



3. Electrovert Ltd., a Canadian corporation, transacts business in the United States, directly and through its subsidiaries. Venue is properly based in the District of Columbia under 28 U.S.C. § 1391(d).

4. Electrovert U.S.A. Corp. is found and does business in the District of Columbia within the meaning of 15 U.S.C. § 22 and 28 U.S.C. § 1391(c).

## II. DEFINITIONS

5. "Wave soldering machine" means a machine that applies solder to connect electronic components to a printed circuit board using a process that applies a wave of solder to the underside of the printed circuit board.

6. "Mid-range wave soldering machine" means a medium volume wave soldering machine that is capable of soldering a reasonably complex printed circuit board but that does not solder in a nitrogen or inert atmosphere, including Electrovert's Econopak, Econopak Plus, and Ultrapak and Hollis' Future 1 and Future 1 SMT wave soldering machines.

7. "High performance wave soldering machine" means a high volume wave soldering machine that is capable of soldering a very complex printed circuit board but that does not solder in a nitrogen or inert atmosphere, including Electrovert's Ultra 2000 and Hollis' XL-7 wave soldering machines.

8. "North America" means the United States, Canada, and Mexico.

9. "HHI" means the Herfindahl-Hirschman Index, a measure of market concentration. It is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of thirty, thirty, twenty, and twenty percent, the HHI is 2600 ( $30^2 + 30^2 + 20^2 + 20^2 = 900 + 900 + 400 + 400 = 2600$ ). The HHI takes into account the relative size and distribution of the firms in a market. It approaches zero when a market is supplied by a large number of firms of relatively equal size and reaches its maximum of 10,000 when a market is supplied by a single firm. The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.

### III. THE DEFENDANTS

10. Cookson Group plc ("Cookson") is made a defendant. Cookson is a British corporation with its principal offices in London, England. In 1991, Cookson reported worldwide sales of about \$2.5 billion. Through more than 50 companies worldwide, Cookson supplies various nonferrous metals, precious metals, ceramic fibers, industrial inorganic chemicals, and machinery for the electronics industry. Cookson's North American operations are conducted through its wholly owned United States subsidiary, Cookson America, Inc.

11. Electrovert Ltd. is made a defendant. Electrovert Ltd., an indirect wholly owned subsidiary of Cookson, is

headquartered in Montreal, Quebec, Canada. Electrovert Ltd. is the largest producer of wave soldering machines in North America and in the world. It produces wave soldering machines at plants in La Prairie, Quebec, Canada and Camdenton, Missouri.

Electrovert Ltd. operates an advanced technology training center for operation and maintenance of wave soldering machines in Dallas, Texas; a wave soldering machine sales and service operations in Dallas, Texas and Camdenton, Missouri; and a demonstration room in Camdenton, Missouri. Electrovert Ltd. has thirteen field service technicians located throughout the United States to service wave soldering machines. In 1991, the company reported total sales of about \$64 million.

12. Electrovert U.S.A. Corp. ("Electrovert") is made a defendant. Electrovert is a wholly owned subsidiary of Electrovert Ltd. with its principal offices in Providence, Rhode Island. Electrovert Ltd.'s United States sales are made through Electrovert.

#### IV. ASSET SELLER

13. Hollis Automation Co. ("Hollis"), a wholly owned subsidiary of Esterline Technologies Corporation, is a Delaware corporation. Prior to Hollis' sale of its wave-soldering assets to Electrovert on or about March 30, 1992, Hollis was the second largest manufacturer and seller of wave soldering machines in North America. Hollis manufactured wave soldering machines in Nashua, New Hampshire. Hollis had sales offices in Dallas,

Texas and Los Angeles, California, and demonstration rooms in Nashua, New Hampshire and Los Angeles, California. Hollis had nine field service technicians located around the United States to service wave soldering machines. In 1991, Hollis reported total sales of about \$16 million.

#### V. TRADE AND COMMERCE

14. A wave soldering machine is used by manufacturers in the assembly line production of printed circuit boards having pin-through-hole components. Pin-through-hole components contain leads that are inserted through holes in the board, and attached to circuits on the reverse side of the board with solder applied by a wave soldering machine.

15. Electronics firms and their subcontract assemblers are the primary customers for wave soldering machines. Appliance, automotive, and aerospace firms are also significant purchasers of wave soldering machines. These customers typically submit bids for wave soldering machines. Wave soldering machines are usually purchased to retire old machines or to open a new assembly line.

16. Wave soldering machine customers base their purchasing decision upon a variety of technical considerations, such as throughput, pre-heat capability, solder wave configuration, number of waves, computer controls, and conveyor board width.

17. Because the failure of a wave soldering machine could cost the customer hundreds of thousands of dollars each hour

that the machine is down, and the assembly line is interrupted, North American customers prefer to purchase wave soldering machines from producers that have a proven track record and reputation of supplying a reliable machine and the capability to provide local field service and a stock of readily available spare parts.

#### High Performance Wave Soldering Machines

18. High performance wave soldering machines are used primarily by large assemblers of printed circuit boards. These customers may produce as many as one million boards per run. A high performance machine has greater board width capacity and computer sophistication than a mid-range machine. It usually has 30 to 50 percent higher production capacity than a mid-range machine. High performance wave soldering machines generally sell for between \$100,000 and \$250,000.

19. No substitutes exist for high performance wave soldering machines to which a significant number of customers could turn in response to a small but significant and nontransitory increase in the prices of high performance wave soldering machines.

20. Manufacturers of high performance wave soldering machines sell and compete with one another for sales throughout North America. No significant imports of high performance wave soldering machines are made into North America by firms that do not have a service force and a spare parts center in North America.

21. High performance wave soldering machines constitute a relevant product market, and North America is a relevant geographic market.

22. Four firms participate in the North American high performance wave soldering machine market: Electrovert, Hollis, Technical Devices Company, and Sensbey, Inc. In 1991, about \$6 million in high performance wave soldering machines were sold in North America.

23. In 1991, Electrovert had about \$2 million in sales of high performance wave soldering machines in North America, comprising a 33 percent market share. In 1991, Hollis had slightly over \$2 million in sales of high performance wave soldering machines in North America, comprising a 36 percent market share.

24. Prior to Electrovert's acquisition of the wave soldering machine assets of Hollis, the HHI for the provision of high performance wave soldering machines in North America for 1991 was about 2900. The acquisition increased the HHI for that market by about 2400 points to over 5200. The combination of Electrovert's and Hollis' wave soldering machine businesses substantially increased concentration in an already highly concentrated market for high performance wave-soldering machines.

#### Mid-Range Wave Soldering Machines

25. Mid-range wave soldering machines are used primarily by medium-sized assemblers of printed circuit boards. These customers do not produce boards in high volumes, and they do not

require a machine with the high production capacity, complexity, and durability of a high performance wave soldering machine. Their volumes and board complexity, however, cannot be satisfied with low-end wave soldering machines, which do not possess the capability of mid-range machines and have smaller board width capacity and shorter pre-heat sections than mid-range machines. Mid-range wave soldering machines generally sell for between \$25,000 and \$100,000.

26. No substitutes exist for mid-range wave soldering machines to which a significant number of customers could turn in response to a small but significant and nontransitory increase in the prices of mid-range wave soldering machines.

27. Manufacturers of mid-range wave soldering machines sell and compete with one another for sales throughout North America. No significant imports of mid-range wave soldering machines are made into North America by firms that do not have a service force and a spare parts center in North America.

28. Mid-range wave soldering machines constitute a relevant product market, and North America is a relevant geographic market.

29. Seven firms participate in the North American mid-range wave soldering machine market: Electrovert, Hollis, Technical Devices Company, John Treiber Company, Soltec International B.V., Sensbey, Inc., and Novastar Technologies, Inc. In 1991, about \$11.6 million in mid-range wave soldering machines were sold in North America.



30. In 1991, Electrovert had about \$6 million in sales of mid-range wave soldering machines in North America, comprising a market share of over 50 percent. In 1991, Hollis had about \$2 million in sales of mid-range wave soldering machines in North America, comprising about a 17 percent market share.

31. Prior to Electrovert's acquisition of the wave soldering machine assets of Hollis, the HHI for the provision of mid-range wave soldering machines in North America for 1991 was over 3200. The acquisition increased the HHI for that market by about 1700 points to nearly 5000. The combination of Electrovert's and Hollis' wave soldering machine businesses substantially increased concentration in an already highly concentrated market for mid-range wave-soldering machines.

#### Difficulty of Entry

32. Entry into the North American high performance or mid-range wave soldering machine markets by a firm that does not already make such machines would not be timely, likely, or of sufficient magnitude to ameliorate the lessening of competition that would result from this transaction. A firm that does not currently produce such wave soldering machines would need to make expensive and time-consuming investments in research, design, development, plant, and equipment. In order to successfully sell either high performance or mid-range wave soldering machines, an entrant would also need to invest in developing a sales, distribution, and servicing organization in North America, and to achieve market acceptance by establishing a reputation for proven products and service reliability.

## VI. INTERSTATE COMMERCE

33. Cookson, Electrovert Ltd., and Electrovert are engaged in interstate commerce and in activities substantially affecting interstate commerce.

34. Manufacturers of high performance and mid-range wave soldering machines ship and sell substantial quantities of wave soldering machines across state lines throughout the United States and across North America. They also purchase equipment and supplies from states other than the states in which their products are manufactured, and that equipment and those supplies are regularly shipped across state lines. The provision of high performance and mid-range wave soldering machines is within the flow of and substantially affects interstate commerce.

## VII. VIOLATION ALLEGED

35. On or about March 30, 1992, Electrovert acquired all of the assets of Hollis in a transaction valued at about \$10 million. These assets included the wave soldering machine assets of Hollis, which consisted of the wave soldering machine manufacturing equipment at its facility in Nashua, New Hampshire; intellectual property; and distribution assets.

36. The effect of Electrovert's acquisition of Hollis' wave soldering machine assets may be substantially to lessen competition in interstate trade and commerce in violation of Section 7 of the Clayton Act in the following ways, among others:

(a) Actual and potential competition between Electrovert and Hollis in the provision of high performance and mid-range wave soldering machines in the United States has been eliminated;

(b) Competition generally in the provision of high performance and mid-range wave soldering machines in the United States has been substantially lessened.

VIII. PRAYER

WHEREFORE, plaintiff prays:

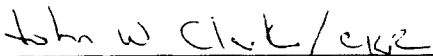
1. That this acquisition be adjudged a violation of Section 7 of the Clayton Act.
2. That the plaintiff have such relief as the nature of this case may require and as this Court may deem just and proper.

3. That the plaintiff recover the costs of this action.

Dated: September 29, 1992

  
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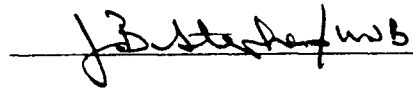
  
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