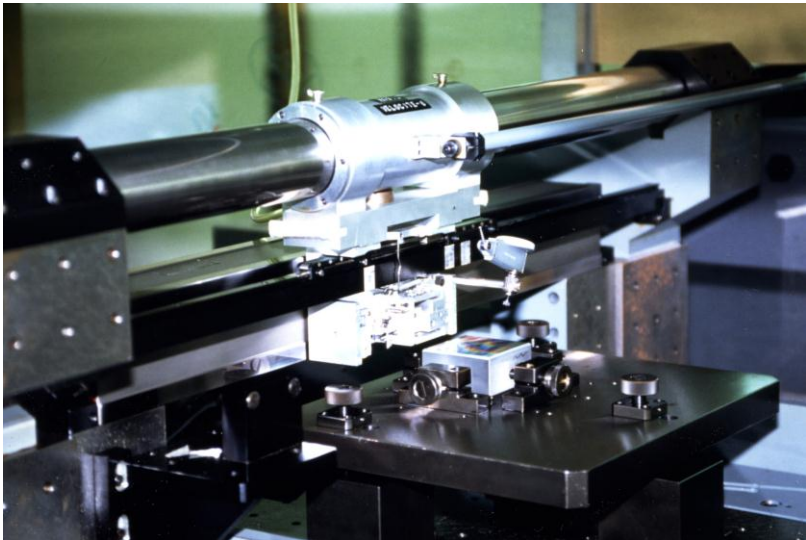


Registration No.	Number 00088		
Registration Date	September 27, 2011	Registration Category	Category 2

Name (Model, etc.)	Ruling engine (Model 2)
Location	Kumagaya City, Saitama Pref
	NIKON CORPORATION Kumagaya Plant
Owner (Custodian)	NIKON CORPORATION
Manufacturer (Company)	Nippon Kogaku K.K. (current Nikon Corporation)
Year Manufactured	1971
Reason For Selection	This is a ruling engine, that is, a machine operated by a long micrometer screw that rules equally spaced lines in an optical diffraction grating. This device was developed so that Japan could have the technology for making diffraction gratings in monochromators and spectral photometers. To make diffraction gratings, 1000 to 1500 parallel lines per millimeter have to be carved with diamond cutter. Doing so requires developing an XY stage precision positioning machine using a laser interferometer and peripheral technology. Development of this machine and peripheral technology took ten years. This technology in due time became the basic technology of semiconductor steppers as photolithography equipment used for the production of semiconductors, and it provided the backbone for the Japanese semiconductor technology that dominated the world.
Registration Standard	1 - A

Open/Closed to Public	Closed to Public
Photo	
Other useful information	