

# SIEMENS

MICROWAVE &  
RADIOFREQUENCY

# Flash Liquid Processing

## INTRODUCTION

Flash liquid processing for:

- ✓ **Pasteurization**
- ✓ **Sterilization**

Applicable to pumpable liquids and products.

Advantages of Flash Processing

- ✓ **Thermal processing enhancement**
- ✓ **Product properties preservation**
- ✓ **Better organoleptic properties**
- ✓ **"Fresh" products**

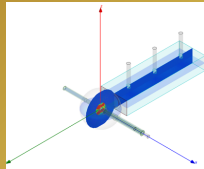
LIQUID PROCESSING	LABORATORY	INDUSTRIAL
Capacity	20-70 l/h	200-2000 l/h
Applied power	1-3 kW	10-100 kW
Temperature increase	10-40 °C	10-40 °C
Processing time	90 mseconds (or more)	180 mseconds (or more)
Temperature Measurement	At processing point	Outside the applicator
Temperature Controlled	Yes	Yes

## LABORATORY DESIGN

Fast liquid processing leads to a "cold"

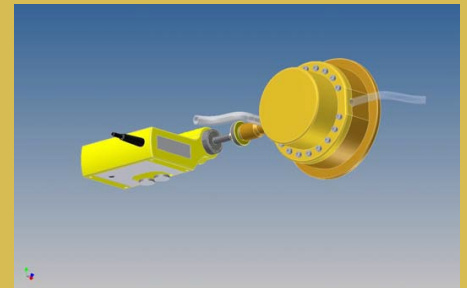
Specially designed to:

- ✓ **Pumping products**
- ✓ **Very fast heating process**
- ✓ **"In-Process" temperature measuring**



Modeling process

- ✓ **Optimal results**
- ✓ **Temperature thermocouple position**



## INDUSTRIAL DESIGN

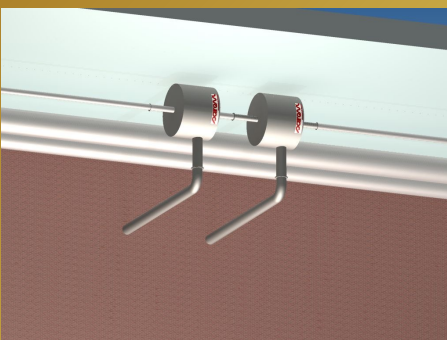
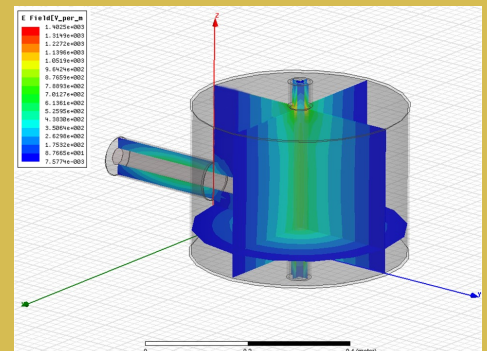
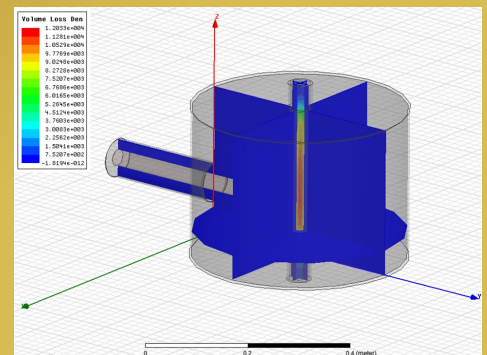
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- ✓ **Pasteurization**
- ✓ **Sterilization**

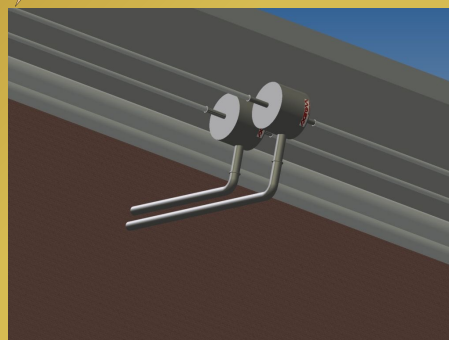
Characteristics:

- ✓ **Industrial scaling**
- ✓ **Easy to install**
- ✓ **"In-Process" temperature measuring**
- ✓ **Up to 100 kW per cavity**

120 mS process time



INSTALLATION TO INCREASE TEMPERATURE



INSTALLATION TO INCREASE PRODUCTION