

Registration No. 333-\_\_\_\_\_

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER  
THE SECURITIES ACT OF 1933

MKS INSTRUMENTS, INC.  
(Exact Name of Registrant as Specified in Its Charter)

MASSACHUSETTS  
(State or Other Jurisdiction of  
Incorporation or Organization)

04-2277512  
(I.R.S. Employer  
Identification Number)

SIX SHATTUCK ROAD, ANDOVER, MASSACHUSETTS  
(Address of Principal Executive Offices)

01810  
(Zip Code)

AMENDED AND RESTATED 1995 STOCK INCENTIVE PLAN,  
AS AMENDED  
(Full Title of the Plan)

JOHN R. BERTUCCI  
CHAIRMAN AND CHIEF EXECUTIVE OFFICER  
MKS INSTRUMENTS, INC.  
SIX SHATTUCK ROAD  
ANDOVER, MA 01810  
(Name and Address of Agent For Service)

(978) 975-2350  
(Telephone Number, Including Area Code, of Agent For Service)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, no par value per share	5,250,000	\$22.86	\$120,015,000	\$11,041.38

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act of 1933, as amended, and based upon the average of the high and low prices of the Registrant's Common Stock as reported on the Nasdaq National Market on June 12, 2002.

STATEMENT OF INCORPORATION BY REFERENCE

Except as otherwise set forth below, this Registration Statement on Form S-8 incorporates by reference the contents of the Registration Statements on Form S-8, File No. 333-78071 and 333-54490, relating to the Registrant's Amended and Restated 1995 Stock Incentive Plan, as Amended.

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Andover, Massachusetts on June 14, 2002.

MKS INSTRUMENTS, INC.

By: /s/ John R. Bertucci  
 -----  
 John R. Bertucci  
 Chairman of the Board and  
 Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of MKS Instruments, Inc. hereby severally constitute and appoint John R. Bertucci, Ronald C. Weigner and Mark G. Borden, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names in the capacities indicated below, the Registration Statement on Form S-8 filed herewith and any and all subsequent amendments to said Registration Statement, and generally to do all such things in our names and behalf in our capacities as officers and directors to enable MKS Instruments, Inc. to comply with all requirements of the Securities and Exchange Commission, hereby ratifying and confirming our signatures as they may be signed by said attorneys, or any of them, to said Registration Statement and any and all amendments thereto.

PURSUANT TO THE REQUIREMENTS OF THE SECURITIES ACT, THIS REGISTRATION STATEMENT HAS BEEN SIGNED BY THE FOLLOWING PERSONS IN THE CAPACITIES AND ON THE DATES INDICATED.

Signature -----	Title -----	Date -----
/s/ John R. Bertucci ----- John R. Bertucci	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	June 14, 2002
/s/ Ronald C. Weigner ----- Ronald C. Weigner	Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 14, 2002
/s/ Robert R. Anderson ----- Robert R. Anderson	Director	June 14, 2002
/s/ James G. Berger ----- James G. Berges	Director	June 14, 2002
/s/ Richard S. Chute ----- Richard S. Chute	Director	June 14, 2002
/s/ Hans-Jochen Kahl ----- Hans-Jochen Kahl	Director	June 14, 2002

/s/ Owen W. Robbins  
-----  
Owen W. Robbins

Director

June 14, 2002

/s/ Louis P. Valente  
-----  
Louis P. Valente

Director

June 14, 2002

EXHIBIT INDEX

Exhibit Number -----	Description -----
4.1(1)	Restated Articles of Organization of the Registrant.
4.2(2)	Articles of Amendment.
4.3(3)	Articles of Amendment.
4.4(4)	Amended and Restated By-Laws of the Registrant.
4.5(4)	Specimen Certificate for Common Stock of the Registrant.
5.1	Opinion of Hale and Dorr LLP.
23.1	Consent of Hale and Dorr LLP (included in Exhibit 5.1).
23.2	Consent of PricewaterhouseCoopers LLP.
23.3	Consent of KPMG LLP.
24.1	Power of Attorney (included in the signature pages of this Registration Statement).
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(1)	Incorporated herein by reference from the Registrant's Registration Statement on Form S-4 (File No. 333-49738) originally filed with the Securities and Exchange Commission on December 13, 2000, as amended.
(2)	Incorporated herein by reference from the Registrant's Quarterly Report on Form 10-Q originally filed with the Securities and Exchange Commission on August 14, 2001.
(3)	Incorporated herein by reference from the Registrant's Definitive Proxy originally filed with the Securities and Exchange Commission on April 16, 2002.
(4)	Incorporated herein by reference from the Registrant's Registration Statement on Form S-1 (File No. 333-71363) originally filed with the Securities and Exchange Commission on January 28, 1999, as amended.

HALE AND DORR LLP  
COUNSELLORS AT LAW

HALEDORR.COM  
60 STATE STREET - BOSTON, MA 02109  
617-526-6000 - FAX 617-526-5000

June 14, 2002

MKS Instruments, Inc.  
Six Shattuck Road  
Andover, MA 01810

Re: Amended and Restated 1995 Stock Incentive Plan, as amended

Ladies and Gentlemen:

We have assisted in the preparation of a Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to an aggregate of 5,250,000 shares of common stock, no par value per share (the "Shares"), of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), issuable under the Company's Amended and Restated 1995 Stock Incentive Plan, as amended (the "Plan").

We have examined the Articles of Organization and By-Laws of the Company, each as amended and restated to date, and originals, or copies certified to our satisfaction, of all pertinent records of the meetings of the directors and stockholders of the Company, the Registration Statement and such other documents relating to the Company as we have deemed material for the purposes of this opinion.

In our examination of the foregoing documents, we have assumed the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified, photostatic or other copies, the authenticity of the originals of any such documents and the legal competence of all signatories to such documents.

We assume that the appropriate action will be taken, prior to the offer and sale of the shares in accordance with the Plan, to register and qualify the shares for sale under all applicable state securities or "blue sky" laws.

We express no opinion herein as to the laws of any state or jurisdiction other than the state laws of The Commonwealth of Massachusetts and the federal laws of the United States of America.

It is understood that this opinion is to be used only in connection with the offer and sale of the Shares while the Registration Statement is in effect.

Please note that we are opining only as to the matters expressly set forth herein, and no opinion should be inferred as to any other matters.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized for issuance and, when the Shares are issued and paid for in accordance with the terms and conditions of the Plan, the Shares will be validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion with the Securities and Exchange Commission in connection with the Registration Statement in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act. In giving such consent, we do not hereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission.

Very truly yours,

/s/ HALE AND DORR LLP

HALE AND DORR LLP

CONSENT OF INDEPENDENT PUBLIC ACCOUNTANTS

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated January 31, 2002 relating to the financial statements and financial statement schedule of MKS Instruments, Inc., which appears in MKS Instruments, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2001.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts  
June 13, 2002



Independent Auditors' Consent

The Board of Directors  
Applied Science and Technology, Inc and Subsidiaries:

We consent to the use of our report dated July 31, 2000, with respect to the consolidated balance sheet of Applied Science and Technology, Inc., and subsidiaries as of July 1, 2000, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the years in the two-year period ended July 1, 2000, incorporated herein by reference.

/s/ KPMG LLP

Boston, MA  
June 13, 2002