

SECURITIES AND EXCHANGE COMMISSION
 WASHINGTON, DC 20549

 FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

APA OPTICS, INC.
 (Exact Name of Registrant as Specified in Its Charter)

MINNESOTA	41-1347235
(State or Other Jurisdiction of Incorporation or Organization)	(IRS Employer Identification No.)

2950 N.E. 84TH LANE,
 BLAINE, MINNESOTA 55449
 (Address of Principal Executive Offices) (Zip Code)

APA OPTICS, INC. 1997 STOCK COMPENSATION PLAN
 (Full title of the plan)

ANIL K. JAIN, CHIEF EXECUTIVE OFFICER
 2950 N.E. 84TH LANE
 BLAINE, MINNESOTA 55449
 (Name and address of agent for service)

(673) 784-4995
 (Telephone number, including area code, of agent for service)

COPIES TO:
 DEANNE M. GRECO, ESQ.
 MOSS & BARNETT
 A PROFESSIONAL ASSOCIATION
 4800 WELLS FARGO CENTER
 90 SOUTH 7TH STREET
 MINNEAPOLIS, MN 55402
 TELEPHONE: (612) 347-0287

CALCULATION OF REGISTRATION FEE

<TABLE>
 <CAPTION>

TITLE OF SECURITIES TO BE REGISTERED	AMOUNT TO BE REGISTERED	PROPOSED MAXIMUM OFFERING PRICE PER SHARE (1)	PROPOSED MAXIMUM AGGREGATE OFFERING PRICE (1)	AMOUNT OF REGISTRATION FEE
<S> Common Stock, \$.01 par value	<C> 500,000 shares	<C> \$16.25	<C> \$8,125,000	<C> \$2,145

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(1) Estimated solely for the purpose of calculating the registration fee, based upon the average of the high and low prices of the Common Stock as reported by The Nasdaq Stock Market on August 21, 2000.

If any of the Securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. |X|

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents and information, which have been, or will be, filed by the registrant with the Securities and Exchange Commission (the "Commission"), are incorporated herein by reference, as of their respective dates:

(a) The registrant's Annual Report to Shareholders for the fiscal

year ended March 31, 2000;

(b) The registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2000;

(c) The description of the registrant's Common Stock, \$.01 par value, contained in the registrant's Registration Statement on Form 8-A filed under the Securities Exchange Act of 1934 (the "Act"), on July 29, 1987 (SEC. No. 0-16106), including any amendment or report filed for the purpose of updating such description.

All reports and documents filed by the registrant with the Commission pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Act, after the date hereof and prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such reports or documents.

Item 4. Description of Securities

Not applicable.

Item 5. Interest of Named Experts and Counsel

Not applicable.

Item 6. Indemnification of Directors and Officers

Unless prohibited in a corporation's articles of incorporation or bylaws, Minnesota Statutes Section 302A.521 requires indemnification of officers, directors, employees, or agents, under certain circumstances, against judgments, penalties, and fines, settlements, and reasonable expenses (including attorneys' fees and disbursements) incurred by such person in connection with a threatened or pending proceeding with respect to acts or omissions of such person in his or her official capacity. The general effect of Section 302A.521 is to require the registrant to reimburse (or pay on behalf of) directors and officers of the registrant any personal liability that may be imposed for certain acts performed in their capacity as directors and officers of the registrant, except where such persons have not acted in good faith.

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The registrant's Articles of Incorporation and Bylaws provide for such indemnification to the maximum extent permitted by Minnesota Statutes. The registrant has purchased insurance covering the liability of its directors and officers.

Item 7. Exemption from Registration Claimed

Not applicable.

Item 8. Exhibits

The following exhibits are filed as a part of this registration statement:

EXHIBIT NUMBER	DESCRIPTION
4	Form of Stock Certificate (incorporated by reference to the registrant's Registration Statement on Form S-18 (SEC No. 33-6817C) filed June 26, 1986)
5	Opinion of Counsel
23.1	Consent of Counsel (included in Exhibit 5)
23.2	Consent of Independent Auditors
24	Powers of attorney from Messrs. Jain, Ringstad, Olsen, Von Wald, Gort, and Franta (included on signature page)

Item 9. Undertakings

A. The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment to this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof; and

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

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B. The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

C. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person of the registrant in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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SIGNATURES AND POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, 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 the City of Minneapolis, State of Minnesota, on August 25, 2000.

APA OPTICS, INC.

By /s/ Anil K. Jain

Anil K. Jain, President and
Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Anil K. Jain and Deanne M. Greco, and each of them, his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8, including any amendment increasing or decreasing the amount of securities for which registration is being sought or any registration statement for the same offering filed in accordance with Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated:

SIGNATURE	TITLE	DATE
- - - - -	-----	----

/s/ Anil K. Jain ----- Anil K. Jain	Chief Executive Officer (Principal executive officer) and Director	August 25, 2000
/s/ Robert Ringstad ----- Robert Ringstad	Chief Financial Officer (Principal financial and accounting officer)	August 25, 2000
/s/ Kenneth A. Olsen ----- Kenneth A. Olsen	Director	August 25, 2000
/s/ Gregory J. Von Wald ----- Gregory J. Von Wald	Director	August 25, 2000
/s/ Michael A. Gort ----- Michael A. Gort	Director	August 25, 2000
/s/ William R. Franta ----- William R. Franta	Director	August 25, 2000

EXHIBIT INDEX

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August 25, 2000

Board of Directors
APA Optics, Inc.
2950 N.E. 84th Lane
Blaine, Minnesota 55449

Re: Registration Statement for 500,000 Shares of Common Stock to be issued pursuant to APA Optics, Inc. 1997 Stock Compensation Plan Our File No.: 52226.1

Gentlemen:

This opinion is given in connection with the filing by APA Optics, Inc. with the Securities and Exchange Commission under the Securities Act of 1933, of a Registration Statement on Form S-8 (the "Registration Statement"), with respect to 500,000 shares of the Registrant's Common Stock, \$.01 par value (the "Shares"), that may be issued upon exercise of options or other awards that have been or may be granted under the Registrant's 1997 Stock Compensation Plan (the "Plan").

We have acted as counsel for the Registrant in connection with the filing of the Registration Statement. In so acting, we have examined the originals or copies, certified or otherwise identified to our satisfaction, of all corporate instruments and have made such inquiries of officers and representatives of the Registrant as we have deemed relevant and necessary as a basis for the opinion hereinafter set forth. In such examination, we have assumed the genuineness of all signatures and the authenticity of all documents submitted to us as originals and the conformity to the original of documents submitted to us as certified or photostatic copies. As to questions of fact material to such opinion that we have not independently established, we have relied upon representations or certificates of officers and directors of the Registrant.

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Board of Directors
August 25, 2000
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Based upon the foregoing, we are of the following opinion:

1. The Registrant has been duly incorporated and is validly existing as a corporation under the laws of the State of Minnesota.
2. The Shares have been duly authorized and when issued and delivered as contemplated under the Plan will be validly issued and outstanding, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement. We further consent to the use of this opinion as an exhibit to applications to the securities commissioners of various states of the United States for registration therein of various aggregate amounts of the Shares.

Very truly yours,

MOSS & BARNETT
A Professional Association

/s/ Deanne M. Greco

Deanne M. Greco

DMG/ggb

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CONSENT OF INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement on Form S-8 of APA Optics, Inc. of our report dated May 5, 2000, with respect to the financial statements of the Company included in its Annual Report on Form 10-K for the year ended March 31, 2000, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Minneapolis, Minnesota
August 25, 2000