



**PR Hoffman Machine Products Inc.**

# Insert Carriers

For Semiconductor Wafer Manufacturing



## *Features:*

- *Improve TTV / TIR*
- *Reduced cost of ownership*
- *Custom designed for your process*

**Insert Carriers**  
For Semiconductor Wafer Manufacturing

# Insert Carriers

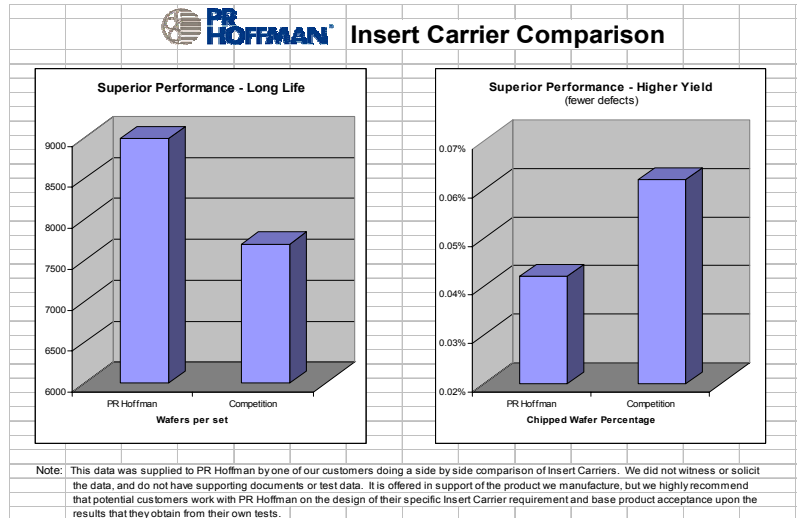
For Semiconductor Wafer Manufacturing

## 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.



Laser-cutting allows for ultimate customization of design.

## Custom Materials

Our 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.

## Plastics

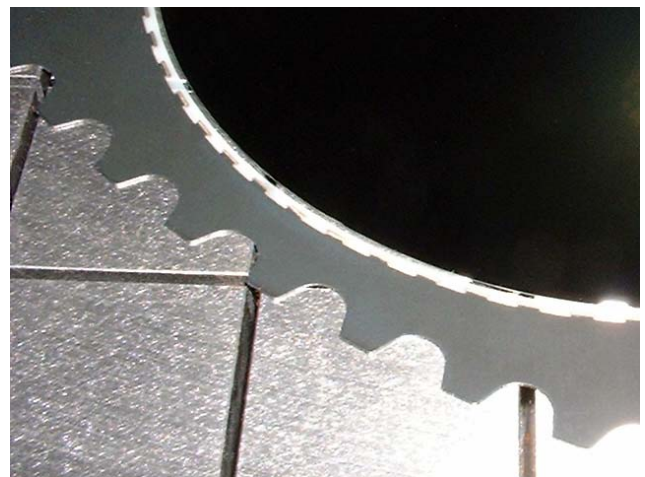
PR Hoffman's Insert Carriers are molded with proprietary grades and blends of long-lasting polymers. We offer a number of custom materials, and are constantly developing versatile new materials for specific customer needs.

## Steels

Our Insert Carriers start with the highest quality spring and stainless steels available from sources worldwide. Spring steel for carriers up to 24 inch are made from a proprietary grade of steel, custom made for PR Hoffman, to achieve the longest life.

## Carrier Sizes

We inventory over 20 thicknesses of spring steel which allow us to make Insert Carriers up to 34 inches in diameter for virtually any double-sided lapping or polishing machine made in the world.



Choose from over 20 thicknesses of custom spring or stainless steel.

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)

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Photograph of 200 mm Insert Carrier and silicon wafer.

## Wafer Sizes

PR Hoffman can currently supply Insert Carriers for wafers 100 mm, 125 mm, 150 mm, 200 mm, and 300 mm in diameter. We are continually developing new products for high-value wafers, and will be ready for the next standard Insert Carrier size.

## Frequently Asked Questions

- How long do Insert Carriers Last?  
Our Insert Carriers are designed with the longest life materials available. Our goal is for the insert plastic to last as long as the steel in a lapping environment.
- Why is the TTV better with Insert Carriers?  
PR Hoffman's exclusive combination of materials and designs allows the wafer a higher degree of freedom of rotation which in turn reduces TTV during lapping or polishing.
- Why does PR Hoffman offer so many plastics?  
PR Hoffman supplies Insert Carriers in various custom engineered grades of plastics to a broad range of customers. Each grade has been custom formulated to meet a specific process need.
- Does PR Hoffman stock Insert Carriers?  
We currently offer stocking programs to volume users of Insert Carriers. Since each customer's design is custom, and due to the range of machine sizes, we do not inventory Insert Carriers.

## Features / Benefits

- **Longest Life**
- **Custom Design**
- **Premium Manufacturer**
- **Proprietary Metallurgy**
- **Wide selection of thickness**
- **Quality Management system is registered to ISO 9001:2000**
- **Worldwide representation**
- **Worldwide recognition**
- **Best TTV / TIR**
- **CAD Drawings**
- **Licensed, Patented Design**
- **Proprietary Plastics**
- **100 - 300 mm wafer size**
- **6" - 34" carrier size**
- **Precision thickness control**
- **Inventory management programs**
- **PTC™ Precision Thickness Carriers**

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# PR Hoffman Insert Carrier Steel Thickness Chart

## Custom Grade - "H&T" Hardened & Tempered Spring Steel

PR Hoffman	1900-85T		3100		4800	5400	5700					
P/W		AL-2	AC1000		AC1200	AC1400	AC1500			AC2000		
S/F	8B/9B	11B	13B	15B	18B	20B	22B	24B	28B	30B/32B		
INCHES											MICRONS	
.0100	EEEE	EEEE	EEEE	EEEE	EEEE	EEEE	EEEE					255
.0120	EEEE	EEEE	EEEE	EEEE	EEEE	EEEE	EEEE					305
.0138	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX					350
.0150	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX					380
.0157	XXXX	XXXX	XXXX									400
.0170	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	S				430
.0180	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	P				455
.0200	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	E				510
.0220	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	C				560
.0230	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	I				585
.0241	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	A	"HR" Hard Rolled Spring Steel			610
.0250	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	L				635
.0260	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX					660
.0270	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX					685
.0280	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		710
.0285	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX					725
.0290	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		735
.0300	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX		760
.0305	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	775 2 grades
.0310								XXXX	XXXX	XXXX		790
.0350	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX					890

## Series 430 "Custom Grade" Stainless Steel

.0157	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	400
.0197	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	500
.0236	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	600
.0276	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	700
.0315	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX	800

Note: Availability of specific grades and thicknesses must be confirmed prior to ordering.

### LEGEND:

XXXX = All Insert Carriers  
100mm - 300mm ø

EEEE = Special Order Custom Design  
Available for 100mm ø only



**PR  
HOFFMAN**<sup>®</sup>

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ISO 9001:2000



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