



## Heavy Wire Wedge-Wedge Bonder 5650

### Bond System

<b>Wire types</b>	Aluminium wire 100-500µm on 4" spool Copper wire 100-300µm on 4" spool
<b>Bondhead</b>	Wedge-Wedge for heavy wire, Front- or Backcut Standard tool of 2" length, (up to 90mm) Motorized wire spool (optional) Programmable Voice-oil bond force system From 0 up to 1.800 cN
<b>Ultrasonic System</b>	F&S Generator 58 kHz (optional 40, 90, 120)

### Bonder Base

#### Axes

- Working area X/Y-axis 100x100mm  
Z-axis 60mm
- Step resolution 0,25µm
- Repeatability <2µm

#### Hardware

- Dual Core PC, 1,6 GHz processor,
- 4 GB RAM, Ethernet, 4x USB-Hub Front
- Firewire CCD colour camera 1,4 MPixel
- Network-capable with TCP / IP server

#### Software

- Single bonds up to complex programs,
- Loop shapes can be saved in libraries
- Optional pattern recognition

**Placement accuracy:** +/- 5µm @ 3 sigma, incl. Tool / no wire  
on F&S Bondtec standard substrate

**Repeatability:** +/- 3 µm @ 3 sigma, incl. Tool / without wire  
on F&S Bondtec standard substrate

**Loop height accuracy:** +/- 5µm @ 3 sigma, for thin wire 5630  
with 25µm aluminum wire on F&S Bondtec  
standard substrate

### Die 56xx Series:

The semi-automatic Wedge-Wedge Bonder 5650 fills the gap between the to the automatic bonder.

Based 56xx-series the bonder is fully PC controlled and allows any number of bonds to be programmed.

Pre-programmed adjust points are targeted through the camera's cross hair targeting system and the programmed bonds are executed automatically.

Two operating modes are available: Single bond for repair of various samples in order to perform a single bond. (manual-automatic) Multi wire for teaching and bond-ing of single chips or various samples (semi & fully automatic). The 5650 can also be used as a Au Wire or AL Thin Wire Bonder as well as pull-/shear tester by simply replacing the bond head and loading the appropriate soft-ware.

Set up time: ~3 minutes.  
Ask us for more information !

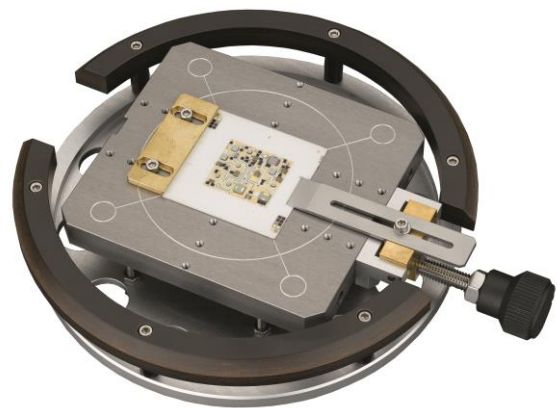
# BONDING THE STARS



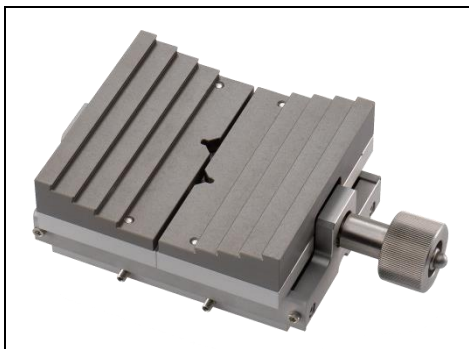
- Speed** 20 wires per minute
- Dimensions** W x D x H – 70 x 65x 70 cm, weight approx. 80kg
- Connections** 100–240 VAC, 1 Phase, 50/60 Hz, max 500 VA  
Ø 6mm standard vacuum tubing
- Heater controller** Integrated in the machine 0–250C°

## Workholder

Standard-Workholder  
for parts up to 4x4"  
with Vacuum und mechanical clamping



## Optional:



workholders up to 4x4"  
with jaws



TO workholder with  
mechanical clamping



4x4" workholder with  
rubberized surface and  
mechanical clamping

### F&S Bondtec Semiconductor GmbH

Industriezeile 49a

A-5280 Braunau am Inn

Tel.: +43-7722-67052-8270

Fax: +43-7722-67052-8272

Mail: [info@fsbondtec.at](mailto:info@fsbondtec.at)

Web: [www.fsbondtec.at](http://www.fsbondtec.at)

