RUDOLPH TECHNOLOGIES INC Form 424B3 June 06, 2008

> Filed Pursuant to Rule 424(b)(3) Registration No. 333-149704

PROSPECTUS SUPPLEMENT To Prospectus dated April 21, 2008

1,307,341 Shares

Rudolph Technologies, Inc.

Common Stock

This prospectus supplement relates to resales by selling stockholders of up to 1,307,341 shares of our common stock. This prospectus supplement must be read in conjunction with our Prospectus dated April 21, 2008 (the "Prospectus").

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. PLEASE CONSIDER THE "RISK FACTORS" BEGINNING ON PAGE 4 OF THE PROSPECTUS.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus supplement is June 6, 2008

SELLING STOCKHOLDERS

The information in the table appearing in the Prospectus under the heading "Selling Stockholder" is superseded by the information appearing in the following table based on information provided to us by the selling stockholder as of May 23, 2008.

The following table sets forth the name of each of the selling stockholders, the number of shares of common stock beneficially owned by each of the selling stockholders immediately prior to the date of this prospectus, and the total number of shares that may be offered pursuant to this prospectus. The table also provides information regarding the beneficial ownership of our common stock by each of the selling stockholders as adjusted to reflect the assumed sale of all of the shares offered under this prospectus. Percentage of beneficial ownership is based on 30,587,060 shares of our common stock outstanding as of May 26, 2008. The selling stockholders may offer the shares for sale from time to time in whole or in part. Except where otherwise noted, the selling stockholders named in the following table have, to our knowledge, sole voting and investment power with respect to the shares beneficially owned by them.

Beneficial Ownership Before Offering

Number of Shares Offered Hereby

Beneficial Ownership After Offering

Selling Stockholders

Number of Shares Owned

Percent

Number of Shares Owned

82,336

82,336

	Number of Shares Owned
	Percent
AP Stock Company	
	641,852
	2.1%
	641,852
	0
	-
Riverside Fund II, L.P. (1)	
	552,667
	1.8%
	552,667
	0
	-
Landmark Co-Investment Partners IX, L.P.	

0 DRW Venture Partners LP 22,126 22,126 0 Lund Engineering, Inc. 1,899 1,899 0 Joseph J. Victor, Sr. 1,871 1,871 0 Joseph J. Victor, Jr. 1,399 1,399 0

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Philip P. Gutry

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Philip S. Curatilo Diane M. Huff Amy S. Wagner Ryan Sacco



^{*} Less than 1%

⁽¹⁾ Daniel H. Berry, a Director of the Company, is an Operating Partner of Riverside Partners, LLC, an affiliate of Riverside Fund II, L.P. From July 2004 to August 2007, Mr. Berry also served as Executive Vice President of Applied Precision, LLC. Paul Craig, a Director of the Company, is President of Riverside Partners, Inc., an affiliate of Riverside Fund II, L.P.