6. INDUSTRY OVERVIEW AND FUTURE PROSPECTS

6.1 OVERVIEW OF THE MALAYSIAN ECONOMY

The Malaysian economy expanded at an annual rate of 4% compared with the 1.3% in the corresponding period last year despite the heightened uncertainty of the external environment and the impact of SARS on regional economy in the first quarter of 2003. Growth in the first quarter was largely supported by domestic demand and further reinforced by the strong export performance.

(Source: Economic and Financial Developments in the Malaysian Economy in the First Quarter of 2003 – Bank Negara Malaysia, 28 May 2003)

Growth momentum of the Malaysian economy was sustained as Real GDP recorded a 4.4% growth in the second quarter of 2003 (1Q 2003: 4.6%) despite the Severe Acute Respiratory Syndrome ("SARS") outbreak and the uncertain external environment. The encouraging growth rate was achieved through numerous proactive fiscal and monetary expansion policies and the diversified yet resilient economic base of Malaysia.

Growth continued to be driven by aggregate domestic demand, which expanded by 3% and reinforced by gross exports of goods and public sector consumption, which grew by 5.8% and 7.2% respectively. Private consumption expenditure also expanded by 3.4% during the second quarter of 2003 as consumer confidence was restored following the announcement of economic stimulus package, which involved a Special Relief Guarantee Facility of RM1 billion to alleviate the cash flow problems faced by businesses affected by SARS, on 21 May 2003. This was further supported by the lower interest rates regime and strong commodity prices amidst stable labour market conditions.

The easing of monetary policy has resulted in a decline in lending rates of between 30 to 55 basis points. This provides reinforcement towards the economy, whereby the immediate positive development has been the stronger demand for liquidity. All loan indicators also increased significantly in June, with total loan disbursement expanded by 18.3% in June compared with level in May.

Going forward, conditions favour further increases in aggregate domestic demand in the local front. Lending rates continue to trend downwards. Stronger corporate balance sheets with improved cash flows amidst rising capacity utilization augur well for higher investments. Positive sentiment has emerged in the MSEB with seven IPOs attracting over-subscriptions. Energy prices remained low and household and business confidence has recovered. The underlying fundamentals of the Malaysian economy continue to remain strong with low inflation rate and stable labour market conditions. The external position remains robust with international reserves increasing to US$38.6 billion as at mid-August 2003, which is adequate to finance 6 months of retained imports and is 4.3 times the short-term external debt. Given the resilience of the economy, the expected improvement in the external environment and the positive effects of the Government's economic package, growth is expected to strengthen in the second half of the year.

(Source: Economic and Financial Developments in the Malaysian Economy in the Second Quarter of 2003 – Bank Negara Malaysia, 27 August 2003)

6.2 INDUSTRY REVIEW

6.2.1 The machinery and equipment industry

The machinery and equipment industry plays a significant role in the growth and development of Malaysia's economy. As Malaysia strives towards achieving the status of an industrialised nation, the need for machinery and equipment becomes an increasingly critical component in ensuring continuing development and advancements of the country's national industrial development programme. The importance of this industry is further reflected by the fact that the Malaysian Government is encouraging the development in this industry with the following objectives:

- To upgrade the existing engineering supporting and ancillary industry to complement the growth and development of the machinery and equipment industry
- To promote the fabrication of parts or sub-assemblies of machinery and equipment
- To enhance the development of the machinery and equipment industry.

Process equipment/pressure vessel is a sub-sector of the machinery and equipment industry. Currently the Malaysian Government recognises that Malaysia has the capacity in the metal fabrication works and the 'fabrication' of machinery and equipment for the agriculture based and resource based industry but the bulk of the local demand is still being imported. Although the metal fabrication sector is developed, it is still regarded as an important part of the total machinery and equipment industry.

Currently Malaysia is largely dependent on imports of machinery and equipment for a wide range of industries. This is reflected by the fact that imports of all types of machinery and equipment (excluding electrical machineries) into Malaysia reached RM24.2 billion in 1999 and RM24.1 billion for the first nine months of 2000.

Therefore there are enormous opportunities for import substitution and growth potential for the local industry. In view of these opportunities, the Malaysian Government has highlighted the machinery and equipment industry as one of the key industries identified in the Second Industrial Master Plan 1996-2005 for future growth and development.

Thus machine and equipment industry sector plays a significant role in contributing to the growth and development of the Malaysian economy and more importantly minimise the outflow of Malaysian funds through import substitution.

6.2.1.1 Value adding

The business of design and manufacturing of process equipment adds significant value in terms of converting raw materials including hot-rolled steel plates, pipes and fittings, gaskets, nozzles and flanges and other iron and steel material to produce end-products in the form of process equipment including the different types of pressure vessels. These pressure vessels are critical to the process of converting or separating upstream to downstream products.

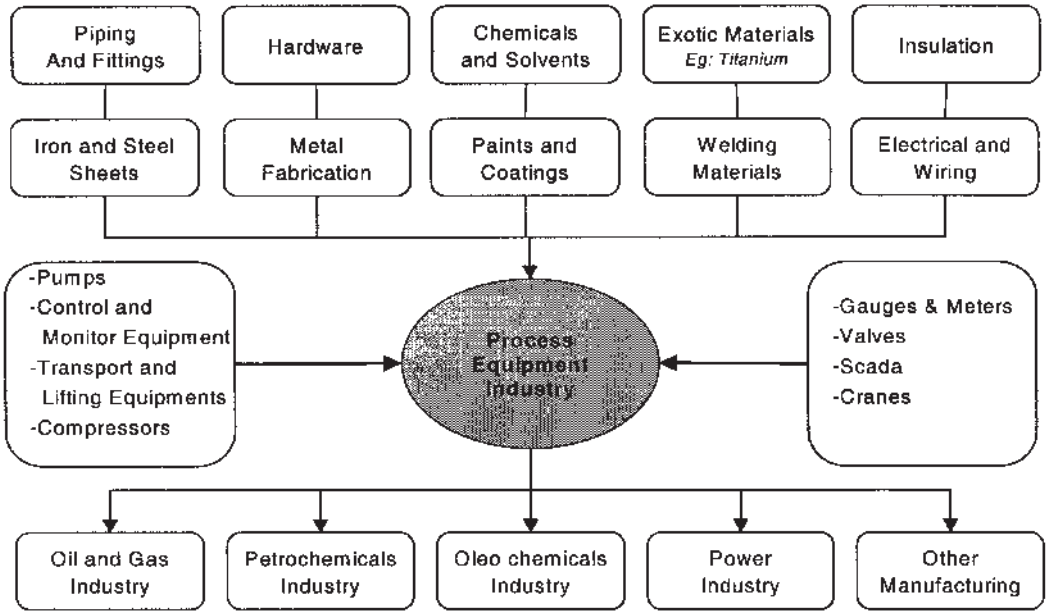
The engineering design element also provides opportunities for value adding to the product by having technical input into the overall design of the process equipment depending on the application for example catalyst reactor, mounded bullet or splitter.

THE REMAINDER OF THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY

6. INDUSTRY OVERVIEW AND FUTURE PROSPECTS *(Cont'd)*

6.2.1.2 Linkages and catalysts

The process equipment industry has extensive linkages to upstream and downstream activities as depicted in the following diagram:



The end-user industries for process equipment is diverse including oil, gas, petrochemicals, oleochemicals, food and beverage, power generation, pulp and paper and other manufacturing based industries. The extensive linkages within the process equipment industry will help strengthen and promote growth in Malaysia's machinery and equipment industry.

The linkages and the dependencies among the various industry sectors and groups including iron and steel, paints and coatings create a multiplier effect that acts as a catalyst for increased economic activities as well as the creation of wealth for the nation. More importantly, the local development of the process equipment manufacturing industry will reduce outflow of Malaysian funds through import substitution particularly for these high capital intensive equipment.

6.2.1.3 Government incentives and protection

The manufacture of the following machinery and machinery components are regarded as promoted activities and are therefore eligible for Pioneer Status and Investment Tax Allowance under The Promotion of Investments Act 1986:

- ❒ industrial machinery or equipment
- ❒ agricultural machinery or equipment
- ❒ mining or mineral processing machinery or equipment
- ❒ power generating machinery or equipment
- ❒ construction machinery or equipment
- ❒ materials handling equipment
- ❒ waste water treatment equipment
- ❒ machine tools, hand tools or power tolls
- ❒ machinery components
- ❒ printing rolls or embossing rolls
- ❒ dicing blades, accessories for silicon wafers or ceramic substrates
- ❒ sewing machines

- ❒ soldering equipment or iron soldering tips
- ❒ elevators or escalators

In addition, tax incentives are also granted for companies that provide 20% or 30% incentives depending on the sub-sectors for example:

machine tools	20% or more value-added
specialised/process machinery associated with specific industry	20% or more value-added
materials handling machinery and equipment	20% or more value-added
packaging machinery	30% or more value-added
supporting services machinery	30% or more value-added
machinery parts/components	30% or more value-added

6.2.2 The mechanical and electrical engineering contractor services

The mechanical and electrical engineering contractor services sector plays an important supporting role in servicing the building and construction industry in Malaysia.

Essentially all new or refurbished buildings will require some form of mechanical and electrical works before it can be occupied. This typically includes the total design and installation of any mechanical systems, electrical wiring systems and air-conditioning ducts to ensure the building is totally functional for its inhabitants.

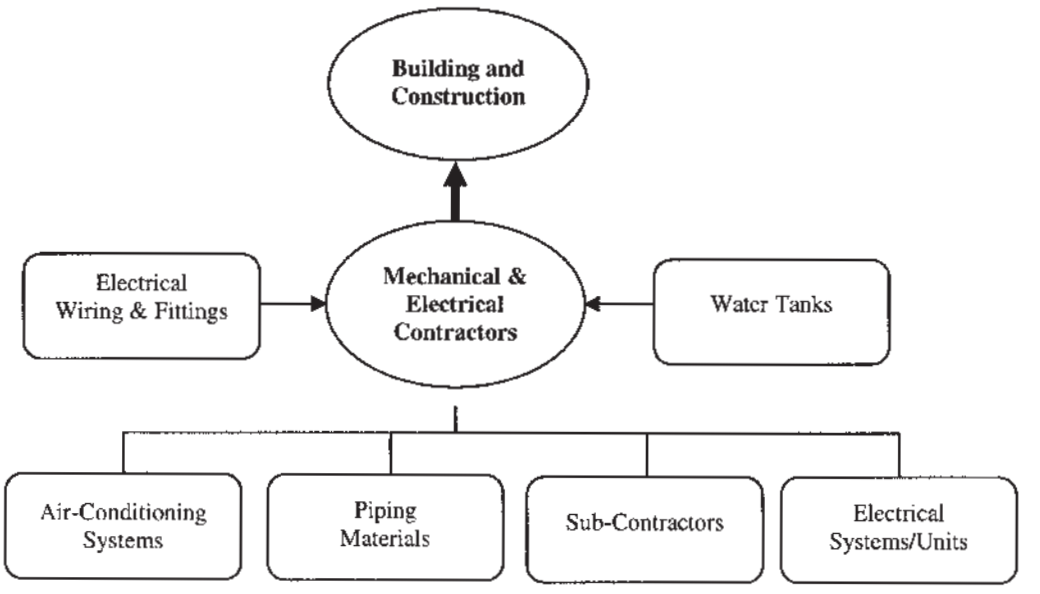
6.2.2.1 Value adding

As the mechanical and electrical engineering contractor primarily provides services, the proportion of value-adding is significant. This is mainly based on the fact that the cost of input is low and the gross output is high.

According to the Yearbook of Statistics, Malaysia 2000 by the Department of Statistics, the value-added by engineering consultancy services is approximately 93.6% of the value of gross output.

6.2.2.2 Linkages and catalysts

The mechanical and electrical engineering contractors provide the following linkages in the diagram below:



As the main contractor of mechanical and electrical engineering services, this sector of the industry also provides direct linkages to many other suppliers and sub-contractors to the building and construction industry. Thus, this service industry forms as a catalyst for growth of the surrounding sub-sectors within the building and construction industry in Malaysia.

6.2.2.3 Government policies

All mechanical and electrical engineering contractors are required to register with the CIDB prior to undertaking any mechanical or electrical works. In addition, there are different grades of contractors and each category is usually limited to a certain size of project.

6.2.3 The NDT services sector

Operators of NDT services play an important supporting role in servicing the process equipment industry as well as other steel based structure and construction industries Malaysia. NDT is an important component to the metal or steel fabrication industry. This form of testing provides customers with the assurance of integrity of any finished metal or steel structure.

The process equipment for the oil and gas industry in particular has to undergo the rigours of NDT testing to ensure the safety of employees and protect its investment in equipment.

Currently NDT is the only most effective form of metal fatigue testing on welding seams.

6.2.3.1 Value adding

As NDT is primarily a service-based sector, the proportion of value-adding is significant. This is mainly based on the fact that the cost of input is low and the gross output is high. The main gross input in the provision of NDT services is primarily contributed by wages and salaries. Equipment costs are perceived as sunk cost.

6.2.3.2 Government policies

All service providers of NDT and suppliers of isotopes have to apply for a licence from the Atomic Energy Licensing Board, Ministry of Science, Technology and Environment prior to operating.

In addition, skilled personnel directly involved in providing NDT services within the companies have to register with the Atomic Energy Licensing Board.

To comply with the Ministry of Science, Technology and Environment, operators of NDT services have to employ a Qualified Radiation Protection Officer due to the hazardous nature of the industry.

As the use of isotopes, which is a radioactive sources of energy is considered hazardous to health, service providers of NDT has to comply with Government regulations.

6. INDUSTRY OVERVIEW AND FUTURE PROSPECTS *(Cont'd)*

6.2.4 Power Generation Industry

Demand for electricity is expected to remain robust, spurred by strong growth in most sectors of the economy. The IPPs will increasingly assume a larger share in generation, while the utilities continue to focus on improving transmission and distribution networks. The industry will continue to improve productivity and efficiency to ensure the availability of sufficient, secure and reliable supply of electricity. The restructuring of the electricity supply industry will be continued, whereby a gradual approach will be adopted in introducing a market mechanism in order to attract investments as well as ensure an adequate and reliable supply of electricity.

Utilization of Renewable Energy ("RE") (biomass, biogas, municipal waste, solar and mini-hydro) will be intensified and further promoted to supplement the supply from conventional energy sources. Initiatives in promoting the greater utilization of RE include demonstration projects and commercialization of research findings as well as extension of financial and fiscal incentives for RE-related activities.

In order to meet the increase demand in the next few years, a total of 9,570 MW of new generation capacity will be planted up and commissioned between 2002 and 2007 in Peninsular Malaysia. As a step to improve fuel mix, 5,600 MW out of the abovementioned new capacity will be coal fired plants. By the year 2006/2007, the fuel mix in Peninsular Malaysia will be 50% to 55% on oil, 30% to 35% on coal and the remaining on hydro, renewable and oil.

(Source: Eighth Malaysia Plan 2001 – 2005; Statistics of Electricity Supply Industry in Malaysia)

THE REMAINDER OF THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY

6. INDUSTRY OVERVIEW AND FUTURE PROSPECTS *(Cont'd)*

6.3 FUTURE PROSPECTS

6.3.1 AMC

In line with the prospects and growth for process equipment manufacturing industry, AMC's future prospects are favourable.

Over the last five (5) years, AMC has gained access to both local and export markets. This is substantiated by the following:

- ❒ Local sales accounted for 70% based on the aggregated revenue contributed over a five (5)-year period between 1999 and September 2003;
- ❒ Export sales accounted for 30% based on the aggregated revenue contributed over a five (5)-year period between 1999 and September 2003.

The access to overseas markets through third parties such as engineering companies provides AMC with wider opportunities that extend beyond the shores of Malaysia.

Over the last twenty (20) years, AMC has established a market reputation as a manufacturer of world-class quality process equipment. This is substantiated by the fact that its customers are prominent major players in the industry including owners, operators of processing plants, Engineering Procurement Construction Contractors and engineering based companies and specialists. AMC's established reputation and track record is also substantiated by the fact that AMC has many repeat customers. This is reflected by the fact that 74% of its top twenty (20) customers have been with AMC between four (4) to fourteen (14) years. As the industry is specialised and governed by stringent standards, an established reputation provides AMC with a competitive edge over other new entrants.

In addition, AMC is an internationally accredited organisation by recognised bodies including the ASME and the NB of boilers and pressure vessel inspectors. These quality accreditations by internationally recognised bodies will enable AMC to address opportunities in both local and overseas markets.

6.3.2 Benmarl

The construction sector will continue to be supported by the property sub-sector, driven by measures and incentives introduced to stimulate construction and sales of residential properties, in particular affordable houses. On-going public and privatised infrastructure projects. The construction sector is therefore projected to register a slightly stronger growth of 2.6%

(Source: Economic Report 2003/2004)

However, it is anticipated that the steady recovery in the building and construction industry, particularly in the office and retail sector will also offer opportunities for operators servicing the industry. As such, Benmarl as a player in the market would continue to benefit from improvements in the building and construction sector.

6. INDUSTRY OVERVIEW AND FUTURE PROSPECTS *(Cont'd)*

6.3.3 Prescan

The increasing growth and development in the end-user industry will continue to provide opportunities for service providers of NDT. From this perspective, prospects continue to be favourable for Prescan as a player in the industry.

6.3.4 ECSB and KRSB

In order to meet the increase power demand in the next few years, a total of 9,570 MW of new generation capacity will be planted up and commissioned between year 2002 and 2007 in Peninsular Malaysia. To improve fuel mix, 5,600 MW out of the planned new capacity will be coal fired plants. By the year 2006/2007, the fuel mix in Peninsular Malaysia will be 50% to 55% on oil, 30% to 50% on coal and the remaining on hydro, renewable and oil.

Under the 8th Malaysia Plan 2001-2005, measures were put in place to enhance sustainable consumption and production – industries were encourage to use natural resources more efficiently, increase utilization of reduce polluting emission technologies and improve design. The incorporation of renewable energy as the fifth fuel under the Fuel Diversification Policy was boosted with the adoption of a holistic approach in promoting the utilization of renewable resources such as biomass, biogas, municipal waste, solar and mini-hydro.

Both ECSB and KRSB is expected to benefit from the steady growth of power demand and the Fuel Diversification Policy initiated by the Government in order to achieve a significant share of renewable energy in the fuel mix of the power generation industry in the long term.

THE REMAINDER OF THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY