



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

April 26, 2012

Via E-mail

Mr. Günther Braun
President and Chief Executive Officer
Rofin-Sinar Technologies Inc.
40984 Concept Drive
Plymouth, Michigan 48170

**Re: Rofin-Sinar Technologies Inc.
Form 10-K for the Fiscal Year Ended September 30, 2011
Filed November 29, 2011
File No. 000-21377**

Dear Mr. Braun:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended September 30, 2011

Management Discussion and Analysis of Financial Condition and Results of Operations, page 37

Liquidity and Capital Resources, page 41

1. We note from your disclosures on page F-22 that your foreign subsidiaries had approximately \$390 million of accumulated undistributed earnings indefinitely reinvested outside the United States. To the extent such amounts could be considered material to an understanding of your liquidity and capital resources in future periods, such as repayments of your outstanding debt, please revise your future filings to disclose the amounts of the cash and investment amounts held by your foreign subsidiaries that would

not be available for use in the United States. Please further provide a discussion of any known trends, demands or uncertainties as a result of this policy that are reasonably likely to have a material effect on the business as a whole or that may be relevant to your financial flexibility. Refer to Item 303(a)(1) of Regulation S-K and Section IV SEC Release 33-8350.

Consolidated Statements of Operations, page F-4

2. Your disclosures on page 20 indicate approximately 36% of your revenues are from after-sales services, replacement parts and components. Please tell us the consideration you have given to separately disclosing revenue and cost of revenue from services and other sources. We refer you to Item 5-03(b)1(d)-(e) of Regulation S-X.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Gary Newberry, Staff Accountant, at (202) 551-3761 or Lynn Dicker, Reviewing Accountant, at (202) 551-3616 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3643.

Sincerely,

/s/ Lynn Dicker for

Kevin L. Vaughn
Accounting Branch Chief