



**PR Hoffman Machine Products Inc.**

**PTC<sup>®</sup>**

**Precision Thickness DSP Insert Carriers**



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# PTC<sup>®</sup> DSP Insert Carriers

## Precision Thickness Double-Side Polishing

**PTC<sup>®</sup>** PR Hoffman Machine Products offers a new product for manufacturers who require precision carrier thickness for their manufacturing process.

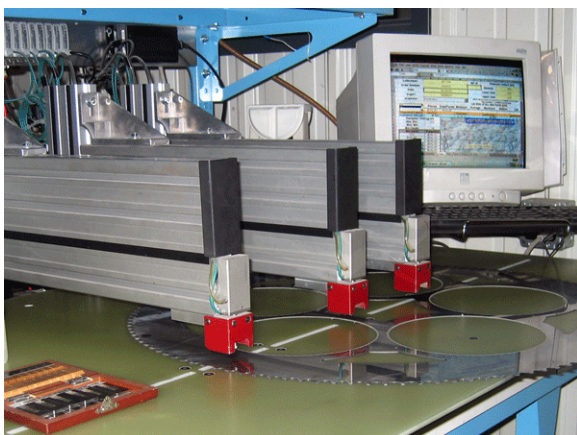
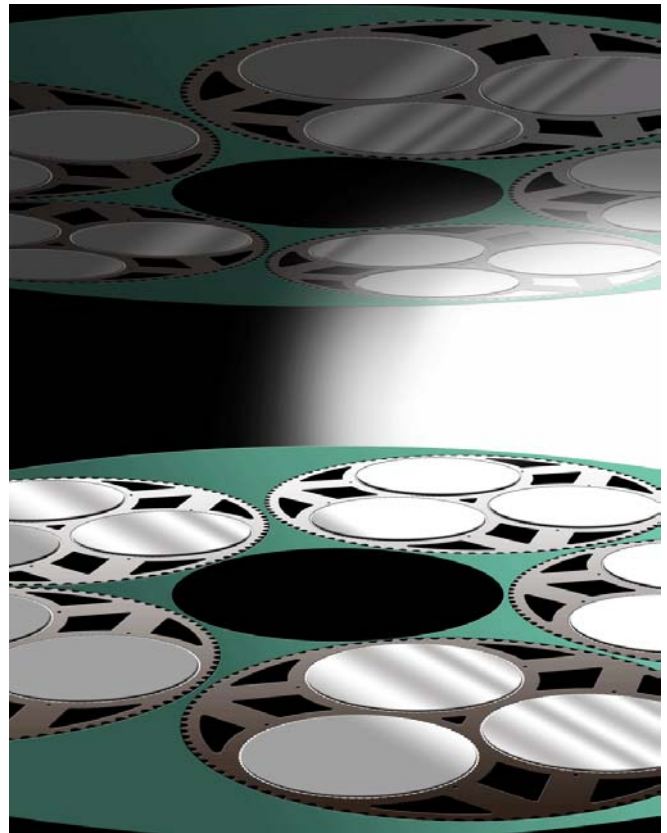
Our line of **PTC<sup>®</sup>** Insert Carriers for DSP Polishers is designed specifically for manufacturers who require precision carrier thickness. We can produce carriers to your exact specifications. PR Hoffman provides a level of precision never before possible.

### World's Leading Insert Carriers

PR Hoffman is recognized as a leading innovator and manufacturer of Insert Carriers for the semiconductor wafer industry. Our customers report longer life and better TTV using our patented Insert Carriers.

### Custom Designs

PR Hoffman generates a custom drawing for customer review and approval before any products are made. This added service insures that our customers receive precisely the design needed for their process, on every order.



*Precision Linear Encoder  
Thickness Measurement System  
used to certify exact carrier thickness.*

### Custom Thickness

PR Hoffman's exclusive thinning process allows our customers to specify their nominal Target thickness and select the exact tolerance class **PTC<sup>®</sup>** Insert Carrier that is best suited to their requirements.

- |                            |               |               |
|----------------------------|---------------|---------------|
| • <b>PTC<sup>®</sup>-1</b> | <b>Target</b> | <b>±2.5µm</b> |
| • <b>PTC<sup>®</sup>-2</b> | <b>Target</b> | <b>±3.0µm</b> |
| • <b>PTC<sup>®</sup>-3</b> | <b>Target</b> | <b>±3.5µm</b> |
| • <b>PTC<sup>®</sup>-4</b> | <b>Target</b> | <b>±5.0µm</b> |

Exactly the thickness you need with the precision required by your application.

To Order Call: +1 - 717-243-9900  
Send a Fax to: +1 - 717-243-4542  
Send an Email: [prhoff@prhoffman.com](mailto:prhoff@prhoffman.com)

# PTC<sup>®</sup> DSP Insert Carriers

## Precision Thickness Double-Side Polishing



### Custom Materials

Our PTC<sup>®</sup> Insert Carriers feature our exclusive specially formulated materials, and licensed, patented design with our own proprietary processes, to achieve the longest life and highest quality Insert Carriers in the industry.

#### • Insert Materials

PR Hoffman's PTC<sup>®</sup> Insert Carriers are molded with proprietary grades and blends of long-lasting polymers. We offer a number of custom materials, and are constantly developing versatile new materials for specific customer needs.

#### • Steels

Our PTC<sup>®</sup> Insert Carriers start with the highest quality custom spring and stainless steels, which are custom thinned on a proprietary machine to the highest thickness precision possible, to meet your exact target.

### Carrier Sizes

We inventory a large variety of stainless and spring steels and can make custom thickness PTC<sup>®</sup> Insert Carriers from 22 inches up to 34 inches in diameter, for virtually any double-sided polishing machine made in the world.

### Wafer Sizes

PR Hoffman can currently supply PTC<sup>®</sup> Insert Carriers for wafers 100 mm, 125 mm, 150 mm, 200 mm, and 300 mm in diameter. We are continually developing new products and will be ready for the next standard Insert Carrier size.

### PTC<sup>®</sup> Features / Benefits

- **Precision Thickness**
- **EXACT Target Thickness**
- **Precision Tolerance Ranges to customer's needs from  $\pm 2.5 \mu\text{m}$**
- **Longest Life**
- **Custom Designed**
- **Premium Manufacturer**
- **Proprietary Metallurgy**
- **Quality Management system is registered to ISO 9001:2000**
- **Worldwide representation**
- **Worldwide recognition**
- **Best TTV / TIR**
- **CAD Drawings**
- **Proprietary Plastics**
- **100 - 300 mm wafer size**
- **22" - 34" carrier size**
- **Inventory management programs**
- **Lowest total cost of ownership**

**PR Hoffman Machine Products Inc.**

DSP Insert Carriers

PTC<sup>®</sup>

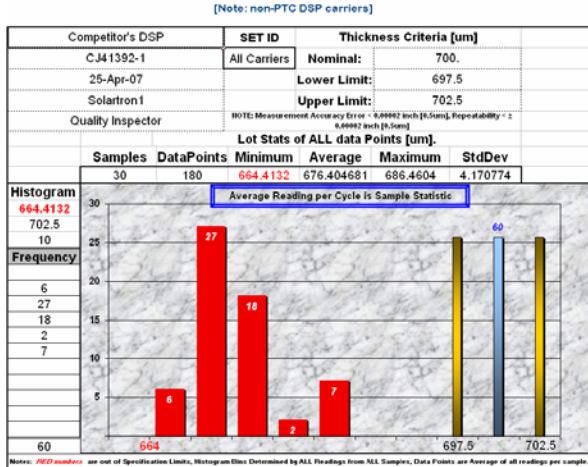
Precision Thickness Double-Side Polishing

# PR Hoffman PTC<sup>®</sup> DSP Insert Carrier Comparisons

## Precise Thickness

### Competitor's DSP Product

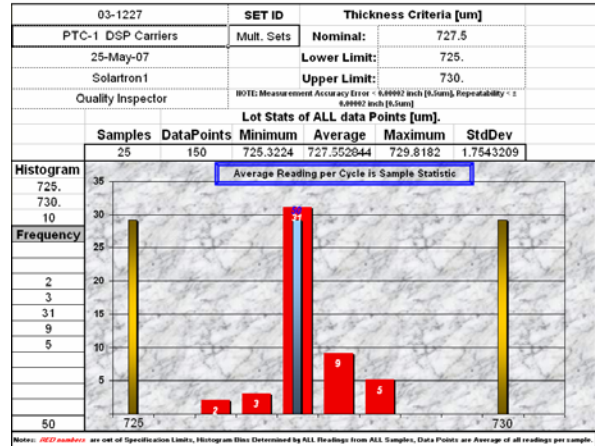
Thickness Inspection Worksheet for PTC Carriers



Note: Chart shows actual thickness inspection results of six sets of DSP Insert Carriers from one of our competitors. The customer's desired thickness range [700um ±2.5um] is between the two gold bars on the right side of the graph.

### PR Hoffman's PTC<sup>®</sup>-1 ±2.5um

Thickness Inspection Worksheet for PTC Carriers



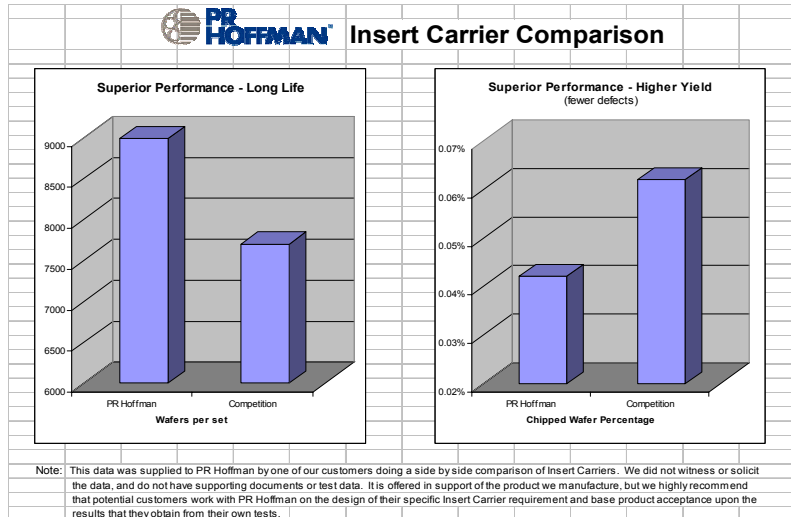
Note: Chart shows thickness of five sets of PR Hoffman PTC<sup>®</sup>-1 Precision DSP Insert Carriers. All readings shown are within ±2.5um of Target thickness. The two gold bars show the allowable range for PTC<sup>®</sup>-1 tolerance.

## Carrier Life / Quality

PR Hoffman's customers report longer life and better TTV using our patented Insert Carriers.

## Lower Rejects

Side by side comparison shows that our Insert Carriers offer the best wafer edge profile protection in the industry as well as reduced reject rates.



Wholly Owned Subsidiary of Amtech Systems, Inc.

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