

# Traversing mechanism

## 1D, 2D and 3D traversing system

### Applications

- Computer controlled positioning of LDA/PDA, PIV or CTA precision measurement equipment
- Volume mapping PIV
- Computer controlled positioning of small flow rigs
- Computer controlled positioning of spray nozzles for PDA measurements

### Features

- Rigid construction with step-motor driven high precision lead screws integrated in all traverse units
- Improved bearings with high load capacity
- Electrical limit switches in all units
- Automatic control integrated in Dantec Dynamics application software
- High resolution



### Description

The Dantec Dynamics traversing system combines automated, high resolution positioning with a mechanical solution adapted to the LDA, PDA, CTA and PIV measuring system.

With the point measurement techniques LDA, PDA and CTA, automated positioning makes it possible to map the flow either by moving the measurement

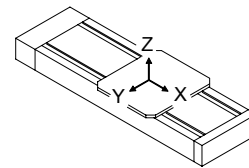
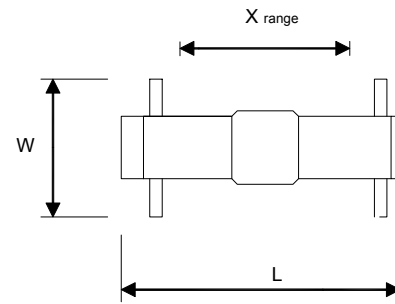
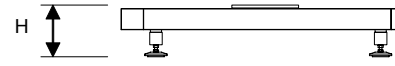
device or the flow rig along a line, in a plane or in a volume.

PIV systems already measure in a plane, and a traversing system makes it possible to make volume mapping by traversing perpendicularly to the measurement plane. By traversing in a plane parallel to the measurement plane, a larger area of the flow can be accessed.

## 1D traversing mechanism

### Specifications

		1D Traversing mechanism
<b>Range</b>	<b>X</b>	110 - 2710 mm
<b>Speed</b>		Up to 25 mm /sec
<b>Resolution</b>		6.25µm
<b>Dimensions</b>	<b>W</b>	500 mm
	<b>L</b>	X + 440 mm
	<b>H</b>	190 mm
<b>Max Load</b> (dynamic)	<b>Mx</b>	340 Nm
	<b>My</b>	150 Nm
	<b>Mz</b>	170 Nm
<b>Lift capacity</b>		60 kg
<b>Included</b>		<ul style="list-style-type: none"> <li>• Mounting plate for Dantec Dynamics bench profile or Probe support</li> <li>• Adjustable feet</li> </ul>

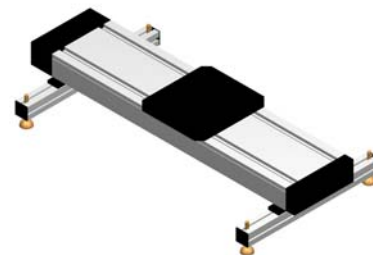


### Ordering information

#### 1D Traversing mechanism

Model	X range
9041T311	410 mm
9041T031	610 mm
9041T313	1010 mm

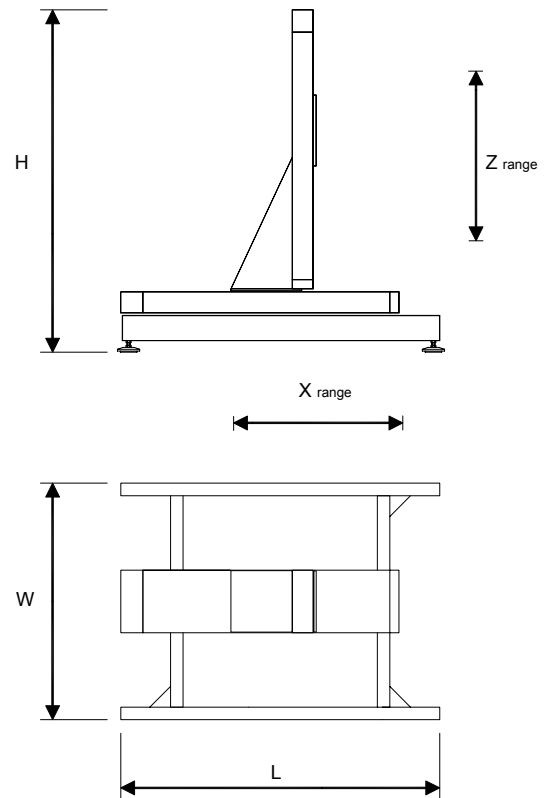
Customized traverse mechanism with other range than listed can be delivered on request.



## 2D traversing mechanism

### Specifications

		2D Traversing mechanism
<b>Range</b>	<b>X</b>	110 - 2710 mm
	<b>Z</b>	110 - 1510 mm
<b>Speed</b>		Up to 25 mm /sec
<b>Resolution</b>		6.25µm
<b>Dimensions</b>	<b>W</b>	650 mm
	<b>L</b>	X + 540 mm
	<b>H</b>	Z + 620 mm
<b>Max Load (dynamic)</b>	<b>Mx</b>	175 Nm
	<b>My</b>	150 Nm
	<b>Mz</b>	340 Nm
<b>Lift capacity</b>		60 kg
<b>Included</b>		<ul style="list-style-type: none"> <li>• Electromagnetic brake built-in the vertical traverse unit</li> <li>• Mounting plate for Dantec Dynamics bench profile or Probe support</li> <li>• Adjustable feet</li> </ul>

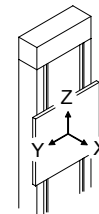


X denotes horizontal direction, Z denotes vertical direction.

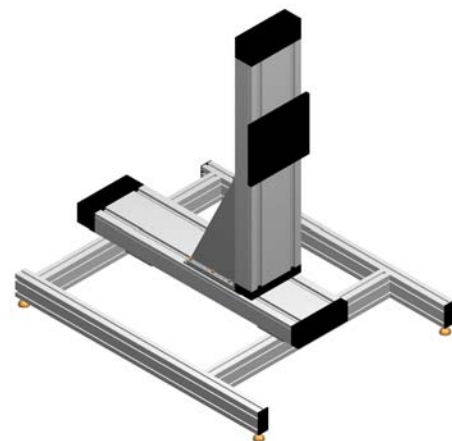
### Ordering information

#### 2D Traversing mechanism

Model	X range	Z range
9041T321	410 mm	410 mm
9041T032	610 mm	610 mm
9041T323	1010 mm	1010 mm



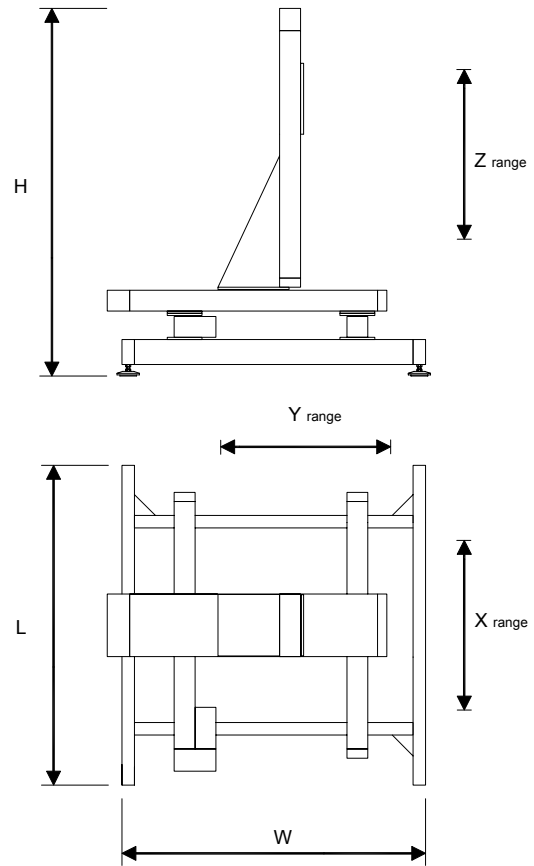
Customized traverse mechanism with other range than listed can be delivered on request



3D traversing mechanism

Specifications

		3D Traversing mechanism
<b>Range</b>	<b>X</b>	110 - 2710 mm
	<b>Y</b>	110 - 2010 mm
	<b>Z</b>	110 - 1510 mm
<b>Speed</b>		Up to 25 mm /sec
<b>Resolution</b>		6.25µm
<b>Dimensions</b>	<b>W</b>	Y + 540 mm
	<b>L</b>	X + 540 mm
	<b>H</b>	Z + 720 mm
<b>Max Load</b> (dynamic)	<b>Mx</b>	175 Nm
	<b>My</b>	150 Nm
	<b>Mz</b>	340 Nm
<b>Lift capacity</b>		60 kg
<b>Included</b>		<ul style="list-style-type: none"> <li>• Electromagnetic brake built-in the vertical traverse unit</li> <li>• Mounting plate for Dantec Dynamics bench profile or Probe support</li> <li>• Adjustable feet</li> </ul>



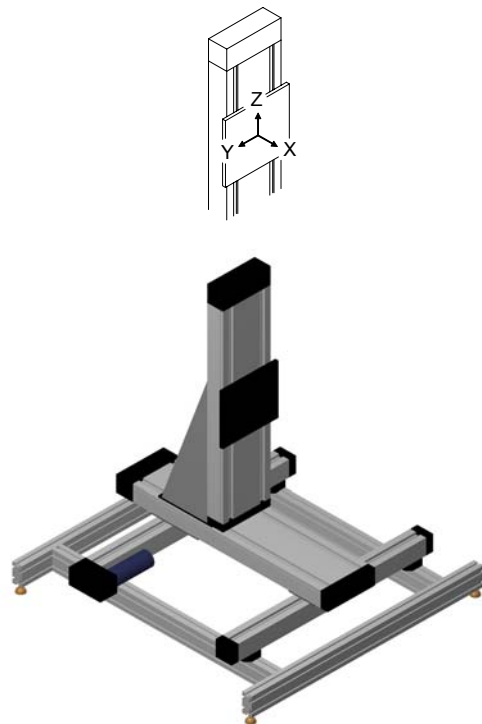
X and Y denotes horizontal direction, Z denotes vertical direction.

Ordering information

3D Traversing mechanism

Model	X range	Y range	Z range
9041T331	410 mm	410 mm	410 mm
9041T033	610 mm	610 mm	610 mm
9041T333	1010 mm	1010 mm	1010 mm

Customized traverse mechanism with other range than listed can be delivered on request



**Controller**

<b>Number of motor power modules</b>	2 or 3
<b>Line voltage</b>	100 - 250VAC 50..60Hz
<b>Mains supply</b>	Detachable standard mains cable
<b>Interface</b>	RS232 and USB
<b>Dimensions WHD</b>	475 x 188 x 410 mm
<b>Included</b>	<ul style="list-style-type: none"> <li>• Motor cable - 5 meter</li> <li>• Null modem Cable 3 meter</li> <li>• Emergency stop including cable - 5 meter</li> </ul>

**Ordering information**

<b>Model</b>	<b>Description</b>
<b>9041T018</b>	2D traversing controller. 100 – 250VAC, 50 .. 60Hz
<b>9041T019</b>	3D traversing controller. 100 – 250VAC, 50 .. 60Hz

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