



DIVISION OF
CORPORATION FINANCE
Mail Stop 3030

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

May 28, 2010

Robert D. Hansen
Co-Founder, Chairman and Chief Executive Officer
Electromed, Inc.
500 Sixth Avenue NW
New Prague, Minnesota 56071

Re: Electromed, Inc.
Registration Statement on Form S-1
Filed May 3, 2010
File No. 333-166470

Dear Mr. Hansen:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Prospectus Cover Page

1. Please confirm that any preliminary prospectus you circulate will include all non-Rule 430A information. This includes the price range and related information based on a bona fide estimate of the public offering price within that range, and other information that was left blank throughout the document.
2. Please highlight the reference to the risk factors section. Refer to Item 501(b)(5) of Regulation S-K.

Table of Contents

3. We note the first sentence in the paragraph that follows your table of contents cautioning investors that they “should rely only on the information contained in this prospectus.” Please consider whether this statement, in its current form, is consistent with your ability to use free writing prospectuses.

Summary

Our Business Strengths, page 2

4. We note that this section provides a broad overview of the strengths of your business. Please balance your disclosure by providing an equally prominent overview of the material risks to and weaknesses in your business.

Risk Factors

Our business, financial condition and results of operations...., page 10

5. With a view to disclosure, please:
- tell us the location and identity of your principal distributors; and
 - tell us whether you have any agreements with these distributors and the nature of such agreements if any.

If our patents...., page 19

6. We note that you pursue a policy of obtaining patents in key foreign countries. To the extent you do not seek patent protection in all countries in which you market your products, please disclose the material risks to your business of such a policy.

Future sales of our common stock...., page 21

7. Please address the warrants being issued to the underwriters as compensation for this offering in this risk factor.

Use of Proceeds, page 27

8. Please disclose the principal reasons for the offering.
9. We note your disclosure in the fourth paragraph that your reserve the right to modify the use of proceeds for other purposes. You may reserve the right to change the allocation of proceeds provided you disclose the specific contingencies that would give rise to a change. See Instruction 7 to Item 504 of Regulation S-K. Please revise.

10. Please reconcile your disclosure in this section with the disclosure in the fourth paragraph on page 36 that you expect to finance equipment purchases with proceeds of the offering. Also, revise the related risk factor on page 22, as applicable.

Capitalization, page 28

11. Please revise to remove “cash and cash equivalents” from the table on page 28 since this is not part of your capitalization.

Dilution, page 29

12. Please revise your dilution disclosure to show dilution assuming exercise of the warrants being issued to the underwriters.

Management’s Discussion and Analysis..., page 30

13. Refer to the last sentence of the last paragraph on page 30:
- Please disclose why Medicare reimbursement was temporarily suspended, include any appropriate risk factors disclosure if this could occur again; and
 - It appears from your disclosure on page 36 that the trademark lawsuit is expected to continue. To the extent that you reasonably expect that the continued litigation will have a material impact on income from continuing operations, by diverting the operational focus of management or otherwise, please provide the disclosure required by Item 303(a)(3)(ii) of Regulation S-K. Please also clarify why management’s attention to the trademark lawsuit significantly affected your sales given that you have a sales force and other distributors.
14. We note that your revenues increased significantly in each period presented as compared to the previous year and that the increase was primarily due to increases in sales of SmartVest Systems. In light of the material increases in revenues, your MD&A disclosure does not provide a thorough analysis that provides readers a view of the company through the eyes of management. When individual line items, disclosed in your statements of operations, significantly fluctuate in comparison to the comparable prior period, please quantify, and disclose the nature of each item that caused the significant change. For example, please quantify each material factor (i.e. such as volume changes by type of product, number of SmartVest Systems sold for neuro-muscular diseases, etc.), disclose separately the effect on operations attributable to each factor causing the aggregate change from year to year and disclose the nature of or reason for each factor causing the aggregate change. The analysis should reveal underlying material causes of the factors described and any future impact on operating results. Please incorporate the above comment to all of the disclosures in the analysis of your results of operations in MD&A and revise as necessary. See Item 303 of Regulation S-K and SEC Release No. FR-72 for guidance.

Critical Accounting Policies and Estimates, page 31

General

15. The following comments on critical accounting policies and estimates contained in Management's Discussion and Analysis should also be considered, if applicable, in the notes to your financial statements.

Revenue Recognition and Allowance for Doubtful Accounts, page 31

16. We see that you provide medical devices and services directly to patients and the majority of your transactions are with third-party payers. Please tell us how you considered the guidance in FASB ASC Topic 954 – Health Care Entities in determining your accounting for revenue and receivables. In addition, tell us how you considered whether you should report revenue and receivables net rather than gross, less a provision for discounts.
17. We refer to your disclosure that revenues are recorded at amounts estimated to be received. Please revise to clarify how you estimate amounts to be received under reimbursement arrangements with third-party payers. In addition, disclose whether your adjustments to amounts previously billed have been material. Please disclose the “many contingencies” in the reimbursement process discussed on page 30 and indicate how these impact your revenue recognition. The amount of contractual allowances with third party payers should also be disclosed for each period.
18. We note the discussion on page F-8 that other than installment sales you receive payment for the vast majority of accounts receivable within one year. Please revise to clarify the payment terms for your receivables and disclose your policy for receivables not paid in one year.
19. We note the discussion on page 54 that the majority of patients are able to obtain monthly payments from Medicare, Medicaid, private insurance or a combination of the foregoing. Please disclose the period over which these monthly payments are made, any conditions that must be met for the payments to continue and your accounting treatment if the payments are no longer made. Please tell us whether any of these arrangements are considered a lease rather than a sale.
20. We note your discussion that certain third-party reimbursement agencies pay you on a monthly installment basis, the payments can span over several years and that you recognize these sales using the installment method and record revenue as each installment is received. Please disclose the specific transactions and third-party reimbursement agencies that you are accounting for under the installment method. In addition, disclose the specific terms and nature of these transactions and clarify why the installment method is appropriate. Tell us why your accounting for these arrangements would not be considered the cash basis. We also note in your disclosure that deferred costs are amortized to cost of revenue over the estimated period collections are scheduled to occur. Please tell us your basis for this

accounting treatment. In your response, please also refer to the table in Note 1 on page F-9, and tell us why amortized cost of revenues as a percentage of revenue recognized under installment sales varies from 14% to 24% in the periods presented.

21. Please clarify whether you have any post shipment obligations that could impact revenue recognition. Clarify your obligations with regard to training or providing product updates. We note the discussion on page 53 under product warranties that if a newer model of your system has been developed and sold between the time of purchase of the original system and the need for replacement, you may replace the system with a newer model at your discretion. Please tell us how this was considered in your revenue recognition or warranty policies. In addition, disclose if you have provided replacement products in the past.

Valuation of Long-lived and Intangible Assets, page 32

22. We reference your disclosure that patent legal defense costs are capitalized. Please disclose the accounting for these costs to the extent you are unsuccessful in your defense efforts.

Allowance for Excess and Slow-moving Inventory, page 32

23. In addition to your allowance for excess and slow-moving inventory, please tell us whether there are any other significant estimates you make in evaluating the carrying value of your inventory. We reference your disclosure on page F-9 indicating you value your inventory at standard cost.

Warranty Reserve, page 32

24. We refer to your disclosure of product warranties as a limited warranty. On page 53, we see you describe the warranty as a “lifetime” warranty for sales in the United States and Canada and a limited warranty for sales outside of the United States and Canada. Please reconcile these statements and update your disclosure here and on page F-53 to include the nature and term of your product warranties. In addition, please disclose the average life of your products.

Results of Operations, page 33

General

25. To the extent that you attribute increases in selling, general and administrative expenses to increases in labor headcount and incentive plans, please revise to provide an indication of the number and nature of labor positions added and impact of incentive plans implemented.

Fiscal Year Ended June 30, 2009 Compared to Fiscal Year Ended June 30, 2008

International Revenue, page 34

26. To the extent that you attribute increases in revenue to adding additional distributors and increasing your presence in foreign countries, please revise to provide an indication of the number of distributors added and quantify the increase in foreign countries.

Liquidity and Capital Resources

Cash Flows, page 36

27. We see that your credit facility with U.S. Bank contains certain covenants. Please disclose whether you are in compliance with the terms of the covenants.

Business

Other Products, page 42

28. Please revise your disclosure to describe clearly the differences between your smart vest system and the single patient use vest and the smart vest wrap.

Our Markets, page 46

29. Please reconcile your disclosure that patients are able to obtain third-party reimbursements with your actual billing process described on page 53 in which you pursue third-party reimbursements on behalf of the patient. Please include in the disclosure which party retains the risk if third-party reimbursements are not obtained.

Marketing, Sales and Distribution, page 48

30. With a view to disclosure, please tell us:
- the countries in Europe, Asia and other regions where you currently sell your products;
 - the value of the products sold in each country in the most recent fiscal year and interim period;
 - whether you have all applicable regulatory approvals to market and sell your products in each country; and
 - whether you have or have applied for patent protection in each of those countries.
31. Please disclose the size of your sales force and the geographic coverage of your sales representatives.

32. Please describe the material terms of your agreement dated June 2008 with a consultant to assist with obtaining contracts with hospital buying groups as disclosed in the first paragraph on page 3. Provide your legal analysis for not filing this agreement as an exhibit.
33. Please revise the last two paragraphs of this section on page 49 to present balanced disclosure of the disadvantages of the smart vest system in contrast to the advantages described by you. Also, if you include disclosure contrasting your system against chest physical therapy you should also contrast the smart vest system with competing systems such as the ARI and RespirTech systems disclosed on page 50.

Competition, page 50

34. Please expand your disclosure to address the proportion of the market for treatment of cystic fibrosis, bronchiectasis and the certain neuro-muscular disorders for which reimbursement is available, held by high frequency chest wall oscillation systems relative to the other treatment options listed on page 50, or tell us why this information is unavailable.

Research and Development, page 51

35. With a view to disclosure, please tell us what engineering services are provided by Hansen Engine Corporation, whether alternative sources are available for these services, the terms of any extension of the agreement beyond June, 2010 and whether and when the agreement may be terminated by Hansen Engine.

Third-Party Reimbursement, page 53

36. Please disclose what other conditions qualify for reimbursement that you reference in the last sentence on page 40.
37. Disclose the principal neuro-muscular disorders referenced in the first paragraph on page 54.

Employees, page 60

38. Please clarify whether your respiratory therapists are certified and identify who provides certification.

Management, page 62

39. Please indicate the amount of time your CEO devotes to Hansen Engine Corporation; include any appropriate risk factor disclosure.
40. Please provide the complete disclosure required by Item 401(e) of Regulation S-K for Thomas Hagedorn including the name and principal business of each corporation or organization in which he was employed in the past five years.

Executive Compensation, page 65

41. We note your disclosure that base compensation is determined using a subjective process. We also note your disclosure of certain objective factors that the compensation committee considered in making its determination of base salary awards. To the extent the compensation committee takes objective factors into account please revise your disclosure to describe those factors clearly including how the base salaries awarded reflect such objective factors.
42. Please reconcile your disclosure in the final paragraph on page 66 and in the first paragraph on page 67 regarding the eligibility of your executive officers to receive equity compensation with the terms of the January 1, 2010 employment agreements, filed as exhibits 10.12 and 10.13.

Certain Relationships and Related Party Transactions, page 70

43. We note your disclosure that Hansen Engine Corporation performs certain of your research and development activities. Please disclose how any intellectual property rights related to your business but developed by Hansen Engine Corporation are assigned to you. Please disclose if the payments made to Hansen Engine Corporation are included in your consolidated statement of operations as research and development expenses. Please include any appropriate risk factor disclosure if this entity were unable to continue to provide you with R&D support.

Underwriting, page 77

44. Given you have agreed to issue warrants as additional compensation to the underwriters, please tell us why you have not included the warrants in the table on page 77. Refer to Item 508(e) of Regulation S-K.
45. Please disclose whether you are granting the underwriter registration rights for the warrants and describe such registration rights, if any.
46. We note your disclosure in the sixth paragraph that the warrants may be transferred to officers or partners of the underwriter and members of the selling group. Please clarify whether all securities so transferred will remain subject to the one year lock-up period.

Financial Statements, page F-1

General

47. The Report of Independent Registered Public Accounting Firm references the audit of "Electromed, Inc. and Subsidiary." We see the title on the financial statements is "Electromed, Inc." Please revise your financial statements or have your auditors revise their report as appropriate.

48. Please update your financial statements as required by Rule 8-08 of Regulation S-X.

Consolidated Statements of Cash Flows, page F-6

49. We see on page 38, you indicated that for the six months ended December 31, 2009, financing activities included \$3,788,000 of borrowings under your credit facility and capital lease arrangements. Please tell us the amount of capital lease financing included in the \$3,788,000 and how you determined this should not be considered a non-cash financing activity.

Notes to Consolidated Financial Statements

Note 1. Nature of Business and Summary of Significant Accounting Policies

Accounts Receivable, page F-9

50. Please disclose the amount of your receivables from third-party payers at the end of each period.

Inventories, page F-9

51. We see you determine the carrying cost of inventory based on standard cost. Please revise to disclose whether standard cost approximates cost and how often you review and revise your standard estimates.

Warranty Liability, F-10

52. Please revise to clarify the nature of the “warranty provision” in the table on page F-10 and indicate if this represents payments from the warranty reserve.

Note 2. Inventories, page F-12

53. We see in Note 1 on page F-9 in your inventory policy discussion you reference work-in-process. Please tell us why there is no work-in-process in the table in Note 2 on page F-12.

54. Please tell us why your reserve for inventory obsolescence has not changed during any of the periods presented in Note 2.

Note 7. Share-Based Payments, page F-15

55. We see in your disclosure of assumptions used in determining the fair value of warrants granted that the expected volatility varies significantly between 2008 and 2009. Please tell us how you determined the expected volatility and the reason for the variation.

- 56. We refer to your disclosure that warrants are granted at exercise prices equal to or greater than the estimated fair market value of the Company's stock. Please disclose how you determined the value of the Company's stock.
- 57. Please note that we are deferring final evaluation of stock-based compensation until the estimated offering price is specified, and we may have further comments in that regard when you file an amendment containing that information.
- 58. We reference your disclosure of warrants issued for service. Please disclose whether the shares were immediately vested and non-forfeitable and how you considered FASB ASC Topic 550-50 in determining the measurement date of the expense.

Note 9. Commitments and Contingencies, page F-19

- 59. We see in your disclosure that you do not believe that any pending litigation will have a material adverse effect on your operating results and financial position. Please revise to also disclose if you expect any material adverse effect on your liquidity.

Note 10. Related Parties, page F-20

- 60. We reference Note 5 on page F-14 and the disclosures on page 70 where you discuss additional related party transactions that occurred during the financial statement periods. Please tell us why these transactions have not been disclosed in Note 10.
- 61. As a related matter, we note that you have amounts recorded in your consolidated statements of operations and may have amounts recorded in your balance sheets related to transactions with related parties. Please tell us how you considered Rule 4-08(k) of Regulation S-X and, if applicable, Rule 5-02-3 in determining whether these amounts should be specified as "related party" on the face of the financial statements.

Recent Sales of Unregistered Securities, page II-1.

- 62. Provide the disclosure required by Item 701 of Regulation S-K with respect to any warrants sold within the past three years.
- 63. Please clarify which of transactions you claim were exempt from registration due to Regulation D, and tell us when you filed the Form D for those transactions.
- 64. Please reconcile the disclosure in this section with the information in your Consolidated Statements of Stockholders' Equity. For example, we note that it is unclear how the sales of 117,715 shares of common stock during the year ended June 30, 2008 and the sales of 58,572 shares of common stock during the year ended June 30, 2009 are reflected in your disclosure. We also note that you do not appear to address the issuance of 5,000 shares of common stock between June 30, 2009 and December 31, 2009.

Signatures, page II-4

65. Please indicate parenthetically who is signing your registration statement in their capacities as principal executive officer, principal financial officer and principal accounting officer or controller.

Exhibits

66. We note your intention to file some exhibits, including your legal opinion and certain material agreements, by amendment. Because we may have comments on these exhibits, please file the exhibits allowing adequate time for their review.
67. Please tell us the authority on which you rely to file only “forms of” material agreements as exhibits like you do in exhibit 10.11 rather than the final, signed agreements.

Exhibit 23.1

68. Please include a currently dated and signed consent from your independent auditors with your next amendment.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

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 all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. 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.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

Robert D, Hansen
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- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Leigh Ann Schultz at (202) 551-3628 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Ruairi Regan at (202) 551-3269 or me at (202) 551-3635 with any other questions.

Sincerely,

Tim Buchmiller
Senior Attorney

cc (by facsimile): Melodie R. Rose, Esq.