

3-Axis Dynamic

3-Axis Dynamic Scanning System

As a perfect combination of post-objective scanning system and motorized translator, 3-Axis dynamic scanning system has been widely used in modern laser processing realm (cutting, marking and 3D prototyping, etc.) .

Different from the pre-objective scanning system, in a 3-Axis dynamic scanning system, the scanning mirrors are placed after the objective lens. This lens system is made of a movable expanding lens and focusing lens unit. The laser beam first enters an expander lens; the expanded beam will enter the focusing lens unit, then go through the scanning mirrors and reach the focal plane finally. Moving the expander lens with a motorized translator induces the change of the distance between the expander lens and the focusing lens, which makes the focused laser spot move within a two or three-dimensional space, so called "3-Axis scanning".

A 3-Axis dynamic scanning system normally offers the following advantages:

- * Adjustable range of scanning field size from 100mmX100mm to 2000mmX2000mm;
- * Achieve smaller focused spot size compared to the pre-object scanning systems;
- * Enhanced uniformity of the focused spot size from the center to the edge of the scanning field.

Part No.	Wavelength (μm)	Scan area (mm \times mm)	D (mm)	Input Beam (mm)	WD (mm)	Spot Size (μm)
3D-10.6-500 \times 500-8	10.6	500 \times 500	97.419	8.0	700	240
3D-10.6-800 \times 800-15	10.6	300 \times 300- 800 \times 800	98.9-114.5	15.0	582.8- 1554.2	210-500
3D-10.6-2000 \times 2000-9	10.6	100 \times 100- 2000 \times 2000	93.5-166.0	9.0	137.4- 2747.5	140-1440
3D-1064-1000 \times 1000-4	1064nm	100 \times 100- 1000 \times 1000	91.6	4.0	609	110
3D-355-1000 \times 1000-0.6	355nm	1000 \times 1000	110.0	0.6	1300	200

