**System Overview**

**Technical Features/Data**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>DESCRIPTION</th>
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| TDU5000 Micromanipulator | x,y and z control from a single lever  
Sub-micron resolution  
5mm z travel |
| - Fine Control Joystick | x and y control  
10 micron resolution  
4mm x and y travel |
| Toolholders | Auto set for 15-40º micropipettes  
Vertical, axial and rotational movements  
Provides rapid pipette location in seconds |
| Heated plates | Metal heated insert as standard. Can be upgraded to an RI or Tokai Hit glass ITO insert  
3-chanel independendt control  
Touch screen set-up and control  
Two additional stage inserts for extra dishes  
All heated plates calibrated to +/- 0.1º C  
60mm x 24mm digital display of all temperatures |
| XYM mechanical stage | 2.5mm Stainless steel stage plate  
40mm travel in x and y, 28mm per turn |
| Help menu | 60 x 24mm touch screen interactive help menu |
| Syringes | Choice of SAS-SE, SAS11/2-E and SOS oil syringe |
| System Weight | 18Kg for complete system inclusive of 2 syringes |
| Dimensions (W x D x H) | Integra Ti Stage = 54 x 31 x 7cm  
Boxed (including syringes) = 69 x 69 x 51cm |
| Mains input | 100-240V, 50/60 Hz |

**Order codes**

The Integra Ti comes as standard with a metal central heated stage insert, two single toolholders and two SAS11/2-E air syringes. Please state any required options with your order.

<table>
<thead>
<tr>
<th>Integra Ti order code</th>
<th>For use with</th>
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<tbody>
<tr>
<td>6-50-700</td>
<td>Olympus IX50/70</td>
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<tr>
<td>6-50-710</td>
<td>Olympus IX51/71/81</td>
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<tr>
<td>6-50-730</td>
<td>Nikon Eclipse TE200/300</td>
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<td>6-50-734</td>
<td>Nikon Eclipse TE200/Ti</td>
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<td>6-50-747</td>
<td>Nikon Diaphot D200/300</td>
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<td>6-50-760</td>
<td>Zeiss Axiovert 200/Observer</td>
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<td>6-50-785</td>
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<td>6-50-790</td>
<td>Leica DMIRE2</td>
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<td>6-50-792</td>
<td>Leica DML3000/4000/6000</td>
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**Specimen Temperature Control**
The Integra Ti™ has a unique temperature control system - accurate to 0.1°C. Separate channels control the central stage insert and two additional stages, for extra petri dishes.

Controlled by a touch screen, you can be confident of the most accurate temperature control available today. This unique system also features computer feedback for data logging and experimental analysis.

**Heated Glass Insert**
In addition to the standard metal heated insert, the Integra Ti™ has the option of an RI or Tokai Hit heated glass insert. Using the latest ITO technology, heat is evenly distributed over the entire surface of the petri dish, providing superior temperature control.

**Stage Movement**
The Integra Ti™ uses a built-in XY mechanical stage for manipulation of the petri dish.

**Syringes**
The Integra Ti™ comes with two syringes included as standard. We offer both air and oil syringes with this system. Our very popular SAS air syringes give superb control and eliminate the need for oil. Our new SOS oil syringe is now available with a quick-fill feature to reduce set-up time.
Pipette Location
The toolholders provide the simplest and quickest method ever for setting up micropipettes. The toolholders, when used with a special objective and spacer (supplied), allow the micropipettes to be set up above the petri dish and then rapidly lowered to the desired position, preventing micropipette damage. The toolholders also have a special angular adjustment which allows the user to adjust the angle of the pipette with a single screw. This can ensure that the micropipette is slightly "toe-down" during sperm immobilisation and horizontal during sperm injection. This feature may help to reduce the stress on the oocyte and increase its potential for development. For PGD, RI has a double toolholder system which offers independent movement of both micropipettes.

Micromanipulators
The micromanipulators in the Integra Ti™ offer the most accurate and precise positioning available. Each micromanipulator offers both fine and coarse xyz control and comes with our latest range of toolholders. They are extremely reliable and being purely mechanical they do not suffer from delay as in electronic micromanipulators or lost motion and drift common in hydraulic systems.

Customer Comments
“Until recently, Cromwell centres have been using a variety of different micromanipulation systems, namely Narishige and older models from Research Instruments. We are now upgrading these to the latest Integra Ti™ systems from Research Instruments. Since the installation of the Integra Ti™ systems, we have noticed a significant rise in our success rates. We primarily believe that this is due to the highly developed design of the Integra Ti™ that allows our Embryologists to perform ICSI in the shortest times possible. All controls are simple to use and perfectly positioned. The pipette set-up is particularly rapid, allowing injection pipettes to be replaced within seconds during the ICSI procedure, very useful if a pipette becomes blocked during an ICSI. Overall, the features of the system mean that specimens are kept out of the incubator for the shortest time possible, optimising our development rates. The other features of the Integra Ti™ such as the built-in heated plates and a digital help menu, which are not offered by other systems, are also of particular use.”

Matey Andonov
Cromwell Hospitals, U.K.

“... We have found the unique features of the Integra Ti™ very useful in everyday routine and research work. From its touch screen controlled built-in heated stages to the incredibly quick pipette set-up, the system excels at giving me the ability to control the micropipettes with great speed and accuracy.

With this system I can now complete ICSI's at a much quicker rate than ever before. This means that the cells are now out of the incubator for the shortest time possible giving the embryos a better chance for survival and development.”

Cedomir Joksimovic
Ljubljana, Slovenia