



# X-ray Multi-axis Diffractometer <XDFM-007>

This unit is developed for synchrotron radiation mossbauer spectroscopy experiments .  
As a feature, the stroke of the Z axis is 600 mm. In addition, the X-axis stroke is 100 mm and the single-axis load capacity is 200 kg.



## Features

◆ On the Z axis,  $\theta$ - $2\theta$ ,  $\chi$ ,  $\phi$ , small Z, small XY axis, etc. are placed.

◆ There are two types of  $\phi$ -axis, rough resolution and fine resolution.

◆ The length of the  $2\theta$  arm is 500mm.

◆ The load capacity of the Z axis is 100kg.

## Specifications

Model	XDFM-007	
Drive	Stepping motor	
Stroke	100 mm(X axis) 600 mm(Z axis) 50 deg( $\theta$ axis) 190 deg( $2\theta$ axis)	180 deg( $\chi$ axis) 160 deg( $\phi$ axis) 3 mm(small Z axis) 10 mm(small XY axis)
Maximum speed(5 kpps)	1 mm/sec(X axis) 2.5 mm/sec(Z axis) 0.5 deg/sec( $\theta$ axis) 1.0 deg/sec( $2\theta$ axis)	5 deg/sec( $\chi$ axis) 10 deg/sec( $\phi$ axis) 0.31 mm/sec(small Z axis) 2.5 mm/sec(small XY axis)
Resolution(Half step) ※The $\phi$ -axis is a rough resolution type	0.2 $\mu$ m(X axis) 0.5 $\mu$ m(Z axis) 0.0001 deg( $\theta$ axis) 0.0002 deg( $2\theta$ axis)	0.001 deg( $\chi$ axis) 0.002 deg( $\phi$ axis) 0.0625 $\mu$ m(small Z axis) 0.5 $\mu$ m(small XY axis)
Load Capacity	100 kg(Z axis),200 kg(X axis)	
Self weight (unit total)	253 kg	
Dimension	440 x 894 x 1302 (W x L x H : mm)	