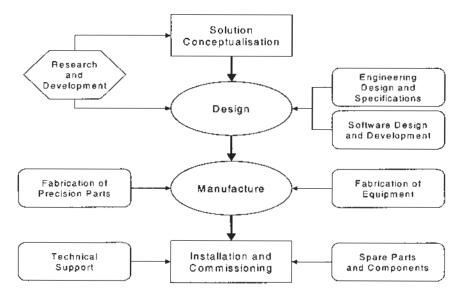
# 8.1 Business of ATS Group

ATS Group is an integrated designer and manufacturer of IASM with supporting activities including Fabrication of Parts and Equipment, and provision of Industrial Automation Support Products and Services. As a fully integrated designer and manufacturer of IASM, it undertakes four (4) phases to deliver the final product and all these phases are undertaken in-house:

- Solution conceptualization;
- Design of automation system;
- Manufacturing of automation system; and
- Installation and commissioning of automation system.



# Solution conceptualization

The Group undertakes design and manufacture of customized IASM and this implies that every product that it manufactures requires significant R&D to develop solutions for its customers. All solution conceptualization are undertaken in-house. Unlike some manufacturers, ATS Group does not work from given specification. It undertakes R&D to create innovative solution to meet customers' needs and specifications. Among others this includes incorporation of new, emerging or effective technologies, components and materials.

### Design of automation system

At this phase, it includes engineering design and software design and development. Engineering design is highly technical and incorporates multi-discipline technologies, particularly in the following fields of engineering: mechanical, electrical, electronics, ergonomics and material science.

It also requires significant R&D to ensure that the final design works and provides optimum results that meet customers' needs. As part of the R&D process, it also incorporates prototyping of sub-modules to test viability and functionality.

To control and coordinate all the different parts, mechanisms, movements and timing of actions, customized software have to be written. The software represents the brain of the entire automation system, controlling every part and movement of the system. The software also provides the man-machine interface to determine specific actions and outcomes from the automation system.

In addition to controlling the automation system, the software would also require to undertake the following tasks:

- Providing real-time performance data and statistics;
- Monitoring and keeping an audit trail of all actions and machinery;
- Incorporation of real-time actions/reactions and safety features;
- Housekeeping functions, for example file handling, back-ups and initialization routines.

### Manufacturing of automation system

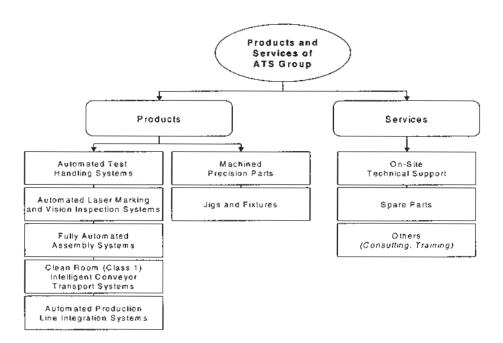
This process includes the fabrication of parts and components, fabrication of jigs and fixtures, procurement of common parts and special parts and component, integration of all parts, components, sub-modules and electrical wiring, and linking them to the software and a series of system testing, debugging and improvement.

### Installation and commissioning of automation system

Once the automated system is completed, it is installed in the customers' premises. Sometimes it needs to be integrated with customers' existing machinery and equipment. A series of testing is also undertaken at the customers' site. Once it is error free, it is commissioned for live productions. ATS Group also provides on-site technical support as well as other supporting products and services like training, consulting and sales of spare parts.

#### 8.2 Product and Services

ATS Group's current range of products and services fall into two major categories is as follows:-



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#### 8.2.1 Automated Test Handling System

ATS Group's automated test handling system is designed to test the functionality of Integrated Circuit (IC) Chips and Light Emitting Diodes (LED). The test handler will undertake the following sequence of tasks: locate the item (IC Chip or LED) to be tested; generate an electrical connection to the item being tested; and conduct the relevant tests (eg functional test, or resistance test, etc.).

Other features available on this system include the following:

- Integrated with in-house developed and proprietary Laser Marking System;
- Integrated with in-house developed and proprietary Vision System for checking marking quality, bent lead defect and co-planarity;
- Incorporation of real-time multi-tasking in-house developed software control system; and
- Capable of throughput ranging from 1,000 units per hour to 20,000 units per hour.

This system minimises human intervention and enables very high throughput and product quality. In addition, it caters for high precision tasks enable the system to test final products with a repeatable tolerance between one to three microns. The high throughput, quality and precision of ATS Group's automated test handling systems are designed particularly for the electrical and electronics industry.

### 8.2.2 Automated Laser Marking and Vision Inspection System

ATS Group's Automated Laser Marking and Vision Inspection System is a combination of its Laser Marking System with its Vision Inspection System.

### (a) Laser Marking System

ATS Group's Laser Marking System is used for marking and labelling. In the semiconductor industry, the Laser Marking System uses laser to mark the manufacturer's name, product part numbers and data codes on the IC chips or components.

The IC chips or components to be marked are fed into a Laser Marking System either through a tape or tray, where they will be individually marked.

The advantages of using a Laser Marking System include the following:

- ensure high throughput;
- minimises contamination from human contact;
- it reduces labour cost and human error; and
- there is no need for "heat cure" drying using other marking methods, for example printing.

After the marking has been completed, these chips and components will move to the Vision Inspection System to detect marking errors.

#### (b) Vision Inspection System

ATS Group's Vision Inspection System is an automated system incorporating a camera and sophisticated software for visual detection, such as:

- markings
- marking defects
- form defects

- lead defects
- colour recognition
- co-planarity
- measurement

ATS Group currently has a patent pending for its in-house developed and proprietary Vision System. ATS Group's Vision Inspection System is commonly incorporated as part of an automation system to provide input data to activate one or a series of actions.

ATS Group's Vision Inspection System enables the equipment to inspect items with a high degree of reliability and accuracy. The Group's equipment is capable of achieving high inspection accuracy between 0.05 micron and 50 microns.

ATS Group's Vision Inspection System is able to handle high volume inspection and eliminate limitations of human labour. In certain situations, Vision Inspection Systems incorporate Laser Inspection Systems.

#### 8.2.3 Fully Automated Assembly System

The Group's Fully Automated Assembly System is a general system involving the automation of the entire production line incorporating all the required machinery and equipment from start to end.

This system is able to incorporate the following:

- robotic arms for pick and place;
- vision and laser inspection system;
- quality testing system;
- automatic feeder;
- automatic unloading;
- automatic packaging; and
- sophisticated software to control timing and movements of all the machinery and processes.

It can be of three different configurations as rotary, inline and palletised conveyor. The rotary style automated assembly system uses an index table that indexes, or rotates, to present the parts to the automation stations where the work is performed. The automation is mounted onto the machine base and is located around the periphery of the rotary index table.

The automated assembly system incorporating inline system is capable of having any number of stations required to complete the automated assembly. The inline style equipment uses precision part fixtures to create the desired stack to keep the automation stations aligned. The fixtures or pallets are generally cycled through the system using pneumatic actuators and a return conveyor.

Palletised conveyor automated system is capable of having any number of stations to complete the automated assembly. A conveyor transfers the pallets around a perimeter while automation stations are performing the required steps to complete the part. The conveyor will generally utilise a series of stop and lift gates to locate the pallets in order to perform the automation procedures. A palletised conveyor system may be used to automatically transfer parts to separate work cells to create a complete part. The automatic transfer eliminates the need for manual tracking of work in process and human error.

ATS Group is capable of producing Fully Automated Assembly Systems with an average throughput ranging between 20 parts per minute (ppm) and 350 ppm.

### 8.2.4 Clean Room Class 1 Intelligent Conveyor Transport System

The conveyor transport system is a material handling system used to transport products between two or more locations. ATS Group is able to manufacture intelligent conveyor transport systems that meet the stringent requirements for Clean Room Class 1 condition. This complies with one of the most stringent international standard on airborne particulate. It offers inherent cleanliness and efficiency due to its ability to maintain non-contact, slip free motion buffer zones between the pallets or cassettes.

Within the conveyor system, particle nozzles are positioned 2-inch directly below a driving or idler roller while cassette moves swiftly up to 20 times per minute to ensure minimal concentration of particle.

The intelligent conveyor transport system is operated using many independently controlled drive motors enabling accumulation and asynchronous motion without generating any particles, which is a strict requirement in a Class 1 Clean Room.

A sensor is installed in the Intelligent Conveyor Transport System to detect any stoppages of cassette movement. Any signal indicating a stoppage of cassette movement will be transmitted to the system and the system will automatically instruct the motors in the system to lower its pace of cassette movement so as to avoid cassette collision.

### 8.2.5 Automated Production Line Integration System

The automated assembly line integration system refers to the automation of the production line. The integrated line consists of many automated loading points spread throughout the assembly line. Conveyor or linking shuttle or pick and place system is used to link all machines or processes to form a full line.

The production processes involved in integrating and automating the entire system are as follows:-

- automating existing machinery and equipment by incorporating software engineering and automation technology into the existing equipment;
- adding new automated equipment using a combination of software engineering, mechanical engineering and nanotechnology;
- linking and integrating all the machinery in a systematic sequence to become one automated assembly line integration system;
- incorporating an automated inspection system at the final stage of the assembly line;
- incorporating data log and bar code reading mechanism, radio frequency identification and 2 dimensional-matrix software to integrate the manufacturing process, data and information to capture for data storage and data retrieval;
- synchronizing all operators by linking various processes to minimize human intervention, thus improving productivity and product consistency; and
- in-process information is linked via computer integrated manufacturing software to display real-time process and work in progress information.

The integrated assembly line will be able to yield higher product quality and unit per hour of the overall production. At the final stage of assembly line, an automated inspection system is used to inspect the accept or reject status of the product. The accepted product will proceed to final packing into carton boxes and automatically printed with data code and product code. The rejected product will be sent for manual rework.

# 8.2.6 Fabrication of Precision Parts and Equipment

As an integrated designer and manufacturer of Industrial Automation Systems and Machinery, ATS Group has its own Machining and Tooling capabilities and facilities for fabrication of special parts, and to fabricate Jigs and Fixtures.

Having full in-house capabilities and facilities for all supporting products and services would provide ATS Group the following advantages:

- ensure high quality from start to finish;
- provide faster turnaround; and
- reduce dependencies on external factors.

In addition to servicing its own internal requirements, ATS Group also provides customised machining and tooling, and jigs and fixtures to external customers. The Group utilises some of the latest CNC equipment to handle prototype, pre-production and production runs and is capable of developing high tolerance precision parts, jigs and fixtures that require precise manufacturing techniques using high quality components and materials.

There are various types of precision parts, jigs and fixtures manufactured by the Group for the semiconductor sector. Some of the functions of these tools, jigs and fixtures include punching, trimming, inserting, indexing, forming and gauging.

# 8.2.7 Industrial Automation Support Products and Services

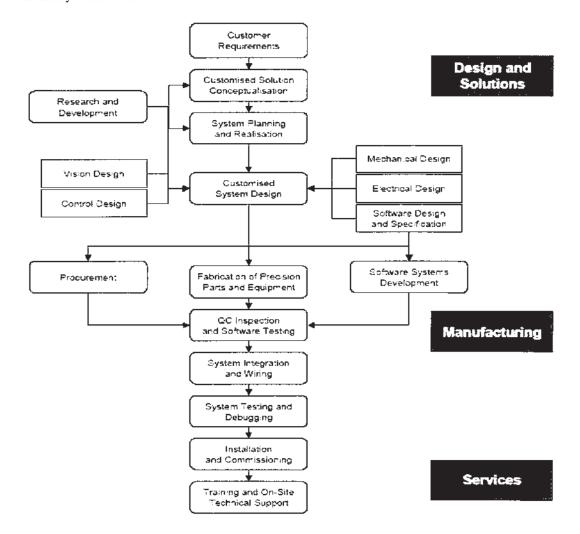
ATS Group also provides industrial automation support products and services such as on-site technical support, spare parts, consultancy and training.

These supporting products and services are in line with ATS Group's strategy of being an integrated as well as a one-stop-centre for Industrial Automation Systems and Machinery. In addition, these supporting products and services are key differentiations, especially compared to imports. Being close to customers and providing prompt and excellence in technical and customer services is a competitive advantage that imports will find difficult to provide.

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### 8.3 Automation Systems Design and Manufacturing Process

The process flow for the design and manufacture of Industrial Automation Systems and Machinery at ATS is illustrated as follows:



The process starts with obtaining a clear understanding of the customer's environment, issues and ultimately its automation requirements. This stage of the process is important as it forms the platform for providing customised solutions to meet customer's requirements and business objectives.

A project team is then put together comprising Sales Engineer, Mechanical Engineers, Electrical Engineers, Software Engineer and Wiring and Assembly Technicians. Through a process of discussion, and research and development, a customised solution is conceptualised. Once the solution is conceptualised, the team sets out to put the concept into a plan for the development of the automation system.

The project team utilising its technical expertise and supported by research and development will commence systems design to produce a customised design for the automation system. The customised design includes mechanical design, electrical design, software design, vision design and machine control design. This is a major process where the engineers utilise computer aided design and engineering software to design the structure, mechanics, functions and capabilities of the machinery and total system to match customer's specifications and requirements.

Once the system and all the relevant components and modules are designed, the process flow splits into three sub-tasks as follows:

- (a) procurement of the following:
  - · common and off-the shelf parts, components and materials;
  - · highly specialised or proprietary parts, components and materials; and
  - outsourcing of any other parts and components that are uneconomical for ATS Group to fabricate in-house.
- (b) in-house fabrication of precision parts, and jigs and fixtures.
- (c) development of software for control of the individual and entire system, machine, processes, movements and functions.

All the in-house, outsourced and purchased parts, components and equipment undergo stringent quality control checks and testing to ensure they meet functional and quality standards and specifications. Quality control and testing also includes the software. Once all the various parts are fully tested and quality checked, the next phase is to assemble and integrate them including wiring. Wiring and assembly technicians mainly undertake the assembly and integration of the machinery with the assistance and supervision from the engineers. Integration also includes the software.

Upon the completion of the assembly and integration of the system, it is prepared for a test run. The system then undergoes full system testing and debugging until it runs smoothly and in compliance to customer and system specifications. It also tests out the built-in safety aspects of the equipment or machinery and its reliability.

The customer will perform an inspection of the machinery prior to delivery. Once the automation system is ready the machinery parts are disassembled and packed for transportation and delivery to the customer's premises.

Installation is carried out at the customer's premises by a team of installation technicians. The machinery or equipment then goes through a final set up and proceeds to an actual production run for performance evaluation. ATS Group also provides training, on-site technical support and spare parts to ensure customers are fully supported.

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### 8.4 Research and Development / Quality Control

### 8.4.1 Research and Development

ATS Group's R&D activities are focused in the development of new products, development of standardized products for mass manufacturing; improvement on existing products, systems and services, development of software as part of the automation system and improvement manufacturing processes. The Group's R&D processes are primarily focused in the electrical engineering, electronics, mechanical engineering, computing, material science and ergonomics.

ATS Group has an R&D facility that allows ATS to design, prototype and test its products. All the products that ATS Group currently offers are direct results of the success of its R&D work. These include the following products:

Customized products:

- automated test handling system
- automated laser marking and vision inspection systems
- fully automated assembly system
- automated production line integration system
- Clean Room Class 1 intelligent conveyor transport system

Fabrication of precision parts and equipments:

- precision Machining and Tooling

- Jigs and Fixtures

The above demonstrates the major achievements of R&D undertaken by ATS Group and these products are now commercial products and services generating revenues for the Group.

One of ATS Group's key achievements from R&D is the development of a real-time multitasking system control software, commonly known as Man-Machine Interface. ATS Group has called the system control software RealMax.

The development of this system control software provides the basis for ATS Group to automate one or a series of integrated machine and equipment to perform a series of tasks. The system control software is the brain of any automated systems. It controls all aspects of the automation part of the system. One of the key differentiations of ATS Group's system control software is, that it is built as a platform in which other software modules can be built on top of it or customisation can be undertaken with less efforts compared to development from scratch.

As such, ATS Group's system control software allows reusability thus reducing the cost of software development. In addition, as the software is reused, it is constantly being perfected and provides a stable, error-free and tried-and-tested system.

ATS Group started development of its system control software in 1995. It is constantly being updated and new features added. Its current version is able to run under the common Microsoft Windows operating system.

The on-going R&D undertaken by ATS Group includes the development and commercialization of surface mount diode test handler. Currently ATS Group is able to achieve throughput of 12,000 units per hour handling medium sized diode. Ongoing R&D will expand capabilities to handle 18,000 units per hour of small and large sized diodes.

In addition, other areas of on-going R&D includes process improvement, particularly in enhancing its manufacturing processes, and researching and developing new features and enhancements to its core system control software.

ATS Group's R&D activities are focused on developing specific products and systems, as well as supporting sub-systems, products and processes. As the core of ATS Group's manufacturing relies significantly on the various disciplines of engineering and computing, it also undertakes R&D in related engineering fields to improve its manufacturing processes. New products created through R&D would provide ATS Group with the basis for continuing business growth and success.

Future R&D targeted by ATS Group are as follows:

New Products to be launched between 2005 and 2007:

- Clean Room Class 1 Assembly Systems. (used in Clean Rooms under conditions where there are no more than ten particles equal to or greater than 0.5 micron in one cubic foot of air);
- High Speed Test Mark Cure System for Miniaturisation Package;
- Colour Recognition Vision System.

Improved and Standardised Products for Mass Manufacturing to be launched between 2005 and 2009:

- Test Handling System;
- Laser Marking System;
- Fully Automated Assembly System.

Sub-System and Software which is expected to be implemented between 2005 and 2009)

- Software Development;
- Design Tools Development;
- Vision System;
- Manufacturing Process Improvement.

ATS Group's R&D activities are focused on developing specific products and systems, as well as supporting sub-systems, products and processes.

As at 31 December 2004, ATS Group has three (3) technical personnel who are involved in R&D.

The amount spent on R&D for the last three financial years were as follows:

	FYE 28 February 2002	FYE 28 February 2003	FYE 29 February 2004
Total R&D expenses incurred (RM)	511,811	1,374.857	2,102,609
Total R&D expenses as a proportion of the Company's total revenue (%)	4.5	8.4	11.6

# 8.4.2 Quality Control

The Group is highly recognised for its quality standards and this is reflected in its total quality assurance programmes and adherence to meeting customer specifications and requirements. This is particularly critical as most of ATS Group's Industrial Automation Systems and Machinery are for the electrical and electronics and similar type industries requiring very high precise timing, movements and actions functioning under relatively high speed.

As part of ATS Group's continuing emphasis and commitment on quality, ATE was accredited with MS ISO 9001:1994 and subsequently upgraded to MS ISO 9001:2000 by SIRIM QAS Sdn Bhd and MTE was accredited with ISO 9001:2000 by BM TRADA Certification Limited. Hence, ATS Group's quality control and management processes and procedures are formally documented and implemented for every project and supporting activities.

In line with the implementation of total quality management, the Group has put in place stringent quality assurances programmes. The quality standards of ATS Group are also reflected in the in-house capabilities to manufacture Industrial Automation Systems and Machinery that meets the following stringent specifications:-

- Clean Room Class 1 intelligent conveyor transport system used in semiconductor and electronics manufacturing Clean Rooms environment under conditions whereby there is no more than one particle equal to, or greater than 0.5 micron in one cubic foot of air;
- Manufacture of high precision IASM with a minimum repeatable tolerance of 1 to 3 microns;
- Manufacture of IASM suitable for use in Good Manufacturing Practice (GMP) environment for example assembly machines for medical products.

As at 31 December 2004, ATS has 6 personnel in its quality assurance and control team.

# 8.5 Technology and Intellectual Property

ATS Group utilizes the following technologies for development of IASM:

Vision System	Vision technology enables machinery to act or react based on a set of rules that are dependent on difference in locations, colours, shapes and markings, and presence or absence of objects. The key components of the vision system are a camera for detection and a highly sophisticated software to interpret the images for matching against a set of rules to determine the action steps of the machine.  ATS Group's use of vision systems in its current automation systems
	and machinery enables it to differentiate somewhat its products as well as better meet the needs of its customers. ATS Group is developing applications incorporating colour recognition. This would further enhance its value-adding to its automation systems and machinery.
Robotics	ATS Group uses robotics for its pick and place function. Particularly for electrical and electronics applications. Some of the major advantages of robotics are high speed, precise actions, consistent quality and accuracy. Robots commonly in the form of moving arms are controlled through software. The software dictates its actions which are highly repetitive.
Multi Discipline Engineering	Developing IASM relies primarily on technologies from the mechanical, electronics, mechatronics (combination of mechanical and electronic) and electrical disciplines.
	Each discipline brings along its own technologies which are applied to the IASM being developed. As such the skill set required is extensive and multi discipline. The combination of all these technologies enables manufacturers like ATS Group to create and develop solutions in IASM to meet customer's needs.
Computing Technology	The IASM today are controlled by software. The various action steps, conditions and rules are all coded and commonly sit in a server or computer dedicated to the automation system. Computing technology enables precise actions to be coded to ensure all steps are accurately executed with minimum or no errors. Computing technology also enables monitoring, tracking and feedback for further analysis.

Clean Room Technologies	Clean room is a work area where the air quality in terms of airborne particles, temperature and humidity are highly regulated in order to protect sensitive equipment from contamination. ATS Group uses Clean Room technologies in its Design and Manufacture of Clean Room Class I Intelligent Conveyor Transport System. Its future plans also include the development of other types of automation systems and machinery that meet Clean Room Class I standards.
Servo Motor Technologies	Servos are used in radio controlled airplanes, cars, puppets and robots. Servos are extremely useful in robotics. The motors are small, have built in control circuitry, and are extremely powerful for their size. The servo motor has some control circuits and a potentiometer (a variable resistor, also known as pot) that is connected to the output shaft. The potentiometer allows the control circuitry to monitor the current angle of the servo motor. Servo motor technologies are particularly important in the Design and Manufacture of automation systems and machinery where robotic arms are commonly employed as well as the need for other moving parts.

The Group holds the intellectual property for each type of IASM that is manufactured by the Group. This is as a result of the Group's research and product development. However these are not patented with the exception of Vision System which is pending approval.

### 8.6 Competition

Operators in the machinery and equipment industry face normal competition conditions. Competition exists in local and export markets. As with most free enterprise environments, competition is based on a number of factors which includes quality, manufacturing capabilities and capacities, prompt delivery, track record, cost and reputation.

Competition among operators in the machinery and equipment industry focusing on the manufacturing of automation machinery and equipment for the electrical and electronics industry is moderate.

In 2003, there were 30 companies involved in the manufacturing of automation machinery and equipment catering to the electrical and electronics industry in Malaysia. This represents a relatively small number of operators in an industry that exports RM223.5 billion worth of electrical and electronics products in 2003. Specialized automation machinery and equipment are customised machinery, which caters to the needs of specific manufacturing environment. Hence, manufacturers are in a competitive position if they can meet international quality standards and requirements of customers, and are able to undertake in-house research and development, engineering design and testing in order to customize and modify machinery and equipment to specifications. Manufacturers that are able to differentiate themselves through specialized skills and offerings would face less competition. The degree of differentiation can be found in the ability to manufacture machinery and equipment for various classes of clean room and clean zone conditions, machinery which complies with good manufacturing practices, incorporation of vision systems that is able to differentiate and incorporation of robotics that are multi-task and precise.

As Malaysia is still a net importer, in value terms, of machinery and equipment, Malaysia faces significant competition from imported machinery and equipment particularly from Japan, Taiwan, Germany and China. Overseas competition increases the competitive intensity for operators in the industry.

(Source: Assessment of the Machinery and Equipment Industry prepared by Vital Factor Consulting Sdn Bhd dated 12 April 2004)

### 8.7 Competitive Advantages

The Group's competitive advantages include the following:-

# 8.7.1 Integrated Designer and Manufacturer of Industrial Automation Systems and Machinery

ATS Group has the in-house capabilities to provide a total solution in IASM. This includes the capabilities of providing in-house design, engineering, fabrication of precision parts and equipment to the final manufacturing of IASM. In addition, the Group also offers maintenance services.

This complete integration of products and services enables the Group to have better quality control of the final product and faster turnaround time. The integration of products and services provides ATS Group with a competitive advantage over other operators that focuses on the assembly of IASM.

# 8.7.2 Owner of Intellectual Property

As ATS Group has in-house design and product development capabilities, it owns the intellectual property of each of the IASM manufactured by the Group. However, the systems are not patented save for the Vision System, where it is pending approval.

This provides the Group with the platform to modify the IASM to meet the specifications and requirements of customers.

# 8.7.3 In-house Research and Development Capabilities

As each of the IASM is customized to meet the specific requirements of the customer, the Group has to undertake research and development activities as part of the process of product development. This enables the Group to provide innovative engineering solutions to meet the needs of customers in terms of Industrial Automation Systems and Machinery.

### 8.7.4 Established track record and customer base

ATS Group has a track record since it commenced operations in 1991. Over the last 13 years, it has developed a market reputation as a manufacturer of a quality Industrial Automation Systems and Machinery. This is demonstrated by the fact that 70% of its top 10 customers have been dealing with the Group for 5 or more years. The Group has successfully cultivated a customer base of approximately 140 companies as at 31 December 2004.

### 8.7.5 Product Quality

ATS Group has attained certifications of MS ISO 9001:2000 and ISO 9001:2000 through its subsidiaries, ATE and MTE respectively. This serves as an endorsement of the quality assurance system that is in place. This is for the design and manufacture of Industrial Automation Systems and Machinery, thus providing customers with the assurance of confidence in ATS Group's quality.

Furthermore, the rigorous process of quality checks and testing undertaken during the manufacturing process including the finished product is a further demonstration of the Group's emphasis on product quality.

### 8.7.6 Experienced Management Team

The management team is led by Mr. Beh Lai Lien, the founder and Managing Director of ATS Group. He brings with him approximately 25 years of experience in the Industrial Automation Systems and Machinery industry. The Co-founder, Mr Lai Siaw Ling, is the Executive Director of ATS Group. He brings with him approximately 17 years of experience in IASM industry. Both founders have handson technical expertise and experience in terms of engineering design, tooling design, product development to the manufacturing of Industrial Automation System and Machinery.

### 8.8 Production Output

The Group's productions for the for the nine (9) month period ended 30 November 2004 are as follows:

Types of products	Production (No. of units)
Automated test handling systems	37
Automated laser marking and vision inspection systems	9
Fully automated assembly equipment	85
Automated production line integration system	8
Clean Room Class 1 intelligent conveyor transport system	159
Jigs and Fixtures	1,820
Precision parts and equipment	104,627

The manufactures of IASM are primarily depended on technically skilled personnel therefore it is not practical or applicable to estimate production capacity and utilization of equipment and machinery.

The manufacturing facilities and machineries, equipments and software for ATE and MTE are located at Bayan Lepas, Pulau Pinang and for ATC at Suzhou New District, Suzhou China. The details of ATS Group's landed properties are disclosed at Section 6.8 of this Prospectus.

### 8.9 Principal Markets of Products

The products of the ATS Group are sold in Malaysia as well as exported to China, Thailand, Singapore and Unites Sates. The breakdown for revenue contribution by local and export sales for the nine (9) month period ended 30 November 2004 are as follows:

	For the FYE ended 29 February 2004		For the 9 month pe 30 November	
	Total Sales % (RM'000)		Total Sales (RM'000)	%
Local Markets*	14,819	78.8	17,362	78.0
Export Markets				
- China	2,220	11.8	1,709	8.0
- Thailand	1,431	7.6	2,939	13.0
- Singapore	251	1.3	21	-
- United States	82	0.4	173	1.0
Total	18,804	100.0	22,204	100.0

<sup>\*</sup>Local revenue includes sales to local agents, where the machinery, equipment and parts are ultimately exported. Local revenue also includes sales to MNC in Malaysia.

# 8.10 Major Customers

The ATS Group supplies automation products to customers in the semiconductor and electronics industries. The Group's top ten customers, for the FYE 29 February 2004 and 9 month period ended 30 November 2004, are as follows:-

			1	FYE ended February 2004	1		eriod ended mber 2004
No	Customer	Types of Products	Revenue (RM'000)	% of Group Total Turnover (%)	Years	Revenue ( <i>RM</i> '000)	% of Group Total Turnover (%)
1.	ASE Electronics (M) Sdn Bhd	Automated Test Handling and Inspection Equipment, Fully Automated Assembly Equipment and others	2,335	12.4	5	1,001	4.5
2.	B.Braun Medical Industries Sun Bhd	Automated Test Handling and Inspection and others	2,119	11.3	2	62	0.3
3.	Agilent Technologies Malaysia Sdn Bhd	Automated Test Handling and Inspection Equipment, Fully Automated Assembly Equipment and others	1,487	7.9	13	2,305	10.4
4.	Mattel (M) Sdn Bhd	Fully Automated Assembly Equipment, Automated Assembly Line Integration System, and Precision Machining and Tooling	1,407	7.5	13	406	1.8
5.	Renesas Semiconductor (PG) Sdn Bhd*	Automated Test Handling and Inspection Equipment, Fully Automated Assembly Equipment, Automated Assembly Line Integration System and others	968	5.1	13	893	4.0
6.	Universal Scientific Industrial Co. Ltd.	Fully Automated Assembly Equipment	841	4.5	1	8	**
7.	Western Digital (Bang Pa-in) Company Ltd	Fully Automated Assembly Equipment, Clean Room (Class 1) Intelligent Transport System, Automated Assembly Line Integration System and others	706	3.8	7	1,744	7.9
8.	Molex (M) Sdn Bhd	Automated Test Handling and Inspection Equipment, Fully Automated Assembly Equipment and others	606	3.2	10	798	3.6
9.	Dynacraft Sdn Bhd	Precision Machining and Tooling	522	2.8	2	361	1.6
10.	SMCI Globetronics Technology Industries	Jigs and Fixtures	412	2.2	8	188	0.8
	TOTAL		11,403	60.6		7,766	34.9

Note: Others include mainly spare parts, consulting and training services.

<sup>\*</sup> Formerly known as Hitachi Semiconductor (M) Sdn Bhd

<sup>\*\*</sup> Negligible

Proforma consolidated turnover of ATS Group for the year ended 29 February 2004 amounted to RM18.804 million excluding intercompany transactions. ATS Group has established a wide customer base of approximately 140 customers as at 29 February 2004. The Group is not overly dependent on any of the major customers for its business since it has a large clientele base spanning local and foreign markets.

ATS Group has a customer base whereby 70% of its top 10 customers have been dealing with the Group for 5 or more years. This relatively established top 10 customer base would provide the basis for continuing long term business relationship.

# 8.11 Major Suppliers

The Group purchases supplies of raw materials including fabrication parts, fabrication parts, conveyors, sensors, busing and bearing, motors, vibrating devices, electrical parts for industrial use and others. The top ten suppliers (32.5% total purchases) of the ATS Group, based on FYE 29 February 2004 and nine (9) month period ended 30 November 2004, are as follows:-

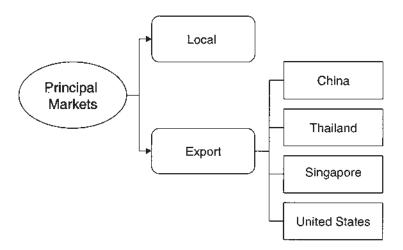
					FYE ended 29 February 2004		
No	Supplier Name	Raw Materials Supplied	Amount RM'000	% of Total Group Purchases (%)	Length of Relationship (Years)	Amount RM'000	% of Total Group Purchases (%)
1.	AE Automation (M) Sdn Bhd	Conveyor	699	7.0	5	2	-
2.	SMC Pneumatics (SEA) Sdn Bhd	Pneumatic Parts	513	5.2	14	444	4.4
3.	Stratus Automation Corporation	Engineering Parts	488	4.9	6	1,760	17.5
4.	Elcomp Trading Sdn Bhd	Sensor, Programmable Logic Control	329	3.3	14	549	5.4
5.	Advantech Automation (Penang) Sdn Bhd	Industrial Personal Computer	326	3.3	2	604	6.0
6.	Oriental Motor (Malaysia) Sdn Bhd	Servo Motor and Motor Controller	244	2.5	2	299	3.0
7.	Flexible Automation System Sdn Bhd	PLC, Pneumatic Parts and Sensor	179	1.8	10	43	0.4
8.	Keyence (M) Sdn Bhd	Sensor and PLC	161	1.6	6	88	0.9
9.	Prima Components Pte Ltd	Automation Parts	151	1.5	4	107	1.0
10.	Goodwill System Sdn Bhd	Fabrication Parts	143	1.4	10	59	0.6
		Total	3,233	32.5		3,955	39.2

The Group does not have any formal agreement with vendors to supply raw materials on a continuing basis. Nevertheless, the Group is not overly dependent on any of the major suppliers for its business since raw materials for the manufacture of its products can be easily procured.

ATS Group has a stable group of suppliers. This is in line with ATS Group's philosophy in cultivating long-term supplier relationships. Approximately 80% of the top 10 suppliers have been dealing with the Group for 4 years or more.

### 8.12 Marketing and Distribution

The principal markets of ATS Group are as depicted in the diagram below:



The sales and marketing team of ATS Group utilizes the following marketing strategies to sustain and expand its business:-

- Positioned as an integrated designer and manufacturer of IASM with full range of products and services including in-house design, engineering, manufacturing, machining and tooling, jigs and fixtures, consulting and maintenance services.
- Providing quality products and services backed by in-house research and development and testing facilities to meet stringent requirements and standards in Industrial Automation Systems and Machinery.
- Expand its market presence overseas and develop new business opportunities by working in close partnership with existing customers and suppliers.
- Promote and market its products and services through trade shows, exhibitions and trade referrals from MNC customers.

As part of its strategy to promote its products and services to potential customers locally and overseas, ATS Group also actively participates in exhibitions and conventions both locally and overseas. The Group has participated in the following exhibitions: -

- SMIDEC, Kuala Lumpur
- Electronics China 2003, Shanghai, China
- Semicon, Japan and Philippines (joint-participation)
- Nepcon, Singapore (joint-participation)
- Semicon West, United States (joint-participation)

To implement the strategy, ATS Group has its own sales and marketing team to focus on business development with existing and potential customers. As at 31 December 2004, ATS Group has 12 personnel in its sales and marketing team in Malaysia and Suzhou, China.

ATS Group's distribution channel strategy is primarily based on direct distribution. This strategy is also applicable for export markets. The primary reason for the Group to utilize direct distribution is due to:

- As IASM are specifically customized to the specifications of the customers, significant technical expertise and product knowledge is required to sell and market the Group's products and services effectively. Hence the Group's engineers are also involved in the sales and marketing of products and services.
- Direct distribution approach enables the Group to work closely with its customers to evaluate and better understand their needs and requirements.

The Group also has informal business arrangements with a number of companies that would introduce sales leads to ATS Group.

ATS Group has gained a footing in both local and export markets. The Group's ability to access overseas market will provide the basis for future growth and expansion. Export markets will be particularly conducive for the sales of mass manufactured of standardized IASM as part of its future plans.

# 8.13 Future Plans and Strategies

The prospect of ATS Group, in keeping with the favourable prospect for the specialised industrial machinery and equipment industry in Malaysia, remains positive. The Company would benefit from the strong export market, shift in domestic demand from labour- intensive to high technology applications and vast opportunities to replace imports.

In order to sustain its competitiveness and stay ahead of its current and potential competitors, the ATS Group bases its business strategies to work towards achieving its vision: "To be a leading integrated designer and manufacturer of industrial automation systems and services".

To achieve its vision, the following objectives are in place:-

### (i) Product Strategy

The major thrust of ATS Group's strategy is to position and market itself as an integrated one-stop service provider of IASM incorporating a comprehensive range of products and services. As part of the Group's intention to stay ahead of its competitors, it will continually develop new and value-added products that leverage from its existing strengths in IASM.

The Group also intends to improve on its existing product range through modifications and standardization to enable mass production and commercialization of its products. The overall improvement and modification undertaken by ATS Group is aimed at enhancing the layout, output rate, flexibility and material utilization aspects of its products and systems.

#### (ii) New Products

As part of ATS Group's intention to stay ahead of its competitors, it will continually develop new products to provide sustainability and growth for the business. These new products include:

- (a) High Speed Test Mark Cure System for miniaturised package;
- (b) Colour Recognition System;
- (c) Clean Room Class 1 Assembly System.

ATS Group plans to commercialise the above-mentioned products between 2005 and 2007.

# (a) High Speed Test Mark Cure System for miniaturised package

This System is primarily for the production of Metal Electrode Leadless Face – Diode (MELF-D). The system will feed the MELF-D to a magnetic stoker where it floats in the air while waiting to be single-out by a high-speed magnet-embedded wheel. The MELF-D will then be channeled to various test stations to perform electronic test to determine the product quality as well as orientation. Wrong orientation MELF-D will be corrected and fed into another Marking Magnetic Stocker. The MELF-D is then marked with bar codes where it is automatically transferred for curing. After curing, the MELF-D will go through a final test. Prior to packing, the MELF-D will go through an Automated Vision Inspection System to confirm quality and legibility of the markings. The High Speed Test Mark Cure System for miniaturised package is capable of handling 18,000 units per hour.

### (b) Colour Recognition System

ATS Group's Colour Recognition System is capable of inspecting 24-bit colour image and provides feedback to the user on the colour of a specific region or location. Among the three components of colour system, hue, intensity and saturation, hue is the most important as it defines the primary attribute that best describe a colour. It is then followed by intensity that determines the brightness level, then followed by saturation that describes the dominance of the particular colour. The typical process flow includes capturing a 24-bit colour image of the product, and running it through ATS Group's proprietary Colour Recognition System software to establish the wavelength and brightness and thus determine the colour of the product.

Some of the applications include:

- sorting coloured food products, for example coloured lollies;
- sorting the different colours of Light Emitting Diode (LED);
- sorting the different combinations of resistor colour band that determines the resistor's rating.

### (c) Clean Room Class 1 Assembly System

Clean Room Class 1 Assembly System (CRC1-AS) is a conveyor-based transport system designed for the semiconductor industry, for example wafer fabrication and hard disk drive manufacturing. The built-in intelligent controller provides simplicity in operation without the need for external intervention. High transport speeds of up to 1 metre per second are possible. CRC1-AS is targeted for virtually all types and sizes of carriers for example, from 25 millimeter disk drives to 1-meter width Plasma Display Panels.

### (iii) Mass Produced Standardised Products

The Group intends to improve on the following existing products through modification and standardisation to enable mass production and commercialisation of its products:

- (a) Test Handling System
- (b) Laser Marking System
- (c) Fully Automated Assembly System

#### (a) Test Handling System

An integrated solution incorporating electronic product tester or visual inspection system, which is used to automate some form of testing, usually for product quality checking and analysis within the semiconductor environment.

ATS Group's Automated Test Handling System is designed to test the functionality of Integrated Circuit (IC) Chips and Light Emitting Diodes (LED). Tests include static and dynamic electrical characteristic tests based on Functional tests, Resistant test, Leakage test, Alternating current test and Direct current test. The IC Chips and LED to be tested can be loaded using either tube-in, tray-in or reel-in.

The Test Handler will undertake the following sequence of tasks:

- locate the item (IC Chip or LED) to be tested;
- generate an electrical connection to the item being tested;
- conduct the relevant tests (for example, functional test and resistance test)

Items that pass all the necessary various tests are separated from those that failed any one of the tests. The pass items are further sorted based on characteristics, for example in the case of LED, they will be sorted based on light intensity. Once all the

pass items are sorted, they are then returned to their original input containers and become tube-out, tray-out or reel-out.

Other features available on ATS Group's Automated Handling Systems include the following:

- Integrated with in-house developed and proprietary Laser Marking System;
- Integrated with in-house developed and proprietary Vision System for checking marking quality, bent lead defect and co-planarity;
- Incorporation of real-time multi-tasking in-house developed software control system;
- Capable of throughput ranging from 1,000 units per hour to 20,000 units per hour.

ATS Group's Automated Handling Systems are fully automated that minimise human intervention. This enables very high throughput and product quality.

# (b) Laser Marking System

This system is controlled by computer software and is used for marking of electronic products that come in different form or shapes. In the semiconductor environment, the laser marking uses laser (either pulse or writer type) to mark the manufacturers' name, product part number and data code on the IC chips or components. The system is equipped with the latest Vision Inspection System to inspect the measurement of the product via camera without physical contact with the object thus eliminating human error and enhancing the speed of checking (inspection of a unit in a fraction of a second). The laser system has eliminated the requirement for heat cure drying time, thus speeding up the marking process. There are various types of loading and unloading system to cater for different products. Sometimes, "Quick Conversion" is provided as an option.

# (c) Fully Automated Assembly System

ATS Group's Fully Automated Assembly System is a general system involving the automation of the entire production line incorporating all the required machinery and equipment from start to end.

ATS Group's Fully Automated Assembly System is able to incorporate the following:

- robotic arms for pick and place;
- vision and laser inspection system;
- quality testing system;
- automatic feeder;
- automatic unloading;
- automatic packaging;
- sophisticated software to control timing and movements of all the machinery and processes.

Automated assembly system can be of three different configurations as follows:

- rotary;
- inline;
- palletised conveyor.

The rotary style automated assembly system uses an index table that indexes, or rotates, to present the parts to the automation stations where the work is performed. The automation is mounted onto the machine base and is located around the periphery of the rotary index table.

Automated assembly system incorporating inline system is capable of having any number of stations required to complete the automated assembly. Typically, this style is preferred when there are a large number of processes required. This is because of the relatively substantial amount of floor space utilised as compared to the rotary

style assembly system. The inline style equipment uses precision part fixtures to create the desired stack to keep the automation stations aligned. The fixtures or pallets are generally cycled through the system using pneumatic actuators and a return conveyor.

Palletised conveyor automated system is capable of having any number of stations to complete the automated assembly. A conveyor transfers the pallets around a perimeter while automation stations are performing the required steps to complete the part. The conveyor will generally utilise a series of stop and lift gates to locate the pallets in order to perform the automation procedures. If necessary, the palletised conveyor automated system will track each pallet on the conveyor individually to confirm that the pallet and part have received the required automated assembly processes.

The pallet tracking is handled using bar codes and scanners or groups of long and short proximity switch targets used to create a binary code that uniquely identifies each pallet.

A palletised conveyor system may be used to automatically transfer parts to separate work cells to create a complete part. The automatic transfer eliminates the need for manual tracking of work in process and human error. ATS Group is capable of producing Fully Automated Assembly Systems with an average throughput ranging between 20 parts per minute (ppm) and 350 ppm.

ATS Group will embark on the development of standardised products for mass production in 2005, 2006 and 2007.

# (iv) Business Expansion

The business expansion plans of ATS Group comprise the acquisition of Clean Room Class 1 technologies, extension and purchase, purchase of new machinery and establishment of new office.

ATS is currently capable of manufacturing clean room class 1 conveyor transport system focusing in the disk drive sector. As part of its expansion plan, the Group intends to acquire business relating to the manufacturing of standardized IASM delivering class 1 capabilities, which is synergistic to the group's core activities. Such acquisition is in line with the Group's continuous efforts to serve as one-stop centre in providing a complementary range of standardized and customized products to its customers. The acquisition of Clean Room Class 1 technologies is expected to take place in 2007.

In view of meeting increasing demand and embarking on new product development, there is a need for the Group to expand its existing factory to increase its production capacity. The Group proposes to extend its existing manufacturing plant by utilizing one-acre vacant land situated next to the current plant in order to meet its expansion plan. The expansion of its existing manufacturing plant in the Bayan Lepas Industrial Zone Phase IV is expected to commence in 2006. The ATS Group also plans to embark on facility expansion in the overseas market through the purchase of manufacturing plant for Industrial Automation System and Machinery in Suzhou, China and the establishment of a facility for IASM in Thailand in 2006.

New machineries will be acquired for its operations in Malaysia and China.

Currently, ATS Group exports its products to China, Singapore, Thailand and the United States. In view of the growing demand for Industrial Automation Systems and Machinery, the Group plans to increase market presence and penetration by establishing sales and marketing offices in Kuala Lumpur, Shanghai, Beijing, Guangzhou, Singapore, United States and Bangkok. The establishment of these offices will be in 2005 and 2006.

# (v) Research and Development Strategy

### (a) Software Development

One of ATS Group's key achievements from R&D is the development of a real-time multitasking system control software, commonly known as Man-Machine Interface. ATS Group has called the system control software RealMax.

The system control software is the brain, which controls all aspects of the operation and running of the Automated System and Machinery. Since it commenced development in 1995, the software is constantly undergoing improvement and enhancement. As such, ATS Group intends to continue developing its software, which is one of its key competitive advantages.

Among others, some of its continuing R&D efforts are focused on safety enhancement as follows:

- building more safety interlocking system:
- protection door interlocking
- hazard isolation
- several security level access
- emergency handling procedures.

Other aspects of improvement would also incorporate new features that take into consideration ergonomics to provide a better operating environment for machine operators. Other improvement includes making the software web-enabled to facilitate remote monitoring, trouble shooting and debugging.

# (b) Design Tools Development

ATS Group has developed design tools for the production of Automated Test Handling and Inspection System. The Group intends to embark on the compilation and upgrading of its existing automation module to further develop design tools for Advanced Test Handling Module.

The compilation and upgrading of existing automation module are in tandem with the Group's product development plan. The succession of such module will enable the Group to attain the following objectives:

- efficiency and greater speed in system integration for the development of Advanced Test Handling System;
- reduce cost, improve system reliability and flexibility of the entire system.

The Group plans to commence this development project between 2005 and 2007.

# (c) Vision System

As part of its product development plan, ATS Group plans to further explore colour recognition capability as well as small particle detection on wafer surface.

In colour recognition, ATS Group intends to expand its current capabilities to incorporate recognition of natural colours, for example different shades of a colour. This would have very wide applications across different industries ranging from food and beverages to electrical and electronics industries.

The improvement of its existing vision system will enable the Group's Industrial Automation Systems and Machinery in achieving higher inspection accuracy and handling higher volume of inspection.

The Group plans to embark on the further development of its vision system between 2005 and 2007.

### (vi) Manufacturing Improvement

ATS Group continuously focuses on process improvement, particularly in enhancing its manufacturing processes. This is critical as it has a direct impact on manufacturing efficiency, effectiveness, productivity and product quality.

As such, the Group undertakes R&D in the following areas:

- systematise machine integration process;
- faster machine integration;
- optimise test debugging process.

Manufacturing improvement is a continuous process.

# (vii) Image and corporate branding

ATS Group is keenly aware of the need to differentiate its products and services and to build a reputation for quality, reliability and innovation. As such it intends to embark on brand building as one of its marketing strategies to obtain the benefits of customer loyalty, support its pricing strategy, creates competitive advantages, and creates recognition for its products and services and attracts new customers based on strong brands and positive association. To this end, ATS Group intends to obtain government grant to support its marketing strategies and promote brands to its targeted end-user industries. The group plans to undertake brand-building and marketing activities in 2005.

# 8.14 Employees

The Group's emphasis on human resource development plays an important part in helping the Group achieve its present level of progress. The Group is highly selective in its recruitment of new staff, carefully evaluating their technical capabilities, relevant business experience and personal attributes, to ensure that employees will not encounter any problem fitting into the Group's work culture.

So far, the relationship and cooperation between the Group's management and employees has been good and this is expected to continue. There have not been any work stoppages or labour disputes affecting the Group's business, nor has the Group experienced any significant seasonal fluctuations in the number of employees. The employees of the Group do not belong to any organised union.

As at 31 December 2004, ATS Group had a total of 178 employees, whereby none of which are employed on a contractual/ temporary basis, and this is segmented into the following:

	Number of employees	%	Average number of years of service
Directors General Manager Senior Manager Manager Senior Engineer Engineer Supervisor/ Assistant Engineer Technicians/ Assistant/ Senior Machinist Machinist/ Clerk	4 2 5 15 7 30 20 47 48	2.25 1.12 2.81 8.43 3.93 16.85 11.24 26.40 26.97	11 3 8 6 2 2 3 3 3
TOTAL	178	100.00	

Notes.

Others include cleaners and security guards.

Total only includes ATE, MTE and ATC as ATES and ATP are currently dormant.

With the emerging needs of the Group, in line with its expansion plans, ATS aims to achieve its human resources objective of retaining suitably qualified personnel by:-

- Providing sufficient on-the-job training to develop existing skills and knowledge;
- Providing additional training, in order for technical staff to keep abreast of industry trends and solutions; and
- Instituting a competitive remuneration package, combined with attractive medical and insurance facilities for all levels of staff.

# 8.15 Operating Licenses, Patents, Trademark and Intellectual Properties

The ATS Group is currently operating under the following licenses:-

Сотрапу	Issuing authority	Particulars of license/ certificate (including any condition imposed)	Issue date	Expiry date
ATE	MITI	MITI Manufacturing License No: A 013531 for manufacturing of industrial automated machine/equipment and parts	29 May 2002	N/A
ATE	Royal Customs and Excise, Malaysia	Manufacturing Warehouse License No: 21260 to manufacture test handler, laser marking handler, die atlach machine, robotic handler, packing machine, custom function machine, vision system, control system and fabrication parts ("the Products").	12 January 2004	12 January 2006
ATE	Royal Customs and Excise, Malaysia	Warehouse License No: 050040 warehouse the Products which are liable to customs duty	12 January 2004	12 January 2006
MTE	Royal Customs and Excise, Malaysia	Sales Tax License No: A 028916	5 July 1989	N/A
ATC	Administration for Industry and Commerce (Suzhou)	Business License no. 009382 to operate its business in Suzhou, China	27 November 2000	26 November 2050

ATS Group has the following pending trademark and patents:

- (a) The Group has applied for a patent on Vision Systems, which is a color recognition system, pending approval from the Ministry of Domestic Trade and Consumer Affairs; and
- (b) The Group has also applied to register "AT" as a trademark, and is currently pending approval from the Intellectual Property Division, Ministry of Domestic Trade and Consumer Affairs Malaysia.

The ATS Group holds the intellectual property for each type of Industrial Automation Systems and Machinery that is manufactured by the Group. This is a result of the Group's research and product development. However, these are not patented with the exception of Vision Systems, which is pending approval.

ATS Group has attained certifications of MS ISO 9001:2000 and ISO 9002:2000 through its subsidiaries, ATE and MTE respectively.

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# 8.16 Key Achievements, Milestones and Awards

Over the years, the Group has achieved milestones and received numerous awards as follows: -

Year	Event
1991	<ul> <li>ATE won its first project – Eutectic Auto Die Attach Machine from Motorola.</li> <li>Completed first LED Test Handler.</li> <li>Completed first Swaging Machine.</li> <li>Completed first Laser Marking Machine.</li> <li>Upgraded design capabilities from manual drawing system to a computer-based system.</li> </ul>
1992	Expanded Group capabilities to include workshop support.      Expansion to increase production capacity.
1993	<ul> <li>The Group received its first order from YAC Japan.</li> <li>ATE acquired Japanese working practices and quality through linkages established with YAC Japan.</li> </ul>
1994	<ul> <li>The Group received its first order from Thomson France. The Group works towards EU Standard.</li> <li>Completed first Fast Ali – High Speed LED Tester.</li> <li>Completed first Vision Inspection system.</li> <li>Completed first Automatic Assembly &amp; Test Line.</li> <li>Completed first Automatic Assembly and Tic Line.</li> <li>Acquired present land in the Bayan Lepas Industrial Zone IV.</li> <li>The Group expanded to increase production capacity.</li> </ul>
1996	<ul> <li>The Group relocated its operations to its present location in the Bayan Lepas Industrial Zone IV. The Group centralised operations, and owned its own production facility.</li> <li>Established new sheet metal and welding capabilities.</li> <li>The Group received an Outstanding Supplier Award from Thomson France.</li> </ul>
1997	- Completed first Clean Room Class 10 Conveyor system, together with YAC Japan.
1998	Upgraded IT capability by introducing networking, email and browsing.     Conducted standard equipment R&D with Hochu.
1999	<ul> <li>The Group expanded its capabilities by acquiring MTE, a specialist in Precision Machining Workshop activities.</li> <li>Conducted R&amp;D on Clean Room Class I Conveyor System.</li> </ul>
2001	- Expanded into overseas market by establishing ATC.
2002	<ul> <li>Group subsidiary AT Engineering received MS ISO 9001:1994 accreditation.</li> <li>Conducted R&amp;D on Vision System and Colour Recognition technology.</li> </ul>
2003	<ul> <li>ATE received MS ISO 9001:2000 quality accreditation from SIRIM QAS Sdn Bhd.</li> <li>MTE received MS ISO 9001:2000 quality accreditation from BM Trada.</li> <li>Received award from supplier – Allegiance Gloves R&amp;D, S.E.A.</li> <li>Conducted R&amp;D on Diode Test Handler.</li> </ul>
2004	- Conducted R&D on Helious System.

# 8.17 Approvals and Conditions

The Listing Proposal has obtained approvals from the SC, Bursa Securities, FIC (via SC) and MITI on the dates set out below:-

Authority	Date of approval
SC	22 November 2004
Bursa Securities	24 November 2004
FIC (via SC)	22 November 2004
MITI	21 June 2004

The conditions imposed by the SC and FIC (via SC) in their approvals of the Listing Proposal are as follows:-

Deta	nils on conditions imposed	Status of compliance
(i)	ATS to disclose the status of the utilization of the listing proceeds in its quarterly and annual reports until the proceeds are fully utilized;	To be complied with.
(ii)	ATS to meet the 30% Bumiputera equity requirement within one year after it has achieved the profit track record required for a listing on the Second Board of Bursa Malaysia or 5 years after being listed on the MESDAQ Market, whichever is earlier, in which the allocation of shares to Bumiputera investors should be approved by MITI;	To be complied with.
(iii)	ATS to submit a preliminary proposal to the SC on how to meet the Bumiputera equity conditions, 6 months before the expiry date for compliance;	To be complied with.
(iv)	Relating to its propertics:  (a) ATS to undertake to use its best endeavour to obtain approval for the unapproved structures within 1 year of the SC's approval letter  (b) ATS to make quarterly announcements on the status of the above application to Bursa Malaysia; and  (c) OSK Securities Berhad (OSK)/ATS to update the SC on the status of compliance of the application when such announcements are made to Bursa Malaysia; and	To be complied with.
(v)	OSK/ATS to inform the SC upon completion of the proposed flotation scheme.	To be complied upon Listing.

The FIC (via SC) had no objection to the changes in the equity structure of ATS as follows:-

	Before Proposal %	After Proposal %
Bumiputera Non-Bumiputera <sup>1</sup>	100.00	100.00
Foreigners Total	100.00	100.00

<sup>&</sup>lt;sup>1</sup> Assuming that all the Public Issue Shares are subscribed by non-Bumiputera individuals.

The conditions imposed by the Bursa Securities in their approvals of the Listing Proposal are as follows:-

]	The proposed novation of amount owing to Beh Lai Lien, Lai Siaw Ling. Wong Pow Keong and Yap Kim Lean of RM1,008,673 be either settled as follows:	Complied. Informed Burst Securities via letter dated 15 December 2004 that
1	(a) Via issuance of shares priced at the public issue price; or	the Novation of Debt is to be settled via issuance of Shares priced at the public
	(b) Repayment in cash by the Company prior to listing of ATS; or	issue price.
	(c) Exclude the proposed novation from the Listing Proposal;	

Details on conditions imposed	Status of compliance
<ul> <li>(ii) ATS to make a detailed disclosure in its prospectus of the following:-</li> <li>With regards to the material dispute between Unomedical Sdn Bhd and ATE:-</li> <li>Status updates on the said dispute;</li> <li>That the said dispute would not have adverse material effect to the ATS Group; and</li> <li>Worst case scenario should the Group is unsuccessful in the said dispute.</li> </ul>	Complied. Please refer to Section 16.8 of this Prospectus.
(iii) ATS to inform Bursa Securities on the appointment of independent directors and to provide information that they qualify as independent directors as defined in the Listing Requirements of Bursa Malaysia Securities Berhad for the MESDAQ Market ("MMLR");	Complied. Informed Bursa Securities via letter dated 28 December 2004.
(iv) ATS and the Adviser to provide confirmation that the Audit Committee comply with the requirement in the MMLR; and	Complied. Informed Bursa Securities via letter dated 14 January 2005.
(v) ATS to include a negative statement in its prospectus on the exclusion of profit forecast and projections from the prospectus and the reasons thereof.	Complied. Please refer to Section 5.7 of this Prospectus.

The conditions imposed by the MITI in their approvals of the Listing Proposal are as follows:-

Details on conditions imposed	Status of compliance
(i) ATS is required to increase the Bumiputera equity interest of the Company to 30% within five (5) years after admission, or within one (1) year after it has achieved a profit record required for a listing on the Second Board of Bursa Securities, whichever is the earlier;	To be complied with.
(ii) Allocation of shares to Bumiputera at paragraph (i) above is subject to MITI's approval;	To be complied with.
(iii) ATS is required to obtain the approval from SC for the Proposed Listing and the compliance with the Malaysian Code on Take-overs and Mergers; and	Complied. The approval of the SC was obtained on 22 November 2004.
(iv) ATS is required to obtain the approval from Bursa Securities for the Proposed Listing.	Complied. The approval of the Bursa Securities was obtained on 24 November 2004.

# 8.18 Interruptions to Business during the past 12 months

There has not been any material interruption to the businesses of the Group in the twelve (12) months preceding the date of this prospectus.

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