5650 HR

Semi-automatic Heavy Ribbon-Wedge-Bonder

The semi-automatic Wedge-Wedge Bonder 5650HR fills the gap between the manual Wedge-Bonders series 54xx from F&KDelvotec Semiconductor to the automatic bonder from F&K Delvotec.
On basis of the 5600-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 bonding of single chips or various samples (semi and 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 software.
change over time: approx. 3 minutes.
Ask us for information !

Specifications

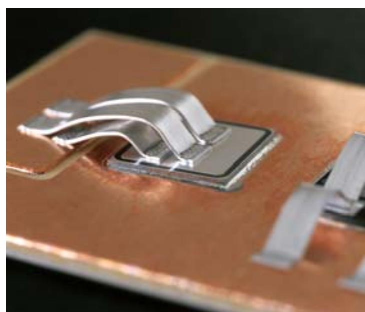
Mechanics

X, Y table	Working area 100 x 100 mm Resolution 0,25 µm, repeatability < 2 µm
Z-axis	60 mm
Speed	All axes programmable from 0, 2...16 mm/s ≤ 30 wires / min.
Bond head	Wedge-Wedge Alu- Heavy Ribbon and Alu-wire Axis of rotation ± 360° 90° quick-change wire guide and cutter Bondforce programmable up to 3500cN
Ultrasonic system	*60 KHz*
Ribbonsize	from 500µm X 75µm up to 2000µm X 300µm
Wire size	100µm to 500 µm
Loop Forms	Triangular, rectangular, reverse, stitch bond programmable

Controls

Computer	Single-Board PC, 600 MHz Pentium processor, 256 MB RAM, Ethernet, USB 4x, CD-ROM
Monitor	17" TFT flat screen
Operation system	Windows 2000
Printer	All Windows-compatible printers can be installed All bonding parameters can be printed
Work holder	2"x2" standard with mechancal clamping 4"x4" optional, as well with vacuum

Rev. 07
04_2007



F&K Delvotec Semiconductor GmbH
Industriezeile 49a
A-5280 Braunau am Inn, Austria
Tel.: +43-7722-67052-8270,
Fax: +43-7722-67052-8272
Email: info@fkdelvotec.at
Internet: www.fkdelvotec.at

F&K Delvotec Bondtechnik
GmbH & Co.KG
3 International Business Park
#04-05 Nordic European Centre
Singapore 609927
Tel. +65-6890-6020, Fax +65-6890-6021

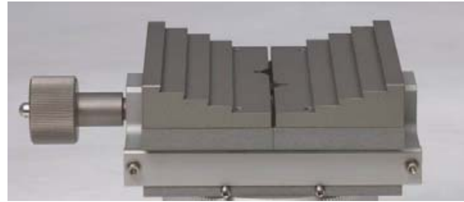
F&K Delvotec, Inc.
27182 Burbank Ave,
Foothill Ranch, CA 92610 USA
Tel. +1-949-595-2200, Fax +1-949-595-2207

Other features

Programming:	Automatic bonding of hybrids, power modules or others with programmable X/Y table

Work holders

for components 2" x 2"
mechanical clamping



for components 4" x 4"
mechanical clamping

for components 4" x 4"
mechanical clamping and vacuum

Customised work holders are available on request.

Rev. 07
04_2007

Head Parking System	For storing of temporary not required bondheads or pull- and shear-heads. Can be mounted on the left or right side of the machine

General

Camera	With cross hair targeting for positioning of bonds
Microscope	Stereoscope Motic, other microscopes e.g. Leica optional
Lighting	20 W halogen spot light, optional LED direct light Incident light optional
Dimensions	Height 70 cm, width 70 cm, depth 65 cm; approx. 70 kg
Supplies	100...240 VAC, single-phase, 50/60 Hz, max. 500 VA
Connections	Air 6 bar, vacuum - 0,7 bar ø 6 mm
Optional	*DLC DeformationLimitControl* *PRU Structur and Greelevel*

F&K Delvotec Semiconductor GmbH
Industriezeile 49a
A-5280 Braunau am Inn, Austria
Tel.: +43-7722-67052-8270,
Fax: +43-7722-67052-8272
Email: info@fkdelvotec.at
Internet: www.fkdelvotec.at

F&K Delvotec Bondtechnik
GmbH & Co.KG
3 International Business Park
#04-05 Nordic European Centre
Singapore 609927
Tel. +65-6890-6020, Fax +65-6890-6021

F&K Delvotec, Inc.
27182 Burbank Ave,
Foothill Ranch, CA 92610 USA
Tel. +1-949-595-2200, Fax +1-949-595-2207

Retrofit-head 56xx

Bondhead 5650

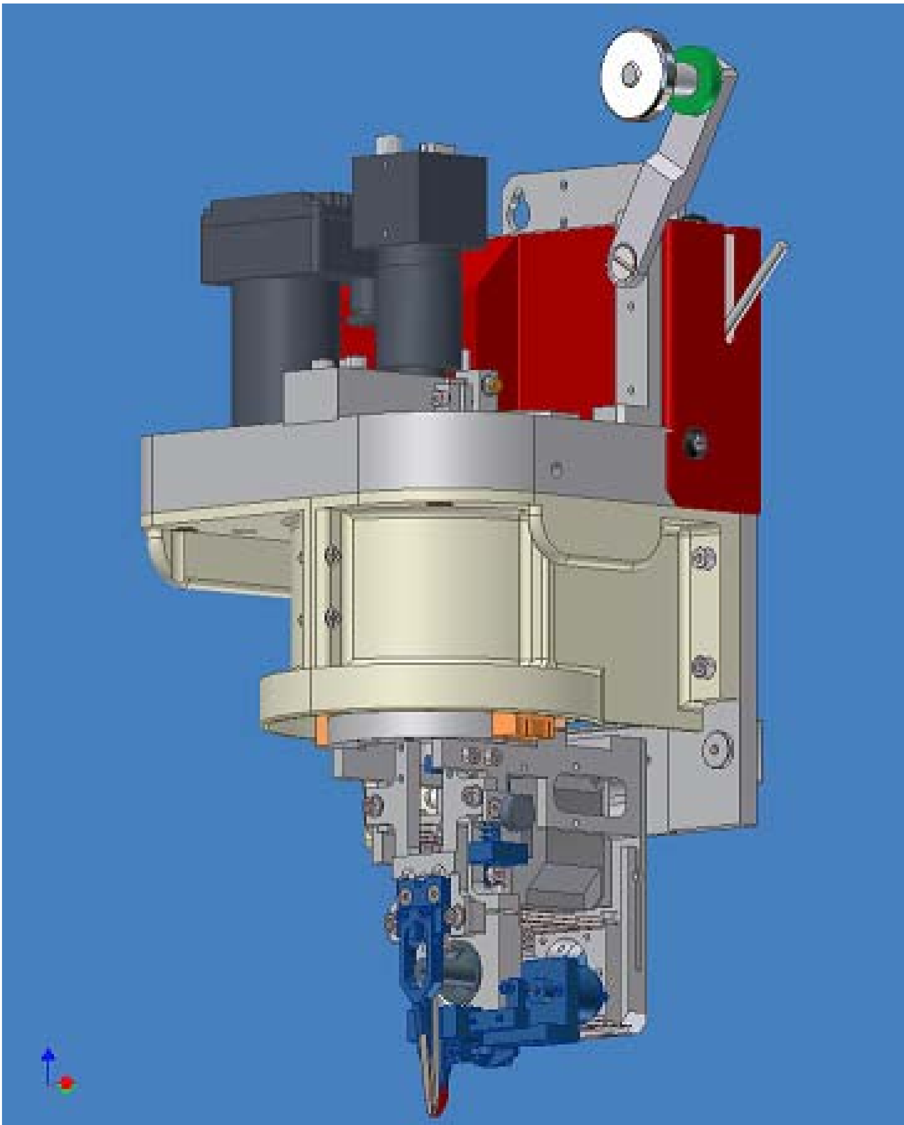
Ribbon tools 2“

Cutter system Front- cut

Ribbon size ut to 2000µm X 300µm

Wire size (Al/CU) 100 µm – 500 µm

Wedge/Wedge Axis of rotation ± 360°



F&K Delvotec Semiconductor GmbH
Industriezeile 49a
A-5280 Braunau am Inn, Austria
Tel.: +43-7722-67052-8270,
Fax: +43-7722-67052-8272
Email: info@fkdelvotec.at
Internet: www.fkdelvotec.at

F&K Delvotec Bondtechnik
GmbH & Co.KG
3 International Business Park
#04-05 Nordic European Centre
Singapore 609927
Tel. +65-6890-6020, Fax +65-6890-6021

F&K Delvotec, Inc.
27182 Burbank Ave,
Foothill Ranch, CA 92610 USA
Tel. +1-949-595-2200, Fax +1-949-595-2207

Rev. 07
04_2007