

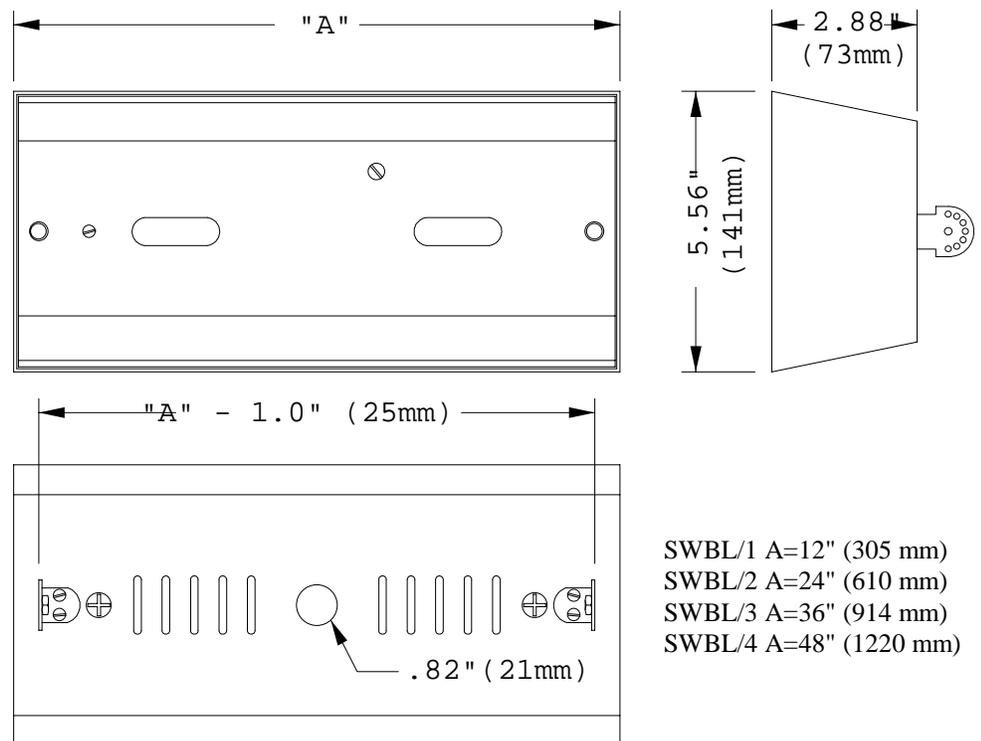


## Let NPE Introduce You To the New SWBL Industrial Reflector

As the popularity of our Large Trough Emitter (LTE) continues to increase, we now have available individual reflectors for one through four heaters. Until now, LTE elements could only be used in groups of three with our 12 x 12 CRP panel. The new SWBL now allows the LTE element to be used as conveniently as our FTE elements in the SWB reflectors. LTEs are basically oversized ceramic emitters, introduced first by Infrared Internationale in 1993 and now copied by several other manufacturers. They offer some unique advantages over the smaller ceramic elements.

It was originally designed to get maximum watt density in a square foot area by using 3 of them in a CRP panel. Thermoformers loved this concept because it not only made their machines unique, but they were now able to heat the same area with less heaters. Less elements means less handling, less electrical connections, and lower maintenance. This same watt density can now be used in horizontal configurations ranging from the SWBL/1 with one emitter, up to the SWBL/4 containing 4 elements.

The standard SWB assembly is limited to 70 degrees F. (21 degrees C.) ambient operating temperature while the SWBL is an industrial designed assembly that can be used in higher ambient temperatures and accept conduit fittings with a rear exit. This new reflector housing opens a new range of possibilities for the LTE heater. Once again, Infrared Internationale is the only company to produce this reflector and we are excited to introduce it, for the first time, at NPE 2000.



### Contact either of our sales locations:

**Infrared Internationale of North America, Ltd.**  
Sales Office: Mor Electric Heating Assoc., Inc.  
5880 Alpine Ave. NW, Comstock Park, MI, 49321, USA  
Tel: 616-784-1121, 800-442-2581  
Fax: 616-784-7775, [infrared@infraredheaters.com](mailto:infrared@infraredheaters.com)

**Infrared Internationale Engineering**  
Units 7-11, Granada Park Ind. Estate, Llangattock,  
Crickhowell, Powys, Wales, U.K. NP8 1HW, Great Britain  
Tel: (01873) 810999, Fax: (01873) 810599  
[irintleng@aol.com](mailto:irintleng@aol.com)

# *Salamander* Elements- Gone Fishing

Just when we thought we knew just about everything *Salamander* elements could be used for, we received an inquiry for use in fish farming. Alternative Aquaculture Ltd. in England was installing a new fish rearing facility where the fish are kept in black polyethylene tanks. They needed to maintain the water temperature between 20-23 degrees C. and decided to try using *Salamander* infrared emitters to heat the fish, water, and tank rather than heat the whole building.

We had no experience heating fish tanks, but knew infrared heat worked well for evaporation and drying. Positive features of ceramic emitters are that they are impervious to splashes of water and give off no light that could interrupt the fish sleep pattern. We also knew that polyethylene has a high absorption rate. The infrared energy would be absorbed by the water down and by the fish if they were close enough to the surface. Adequate water circulation would then be needed to maintain an even temperature in the tank.

FTE elements in SWB reflectors were first recommended, but it was later decided to first try the more gentle ESE heaters and reflectors in case the fish would become too overheated. We learned from Mr. Simon Fitzherbert, head of this project, that, "fish are very good at locating themselves in water of the correct temperature and if there is a source of heat above the tank, it will draw them to it-much like wild fish basking on the top of a pond on a sunny day!"

After installation of the two ESE emitters, Mr. Fitzherbert reported that the fish were enjoying them and were congregating underneath them. This reaction convinced him to order more, with a greater output, but also raised questions of radiation pattern and distance from the water. We didn't want to "fry" the fish on the surface, but still needed to heat the water significantly to maintain the needed circulated water temperature.

A switch to FTE emitters, which with low wattages, may offer the needed wider range of emission. Mr. Fitzherbert is also considering that shallower tanks would benefit the heating process. Experimentation continues, but the fact remains that the fish were drawn to the water warmed by infrared heat. This may sound a little "fishy" to you, but it's just another example of versatile applications for *Salamander* ceramic elements.

# New, Revised Literature

Also new at NPE 2000 will be our newly revised, eight-page literature. Changes include new drawings of the new SWBL reflector (see attached article), an revised ordering matrix, to make ordering easier and building a part number, and section reserved for highlighting the unique features of *Salamander* elements. The existing brochure remains current and the new brochure will be used following its depletion.



## NPE – June 19-23

Hopefully, by now, you have made your decision to attend the National Plastics Exposition at Chicago's McCormick Place. We look forward to meeting any attending associates at our booth #14716 located in the **East Building on Level 2**. For your convenience, the following is our show work schedule to help you in planning your visit and who you will be meeting.

### Monday – Tuesday June 19-20

**Al Kracker**  
**Mark Jackson**

Al is the owner of Mor Electric Heating, the master distributor for the *Salamander* product, and works with wife, Deitz Kracker, owner of Infrared Internationale, in the management and operation of both companies.

Mark Jackson is the Chief Electrical Engineer for both companies and specializes in sales, application and design.

### Wednesday June 21

**Al Kracker**  
**Terry Beasecker**

Terry is involved with International Marketing, web site design and development, and e-commerce operation.

### Thursday-Friday June 22-23

**Al Kracker**  
**Jay Gardiner**

Jay is also an Electrical Engineer focusing on domestic sales and applications.

Deitz Kracker will only be attending the show Friday afternoon, but will be available all week for anyone wishing to visit the factory in Comstock Park, MI. Please call for an appointment.

We have a really "hot" booth this year, so be sure to stop by to receive a special gift.