then printed with an individual and traceable serial number: Each ceramic element is then backed up with a data bank of quality assurance information. In this way all Ceramicx customers – from China to the USA – are able to go online and use exact performance data for all their thermoforming heat components. 'Plastics thermoformers all over the world have benefitted from this approach and from the quality of the technical back-up provided,' says

show off our wares to the world.' At the last K plastics exhibition, for example, Ceramicx provided free IR heat testing of any plastics on specially designed equipment. This feature was especially popular with visiting plastics thermoformers. Accordingly this equipment will be extended and upgraded to offer many more radical features and will be available on the Ceramicx/Freek K 2013 booth.

Plastics thermoforming demand for Ceramicx IR heating solutions has grown at an average of 20% annually over the past three years and the impetus given by the triennial K event has been critical. Setting aside the Ceramicx-based factors; the company believes that IR heating growth in plastics has a bright future because of:

Increased margin and payback from IR based heating systems

Greater accuracy and control from IR heat sources as regards the target plastic materials (fewer rejects – more quality control)

Ease of IR-based platen retrofit into most thermoforming machinery systems

Greatly reduced energy cost/waste and burnout from convectional heating systems.

An increase in predictive and modelling software for thermoformers (although much IR technology still needs to be incorporated)

An increase in general understanding/awareness of the benefits/performance in IR-based heating.

With Friedr Freek, Ceramicx IR business in Germany continues to grow – not only in plastics thermoforming but in a variety of industrial

applications such as work in sealants for concrete products in the building industry (BM Anlagenbau); application engineering in automotive build and many other projects in engineering and construction. German visitor attendance has always been a key feature of the Düsseldorf show – no less so in 2013.

As part of its Continuous Improvement (CI) process Ceramicx continues to undertake a number of laboratory and benchmark tests; comparing its products and manufacturing technology with products from leading competitors.

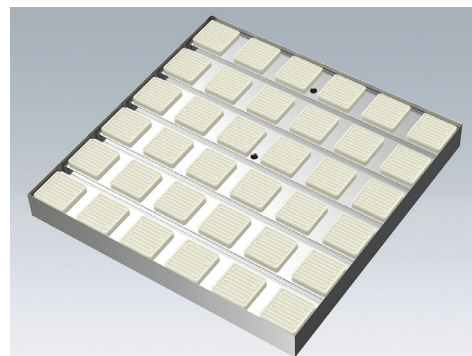
Ceramicx has accordingly been reaffirmed that its own manufacturing methods and quality assurance systems represent the best 'road map' for future production of IR technology. New investment has been secured to further fund these systems and important product innovations and redesigns for plastics processing continue to be made by the company.

Ceramicx continues to support its innovations and products with extensive marketing: The Company exhibited its IR solutions at both

NPE in Florida, USA last year and is set to exhibit for the 2nd time at Chinaplas, Beijing prior to the Düsseldorf show this year.

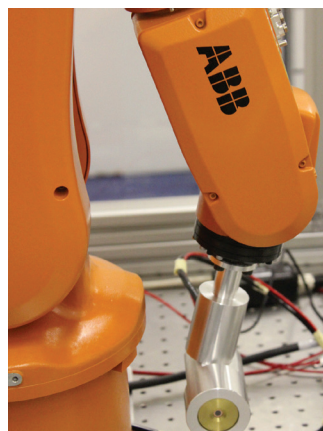
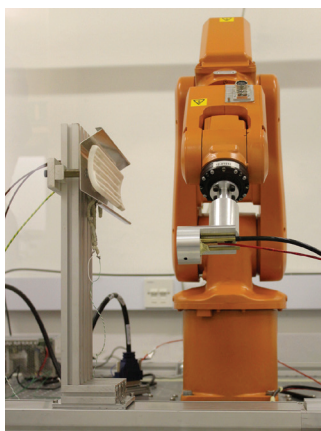
Both Chinese and American markets responded very positively to having Ceramicx experts on location and available to explain IR thermoforming in person and in detail to booth visitors. 'The K show provides something of a different challenge,' says Wilson, 'with much more variety of visitor – in terms of technology, geography and other factors.

We have a raft of entirely new products and capabilities – and are very much looking forward to our time in Düsseldorf in October,' he adds.



CERAMICX SHOWS WORLD-FIRST IN IR HEAT TESTING AT K 2013

The combined power of leading IR heat technology researchers will be behind a key exhibit at the Ceramicx K2013 exhibition in Düsseldorf, Germany this Autumn.



The TCD team has developed an optimal system of robotic movement in order to best test the effects of IR heat in 3D space. The end-of-arm tooling and heat sensors have undergone considerable development work in the course of the project. Ceramicx and TCD claim a world-first in the combination of technologies used for this purpose.

A team of post-doctorate researchers at Trinity College Dublin have come together to create a programmable and automated system of mapping the actual radiant heat flux performance for all kinds of IR heating elements using energy or watts rather than temperature as the primary unit of measurement.

Cáthál Wilson, project manager, says that 'not only are we able to map out and measure – in 3D space - the actual performance of all our Ceramicx IR heaters; we can also do the same with regards to the actual IR heat performance and energy consumption of any competitor. At K 2010 we offered a way of testing any plastics sheet under three different kinds of IR heat. At K 2013 we will extend this principle and will offer a full test diagnostic and 3D heat map with respect to energy input to enquiring visitors.'

The test unit – seen prototyped here – will fit onto the corner of the Freek/Ceramicx stand and will ship to Germany some days beforehand.

Dr Tony Robinson of Trinity College Dublin will also be on hand at K 2013 in order to explain to industrialists the detail and the cost-saving potentials in the new system.

All further details of the new system from Cáthál Wilson at Ceramicx.

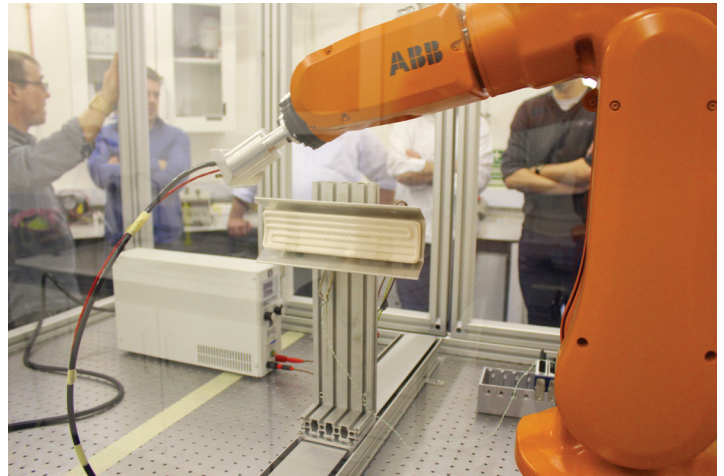
CERAMICX TARGETS UPCOMING UK MARKETS FOR IR HEATING...

Ceramicx continues to nurture opportunities for its IR heating markets in both the UK and Ireland. Key upcoming events and new media give a flavour of the current work.

Ceramicx/TCD will speak on the 1st day of the prestigious Total show at the NEC Birmingham; the UK's largest processing and packaging exhibition.



Cáthál Wilson, Ceramicx Project Manager (left) and Dr Tony Robinson, Trinity College Dublin will present strategies for effective heat work in manufacturing at the UK's Total Processing and Packaging Exhibition, NEC Birmingham, June 4-6



Some first fruits know-how of the recent Ceramicx/TCD R&D investment in IR heat mapping will be made available at the June 4 presentation at the NEC Birmingham.

On 4th June 2013 Ceramicx Ltd and Trinity College Dublin will present their ground-breaking work on IR-based heat technology at the Total Processing and Packaging Exhibition, NEC Birmingham, June 4-6.

The presentation will be about sustainable manufacturing – with special reference to the processing and packaging industries. It will focus on the cost-saving role of effective heatwork in industry, with special reference to the processing and packaging industries.

The Total seminar will make special reference to Infrared-based tools and principles with many examples drawn from the plastics thermoforming sector of the packaging industry.

“ IR RESEARCH IS ESSENTIAL FOR INDUSTRY ”

The joint presentation on the morning of Tuesday 4th June will be particularly aimed at visiting companies and practitioners in processing and packaging. It will give detailed opportunities for increased production control, accuracy and cost savings through effective IR heatwork; its correct application and the understanding of energy content per part. Exhibition delegates will also hear about the fundamental principles of Absorption, Transmission and Reflection that are involved in Infrared heating work.

The bulk of applied examples at the NEC Birmingham will draw on international case studies for fast cycling thermoforming operations and also in the production of cut plastics sheet.

As part of the presentation Trinity College Dublin (TCD) will also unveil some of its research findings on the net influence of infrared heating on target bodies; including key performance metrics such as temperature homogeneity as well as the net target efficiencies.

'This IR research is essential for industry,' says Cáthál Wilson, 'since it makes an empirical map of the energy required to perform the required heating of the target body. It can then compare it with the energy required to produce the heat at the source. We are building both the methodology and the machinery to take IR heating science to the next level.'

A previous issue of HeatWorks covered the ground breaking research work of TCD in investigating the effects of IR heat upon the human body system. This further study, supported by Innovation Partnership funding from Enterprise Ireland (IE), builds upon some of those principles. The TCD/Ceramicx goal is to design and build a machine that will provide accurate measurement for 360 degrees of Infrared radiation. The new machines built upon these principles will then be able to offer an accurate and predictive test method for the IR heat testing of many materials with respect to energy consumption.

When concluded, this work will enable Ceramicx to form a predictive science and method for IR heat measurement and application. These new techniques will be applied by Ceramicx in the further design of its products, components and IR systems engineering as supplied to process and packaging companies worldwide.

Ceramicx and TCD will also present the finished fruit of this know-how at the triennial plastics exhibition in Düsseldorf, K 2013, October 16-23. A full array of new scientific measurement equipment will be on display then.

Meantime the UK's Total Exhibition and Seminar programme will be privy to the first findings and implications of this research work.



Ceramicx sets great store by UK market demand for its infrared heating products: The UK-based magazine Process Engineering ran an extensive interview with Ceramicx founder and director Frank Wilson in its March/April 2013 edition

Ceramicx founder and Managing Director, Frank Wilson – recently featured in the UK-based Process Engineering magazine – believes that the UK audience will be very receptive to the IR heating message. 'Thus far in 2013 much of the cutting edge IR heat work for us is being generated from UK process manufacturers. The best process companies in the world are now questioning and re-evaluating their heat technology and production efficiency, and many of these are currently in the UK. Carrying on regardless with the same heat legacy issues is neither sensible nor profitable. A time for review inevitably means taking a fresh look at Infrared (IR) heat technology.'

Offentimes, this review can go hand in glove with a push on establishing green credentials. Wilson says that 'We realized last year that, for the first time, US manufacturing industry, for example, is being incentivized to go green. Now, replacing an entire process manufacturing system was too big a step for many but an IR upgrade improved the performance of an expensive fixed capital asset and paid for itself within months.'

Wilson reckons that time and tide is on the side of a change to Infrared-based heating. Non IR heating legacy issues in process manufacturing can include burn outs, electrical faults and problems with older style and non-directional heating. Tubular and magnesium filled heating solutions; black rod heating and other kinds of inefficient sources can all make a contribution to inexact systems and amount to a waste of energy and electricity cost.

'In a completely enclosed system or oven, this kind of non-IR based heating becomes uncontrollable. Operators are being continually forced to ramp up the power and the electricity input in order to try and maintain an even temperature.'

According to Ceramicx, IR heat sources come with a number of inbuilt benefits:

- Major reduction in capital equipment wear and tear
- Like-for-like infrared for tubular replacements
- Elimination of 'hot box' tubular problems
- No need for changes in control or instrumentation
- Poor performing infrared to be replaced with superior platens

- Savings in directional heat
- Better resultant product quality
- More complex parts possible
- Cooling requirements also reduced
- Improved environment for operators
- Reduced material wastage and scrap
- More money in our customers pockets

'IR systems also allow us to get a "lock" on guaranteed quality assurance,' says Wilson. Ceramicx quality assurance (QA) work centres on developing systems of closely specified nominal wattage tolerances for the ceramic and quartz electrical elements.

Ceramicx also points out that the quality of system build is all-important. In the heat forming of plastics, for example, a number of infrared ceramic heaters are generally mounted on reflectors which are then arrayed upon a platen – or two – which is part of the production line. The performance of the background reflectors - their material composition - and the performance of the platen in general – these factors are all vital in directing the infrared heating to the plastic.

“ IR SYSTEMS ALSO ALLOW US TO GET A LOCK ON GUARANTEED QUALITY ASSURANCE ”

Wilson says, for example, that stainless steel is not an adequate material for use in infrared reflection work. 'It will absorb a high percentage of the emitted energy and will start to discolour from 120°C, and will therefore over time cause burnout of the electrical wiring behind the reflector.'

Ceramicx has a class of business that it terms applications engineering. Here the company is increasingly finding a sophisticated user base at the upper end of the process industries - e.g. in plastics; chemicals; toughened glass; material bonding; and also in the food industries. These practitioners know their process technologies and their heat work pretty well. 'However,' says Wilson, 'they're coming to Ceramicx to get more from their process work in terms of productivity and process control.'

Thinking ahead to the audience at the NEC June 2013 presentation – are the principles of IR heating still misunderstood and under-used?

'In the main I would still say so,' says Wilson, 'although we are now entering an era in which many 'legacy' IR heating products are being re-examined and overhauled. Customers are generally a little more aware and thus a little less inclined just to walk through the motions of what they've always done with their heat work. This is good – they now have the prospect of making more time and money available! I hope, based on that principle alone, that we get a good audience at the Total Processing and Packaging Exhibition at the UK's NEC.'

DRIVING THE VISION

A next-generation Ceramicx website and online shop is now on its way thanks to the enduring partnership between Ceramicx and its IT partner, Granite Digital.



LOG IN | CONTACT US | ENQUIRY

SEARCH HERE

SHOPPING BAG 0 items €0.00



ABOUT US

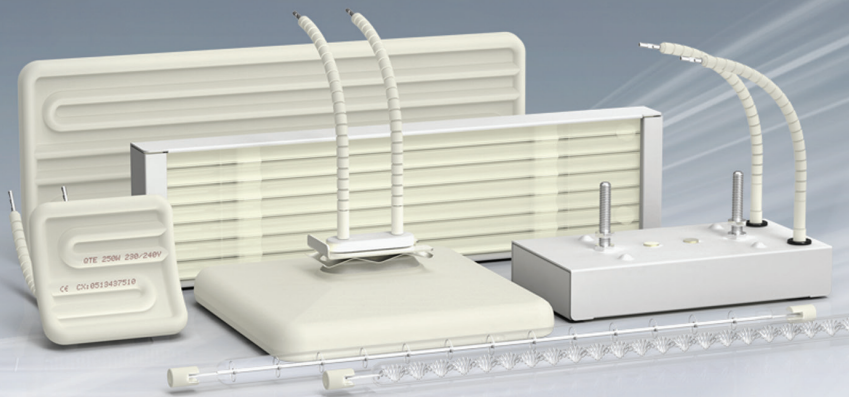
PRODUCTS

INNOVATION CENTRE

RESOURCES

CUSTOMER SUPPORT

PUBLICATIONS



Thermoforming

Platens and Control Systems

Ceramic Steatite Dust Press

Dorst 6 Ton, 15 Ton, 30 Ton and metal pressing

Applications Engineering

Fast IR, RAS and PAS

Finished Machines

Clam Shell Oven

Components

Ceramic, Quartz Cassette
& Quartz Tungsten / Halogen

Featured Products

CERAMIC ELEMENTS

QUARTZ ELEMENTS

QUARTZ TUNGSTEN ELEMENTS

'The timing is near perfect for us,' notes Ceramicx Project Manager C ath al Wilson, since we have two very important trade shows to work through this year and some equally important outreach and marketing to achieve in our neighbouring UK market.'

The style of joint working has been personal and very custom-made as benefits two firms who share a West Cork heritage and approach. Thanks to Granite expertise the Ceramicx website underwent a significant upgrade in 2009 which has resulted in considerable growth in web traffic during that period with up to 53,562 unique visitors to the site in 2011 compared to just 7,135 in 2008 and over 60,000 by the end of 2012. Organic visitors to the site has also demonstrated steady growth with a compound annual growth rate of 65% during the period from 2008 to 2012. In line with the overall growth in web traffic, the key markets of Germany and the United States have similarly followed this trend with compound annual growth rates of 122% and 68%, respectively.

In four short years Granite Digital's IT and web-based skills have already helped Ceramicx Ireland to:

- Achieve average annual sales growth figures of 20% from the period 2009 to current
- Custom-create Ceramicx website solutions for the important export markets of China and Germany (in Mandarin and in the German language)
- Help launch a 4000 circulation print and web-based magazine for the Infrared Heating Industry – HeatWorks magazine – now a key driver for Ceramicx sales of applied engineering products and solutions; also including a ready-reference catalogue for standard Ceramicx products. The print version is viewable online.
- Use web technology to immediately demonstrate Ceramicx superior technical and product advantages over the international competition
- Use the internet to present superior product image rendering for Ceramicx customers.
- Help Ceramicx launch an online shop for short and repeat order business from the UK and Ireland
- Help Ceramicx sustain a weekly bulletin of blog news and views from the site – in order to help SEO churn and outreach.
- Help frame and present Ceramicx video communications via the website
- Help Ceramicx launch a periodic ezine newsletter on its leading products and initiatives.
- Help build and target future-anticipated Ceramicx sales growth of 15% average for the next five years.

'This year gave us a window together to further build upon these gains and to redefine our online future,' says C ath al. 'We were seeking world class design and a new platform to further accelerate Ceramicx growth online,' he adds.

The new Ceramicx website will accordingly provide:

A faster and more secure website with improved usability for Mobile and for Apps.

An estimated 20% reduction in admin time for website updates and maintenance

Improved eCommerce features to increase Ceramicx product sales in UK & Ireland

New and enhanced features to allow easy IT integration with Ceramicx distributors and partners worldwide

Advanced access level control for additional restricted access for distributors or other third parties

Future proofed for at least 5 years

More intuitive search features including image search.

Advanced filtering in eCommerce section

New custom features to better manage special Ceramicx offers, custom landing pages for search engines and activity and facilities pages.

Improved Search Engine Optimisation management features.

Enhanced promotion of products and App Eng. Section through effective use of images and video

Improved Social media integration

Audit trail for website changes to easily see who changed what and when

Improved backup and restore features

'We have also striven for a clear and simple visual style and ease of user-movement in designing our new look,' says C ath al.

“ OUR NEW SITE SETS THE CONTROLS FOR THE HEART OF OUR FUTURE GROWTH PLAN ”

Our new Ceramicx website accordingly features

- Banner Image Manager
- SEO Manager
- Advanced Image Manipulation Tools
- Improved Website Search
- Advanced Page Manager
- Easy Image Gallery Aggregator
- Form Wizard – Design custom forms across website on demand
- Templated FAQ Section & Glossary
- Document Listing Section for document downloads
- Tailored News Section
- Google Maps with Driving Directions (Ceramicx & Distributor locations)
- Staff Profiles
- Automatic HTML Sitemap
- Video Gallery

'In summary, our website and web-based marketing and communications are an indispensable part of our Ceramicx future,' says C ath al. 'Our new site sets the controls for the heart of our future growth plan and we are delighted to be launching it.'



GRANITE DIGITAL is one of Ireland's leading web development and online marketing companies.

Established in 2008 the company immediately established itself as Digital Specialists and experts - in contrast with traditional marketing agencies who tagged on digital marketing as an afterthought.

Four partners started the agency in 2008. The business currently employs seventeen with a strong focus on quality and service.

In 2011 Granite acquired the online business of Digital Crew, adding to its roster of clients and extending its abilities, contacts and project management capabilities.

All Granite Digital work is conducted in-house. No outsourcing means a constant focus on quality and control. Granite Digital sites & apps are built & marketed in 15 languages/4 alphabets.

Granite Digital is part of the Enterprise Ireland (EI) eMarketing panel; set up to assist Irish businesses with strategies to grow exports via online marketing.

GRANITE SERVICES INCLUDE :

DIGITAL STRATEGY

- Analytics
- Conversion Optimization
- Content Planning
- Training

DIGITAL MARKETING

- Search Engine Optimization (SEO)
- Online Advertising & eMarketing
- Email Marketing
- Social Media Marketing
- Content Marketing

DEVELOPMENT

- Web Design
- Web Development
- eCommerce
- Online Applications/Software
- Mobile Responsive Design

TRAINING

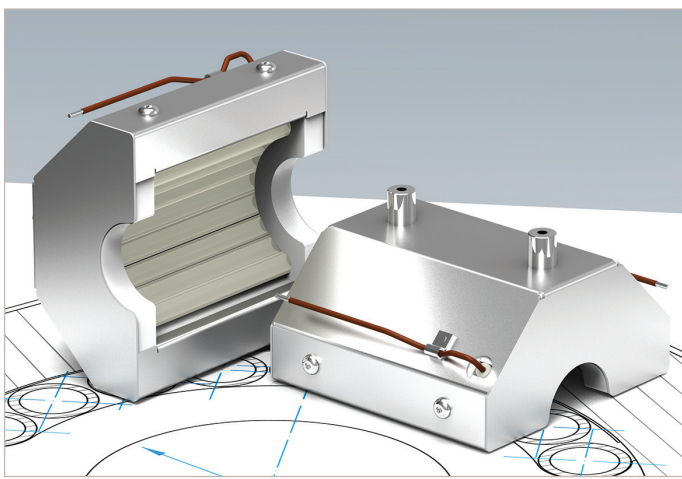
- General Online Marketing
- Implementation Plans
- Content Planning
- Analytics



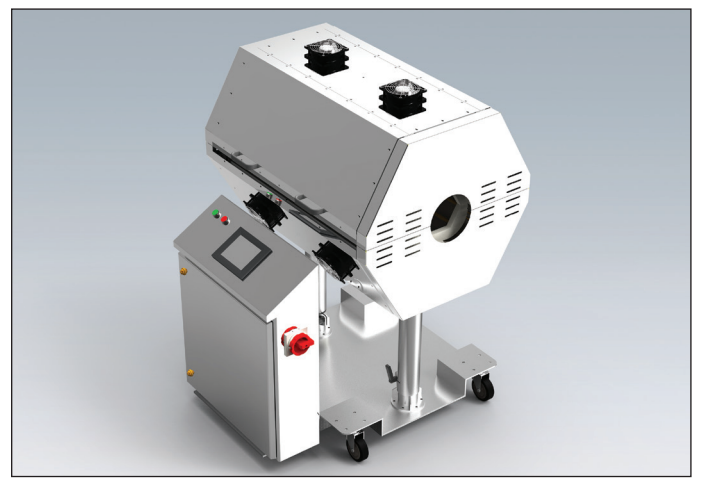
Contact Details
 robert.carpenter@granite.ie
 seamus.white@granite.ie
 www.granite.ie

APPLICATIONS ENGINEERING

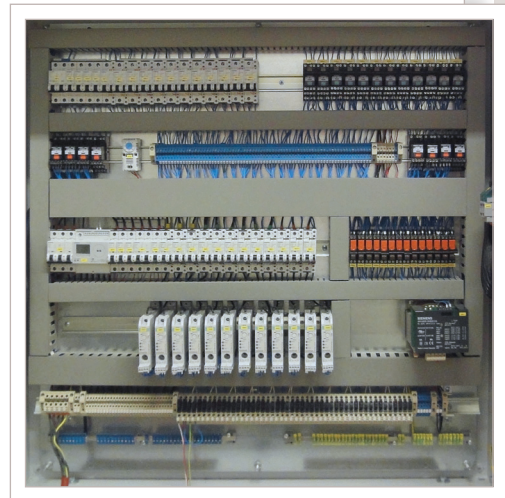
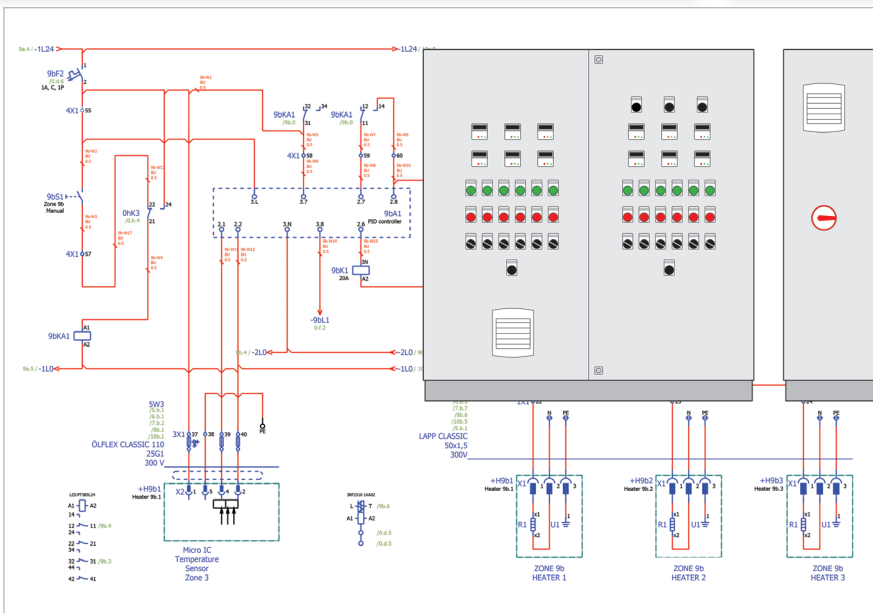
Whether you require a bespoke machine, customised solution, materials testing, a new infrared heating or drying system or an upgrade to your existing process. Ceramicx can design and build the heating solution for your business. From a single zone 5kW test oven to a 500 zone, 1MW high volume computer controlled oven. We serve all industries including plastics, glass, automotive, food and many more besides. Heatwork processing and infrared for industry is our business.



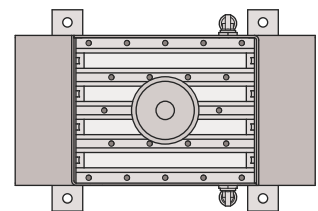
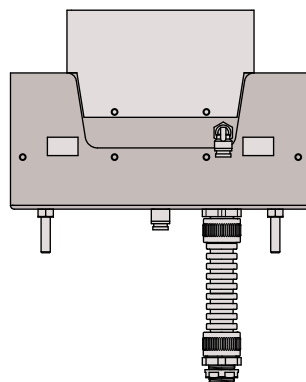
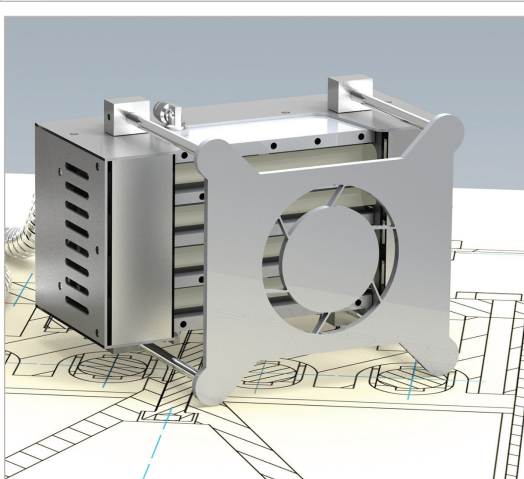
250W curved quartz heater



Finished clamshell short wave oven with full control



12 zone closed loop control system



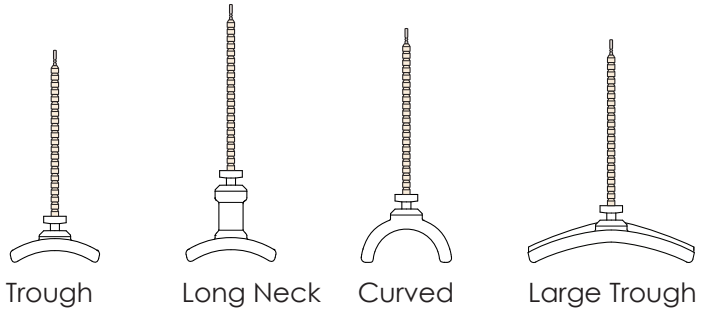
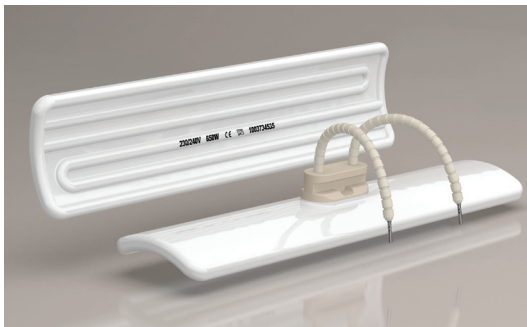
2.6kW high density water and air cooled medium wave heater

CERAMICX STANDARD PRODUCT RANGE

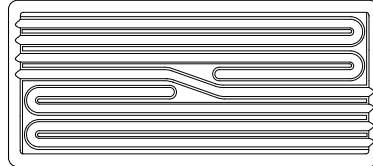
See the next issue of HeatWorks for our new standard product range



CERAMIC TROUGH ELEMENTS



FTE Full Trough Element
245 x 60 mm
150W 250W 300W 400W 500W 600W 750W 1000W



LFTE Large Full Trough Element
245 x 110 mm
1000W 1500W



HTE Half Trough Element
122 x 60 mm
125W 150W 200W 250W 325W 500W

LN - Long Neck



QTE Quarter Trough Element
60 x 60 mm
125W 250W



FTE-LN Full Trough Element - Long Neck
122 x 60 mm
250W 400W 500W 650W

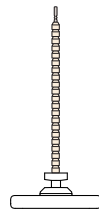
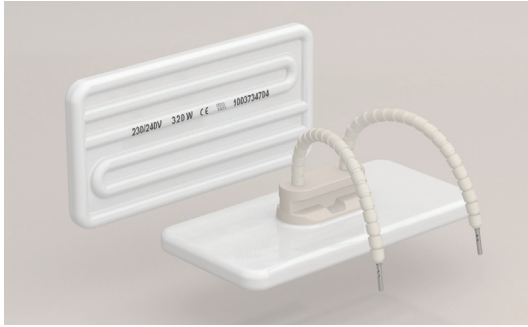


QCE Quarter Curved Element
60 x 55 mm
150W 250W

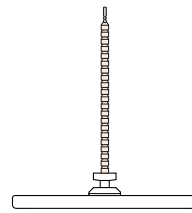


FTEL-LN Full Trough Element Long - Long Neck
285 x 60 mm
1000W

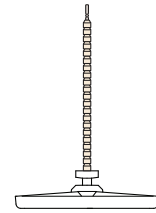
CERAMIC FLAT ELEMENTS



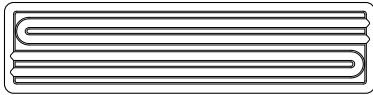
Flat



Square Flat



Large Flat



FFE Full Flat Element

245 x 60 mm

150W 250W 300W 400W 500W 600W 750W 1000W



HFE Half Trough Element

122 x 60 mm

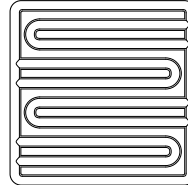
125W 150W 200W 250W 325W 500W



QFE Quarter Flat Element

60 x 60 mm

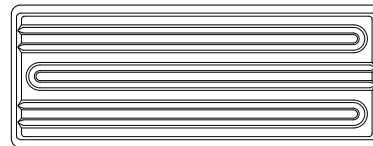
125W 250W



SFSE Square Flat Solid Element

122 x 122 mm

150W 250W 300W 350W 400W 500W 650W 750W

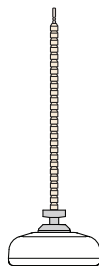
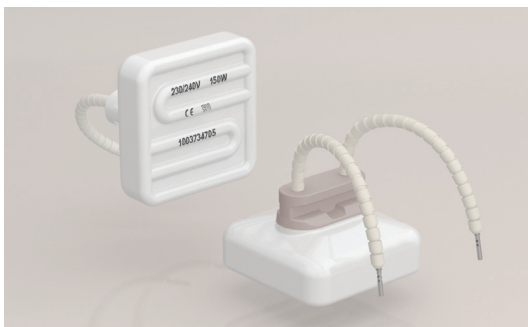


LFFE Large Full Flat Element

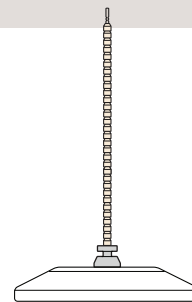
245 x 95 mm

150W 350W 750W 1400W

CERAMIC HOLLOW ELEMENTS



Hollow



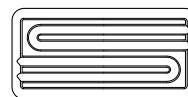
Square Hollow



FFEH Full Flat Element Hollow

245 x 60 mm

250W 300W 400W 500W 600W 800W



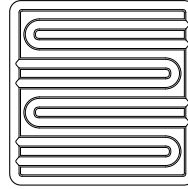
HFEH Half Flat Element Hollow

122 x 60 mm

125W 200W 250W 300W 400W

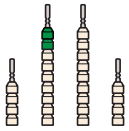


QFEH Quarter Flat Element Hollow
60 x 60 mm
125W 200W

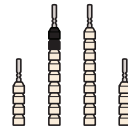


SFEH Square Flat Element Hollow
122 x 122 mm
250W 300W 400W 500W 600W 800W

THERMOCOUPLES



Type K
+ Nickel Chromium
- Nickel Aluminium



Type J
+ Iron
- Copper Nickel

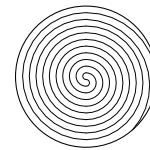
EDISON SCREW ELEMENTS



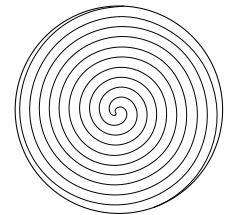
ESEB



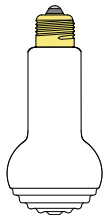
ESES



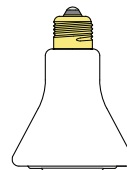
ESER



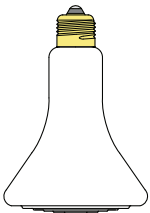
ESEXL



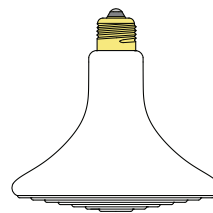
ESEB
Edison Screw Element Ball
Ø65 x 140 mm
60W 100W



ESES
Edison Screw Element Small
Ø80 x 110 mm
60W 100W

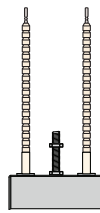
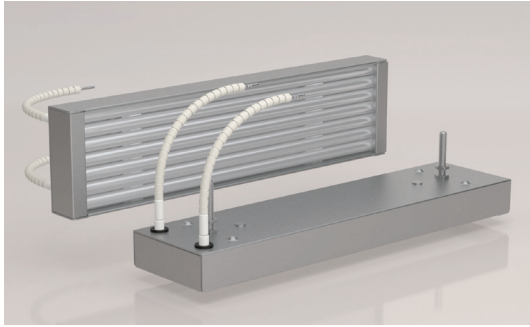


ESER
Edison Screw Element Regular
Ø95 x 140 mm
60W 100W

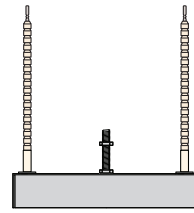


ESEXL
Edison Screw Element
Extra Large
Ø140 x 137 mm
400W

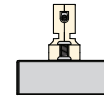
QUARTZ ELEMENTS



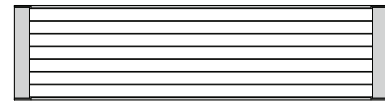
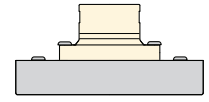
Quartz



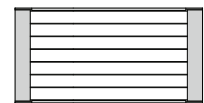
Square Quartz



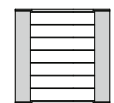
Pillared Quartz



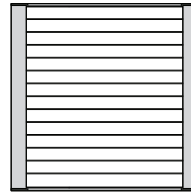
FQE Full Quartz Element
247 x 62.5 x 22 mm
150W 250W 400W 500W 650W 750W 1000W



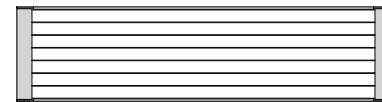
HQE Half Quartz Element
124 x 62.5 x 22 mm
150W 250W 400W 500W



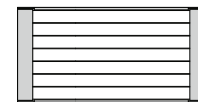
QQE Quarter Quartz Element
62.5 x 62.3 x 22 mm
150W 250W



SQE Square Quartz Element
124 x 124 x 22 mm
150W 250W 400W 500W 650W 750W 1000W

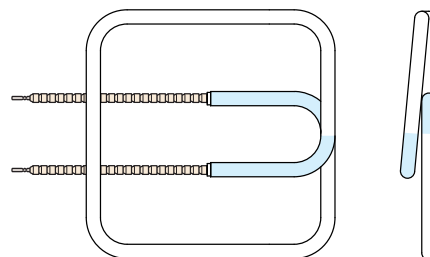


PFQE Pillared Full Quartz Element
247 x 62.5 x 22 mm
150W 250W 400W 500W 650W 750W 1000W



PHQE Pillared Half Quartz Element
124 x 62.5 x 22 mm
150W 250W 400W 500W

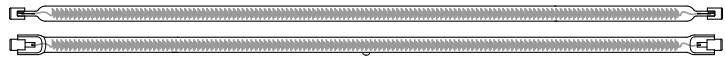
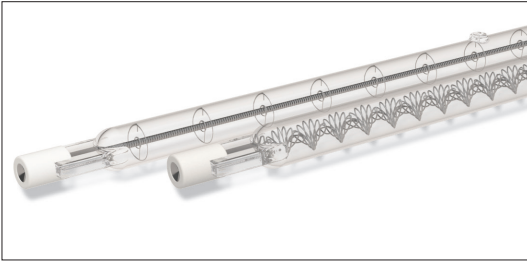
QUARTZ ELEMENTS



STQH Single Tube Quartz Heaters

STQH100	100 x 100 mm	Wattage Range 150 - 400 Watts
STQH112	112 x 112 mm	Wattage Range 150 - 400 Watts
STQH140	140 x 140 mm	Wattage Range 150 - 650 Watts
STQH150	150 x 150 mm	Wattage Range 150 - 650 Watts

QUARTZ TUNGSTEN HALOGEN



Quartz Tungsten



Quartz Halogen

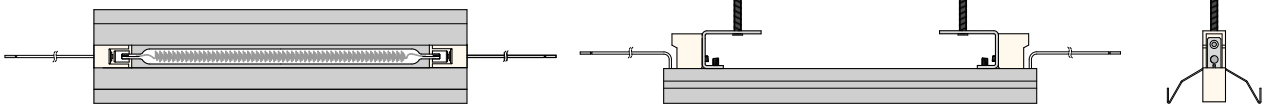
Quartz Tungsten

QTS Quartz Tungsten short	Ø10 x 224 mm	750W
QTM Quartz Tungsten Medium	Ø10 x 277 mm	1000W
QTL Quartz Tungsten Long	Ø10 x 473 mm	1500W 1750W 2000W

Quartz Halogen

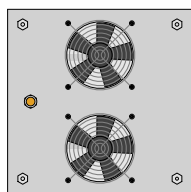
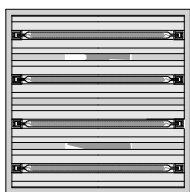
QHS Quartz Halogen short	Ø10 x 224 mm	750W
QHM Quartz Halogen Medium	Ø10 x 277 mm	1000W
QHL Quartz Halogen Long	Ø10 x 473 mm	2000W

Quartz Tungsten / Halogen Reflectors



QTSR Quartz Tungsten Short Reflector	250 x 62 mm
QTMR Quartz Tungsten Medium Reflector	300 x 62 mm
QTLR Quartz Tungsten Long Reflector	497 x 62 mm

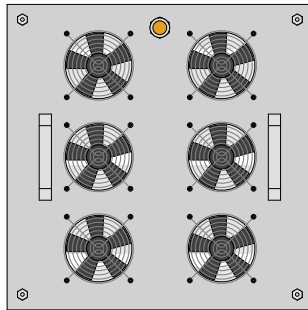
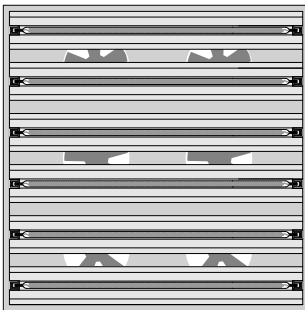
FASTIR



FastIR 305 305 x 305 x 150 mm
Suitable for 1000W Quartz Tungsten/Halogen Heaters QTM/
QHM (tubes supplied separately)

4 Tube - 4kW

5 Tube - 5kW

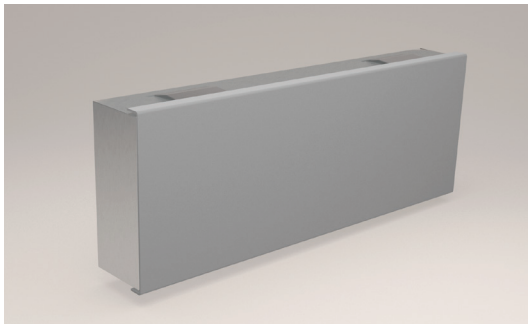


FastIR 500 500 x 500 x 150 mm
 Suitable for 2000W Quartz Tungsten/
 Halogen Heaters QTL/QHL
 (tubes supplied separately)

6 Tube - 12kW

7 Tube - 14kW

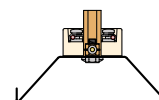
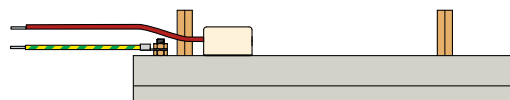
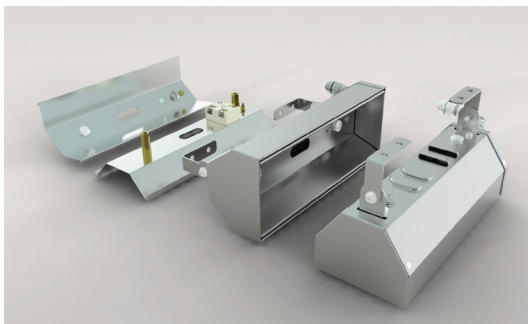
CUSTOM PANEL HEATERS



Custom Panel Heaters

Available with anodised aluminium or ceramic glass face.
 Range of Wattages and supply Voltages
 Multi- zone options with removable miniature thermocouple
 plug

REFLECTORS / PROJECTORS



RAS Reflector Aluminised Steel supplied without heaters

PAS Projector Aluminised Steel supplied without heaters



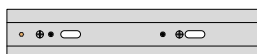
RAS 5 100 x 60 x 1,254 mm



RAS 4 100 x 60 x 1,004 mm



RAS 3 100 x 60 x 754 mm



RAS 2 100 x 60 x 505 mm



RAS 1 100 x 60 x 254 mm



RAS 0.5 100 x 60 x 160 mm



PAS 5 94 x 76 x 1,258 mm



PAS 4 94 x 76 x 1,008 mm



PAS 3 94 x 76 x 758 mm

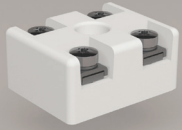


PAS 2 94 x 76 x 508 mm

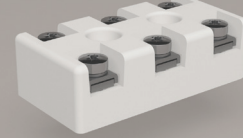


PAS 1 94 x 76 x 258 mm

ACCESSORIES



2P Ceramic Terminal End Block
with stainless steel fittings
40 x 32 x 20 mm



3P Ceramic Terminal End Block
with stainless steel fittings
62 x 32 x 20 mm



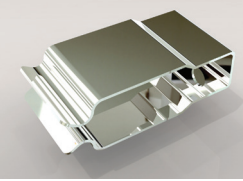
2P Ceramic Terminal End Block
No fittings
40 x 32 x 20 mm



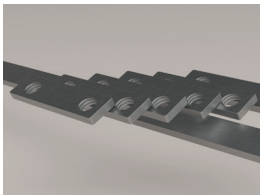
3P Ceramic Terminal End Block
No fittings
62 x 32 x 20 mm



R7s Ceramic Holder
For standard QT/QH
heater range



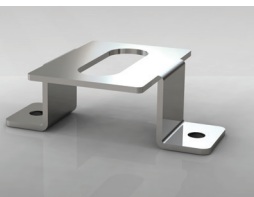
Flat Ceramic Base Holder For Halogen/
Tungsten heaters fitted
with a flat ceramic base



Stainless Steel Buzz Bars
8 x 2 x 1000 mm



STQH Holder
For all types of STQH type
heaters



Mounting Bracket
73 x 57 x 25 mm



**Steel Wave Spring
and Clip Set**



Ceramic Beads
Strung



Ceramic Beads
Loose



**E27 Edison Screw
Bulb Holder with Base**
Ø76 x 60 mm



Glass Bulb



**E27 Edison Screw
Bulb Holder**
Ø53 x 74 mm



**Reflector for Ceramic
Bulbs**
Ø220 x 110 mm

ceramicx/news....



Mr. David Crowley, Mr. Darren Horan, Mr. Cáthál Wilson, Mr. Patrick Wilson, Dr. Ger Kelly

Cáthál Wilson and Patrick Wilson recently attended a CIT open day where they met with two of the students who completed projects assigned by Ceramicx, Mr. David Crowley focused on building tooling for a Ceramic Steatite Dust Press Machine While Mr. Darren Horan focused on Microwave activated infrared emitters.

Exhibitions

Chinaplas,

Pazhou, Guangzhou, P.R. China.
20 - 23 May 2013
with G.S.A.E.

Total Plastics Processing

NEC Birmingham, England
4 - 6 June 2013
presentation by Cáthál Wilson
and Dr Tony Robinson,UCD.

Rosscarbery Summer School,

Rosscarbery, Co Cork.
21 - 23 June 2013
presentation by Cáthál Wilson

K-Show 2013,

Düsseldorf, Germany.
16 - 23 October 2013
with Friedr Freek

Fakuma,

Friedrichshafen, Germany.
14 -18 October 2014
with Friedr Freek

NPE,

Orlando, Florida, USA.
23 - 27 March 2015
with Weco International



Joanne Milanowska was recently promoted as a Production Supervisor, Joanne will now work with Patrick and Amanda scheduling production for Ceramic and Quartz while Patrick's role of Production Manager extends to cover the engineering section of the factory.



Schull Community College Students - Finnian O'Driscoll, John Walsh, Dylan O'Meara, Patrick O'Driscoll, Rory Hone, Anita Barry, recently visited Ceramicx for a tour with their Business teacher Mr Brendan Drinan



Ceramicx will in the coming month apply for planning permission to significantly extend the premises almost doubling the floor space to accommodate the future expansion of the company. This extension will be completed in phases as market demand and growth justify the building.

ROSSCARBERY SUMMER SCHOOL 21-23 JUNE 2013.

INTO EUROPE: IRELAND AND GERMANY: PAST AND PRESENT CONNECTIONS

THE CONTRIBUTION OF ROSSCARBERY, WEST CORK AND IRELAND
Monks from St. Mary's Abbey, Rosscarbery established a monastery in Regensburg, Germany in the 11th Century and this became the motherhouse for 7 further monasteries in that region including Vienna. This resulted in extensive interaction between Bavaria / Austria and Rosscarbery / Munster over the next 300 / 400 years and had a significant influence on both regions.

The objective of the Summer School is to outline the significance of the events of the 11th / 14th Centuries and (to explore and develop opportunities for cultural, social and business relationships between West Cork / Ireland and Germany in the present day.

Talk to us today about your infrared heating needs.



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Medium wave emitters

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QUARTZ HALOGEN ELEMENTS
Short wave emitters
Fast IR systems

GLASS INFRARED BULBS

ACCESSORIES
Large range of high temperature components and accessories

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