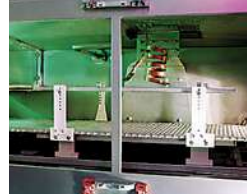


Mobile RF Tempering & Defrosting

Petrie Technologies offers a range of equipment for continuous thawing applications. Based on radio frequency dielectric heating (RF), the technique provides a means of rapid, 'just in time' processing to achieve product quality which may be close to that of fresh chilled product, with less drip loss and much reduced biological growth, as compared to conventional methods. Significantly, unlike microwave techniques, which are only used for tempering, RF can be used for both tempering and defrosting.



Industrial applications exist in both the fish and meat industries. Products which have been successfully tempered or defrosted include; meat, fish, fruit and vegetables.

The equipment uses a modular concept to match the throughput needs of a process. Typically, a minimum of two and a maximum of five modules may be used depending on the process to give throughputs of around a tonne per hour for defrosting and several tonnes per hour for tempering.

To assist product and process evaluation, a two zone mobile continuous pilot unit is available, capable of throughputs of around 100 kg per hour for tempering (dependent on the product).

Tuna	Sardines
Salmon	Chicken
Prawns	Turkey
Mackerel	Beef
Fruit	Vegetables



Pilot Unit Specification

The following specification may be used as a guideline when considering space requirements and services when operating the equipment:

Number of Modules	2
L x W x H	3.38 x 1.25 x 2 m
Weight	600 kg
RF Generators	2
Operational Frequency	13.56 MHz
Max Power Output	Typically up to 15 kW and 5 kW for appropriate module
L x W x H	Up to 0.9 x 0.9 x 1.8 m depending on generators used
Weight	Up to 1000 kg (approx.) depending on generators used
Electrical Supply	208 V or 400 V, three phase + neutral + earth, 35 kW (exact configuration depends on generators used, an intermediate transformer may be required as part of ancillaries)
Ancillaries	Skid + control and cooling system
Dimensions and Weight	Comparable to single module above

