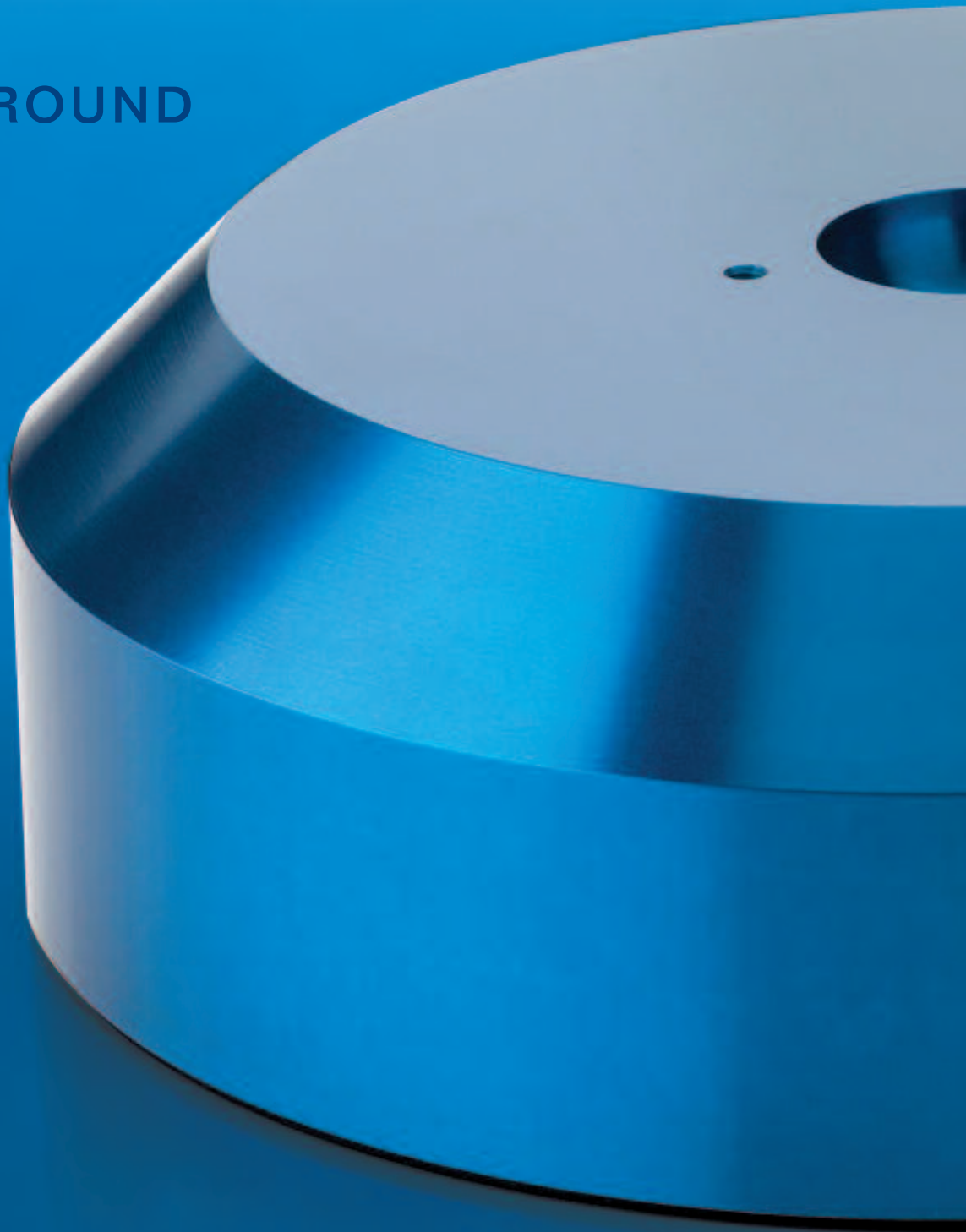
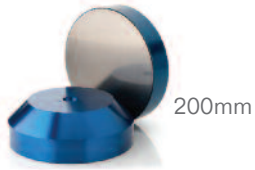


POROUS MEDIA®  
**AIR BEARING**  
SOLUTIONS

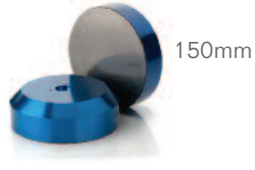
FLAT ROUND



# A COMPLETE LINE OF FLAT ROUND POROUS MEDIA® AIR BEARINGS



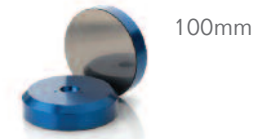
200mm



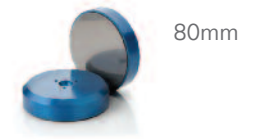
150mm



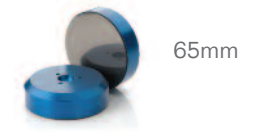
125mm



100mm



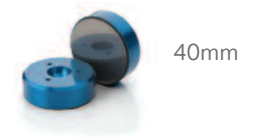
80mm



65mm



50mm



40mm



25mm

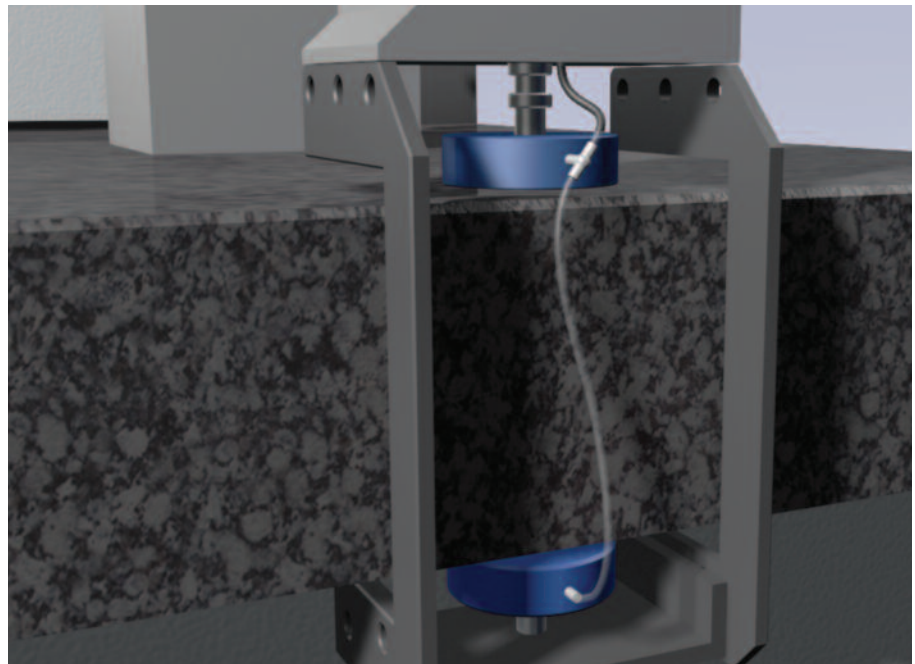
**New Way flat round air bearings** can be readily used to create custom air stages. These bearings are appropriate for highly-loaded applications and are the easiest type of air bearings to integrate into prototype designs as they can be readily replaced or changed. The standard product line shown is available off the shelf. New Way can also work with you to engineer a custom flat, round air bearing to your specification.

## EASY APPLICATION

New Way makes air bearing components easy for anyone to apply. A gimbaled mount allows for great flexibility in tolerance and the threaded ball studs make alignment simple.



25mm Flat Round Air Bearing shown with Round-End Ball Mounting Screw



65mm Flat Round Air Bearing Application 3-D Model

## NEW WAY POROUS MEDIA® TECHNOLOGY OFFERS YOU SIGNIFICANT ADVANTAGES

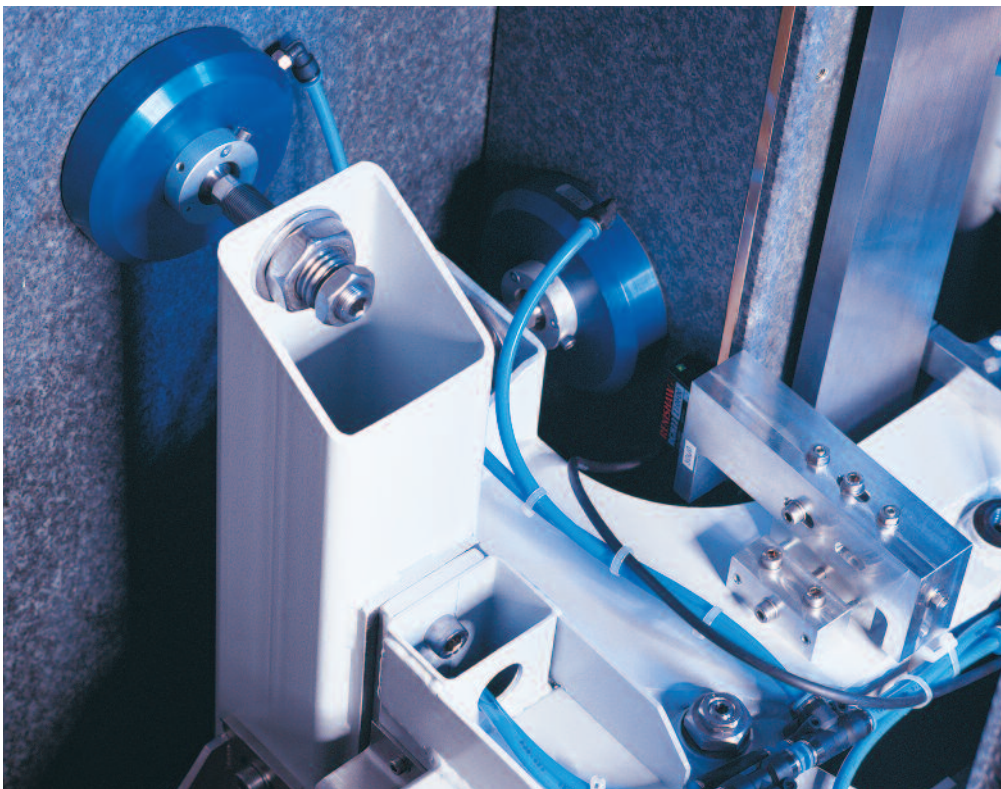
FEATURES	BENEFITS
Standard component	Anyone can use
Porous carbon media	Eliminates damage to the guide surface
Non-contact	Zero friction and no stiction for infinite resolution and repeatability
Non-contact	Zero wear, for consistent machine characteristics
Non-contact	Smooth, silent motion without vibration
Non-contact	10x the speed
Non-contact without moving parts	High, consistent acceleration
No lubrication	Virtually maintenance free
High air film stiffness	Reduced probability of contact
High air film stiffness	High natural frequency
High air film stiffness	High damping for faster settling time
High air film stiffness	High precision positioning
Porous carbon media	Lower air consumption
Gimbaled mount	Easy to apply, adjust, achieve parallelism

### APPLICATIONS

- † Coordinate Measuring Machines
- † Photomask Repair
- † Wafer Thickness Inspection
- † Wafer Inspection
- † High Speed Applications
- † Memory Repair
- † Scanning Machines
- † Fast Tool Servos
- † Grinding/Dry Machining of Metals
- † Diamond Turning Machines
- † Material Testing Machines
- † Tensile Strength Testing
- † Stages

### MARKETS

- † Metrology
- † Semiconductor
- † Flat Panel Display
- † Solar
- † Medical
- † Machine Tools



Photograph courtesy of IBS Precision Engineering B.V., Eindhoven, the Netherlands

# FLAT ROUND AIR BEARING PRODUCT LINE

## PRODUCT LINE COMPARISON: FLAT ROUND AIR BEARINGS

Size (diameter)	Part #	Ideal Load N (lbs) @ .41 MPa (60psi)	Stiffness N/micron (lbs/u in) @ 0.41 MPa (60psi)	Flow NLPM (SCFH) @ .41 MPa (60psi)	Ball Socket Size	Bearing Height mm (in)	Bearing Weight grams (oz.)
25mm	S102501	80 (18)	18 (0.10)	0.53 (1.2)	13mm	13 (0.52)	14 (0.5)
40mm	S104001	222 (50)	28 (0.16)	0.74 (1.6)	13mm	13 (0.52)	35 (1.2)
50mm	S105001	355 (80)	58 (0.33)	1.1 (2.3)	13mm	13 (0.52)	62 (2.1)
65mm	S106501	666 (150)	87 (0.50)	1.4 (2.9)	13mm	20 (0.79)	151 (5.3)
80mm	S108001	1110 (250)	114 (0.65)	2.3 (4.9)	13mm	20 (0.79)	235 (8.2)
100mm	S1010001	1776 (400)	175 (1.0)	2.6 (5.6)	20mm	25 (0.98)	440 (15.5)
125mm	S1012501	2775 (625)	254 (1.5)	2.6 (5.6)	20mm	35 (1.38)	1033 (36.4)
150mm	S1015001	4444 (1000)	350 (2.0)	2.9 (6.1)	25mm	50 (1.97)	2092 (73.7)
200mm	S1020001	7770 (1750)	700 (4.0)	3.8 (8.1)	25mm	70 (2.76)	4773 (168)

## COMPLETE NEW WAY POROUS MEDIA® AIR BEARING PRODUCT LINE



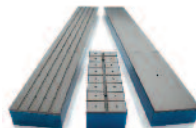
Flat Round Air Bearings



Flat Rectangular Air Bearings



Vacuum Preloaded Air Bearings



Conveyor Air Bearings



Radial Air Bearings



Air Bushings



Air Slides



**NEUWAY**<sup>®</sup>  
air bearings

*Frictionless Motion*<sup>®</sup>

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