

160MM / 6" DICING SYSTEM

FROM PROTOTYPE TO PRODUCTION
AND EVERYTHING IN BETWEEN

TOTAL FLEXIBILITY, TOTAL CONTROL



MICROace 66

GET MORE OUT

From the latest wafer designs to ceramic components and everything in between. With cut depths of up to 13mm, the **MICROace 66** has all your dicing requirements covered.

THE ULTIMATE IN SYSTEM PRODUCTIVITY

Need fast turnarounds?

Short run work?

Need to dice a wide range of jobs?

A diverse workload needn't be inefficient with easy work loading, quick tool changes, fast program entry.



ENGINEERED TODAY FOR THE TECHNOLOGY OF TOMORROW

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MICROACE 66

The **MICROACE 66** is a micro dicing system that covers all aspects of dicing and scribing wafers and substrates. Fitted with Loadpoint's NanoControl, it has the flexibility for prototype trials and small batch runs and the automatic processes for larger production runs.

Materials processed include: Ceramic, FR3/FR4, GaAs, Germanium, Glass, InP, LED's, Lithium Niobate and Tantalate, ceramic and QFN, Piezo electrics, PZT, Quartz, sapphire and silicon amongst others.

STANDARD PACKAGE

Loadpoint Air Bearing Spindle

- Very low vibration improves the cut quality and reduces chipping
- DC brushless drive, 1.2 kW 60,000 rev per min
- High power option 2.4 kW 60,000 rev per min
- Theta (θ) axis bearing rotary table with high resolution direct drive

Vision and alignment system

Manual and automatic alignment modes:

- Monocular video alignment system with pattern recognition
- Pattern Recognition System (PRS)
- Alignment system with programmable off-set for off-cut alignment
- Manual and automatic (option) kerf and chipping measurement on machine
- Full 17" / 430mm monitor for alignment, data entry and machine monitoring
- Continuous live display of X,Y,Z and theta co-ordinates
- Z autofocus set up of alignment image with offset option for depth of cut

Tooling

- Standard wheel carrier with 50 to 76.2mm diameter blade capacity
- Three direction coolant delivery; main blade coolant jet, blade side wash bars and wafer flood jets
- Accelerometer based Z datum set, off-chuck height sensing system

Z height sensing

Off-chuck height sensing system ensures constant depth of cut without having to use conductive blades, providing a wider choice of blade diameters and suppliers.

Work holding

Standard packages include adaptable plain wafer vacuum chuck for use with wax and substrate mounting and tape rings. Loadpoint manufacture chucks for all tape rings and film frames, mechanical vices, and designs to customer requirements, including precision-ground ceramic inserts for improved vacuum and component support.

Loadpoint Expertise

Every Loadpoint system incorporates a Loadpoint air bearing spindle that has been continuously developed over 40 years. Our customers trust Loadpoint to help them develop class-leading products. We have helped many customers develop task orientated solutions for ultrasound scanners, inkjet printers, SAW filters, MEMS devices and a whole range of silicon based products.

Micromachining solutions for:

SEMICONDUCTORS

ELECTRONICS

FERRO-ELECTRONICS

OPTO-ELECTRONICS

OPTICAL

MEDICAL

SOLAR

SONAR



OPERATIONAL SPECIFICATION

Work capacity	160mm diameter
Blade Capacity	50 - 76.2mm diameter
X, Y, Z Drives	AC Brushless
Y Index Range	0.001 - 160mm
Y Index Resolution	0.0001mm
X Axis Range	160mm
X Axis Feed Rate	0.01 - 500mm per sec
Z Axis Range	Up to 13mm thick components with 76.2mm blade
Z Axis Resolution	0.0001mm
Z Axis Speed	75mm per sec
Theta Axis Drive	Direct drive torque motor with rotary encoder
Theta Axis Range	360° (Continuous rotation)
Theta Axis speed	150° per sec
Theta Axis Resolution	0.0005°
Machine dimensions	W 570mm, D 1215mm, H 1555mm

Optional connections available for external vacuum supply and cutting area extraction. Preliminary specification subject to change without notice



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