



DIVISION OF
CORPORATION FINANCE

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

Mail Stop 3030

October 23, 2015

Via E-mail

Gerald R. Mattys
Chief Executive Officer
Tactile Systems Technology, Inc.
1331 Tyler Street NE, Suite 200
Minneapolis, MN 55413

**Re: Tactile Systems Technology, Inc.
Draft Registration Statement on Form S-1
Submitted September 28, 2015
CIK No. 0001027838**

Dear Mr. Mattys:

We have reviewed your draft registration statement and have the following comments. 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 by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Graphics

1. The equal prominence given to your ACTitouch and Flexitouch systems in your graphic does not appear appropriate in light of the relative percent of your total revenues attributable to those products. Please revise or advise. In addition, since you highlight on page 100 the drawback of the system worn under clothing, tell us why you think that the graphic appropriately represents that product during normal use. Finally, revise the final bullet point in each graphic to discuss the limitations of your clinical data or remove the bullet.

Industry and Market Data, page ii

2. We note your references on pages 3 and 88 to data analysis that you commissioned. Tell us whether you commissioned the analysis for use in connection with this registration statement.

Tactile Medical, page 1

3. Explain the basis for your conclusion that “[t]his evolving care model is recognized by policy-makers and payers as key for controlling rising health care expenditures” or remove it.
4. If you choose to highlight conclusions of studies in your summary, as you have done in the final carry-over paragraph on page 1, please include a discussion of the limitations of those studies on drawing conclusions about your products. By way of example only, in some cases it appears that the study was not based upon your product specifically and/or involved a limited number of total subjects or subjects outside the control group. In other cases, it appears that your “quality of life” conclusions are based upon criteria contained in patient questionnaires that required subjective conclusions to be drawn.

Market Opportunity, page 3

5. Given the market size uncertainty you mention in the penultimate risk factor on page 21, please tell us why you believe it is appropriate to highlight the market size in your prospectus summary.

Our Competitive Strengths, page 4

6. Given your disclosure on page 97 regarding the use of a pneumatic compression device and the increase in lymphedema prevalence, please tell us why you believe your disclosure regarding improved efficacy compared to traditional treatments is appropriate to highlight in your prospectus summary.
7. It is unclear how you have concluded that you have “substantial clinical evidence” given your disclosure in the last bullet point on page 6. Please revise or advise.
8. Refer to the first bullet point on page 5. Revise to indicate your basis for the conclusions in this bullet point or remove them.

Our Strategy, page 5

9. Please expand the first bullet point on page 6 and elsewhere as appropriate to indicate where you believe that reimbursement rates can or need to be expanded so that an investor can understand the state of reimbursement rates for your products.

Implications of Being an Emerging Growth Company, page 7

10. Please supplementally provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.

The Offering, page 9

11. Confirm whether you have identified any potential acquisition or investment candidates, given your indication that you might use proceeds for such purpose.

Our long-term growth depends..., page 15

12. Please discuss any evidence that has failed to support the clinical benefits you mention in your prospectus or advise.

We may be unable to collect..., page 21

13. Quantify the original amount of claims which resulted in your entitlement to \$0.93 million.

Use of Proceeds, page 61

14. Please disclose the approximate amount of proceeds that you currently intend to use for each purpose mentioned in the first sentence of the penultimate paragraph in this section.

Results of Operations, page 75

15. Please tell us the extent to which changes in sales prices of your systems affected your results of operations for the periods presented.

Critical Accounting Policies and Significant Estimates

Stock-Based Compensation, page 84

16. On page 85, you disclose that your board of directors has historically determined the estimated fair value of your common stock based on the conclusions of contemporaneous valuations performed by an independent valuation specialist. Please revise to clarify the nature and extent of the third party appraiser's involvement and management's reliance on the work of the independent appraiser. Please refer to Question 141.02 of the Compliance and Disclosure Interpretations on Securities Act Sections, which can be found at <http://www.sec.gov/divisions/corpfin/guidance/sasinterp.htm>.

17. Please revise to include a discussion of the methods management used to determine the fair value of your ordinary shares and the nature of the material assumptions involved. For example, if you used the income approach, disclose that this method involves estimating future cash flows and discounting those cash flows at an appropriate rate. Also, discuss the extent to which the estimates are considered highly complex and subjective.
18. In order to assist us in evaluating your stock-based compensation, please provide us with the following information for each date you granted stock options in 2014 and the subsequent periods:
 - Date of grant;
 - Number of shares issuable under the grant(s);
 - Exercise price per share;
 - Any restriction or vesting terms;
 - Management's estimate of the fair value of the underlying ordinary share;
 - How management determined the fair value estimate;
 - Nature of any relationship between you and the recipient;
 - Nature and terms of any concurrent transactions with the recipient; and
 - The amount of any compensation for the grant.

When pricing information for this offering is available, please tell us the significant reasons for any material differences between your last fair value determination and the midpoint of the estimated IPO price range.

Business, page 88

19. Please disclose the basis of your estimate in the second sentence of the last paragraph on page 88.

Impact of Health Outcomes and Costs with Use of Pneumatic Compression Devices, page 97

20. Please disclose the pneumatic compression devices used in the study, and provide your analysis for how you factored the 31% increase in lymphedema prevalence in patients using a pneumatic compression device in your conclusion as highlighted in your graphic that your Flexitouch System improves clinical outcomes. Also, provide more specific information regarding the pre-specified set of health outcomes and costs. Supplementally provide the published study.

Flexitouch System Impact on Limb Volume and Patient-Reported Outcomes, page 99

21. Please quantify the “significant reduction” in limb volume disclosed in the second paragraph of this section and the minority of patients that experienced an increase in limb volume.

Comparison of Flexitouch System with Pneumatic Compression Devices, page 99

22. Please disclose the basic pneumatic compression device that was compared to your Flexitouch system and disclose any material differences between the two devices. Also, discuss any material limitation to this study, including but not limited to, a limited number of subjects and limited study conditions. Supplementally provide the published study.

Intellectual Property, page 114

23. We note that you acquired the ACTitouch system in 2013 for which you pay royalties. Please discuss the material terms of the asset purchase agreement mentioned on page F-16 including, for instance, to whom you pay royalties and any termination provisions of the agreement. Please file this agreement as an exhibit to your registration statement.

Management, page 118

24. Please indicate the dates during which Mr. Shapiro served in the disclosed roles so that it is clear how your disclosure addresses the full five-year period required by Regulation S-K Item 401(e)(1). Please also disclose the business experience of Mr. Burke for the full five-year period.
25. We note your disclosure on page 120 that Mr. Davis has served on numerous public company boards. Please disclose the directorships held by Mr. Davis during the past five years as required by Item 401(e)(2) of Regulation S-K.

Directed Share Program, page 139

26. Please clarify who may participate in your directed share program as “other persons associated with” you.

Principal Stockholders, page 140

27. Please disclose the natural person or persons who exercise the sole or shared voting and/or dispositive powers with respect to the shares held in the name of each entity listed in your table.

Consolidated Financial Statements

Consolidated Balance Sheets, page F-3

28. We note that dividends payable to your Series A and Series B preferred stockholders have continued to accrue subsequent to June 30, 2015 and that this accrual is not reflected in the latest balance sheet. Tell us your consideration of presenting a pro forma balance sheet to reflect the distribution accrual (but not giving effect to the offering proceeds) alongside the historical balance sheet in the filing. Refer to SAB Topic 1B.3.
29. We see from Note 8 that your preferred stock has a preference in involuntary liquidation considerably in excess of the par value of the shares. Please include the disclosure required by ASC 505-10-50-4.

Consolidated Statements of Operations, page F-4

30. We are unable to recalculate your basic and diluted earnings per share for fiscal years 2013 and 2014. Please either revise, or show us how you determined the amounts shown.
31. We note that you include a line item for reimbursement, general and administrative expenses. On page 74, you disclose that reimbursements include consulting, seminars for payer case managers, professional development and training and certification expenses. Please tell us why you refer to these costs as reimbursements and how you account for the expenses. Also, tell us the amount of reimbursements for each period presented.

Note 1. Summary of Significant Accounting Policies

Accounts Receivable, page F-8

32. Please explain to us how you determine the amount of Medicare accounts receivable to include as current for each period and revise to disclose whether the total accounts receivable amounts shown related to Medicare reflect just the current portion, or both the current and long-term portion.
33. With respect to your September 3, 2015 settlement agreement with the Centers for Medicare and Medicaid Services, please tell us whether the receivables under the agreement will be fully collected or whether you will write off a portion of the balances.
34. Please disclose what the line item for deductions represents in your rollforward.

Revenue Recognition, page F-12

35. We note that any differences in payments received (including Medicare) as compared to your estimates are recognized in the period for which you actually receive payment for

the product. Please tell us whether or not these differences have been material in any of the periods presented.

Stock-Based Compensation, page F-13

36. Please reconcile your disclosure from page 85 that you estimate the expected term based on the applicable vesting periods with your disclosure in this note that you use the simplified method to determine the expected term of the stock options. Also, explain to us why your expected volatility is derived using the historical volatility of one other public company. Tell us how you considered ASC 718 and ASC 718-10-55-35 through 55-41.
37. Please reconcile your disclosure from page 85 that you estimate the risk-free interest rate based on the yields of U.S. Treasury securities with maturities similar to the expected term of the options with your disclosure in this note that the risk-free rate is for periods within the contractual life of the option.
38. We note that you record the expense related to stock-based compensation in reimbursement, general and administrative expenses. Please tell us whether this classification is consistent with the same line or lines as cash compensation paid to the same employees. Refer to SAB Topic 14F.

Estimates, page F-15

39. You disclose that you continue to refine your estimate of the Medicare accounts receivable and related revenue recognition based on information available to you related to historical approval rates. Please tell us how the recent settlement in September 2015 has impacted those estimates.

Note 5. Asset Purchase Agreement, page F-16

40. Please tell us why you treated the minimum guaranteed royalties as part of the purchase price for the assets of the ACTitouch system and not as royalty expense. Cite the guidance relied upon and how you applied it to your facts and circumstances.

Note 8. Stockholders' Equity

41. Please disclose the per-share amounts of arrearages in cumulative preferred dividends. Refer to ASC 505-10-50-5(b).
42. On page 11, you disclose that the information in the prospectus reflects and assumes the issuance of additional shares of common stock to your Series A and B preferred stockholders immediately prior to the completion of the offering. Please tell us the terms of the additional share issuance and where you discuss these terms in your disclosure. Refer to ASC 505-10-50-3.

43. We note the terms of the payment of the accruing dividend for the Series B preferred stock. Please explain how the amount of the initial offering price impacts the number of shares you plan to issue to the preferred stockholders in payment of the accrued dividends. We note the disclosure on page 11 and elsewhere in the filing.

Note 10. Net Income (Loss) per Share Attributable to Common Stockholders, page F-27

44. We note your disclosure that the potentially dilutive securities shown in the table were included in your computation of weighted shares outstanding for fiscal years 2013 and 2014. Please revise to include the disclosures required by ASC 260-10-50-1 and 50-2 and separately show us how the potentially dilutive securities are reflected in that disclosure.

Note 11. Unaudited Pro Forma Net Income (Loss) Per Share Attributable to Common Stockholders, F-28

45. Please revise to show the impact of the pro forma adjustments to net income (loss) attributable to common stockholders (numerator) and separately show the changes in weighted-average shares due to each of the adjustments to the denominator.
46. Please tell us how you will reflect the adjustment to accrue for the payment of cumulative but unpaid dividends to your Series A preferred stockholders as of June 30, 2015 in the presentation of pro forma earnings per share here, and elsewhere in the filing. Discuss how you considered SAB Topic 1B.3.

Exhibits

47. Please include as exhibits to your registration statement any employment agreements currently in effect with your named executive officers. Also, include as an exhibit your lease agreement for your facilities mentioned on page 117.

Gerald R. Mattys
Tactile Systems Technology, Inc.
October 23, 2015
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You may contact David Burton at (202) 551-3626 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have questions regarding comments on the financial statements and related matters. Please contact Heather Percival at (202) 551-3498 or me at (202) 551-3528 with any other questions.

Sincerely,

/s/ Amanda Ravitz

Amanda Ravitz
Assistant Director
Office of Electronics and Machinery

cc: Jonathan R. Zimmerman
Faegre Baker Daniels LLP