Overview

Rising demands for both equipment and leadframe products early in the year began a roller-coaster ride through the next four seasons, with big revenue changes from quarter to quarter. During the first six months, ASM registered record sales and profitability. Although the second half year was weaker, there was nevertheless a substantial growth in output in every product category during 2004. As a result, the Group achieved a 47.0% rise in turnover. Both our revenues and profitability attained levels similar to our record year of 2000, and were the second best in our corporate history. Benchmarking the performances of our leading competitors, such stellar results clearly reflected ASM's seamless execution of its winning strategies and continuously increasing momentum in the market place.

The semiconductor and equipment industries may just have walked through a splendid year in 2004, but analysts have projected a slower growth for our customers' business in 2005 and a negative growth of up to 22% for the assembly equipment industry itself, with a return to double-digit growth in 2006. While there have been some scattered signs of an improved market since the middle of the first quarter, the revenue change for the year will depend on when the inflection point for broad-base customer purchases of capacity-related equipment arrives. Management has taken steps to prepare the Company to cope flexibly with both sudden surges in demands and a prolonged slowdown.

As shown in the past, a slow market provides an opportune time to launch new products and conduct market assaults. Diversified products serving broad application markets are the best weapons to protect us against industry fluctuation. With our financial strengths and human talents, a strong portfolio of world-class products and an unparalleled cost structure, ASM fortunately has the resources to provide innovative, differentiated-value packaging solutions to win customers at this challenging time.

總覽

年初設備及引線框架產品需求不斷上升，但隨後四季需求時有升跌，每季的收入變化很大。ASM於上半年錄得創紀錄的銷量及盈利。儘管下半年業績表現轉弱，但二零零四年每一產品類別的產量均大幅增加。集團營業額亦因此上升百分之四十七。收入及盈利均達到二零零零年的創紀錄水平，亦是集團歷來第二佳的成績。與主要競爭對手的業績表現比較，此超卓業績清楚反映ASM充分執行其成功策略及不斷增加市場中的發展動力。

半導體及設備行業於二零零四年取得驕人成績，但分析員預測我們客戶的業務於二零零五年將會放緩，裝嵌設備行業將錄得高達百分之二十二的負增長；於二零零六年則回復雙位數字增長。儘管有一些零散跡象顯示市場自首季中旬已有所好轉，但來年的收入增長將取決於客戶何時恢復全面採購與產量相關的設備。管理層已採取步驟為公司作好準備，以具彈性之方式應付需求突然大幅增加及長時期的放緩。

一如以往，市況放緩是推出新產品及打入市場的適當時機。應用於廣大市場的多元化產品是確保我們免受行業變動影響的最佳武器。憑藉我們的財務優勢及人才、廣闊的世界級產品系列和超卓的成本結構，ASM幸而擁有提供創新、獨特價值包裝解決方案的資源，以在這個艱難時刻贏取客戶。

Market and Product Development

Equipment Division

In a year with high fluctuation in demands and an estimated growth rate of 43 – 49% (per VLSI Research, SEMI and Dataquest) for the assembly equipment industry, ASM once again outperformed all its major competitors in turnover and revenue change. Building on our industry-largest market share, our equipment business grew 50.2% to US$417.5 million, representing 84.9% of the Group's turnover in 2004 and the second highest in our corporate history. We maintained the number one position in the assembly and packaging equipment industry we have held since 2002, further widening the revenue gap between us and our closest rival to US$108 million or 34.9%. This progressively enlarging chasm from the 18.5% and 4.7% of the two preceding calendar years clearly reflects ASM's growing market share.

New die, wire and flip chip bonders were introduced during 2004, emphasizing total solutions in stacking thin die, particle-controlled image sensors assembly, QFN packaging and high brightness LED applications. Our Eagle 60 AP gold ball bonder, which continues to push the fine pitch wire bonding technology envelope and achieves a 10% productivity gain over its predecessor, has migrated to volume manufacturing. The innovative dual-head Twin Eagle wire bonder offers approximately twice the output of a single-head machine, thereby providing customers the world's best cost-of-ownership proposition.

Picking thin dies (down to 50 microns) and stacking them in several layers create challenges and opportunities for IC die bonders. Our relentless pursuit for continuous improvement has resulted in a 30% higher throughput die bonder specially catering for smaller dies. Furthermore, in addition to providing a 300 mm. eutectic-solder-reflow-process flip chip bonder, we have launched a thermosonic-attachment-process flip chip bonder to complement our stud bumping machine addressing the low input/output (I/O) devices.

The underlying strength of our equipment business lies not just in our leadership position in the die and wire bonder market segments, but also in our host of product offerings in encapsulation, solder ball placement, package singulation and test handling: these are all looking at larger share opportunities in medium-size market sectors. With continuous product enhancements and market development efforts, we fully expect these products to produce even more valuable dividends in the not too distant future.

市場及產品發展

設備系列

過去一年裝嵌設備業需求起伏很大，估計增長率介乎百分之四十三至四十九（根據VLSI Research、SEMI 及Dataquest），ASM在營業額及收入增長方面再次超越所有主要競爭對手。在保持業內最大市場佔有率的基礎上，集團的設備業務增長百分之五十點二，達四億一千七百五十萬美元，佔集團二零零四年營業額百分之八十四點九，是ASM有史以來的第二高。集團自二零零二年以來在裝嵌及包裝設備業一直獨佔鰲頭，並進一步拉闊與最接近的競爭對手之收入差距至一億零八百萬美元或百分之三十四點九。這個差距從前兩年百分之十八點五及百分之四點七逐步擴大，清楚反映ASM的市場佔有率不斷增長。

集團於二零零四年推出了新的管芯、焊線及覆晶焊接機，著重為層疊式薄芯、粒子操控影像感應裝嵌、QFN 包裝及高亮度LED應用提供全面解決方案。我們的Eagle 60 AP 金球焊接機除不斷提升微距焊線技術水平外，其生產力更較原有產品高出百分之十，並已進行量產。創新的雙頭Twin Eagle焊線機的產量約為單頭焊接機的兩倍，從而為客戶提供全球最具成本效益的商品。

處理細薄管芯（低至五十微米）並將若干層管芯堆疊於一起為集成電路管芯焊接機同時帶來挑戰及機遇。由於集團對追求持續改善鍥而不捨，結果特別為較小的管芯開發出生產力高百分之三十的管芯焊接機。此外，除提供三百毫米易熔焊料重熔程序覆晶焊接機外，我們推出了一款熱能超聲波焊接程序覆晶焊接機，以配合滿足低輸入/輸出（I/O）裝置需要的釘頭沖壓機。

集團在設備業務方面的基本優勢不僅在於我們在管芯及焊線機市場的領導地位，同時亦在於我們在塑封工序、焊球放置、包裝切割及測試處理等方面提供眾多的產品：所有這些產品均著眼於在中型市場進佔更大的佔有率。隨著集團不斷改進產品及發展市場，我們確切預期這些產品於不久將來將提供更具價值的回報。