





COMPANY PROFILE





AWARD WINNING COMPANY:
FAST MOVING COMPANIES AWARD
ASIA PACIFIC ENTREPRENEURSHIP AWARD



DESCRIPTION

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CORPORATE OVERVIEW



1.0 CORPORATE OVERVIEW

The company has established a diverse portfolio encompasses ranges of portfolio in the area of Asset, Facilities and Energy Management since its establishment in 8th April 1996.



ENGINEERING

System Design

choice for **PROJE**

PROJECT MANAGEMENT

System Installation & Construction

ASSET & FACILITY MANAGEMENT

Maintenance

For every job, we bring an unmatched combination of knowledge, skill, experience and customer commitment. We are employing hundreds of technical staff around the country and have helped in improving local employment at all sites that we have presence. We conduct a continous on job training at all levels and project quality management system to ensure consistent high quality project deliverables. Knowledge is the basis of our success.

SPECIALISATIONS

SUSTAINABLE FACILITY MANAGEMENT





ENERGY EFFICIENT HVAC/ACMV SYSTEM

ENERGY MANAGEMENT -ENERGY EFFICIENT SYSTEM





BUILDING, IAQ HUMIDITY & MOLD CONTROL

CLEANROOM - OPERATION THEATER, BIOSAFETY LAB,GMP LAB & CLEANROOM





MEDICAL GAS PIPELINE SYSTEM

BUILDING MANAGEMENT/ AUTOMATION SYSTEM





HOT WATER & STEAM SYSTEM

DESIGN, BUILD AND MAINTENANCE OF MECHANICAL & ELECTRICAL SYSTEM

MECHANICAL SERVICES

Air Conditioning & Ventilation System Refrigeration System

Cold Water System Clean Room / Critical Environment

Medical / Industrial Gas System Hot Water, Steam

Fire Protection System Industrial Compress Air system

ELECTRICAL SERVICES

Street Lighting System Lightning Protection System

Traffic Control System Extra Low Voltage System (ELV)

Genset System Building Automation System

Building Electrical (High voltage / Low Voltage) Uninterrupted Power Supply System

Substation System Isolated Power Supply System

ASSET, FACILITY MAINTENANCE & MANAGEMENT SERVICES

Undertake total comprehensive or non-comprehensive asset and facilities management & maintenance services.

COMPANY VISION & MISSION



2.0 COMPANY VISION & MISSION

OUR VISION

To be the industries leader in the area of facility energy & engineering.

OUR MISSION

- Customers and partners will see us as integral to their success. We will anticipate their needs and deliver every commitment we make.
- People will be proud to work at Jana Tanmia Resources Sdn Bhd. We will create opportunities to achieve and will reward success.
- Advance knowledge and latest technologies are our main components of our organization. We will integrate it in all our projects as part of our deliverables to our customers.

COMPANY VALUES

3.0 COMPANY VALUES

Building on family legacy in the area of engineering and construction that spans more than 50 years, we will continue to be guided by innovative management and firm held values.

EXCELLENCE

We set high standard, we used advanced technology and we continually learn, innovate and improve. We thrive on challenge and accomplishment and we adhere to Jana Tanmia Resources Work Habits at all time.

MUTUAL RESPECT

We encourage openness, teamwork and trust. We value an inclusive culture based on diverse backgrounds, experience and views.

ETHICS

Uncompromising intergrity, honesty, respect and fairness are at the heart of our company. We stand by on everything that we do.

SAFETY

Zero accidents - people's life depends on it. Preventive measures are always prioritised.

SUSTAINABILITY

We plan and build for the future of our environment, customers and company.

FAIR RETURN

We earn a return that fairly reward the value we deliver.

QUALITY STATEMENT

4.0 QUALITY STATEMENT

At **Jana Tanmia Resources Sdn Bhd**, quality means doing every job right at the first time. This would means to deliver to the required specification within the time frame as planned. We will always deliver quality work and continually striving to improve our performance through ISO9001: 2015, 5S, Standard Operating System (SOP's) and other initiatives to ensure comitment of the organization to continually improve the efectiveness of the quality management system.









OEK1. NO. . AK 3022

CERTIFIED TO ISO 9001:2008 CERT. NO. : AR 5822

Dato' Ts. Haji Mohd Zaidi Bin Ilamdin DIMP, KMN, REEM, MIPM, GBY, CEM, CEA, CPMV, CAAM BSc. (Hons') Nuclear Science, UKM

Managing Director Jana Tanmia Resources Sdn Bhd



JTR SAFETY & HEALTH POLICY

Jana Tanmia Resources Sdn Bhd is committed to provide a safe and healthy environment for all our staff at headquarters and sites and recognizes its obligation under the Occupational Safety and Health Act 1994. Our company also committed to stimulate learning and achieve the highest standards of occupational safety and health in accordance with best practices.

Jtr Safety & Health Policy:

- 1. To establish and maintain a safe environment for staff either in headquarter or sites.
- 2. To identify and eliminate hazards in order to prevent accidents.
- 3. To promote safety consciousness and responsibility.
- 4. To involve staff and general workers in safety planning and implementation

Our company expects staff to comply with its occupational safety and health policies procedures and guidelines, and to conduct themselves in a safe manner, not placing themselves or others at risk. Management staff are responsible for the safety and health or staff working under their direction.

JTR also committed to provide a safe and healthy environment for our visitors who come into company premises or sites. Subcontractors that working under JTR also required to conduct their activities in a manner that ensures the safety, health and welfare of other.

Dato' Ts. Haji Mohd Zaidi Bin Ilamdin DIMP, KMN, REEM, MIPM, GBY, CEM, CEA, CPMV, CAAM BSc. (Hons') Nuclear Science, UKM

Managing Director Jana Tanmia Resources Sdn Bhd











JANA TANMIA RESOURCES SDN BHD

(382767-D)

Environmental Policy

JANA TANMIA RESOURCES SDN BHD shall work the environment factor in contributing to a positive environmental development in our industry and as well as internationally compliance. With the commitment and supports from staff, subcontractor, vendors, suppliers, and clients we will increase our environmental quality and reduce the negative Impact by:

- Continuously care and comply towards an improved environmental performance
- Reduce waste of natural and artificial resources by reducing the amount of scrap item in relation to control the purchase volume.
- Alert and consideration in investing the chemical or product which related to environmental.
- Follow and adhere to applicable environmental best practices, standards, laws, and regulations.

Dato' Ts. Haji Mohd Zaidi Bin Ilamdin DIMP, KMN, REEM, MIPM, GBY, CEM, CEA, CPMV, CAAM BSc. (Hons') Nuclear Science, UKM

Managing Director Jana Tanmia Resources Sdn Bhd



AWARD WINNING COMPANY:
FAST MOVING COMPANIES AWARD 2014
ASIA PACIFIC ENTREPRENEURSHIP AWARD 2017



COMPANY ACHIEVEMENTS & AWARDS



5.1 ISO 9001 - QUALITY MANAGEMENT SYSTEM



CERTIFICATE

IQNet and SIRIM QAS International hereby certify that

JANA TANMIA RESOURCES SDN. BHD.

NO. 11, JALAN KOTA RAJA H27/H HICOM TOWN CENTRE **SEKSYEN 27** 40400 SHAH ALAM SELANGOR DARUL EHSAN MALAYSIA

has implemented and maintains a

QUALITY MANAGEMENT SYSTEM

which fulfils the requirements of the following standard

ISO 9001: 2008

for the following activities

PROVISION OF FACILITIES MANAGEMENT AND MAINTENANCE OF HVAC SYSTEM, CLEANING, LANDSCAPING AND WASTE DISPOSAL

: 28 April 2016 Issued on Validity date : 14 September 2018 : MY-AR 5822 Certification Number







Khalidah Mustafa Managing Director SIRIM QAS International Sdn Bhd

AENOR Spain AFNOR Certification France Alla-Vincente International Belgium AFCER Personal CCC Ogenus
CDR Body CQC China CQM China CQS Casch Republic Cro Cert Creates DQS Holding GmbM Germany
FCAV Brasil PONDOMMA Venezuela ICONTEC Colombia IMSC Motion Inspects Certification Finland INTEC Octas Ross IRAM Argentins
JOA Japan KFV Gerea MINTEC Genee MSET Hangary Membra AS IN Johnson Visit The Holding CDC Poland
Quality Austria Austria RFA Reason SIZE Motion State Inseed SIQ Stevents SIZEN QAS International Malinguis
SIZEN SIZEN STATE AUSTRIA SIZEN SIZEN STATE INVESTIGATION STATE IN THE SIZEN STATE SIZEN SIZEN



CERTIFICATE



SIRIM QAS International hereby certifies that

JANA TANMIA RESOURCES SDN. BHD. NO. 11, JALAN KOTA RAJA H27/H HICOM TOWN CENTRE SEKSYEN 27 40400 SHAH ALAM SELANGOR DARUL EHSAN



has implemented a Quality Management System complying with

ISO 9001: 2008

QUALITY MANAGEMENT SYSTEMS - Requirements



Scope of Certification

PROVISION OF FACILITIES MANAGEMENT AND MAINTENANCE OF HVAC SYSTEM, CLEANING, LANDSCAPING AND WASTE DISPOSAL SERVICES.





: 28 April 2016 Issue date

Validity period : 28 April 2016 - 14 September 2018

Certification No. : AR 5822

Khalidah Mustafa Managing Director SIRIM QAS International Sdn. Bhd.

5.2 TERAJU - PROGRAM SYARIKAT BUMIPUTERA BERPRESTASI TINGGI (TERAS)













COMPANY ACHIEVEMENT

Ruj. Kami: TeraS 2013/Lulus/TSC 2013 (385)

2 September 2013

JANA TANMIA SDN. BHD.

No. 11, Jalan Kota Raja H27/H Hicom Town Centre 40400 Shah Alam Selangor:

(u/p: EN. MOHD ZAIDI ILAMDIN)

Tuan,

TAWARAN MENYERTAI PROGRAM SYARIKAT BUMIPUTERA BERPRESTASI TINGGI (TERAS)

Dengan segala hormatnya perkara di atas adalah dirujuk.

- Sukacita dimaklumkan bahawa Jawatankuasa Pelaksanaan Teraju (TDC) yang dipengerusikan oleh Y6 Senator Dato' Sri Abdul Wahid Omar yang bersidang pada 15 Ogos 2013 telah MELULUSKAN permohonan syarikat JANA TANMIA SDN. BHD. untuk menyertai TERAS.
- 3. Sebagaimana Tuan sedia maklum, objektif utama TERAS adalah untuk mengenalpasti 1,100 syarikat Bumiputera yang berpotensi tinggi dan membantu syarikat untuk mencapai peningkatan perniagaan bukan sahaja di Malaysia malah ke peringkat serantau dan global. Selain itu, sesetengah syarikat tyang besar dalam TERAS dari masa ke semasa akan turut memainkan peranan sebagai syarikat induk dalam menyokong pertumbuhan perniagaan beberapa syarikat TERAS yang lain. TERAS mensasarkan syarikat Bumiputera berpotensi tinggi untuk berkembang maju dalam jangka masa lima tahun akan datang dan memberikan sumbangan ketara kepada Keluaran Dalam Negara Kasar (KONK) menjelang tahun 2020.
- 4. Untuk makluman Tuan, setiap syarikat Bumiputera hanya dibenarkan menyertai TERAS selama lima tahun. Dalam jangkamasa tersebut, syarikat DIWAJIBKAN memenuhi kriteria seperti yang disenaraikan di bawah di mana sebarang kengkaran akan menyebabkan syarikat terkeluar dari program ini.

- (i) Jumlah pegangan ekuiti Bumiputera adalah melebihi 60% ke atas;
- Mendapat sekurang-kurangnya penarafan 3 bintang bagi SCORE daripada SME Corp. / agensi yang diiktiraf oleh Kerajaan Malaysia;
- (iii) Bukan anak syarikat kepada GLC / MNC (syarikat bersekutu dibenarkan);
- (iv) Ketua Pegawai Eksekutif / Pengarah Urusan adalah Bumiputera;
- (v) Majoriti pihak pengurusan tertinggi adalah Bumiputera;
- (vi) Merekodkan prestasi kewangan yang baik;
- (vii) Credit Bureau Rating yang tidak melebihi 20%; dan
- (viii) Melepasi semakan Legal Due Diligence yang dilaksanakan oleh penasihat undang-undang TERAJU.
- Sebagai syarikat TERAS, pihak syarikat juga DIWAJIBKAN mengemukakan dokumen-dokumen seperti yang dinyatakan di bawah bagi setiap tahun untuk tempoh lima tahun berturut-turut bermula pada 15 Ogos 2014.
 - (i) Rekod kewangan beraudit terkini;
 - (ii) Sijil penarafan SCORE terkini; dan
 - (iii) Salinan Maklumat Korporat yang dikeluarkan oleh Suruhanjaya Syarikat Malaysia (SSM) terkini.
- 6. Syarikat yang bersetuju untuk menyertai TERAS akan mempunyai akses kepada pemudahcara yang diwujudkan oleh TERAU. Oleh yang sedemikian, syarikat TERAS yang diluluskan pembiayaan oleh rakan strategik TERAU perlu bekerjasama dan 'tidak mempunyai sebarang halangan' sekiranya pihak TERAU atau wakil yang dilantik inelin.
 - Mengadakan lawatan dan membuat pemeriksaan berkala di pejabat operasi syarikat TERAS / tapak projek;

- Membuat pemeriksaan untuk rekod yang berkaitan dan data-data lain yang dilikirkan relevan berkenaan dengan operasi / projek syarikat TERAS dan
- Memohon maklumat tambahan yang berkaitan dengan operasi / projek svarikat TERAS.
- 7. Untuk makluman Tuan juga, seorang pegawai TERAU laitu Pn. Norfaszah binti Basir (fasz@teraju.gov.my) telah dilantik sebagai Ketua Sektor Perkhidmatan Kejuruteraan yang berperanan memantau prestasi dan memberi sokongan kepada syarikat dalam sektor berkenaan di mana pihak syarikat digalakkan menghubungi beliau untuk perbincangan lanjut.
- Sehubungan itu, pihak Tuan diminta untuk mengembalikan surat setuju terima pelantikan syarikat menyertai TERAS di atas kepala surat syarikat sebelum atau pada 9 September 2013. Adalah menjadi harapan TERAU agar setiap syarikat TERAS akan terus memberikan komitmen yang sepenuhnya demi pembangunan ekonomi bangsa dan negara.

"BERKHIDMAT UNTUK NEGARA"

Yang Benar, UNIT PENERAJU AGENDA BUMIPUTERA

ABDUL MUSHIR CHE CHIK

Pengarah Kanan, Bahagian Keusahawanan

Unit Pereraio Agenda Bumiputera, Trigitat S. Manara Surian, No. 1, Julian PJU 7/3, Muliara Damansana, 47816 Salancor Danu Er

.

3

5.3 CIDB SCORE - 3 STAR

5. 4 SME 100 AWARDS - FAST MOVING COMPANIES





5. 5 ASIA PACIFIC ENTREPRENEURSHIP AWARD (APEA) 2017



5. 6 SIJIL KOMPETENSI KONTRAKTOR KESIHATAN (SKKK) 2023



5.8 ISO 9001 - QUALITY MANAGEMENT SYSTEM



ENDORSEMENT & APPRECIATION LETTER



6.1 JABATAN TENAGA KERJA (JTK)

6.2 NXP SEMICONDUCTORS MALAYSIA



JABATAN TENAGA MANUSIA Manpower Department KEMENTERIAN SUMBER MANUSIA MALAYSIA Ministry of Human Resources Malaysia ARAS 6, BLOK D4, KOMPLEKS D Level 6, Block D4, Complex D
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN Federal Government Admi 62530 W.P. PUTRAJAYA



Telefon/Telephoras: 603-88865555 Faks/Fax: (PKSMH/RSD) 603-88892417/13 (PT/Admin) 603-88892412 Web/Homepage: http://www.jtm.gov.my E-mel/E-mail: jtm@mohr.gov.my

Rujukan: JTM/HQ/700-1 ()

Tarikh : Januari, 2014

Kepada,

YBhg. Datuk/Dato'/Datin/Tuan/Puan,

UCAPAN PENGHARGAAN ATAS KERJASAMA DENGAN PIHAK JTM

Saya dengan hormatnya merujuk kepada perkara di atas.

- Sempena dengan kehadiran tahun baru 2014, Jabatan Tenaga Manusia, Kementerian Sumber Manusia ingin mengambil kesempatan ini untuk merakamkan setinggi-tinggi penghargaan dan ucapan terima kasih kepada pihak YBhg. Datuk/Dato'/Datin/Tuan/Puan di atas kerjasama dan komitmen yang telah diberikan kepada Jabatan kami sepanjang tahun 2013.
- Sesungguhnya sokongan, kerjasama dan komitmen pihak YBhg. Datuk/Dato'/Datin/Tuan/Puan adalah sangat bermakna sekali dalam membantu kejayaan Jabatan Tenaga Manusia. Saya berharap kerjasama yang erat seumpama ini dapat diteruskan di tahun-tahun akan datang.

Sekian, terima kasih.

"BERKHIDMAT UNTUK NEGARA"

'Pekerja Pernangkin Transformasi Negara

(DATO' HAJI ROMLI BIN HAJI HASSAN) Ketua Pengarah Jabatan Tenaga Manusia













Mohd Zaidi bin Hamdin Managing Director Jana Tanmia Resources Sdn Bhd No. 11, Jalan Kota Raja H27/H, Hicom. Town Centre, Seksyen 27, 40400, Shah Alam, Selangor

24th June 2015

ENDORSEMENT & APPRECIATION LETTER

SUBJECT: LETTER OF ENDORSEMENT & APPRECIATION FOR THE COOPERATION AND COMPLETION OF THE DESIGN AND BUILD OF CLASS 100K PHASE 1-B & PREPACK: AIR CONDITIONING&VENTILATION SERVICES - NXP SEMICONDUSTORS MALAYSIA

We kindly refer to above subject.

In conjunction with the successful completion of the project in 2014, NXP Semiconductor Malaysia Sdn Bhd a wholly owned subsidiary of NXP Netherland, the world biggest semiconductor company in the world, would like to express appreciation and gratitude to Jana Tanmia Resources Sdn Bhd for the cooperation and commitment given to complete the project on time and its capability to design, build, test and commission the project to the design requirements which is the temperature, humidity, air balancing and cleanliness level of the production area at Phase 1B and Prepack.

Your kind support, cooperation and commitment towards this project is highly appreciated.

We do look forward for future cooperation in many more highly technical future projects.

Thank you and kind regards,

FACILITIES & EHS DEPARTMENT NXP SEMICONDUCTORS MALAYSIA SDN BHD

> NOP Semiconductors Maleysia Sds. Blut. (244835-W) , PT12687, Tuerku Jaelar Ind Park, 71450, Senembers, N.S., Maleysi Tel: +60 6 6766299, Fax: +60 6 6773099, www.rusp.com

6.3 PROTON



	Clients Details
Company Name	PROTON CASTING PLANT
Address	I, JALAN SURUTERA UI/24, HICOM GENMARIE INDUSTRIAL PARK 40150, SHAH ALAM SELANGOR
Contact Person	MOHD ZULHILMI BIN AHMAD
Telephone/Fax /Hp	013 - 3008 602
Email	Zulhilh@ proton.com
Details of Services Pro	vided
Contract Period :	
· Contract Contract	

OVERALL PERFORMANCE

Overall Rating Tick (/) Conditions			
Good	~	Preferred and Generally Acceptable Contractor	
Satisfactory		Conditionally Acceptable Contractor	
Poor		Not Recommended Contractor	

RECOMMENDED FOR CONTRACT APPOINTMENT

YES NO (please circle)

RECOMMENDED FOR OTHER PROPERTIES

YES NO (please circle)

Further comments on areas of concern/areas of strengths/also of non-conformity: Appreciate if can share with us the energy saving for air condition since now we are going to green technology

Assessment Completed by:

Lilli

Company Chop:

Name : MOHD ZULH ILM I AHMAD

Date : 15/02/2015

6.4 POS MALAYSIA



	Clients Details	
Company Name	Assets & Facilities Management Pes Malaysia Berhad	
Address	5th Floor, Pos Malaysia Headquarters Dayabumi Complex 55676 Kuele Lumpur	
Contact Person	SSO/O Reale Comput	
Telephone/Fax /Hp	03-2267	
Email		

Details of Services Provided

Contract Period : 13/7/2013 — 12/7 /2016

: IFms

OVERALL PERFORMANCE

Overall Rating	Tick (/)	Conditions	
Good	V	Preferred and Generally Acceptable Contractor	
Satisfactory		Conditionally Acceptable Contractor	
Poor		Not Recommended Contractor	

RECOMMENDED FOR CONTRACT APPOINTMENT

YES NO (please circle)

RECOMMENDED FOR OTHER PROPERTIES

YES NO (please circle)

Further comments on areas of concern/areas of strengths/also of non-conformity:

Good contractor

Assessment Completed by:

Name: Assets & Facilities Management
Date: 24/2/16 Pos Malaysia Berhad HISHAM ZUHDI BIN MAHMUD ZAHUDI



Company Chop:

6.5 EDGENTA MEDISERVE



		Clients Details
Company Name		
Address		
Contact Person		
Telephone/Fax/H	р	
Email		
Details of Services F Contract Period : Scope :		
OVERALL PERFORM	ANCE	35.
Overall Rating	Tick (/)	Conditions
Good	/	Preferred and Generally Acceptable Contractor
Satisfactory		Conditionally Acceptable Contractor
Poor		Not Recommended Contractor
		APPOINTMENT : TESTING (please circle) OPERTIES : TESTING (please circle)
RECOMMENDED FO	R OTHER PR	

6.6 PERKHIDMATAN SOKONGAN KLINIK SERDANG KKM (PAHANG)



SULIT

BORANG GA - LAPORAN JURUTERA PROJEK ATAS PRESTASI KERJA SEMASA PETENDER

(Borang ini hendaklah dilengkapkan oleh Jurutera Projek atau Pembantu Kanannya yang mengawasi apabila diminta berbuat demikian oleh Pegawai Penilalan dan hendaklah dihantar segera dengan menggunakan mesin faksimili).

Pengarah Kanan

Cawangan Kontrak Dan Ukur Bahan,

Ibu Pejabat JKR Malaysia,

Tingkat 14 - 19, Menara Tun Ismail Muhamad Ali, No. 25, Jalan Raja Laut, 50582 Kuala Lumpur.

(u.p : Juruukur Bahan Penguasa Kanan – Bahagian Pendidikan 1)

CHB NO? 230 SUDOZZA AIMNAT ANAL Nama Kontraktor:

Nama Projek Yang Di Laksanakan : PER KHIDM ATAN LOKONGAN CLINIK (DSt.) BAGI CLINIK KESIHATAN DI BAWAH LEMENTERTAN KESIHATAN DI NEGERTA PAHANG

No. Kontrak: KKM-153/2022/KIPAHANG (PSK)

Harga Kontrak (termasuk anggaran nilai kerja perubahan) : RM 52 /233 /715-89

Wang Kos Prima dan Peruntukan Sementara : RM

Nilai Keria Pembina : RM -

Tarikh Milik Tapak: | OK † 2023

Tempoh Kontrak : 260 minggu

hari

Tarikh Penyiapan Asal: 30 SEPT 2027

Lanjutan Masa Yang Telah Diluluskan :

Lanjutan Masa Seterusnya:

Yang di fikir / di jangka layak diperakukan :

Atas Sebab-sebab: (i)

Kemajuan Kerja (berdasarkan nilaian kerja yang telah dilaksanakan) :

Pencapaian sebenar: 20 Mengikut Jadual: 20

Tarikh Kerja dijangka akan dapat disiapkan :

10,446,755.16 Nilai Bahagian Kerja Yang Telah Siap : RM ..

Ulasan-ulasan mengenai Prestasi Kontraktor:

KONTRAKTOR MENUNJULKAN PRESTASI YANG BAK

(Nyatakan apa-apa kepujian dan / atau kelemahan Kontraktor dan juga apa-apa tindakan / perakuan yang diambil / dipertimbang berhubung dengan prestasi Kontraktor melaksanakan

SITI NORIHAM BINTI SUHAIMI JURUTERA AWAM J44

JABATAN KESIHATAN NEGERI PAHANG

Tarikh :

6.7 WISMA CO-OPBANK PERTAMA





Ref no : CBP/100-06/JTRSB/1-08/2025

Date : 21 August 2025

TO WHOM IT MAY CONCERN



LETTER OF ENDORSEMENT: JANA TANMIA RESOURCES SDN BHD

We are pleased to provide this letter of acknowledgment for Jana Tanmia Resources Sdn Bhd (Company No: 383767-D) for their role as the main contractor in the renovation of the 14-storey Wisma Co-opbank Pertama located in Kampung Baru, Kuala Lumpur.

The company was responsible for the full scope of renovation works, including architectural, structural, mechanical, and electrical upgrades. The project was completed under challenging conditions, requiring coordination across multiple levels within a defined timeline.

Throughout the project, the team from Jana Tanmia Resources demonstrated:

- · Professionalism and sound work ethics
- · Good project management and coordination
- Adherence to safety regulations and quality standards
- · Completion of key milestones and overall delivery within the agreed timeline and budget

Their commitment to fulfilling the project requirements and their ability to manage technical and logistical matters effectively contributed to the successful completion of the works.

We believe that Jana Tanmia Resources Sdn Bhd has the capability to deliver similar projects and wish them continued success in future undertakings.

Yours faithfully,

KHAIRIL ANUAR MOHAMMAD ANUAR CHIEF EXECUTIVE OFFICER

CORPORATE DATA



7.0 CORPORATE DATA

Company's Name Jana Tanmia Resources Sdn. Bhd

Registered No. 382767 - D

CIDB Registered No. Gred G7

0120020603-SL071531

Kem. Kewangan No. 357-01002455 (Bumiputera)

KWSP Registered No. 013139636

ST Registered No. 3319

Date of Establish 08th April 1996

Registered Address HEAD OFFICE

No. 11, Jalan Kota Raja H27/H,

Hicom Town Centre

Seksyen 27, 40400 Shah Alam,

Selangor Darul Ehsan. Tel: +603 5191 4505 Fax: +603 5191 4508 Email: enquiry@jtr.my

Company Secretary Rohamiza Binti Zainudin (MIA 27213)

No. 11, Jalan PU 5/5 Taman Puchong Utama

Puchong Selangor 47100 Malaysia

Auditor Raja Gobal & Company (AF 1509)

Chartered Accounts (M)
Suite 1, 3rd Floor, Block C,

Greentown Square,

Jalan Dato Seri Ahmad Said,

30450 Ipoh, Perak.

PAID-UP & AUTHORIZED CAPITAL

Paid-Up Capital

RM 5,000,000.00

Authorized Capital

RM 5,000,000.00

SHAREHOLDERS

NAME SHARES

Dato' Ts. Haji Mohd Zaidi Bin Ilamdin 75 %

Datin Hajah Sarina Binti Abdul Rashid 25 %

JTR DIRECTORS

DIRECTORS POSITIONS

Dato' Ts. Haji Mohd Zaidi Bin Ilamdin Managing Director

Datin Hajah Sarina Binti Abdul Rashid Executive Director

En. Mohd Nashriq Bin Sulaini Director

REGISTRATION

8.1	REGISTRATION WITH AUTHORITIES
8.2	REGISTRATION WITH CLIENTS
8.3	CORPORATE MEMBERSHIP



8.0 COMPANY REGISTRATION & MEMBERSHIP

8.1 REGISTRATION WITH AUTHORITIES

a. COMPANIES COMMISSION OF MALAYSIA



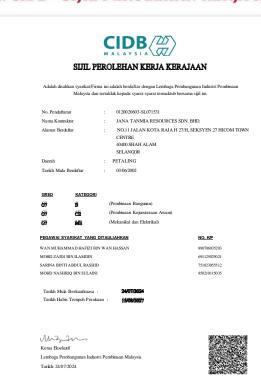
c. CIDB - PERAKUAN PENDAFTARAN



b. PEJABAT PENDAFTAR SYARIKAT MALAYSIA - BORANG 9



d. CIDB - SIJIL PEROLEHAN KERJA KERAJAAN



e. CIDB HEADING

GRED	KATEGORI	PENGKHUSUSAN	DISKRIPSI
	B - Pembinaan Bangunan	B02 B04 B10 B13 B24	Sistem Kerangka Keluli Kerja Am Bangunan Pemasangan Paip Air Dalaman Pemasangan Jubin Dan Kerja Lepasan Kerja Penyelenggaraan Bangunan
G7 - Melebihi 10,000,000	CE - Pembinaan Bangunan	CE01 CE02 CE03 CE19 CE20 CE21 CE30 CE31 CE34 CE36 CE42 CE42	Pembinaan Jalan dan Pavemen Pembinaan Jambatan Struktur Mesin Sistem Pembentungan Sistem Bekalan Air Kerja-kerja Am Kejuruteraan Awam Kerja Penstabilan Tanah, Penyaliran Bawah Tanah Kerja Kejuruteraan Awam Telekomunikasi Kerja Pemasangan Konkrit Pra-Tuang Kerja Tanah Membuat Isyarat dan Mengecat Jalan Membuat Pengadang dan Lain-lain kerja Untuk Jalan
	ME -Pembinaan Bangunan	M01 M02 M06 M14 M15 M18 M19	Sistem Hawa Dingin Sistem Pencegahan dan Perlindungan Kebakaran Peralatan Perubatan Sistem Kawalan Pencemaran Kelengkapan Mekanikal Pelbagai Sistem Air Panas Pemasangan Kelengkapan Loji

f. MINISTRY OF FINANCE



KEMENTERIAN KEWANGAN MALAYSIA SIJIL AKUAN PENDAFTARAN SYARIKAT

NO. SIJIL : K28637295753893800 NO. RUJUKAN PENDAFTARAN : 357-01002455 TEMPOH SAH LAKU : 09/07/2024 - 21/09/2027

Bahawa dengan ini diperakui syarikat :

JANA TANMIA RESOURCES SDN. BHD. (382767-D)

NO.11, JALAN KOTA RAJA H27/H HICOM TOWN CENTRE

PETALING

40400 PEKAN HICOM

SELANGOR, MALAYSIA

Telah berdaftar dengan Kementerian Kewangan Malaysia dalam bidang bekalan/perikhidmatan di bawah sektor, bi dan sub-bidang seperti di Lampiran A. Kelulusan ini adalah tertakluk kepada syarat-syarat seperti yang dinyatak Lampiran B. Individu yang diberi lususa oleh syarfat bagi urusan perolehan Kerajaan adalah seperti berikut :

DATIN SARINA BINTI ABDUL RASHID 751023055512 PENGARAH ENCIK MOHD NASHRIQ BIN SULAINI 850210115035 PENGARAH SENIOR TECHNICAL SUPPORT CIK ZULAIKHA BINTI MOHAMAD SHAFRI 920705086046 EKSEKUTIF

DATO' INDERA AB RAHIM BIN AB RAHMAN Bahagian Perolehan Kerajaan b.p. Ketua Setiausaha Perbendaharaan Kementerian Kewangan Malaysia

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia: 09/07/2024

(Sijil ini adalah cetakan komputer dan tidak memerlukan tandatangan)

g. MINISTRY OF FINANCE -**BUMIPUTERA STATUS**



KEMENTERIAN KEWANGAN MALAYSIA

SIJIL AKUAN PENDAFTARAN SYARIKAT BUMIPUTERA

: BP28637295753893800 NO. SIJIL NO. RUJUKAN PENDAFTARAN TEMPOH SAH LAKU : 09/07/2024 • 21/09/2027

Bahawa dengan ini diperakui syarikat :

JANA TANMIA RESOURCES SDN. BHD. (382767-D)

NO.11, JALAN KOTA RAJA H27/H HICOM TOWN CENTRE

SEKSYEN27 PETALING

40400 PEKAN HICOM

Telah diliktiraf sebagai Syarikat Bumiputera oleh Kemerterian Kewangan Malayda, Taraf Bumiputera bukannya hak dan boleh ditarik balik sekiranya syariat gagal menatuhi syaraf/kriteria yang ditetapkan. Kelulusan ini adalah tertakluk kepada syara K-yarat seperti yang dinyatakan di Silji Malan Pendatira yan Syariata Bumiputera (Lampiran C).

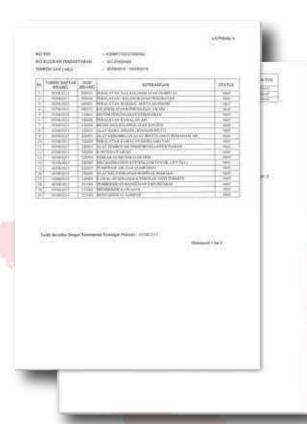
DATO' INDERA AB RAHIM BIN AB RAHMAN

Perbendaharaan Malaysia Semenanjung b.p. Ketua Setiausaha Perbendaharaan Kementerian Kewangan Malaysia

Tarikh Berdaftar Dengan Kementerian Kewangan Malaysia :

(Sijil ini adalah cetakan komputer dan tidak memerlukan tandatangan)

h. CIDB HEADING



i. PEMBANGUNAN KONTRAKTOR DAN USAHAWAN



j. ENERGY COMISSION



k. ENERGY COMISSION - SYARIKAT PERKHIDMATAN TENAGA (ESCO)



LEMPLOYEES PROVIDENT FUNDS (EPF)

AKTA KUMPULAN WANG SIMPANAN PEKERJA 1991 KAEDAH-KAEDAH KUMPULAN WANG SIMPANAN PEKERJA 1991 SEKSYEN 41(1) DAN KAEDAH 9(2) (6) (8 58) No. Pendaftaran Majikan 013139636 SIJIL PENDAFTARAN MAJIKAN Adalah diperakui bahawa DEN-1 TEV 2 J.H. HEM BED BED DED DED SEN-1 TEV 2 J.H. HEM BED DED SEN-1 TEV 2 J.H. HEM BED BED BED SEN-1 TEV 2 J.H. HEM BED BED SEN 2 J.H. HEM BED BED SEN 2 J.H. HEM BED SEN 2 J.H.

m. MIDA - MEDICAL GAS PIPELINE SYSTEMS



n. MIDA - HEATING, VENTILATION & AIR CONDITIONING (HVAC) SYSTEMS



8.0 COMPANY REGISTRATION & MEMBERSHIP

8.2 REGISTRATION WITH CLIENTS

Petroleum Nasional Berhad

QSR Brands Bhd

Felda Holding Berhad

Syarikat Prasarana Negara Berhad

Suruhanjaya Perkhidmatan Air Negara

Radicare (M) Sdn Bhd

Telekom Malaysia Berhad

Majlis Perbandaran Subang Jaya

Sirim Berhad

UEM Builders Sdn Bhd

Universiti Teknologi MARA

Emkay Group

Syarikat Bekalan Air Selangor Sdn. Bhd.

Uda Daya Urus Sdn Bhd

Projek Penyelenggaraan Lebuhraya Berhad

Cyberview Sdn Bhd

Malaysia Airports Holding Berhad

Management Science University (MSU)

POS Malaysia

Johawaki Group

George Kent (m) Berhad













































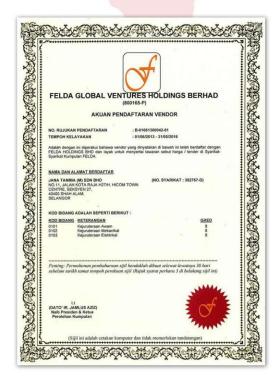
a. PROPEL



b. TENAGA NASIONAL BERHAD



c. FGV HOLDINGS BERHAD



d. PRASARANA NEGARA BERHAD



e. UiTM f. SYABAS





g. MAJLIS PERBANDARAN SUBANG JAYA



h. POS MALAYSIA BERHAD



i. PETRONAS



COMPANY'S NAME : JANA TANMIA RESOURCES SDN. BHD. (382767-D)

LICENSE NO : 382767-D
LICENSE PERIOD : 12.09.2017 - 11.09.2020

CATEGORIES OF LICENSE/REGISTRATION APPROVED LICENSE CATEGORIES							
L/R/PROVISIONAL	Service / Supplier Code	Mode of Operation	Principal Name (If Applicable)	Approval Date / Time	Expiry Date		
LICENSE	PA1040000 AUTOMOTIVE-AIR-CONDITIONER	DEALER	NOT APPLICABLE	12.09.2017 18:14:40	11.09.2020		
LICENSE	PH1010100 HEATING VENTILATN&AIR COND-FANS-GENERAL	DEALER	NOT APPLICABLE	12.09.2017 18:02:51	11.09.2020		
LICENSE	PH1010200 HEATING VENTILATN&AIR COND-FANS-HAZARDOUS AREA	DEALER	NOT APPLICABLE	12.09.2017 18:14:23	11.09.2020		
LICENSE	PH1020000 HEATING VENTILATN&AIR COND-FILTERS	DEALER	NOT APPLICABLE	12.09.2017 18:14:27	11.09.2020		
LICENSE	PH1030100 HEATING VENTILATN&AIR COND-AIR HANDLG UNITS-GENERAL	DEALER	NOT APPLICABLE	12.09.2017 18:14:30	11.09.2020		
LICENSE	PH1030200 HEATING VENTILATN&AIR COND-AIR HANDLG UNITS-HAZARDOUS AREA	DEALER	NOT APPLICABLE	12.09.2017 18:14:38	11.09.2020		
LICENSE	PH1030300 HEATING VENTILATN&AIR COND-AIR HANDLG UNITS-COMPUTER ROOM	DEALER	NOT APPLICABLE	12.09.2017 18:14:38	11.09.2020		
LICENSE	PH1040000 HEATING VENTILATN&AIR COND-FAN COILS	DEALER	NOT APPLICABLE	12.09.2017 18:14:38	11.09.2020		
LICENSE	PHI050100 HEATING VENTILATN&AIR COND-CHILLERS-NON-HAZARDOUS-AREA (Reclassified from PH1050200 & PH1050300)	DEALER	NOT APPLICABLE	12.09.2017 18:14:39	11.09.2020		
LICENSE	PH1050400 HEATING VENTILATN&AIR COND-CHILLERS-HAZARDOUS AREA	DEALER	NOT APPLICABLE	12.09.2017 18:14:41	11.09.2020		
LICENSE	PH1060100 HEATING VENTILATN&AIR COND-CONDENSER UNITS-NON-HAZARDOUS AREA	DEALER	NOT APPLICABLE	12.09.2017 18:14:39	11.09.2020		
LICENSE	PH1060200 HEATING VENTILATN&AIR COND-CONDENSER UNITS-HAZARDOUS AREA	DEALER	NOT APPLICABLE	12.09.2017 18:14:41	11.09.2020		
ICENSE	PI1500000 INSTR-BUILDING AUTOMATION	DEALER	NOT APPLICABLE	12.09.2017 18:14:41	11.09.2020		
EGISTRATION	SC2140300 CIVIL MAINT SERV-GRASS CUTTING & REGRADING EARTH DRAINS	SELF-OPERATED	NOT APPLICABLE	12.09.2017 17:34:19	11.09.2020		
ICENSE	SC3030400 CONSULTANCY SERV-INDUSTRIAL HYGIENE SURVEY & SERV	SELF-OPERATED	NOT APPLICABLE	12.09.2017 18:14:39	11.09.2020		

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COMPANY'S NAME : JANA TANMIA RESOURCES SDN. BHD. (382767-D)

LICENSE NO : 382767-D

LICENSE PERIOD : 12.09.2017 - 11.09.2020

CATEGORIES OF LICENSE / REGISTRATION APPROVED LICENSE CATEGORIES					
L/R/PROVISIONAL	Service / Supplier Code	Mode of Operation	Principal Name (If Applicable)	Approval Date / Time	Expiry Date
LICENSE	SM3032000 MARINE TRANSPORTATION SERV-AIR-CONDITNING&REFRIGERATN REPAIR	SELF-OPERATED	NOT APPLICABLE	12.09.2017 18:14:40	11.09.2020
LICENSE	SM3032102 MARINE TRANSPORTATION SERV-PLATE	SELF-OPERATED	NOT APPLICABLE	12.09.2017 18:14:42	11.09.2020
LICENSE	SO1140000 OFFICE ADMINISTRATIVE SERVICES-PROPERTY/BUILDING MANAGEMENT (RECLASSIFIED FROM SC2070000-CIVIL MAINT SERV-PROPERTY / BUILDING MNGMT)	SELF-OPERATED	NOT APPLICABLE	12.09.2017 18:14:42	11.09.2020
REGISTRATION	SOI 19090 OFFICE ADMINISTRATIVE SERVICES-PROPERTY MAINTENANCE SERVICES-BUILDING CLEANING SERVICES (RECLSSIFIED FROM SC119000-CUTI, MAINT SERV-BUILDING CLEANING SERV AND/OR PO103900-OFFICE OPERATIONAL EQUIP-RESIDENTIAL EQUIP-FA#ADE SYST)	SELF-OPERATED	NOT APPLICABLE	12.09.2017 17:34:21	11.09.2020
LICENSE	SO2020300 OFFSHORE FACILITIES CONST-COMM SPECIALIST ELECT &INSTR SYST	SELF-OPERATED	NOT APPLICABLE	12.09.2017 18:14:40	11.09.2020

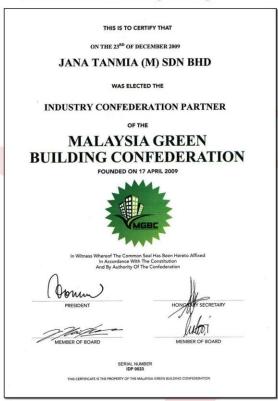
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8.0 COMPANY REGISTRATION & MEMBERSHIP

8.3 CORPORATE MEMBERSHIP

a. MALAYSIAN GREEN BUILDING CONFEDERATION (MGBC)



b. MALAYSIA ASSOCIATION OF ENERGY SERVICE COMPANIES (MAESCO)



c. MALAYSIAN ASSOCIATION OF FACILITY MANAGEMENT (MAFM)



d. THE MALAYSIAN ASSET AND PROJECT MANAGEMENT ASSOCIATION (MAPMA)

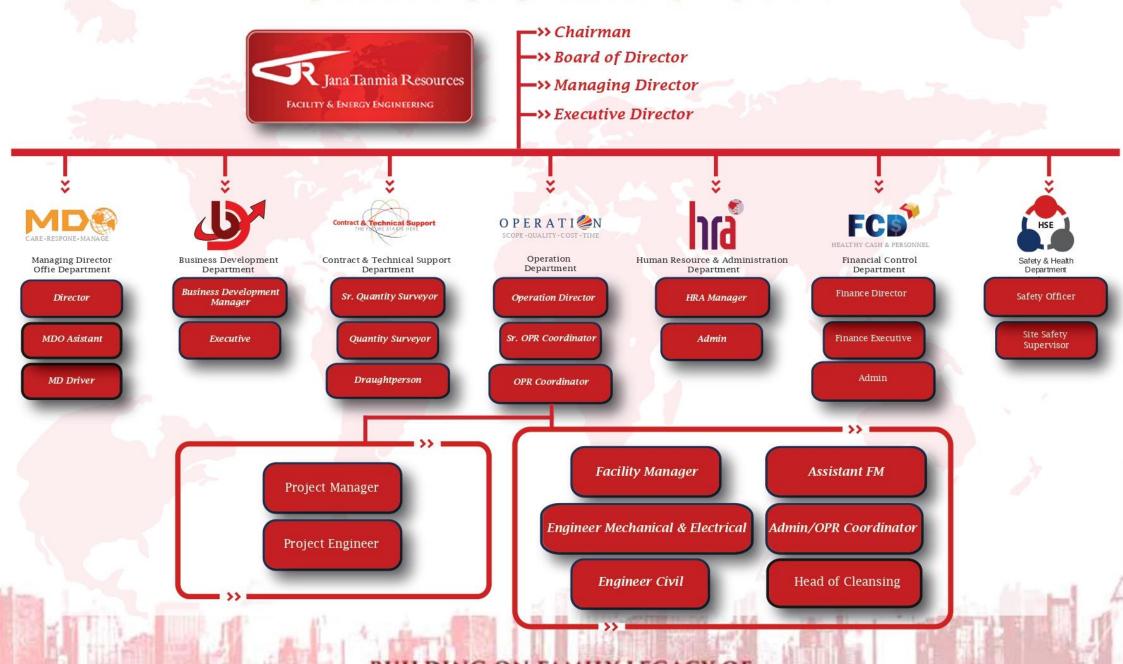


9.0

COMPANY ORGANIZATIONAL CHART



GENERAL ORGANIZATION CHART



BUILDING ON FAMILY LEGACY OF

EXCELLENCE | MUTUAL RESPECT | ETHICS | SAFETY | SUSTAINABILITY | FAIR RETURN

10.0

MANAGEMENT TEAM CURRICULUM VITAE



PERSONAL INFO

: Dato' Ts. Haji Mohd Zaidi Bin Ilamdin Name

: Managing Director / Chief Technical Officer **Position**

Mobile Phone : +6019 222 1169 : mohdzaidi@jtr.my **Email**

Address : No. 11, Jalan Kota Raja H27/H, Section 27,

Hicom Town Centre, Shah Alam, Selangor D.E.



EDUCATION BACKGROUND

College / University : Universiti Kebangsaan Malaysia (UKM)

- B. Sc. (Hons) Nuclear Science (1993)

: Kolej Sultan Abdul Hamid, Alor Setar (1988) Matriculation

High School : Sekolah Alam Shah, Cheras

> - Sijil Pelajaran Malaysia, Gred 1 (1986) - Sijil Rendah Pelajaran, Gred A (1984)

COMPETENCY CERTIFICATIONS

- 1. Master International Project Manager, MIPM (IAPM, UK)
- Green Building Index Facilitator, GBIF (MGBC, MY)
- 3. Certified Energy Auditor, CEA (AEE, USA)
- 4. Certified Energy Manager, CEM (AEMAS, MY)
- 5. Corrosion Coating Inspector (NACE Int, USA)
- 6. Authorized & Competent Person MGPS (BTEC Edexel, UK)
- 7. Registered Electrical Energy Manager, REEM (EC, MY)
- 8. Certified Professional Measurement & Verification, CPMV (MGTC, MY)
- 9. Authorized Person Healthcare, HVAC (BTEC, UK)
- 10. Certified Associate in Asset Management, CAAM (AMC, AUS)
- 11. EnMS ISO 50001 Expert (UNIDO)
- 12. Competent Person in Facility Management (CIDB, MY)























PROFESSIONAL AFFILIATIONS

INTERNATIONAL

- 1. Associate Member, American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)
- 2. Member of National Association of Corrosion Engineers (NACE)
- 3. Member of National Fire Protection Association, (NFPA), USA
- 4. Member of ASHRAE TC 9.6 Healthcare, USA
- 5. Member of Energy Institute, USA
- 6. Member of Chartered Institution of Building Services Engineers (CIBSE)
- 7. Members of International Facility Management Association (IFMA)
- 8. Life Member of the Association of Energy Engineers (AEE)













LOCAL

- 1. President of Persatuan Kontraktor Pakar Bumiputera Malaysia (PaKAR)
- 2. President of International Facility Management Association Malaysia Chapter (IFMA MY)
- 3. Past President of Association of Energy Engineers Malaysia Chapter (AEE MY)
- 4. Past Vice President of Malaysian Asset & Project Management Association (MAPMA)
- 5. Past Deputy President of Persatuan Kontraktor penyelenggaraan & Perkhidmatan Bumiputera Malaysia(PKPP)
- 6. Committee of Biomedical Engineering Association Malaysia (BEAM)
- 7. Corporate Member of Malaysia Green Building Confederation (MGBC)
- 8. Member of Malaysia Chapter of ASHRAE











PROFESSIONAL APPOINTMENT

- 1. Chairman, Board of Visitor Sunway Medical Hospital
- 2. Member, JKR IEQ/IAQ Manual Drafting Committee
- 3. Member, SEDA (Sustainable Energy Development Authority) Committee of Energy Thermal Efficiency for Building Sector
- 4. Academic Advisory, MFI UNIKL
- 5. Chairman, CIDB Technical Committee on Asset & Facility Management
- 6. Committee of ISO / PC251 in Asset Management
- 7. Committee Member of ISO / TC 267 in Facilities Management
- 8. Technical Advisor, AEMAS
- 9. Lecturer, AEMAS
- 10. Review Panel for JKR in COC of 'FM+EPC

EMPLOYMENT HISTORY

1. Hualon Corporation Berhad, Nilai, Negeri Sembilan (1993 - 1997)

Plants: 1) Polycondensation Plant A & B

2) Solid State Polycondensation Plant A& B

Type of Plant: PET Production (Petrochemical Based)

Position: Leading Process Engineer

Roles : 1) Project monitoring team for Plant Mech. Installation by Zimmer AG.

2) Plant radiography test monitoring team.3) Plan start up/ Commissioning team.

4) Plant efficiency improvement/ Troubleshoot team

5) Plant ISO 9002 Project Team6) Plant Safety Committee Team

System Under Supervision: 1) Polycondensation Plant A&B

2) Solid State Polycondensation Plant A & B (Zimmer AG)

3) Thermal Oil Boiler House (Konnus Kessel)

4) Steam Boiler House (Advance Boiler)

5) Control System:

a) Control Valve (Smith, Austria)

b) Positioner - Smart Type (Siemesns AG)

c) Controller (Siemens AG)

d) DCS (Fischer Rosemount)

6) Nitrogen Purifying System (Silica AG)

7) Chips & Powder Conveying System (Waeschle, AG)

8) Hydrocarbon, Hydrogen & Oxygen Analyzer (Amluk AG)

9) Centrifuge seperator (KVT AG)

10) Co-60 (Gamma Ray) level gauge system (Zimmer AG)

2. Spirax Sarco Sdn. Bhd. (1997 - 2002)

Type of Business : Providing knowledge, products & services to the steam & utility fluids

users

Manufacturing Plants: UK, France, Spain, Argentina, Brazil & Italy

Malaysia Office : Servicing the industries in Malaysia by designing & functions

engineering of the heating system, selling the right products for the

application and after sales services.

Position : Executive

Market : 1) Malaysia Oil & Petrochemical Market

2) East Coast & East Malaysia Region

Roles : 1) Working with clients within the sectors given.

 Designing the system, specifying the right products for each applications, sales of products, site trouble shooting and commissioning, clients training, energy audit and plant audit.

EXPERIENCES

- *Ministry of Health* 1) Provides training for all Maintenance Concession Holders Companies of MOH hospitals in upgrading and maintenance of steam system.
 - 2) Provides each site technical solutions and engineering works for all particular problems faced at each hospital.

Radicare (M) Sdn. Bhd.

1) Provides training on the heating system maintenance and upgrading. The effectiveness of existing steam system in HKL.

Radicare (M) Sdn. Bhd.

1) Study on the possible upgrading on the steam system in GHKL. Provides existing and upgrading PID for future upgrading purposes. The study done is required under the MOH contract with Radicare.

World 1st Hotel, Genting Highlands.

1) Provides engineering input and design to the project consultant i.e KTA Tenaga for the steam and boiler system. Sold RM1M worth of piping products for the project.

Malaysia LNG (Bintulu), BP Amoco (Gebeng), Ethylene Malaysia (Kertih), Shell Refining Company (P. Dickson), FPG (Kuantan)

1) Conducted Energy Audit on their steam system and provides report on the measures to improve the plant efficiency and reduce energy wastage. Sold moe than 5 million products for the effecient running of their heating system.

EMPLOYMENT HISTORY

3. Jana Tanmia Resources Sdn Bhd, Shah Alam, Selangor

- Jana Tanmia Resources Sdn Bhd is one of the leading company with specialization in Building Mechanical and Electrical services. Established on the April 1996 and has completed hundreds of projects with the government and private sectors.

Core Competencies :

- 1) Sustainable Facility Management
- 2) Energy Management Energy Efficient System
- 3) Energy Efficient HVAC / ACMV System
- 4) Building Management / Automation System
- 5) Cleanroom Operation Theater, Biosaftey Lab, GMP Lab & Cleanroom
- 6) Building IAQ, Humidity & Mold Control
- 7) Medical Gas Pipeline System
- 8) Hot Water & Steam System

Position

Managing Director / Chief Technical Officer

Roles

- 1) Provide company business direction to become the world class company in the area of our specialization.
- 2) Lead Designer and Master Project Manager for all the projects under taken by Jana Tanmia Resources Sdn Bhd and its subsidiaries.
- 3) Develop company overall business and marketing strategy. Develop inhouse competencies and human capital development as the key area of internal growth by making a strategic staff technical training plan for all potential staff at each departments.

EXPERIENCES

Ministry of Health

- Advice, consult and technology transfer in the area of latest knowledge and technology involving healthcare facilities.

Radicare (M) Sdn. Bhd.

Provide HVAC/R services for the healthcare facilities and improvement to increase the system quality and efficiency.

Majlis Perbandaran Subang Jaya Provide yearly Mechanical and Electrical services for the MPSJ assets and facilities.

Uni. Sains Malaysia (USM) Involve in critical environment projects under USM especially for the clean room, operation theatre and laboratory.

Public Work Department Putrajaya Provide Comprehensive Maintenance for Presint 10, Putrajaya and provide solution to maintain the area as the federal administrative centre of Malaysia.

Faber Medi-Serve

Provide Mechanical services and total solution for the healthcare facilities under FMS for the Sabah region.

PERSONAL INFO

Name : Datin Sarina Binti Abdul Rashid

Position : Executive Director Email : sarina@jtr.my Years of Experience : 20 years

EDUCATION BACKGROUND

High School : SMK Mantin, Negeri Sembilan (SPM)

College / University : Mapor Business and Computer Studies College



POSITION ROLES

Jana Tanmia Resources Sdn Bhd (2002-present)

Position: Executive Director

- 1. Report directly to the Managing Director (MD) and perform all duties assigned by the MD.
- 2. Responsible for the whole company's administrative and accounts matter to make sure that the company is running smoothly. This includes:
 - a) Maintaining and securing all documentation in proper filing system especially P&C matters for an effective operation of the company.
 - b) Handling company's HR matters and preparing monthly payroll matters.
 - c) Delegating and organizing work for the staff so that they could work effectively and efficiently.
 - d) Prepare and hadle all P&C documentation for the company.
 - e) Prepare payment transactions (i.e to the Subcontractors, Suppliers, Payroll, Utilities and etc) and update weekly accounting.
- 3. Maintain regular contact with existing customers especially their decision makers.
- 4. Calculate cost for customers's quotations.
- 5. Contact & deals with all subcontractors and suppliers (existing and new ones).
- 6. Fully arrange & overlook all issues pertaining to Financial Control, Admin and Human Resource matters.

PROFESSIONAL TRAINING

- 1. A Practical Foundation in Accounting Principles Practice
- 2. Managing Your Finance Function Efficiently
- 3. Mastering Effective People Management Skills
- 4. Pentadbir Pejabat yang Cemerlang
- 5. Kursus Pengurusan Pembinaan (Asas Memahami Pelan Dan Peranggaran Harga Bangunan)
- 6. Apresiasi dan Dokumentasi MS ISO 9001: 2000

PERSONAL INFO

Name : Mohd Nashriq Bin Sulaini

Position : Director

Email : nashriq@jtr.my

Years of Experience : 16 years

EDUCATION BACKGROUND

High School : Maktab Rendah Sains Mara, Kuantan (SPM)

College / University : Kolej Matrikulasi Melaka

Universiti Teknikal Malaysia Melaka (UTeM)

-Bachelor of Mechanical Manufacturing Engineering



POSITION ROLES

Jana Tanmia Resources Sdn Bhd (2011-present)

Position: Director

- 1. To provide leadership for the company's Quality Assurance / Quality Control.
- Management to support STSD to ensure that all work performed on all project sites meet the projects(s) procedures and contracts requirements.
- 3. To develop, implement and maintain for the procedure on ISO 9001 JTRSB QMS.
- 4. To develop, implement and audit process of quality assurance program / plan for the project based on ISO 9001 and JTRSB procedures (SOP).
- S. To act as Quality Management Representative (QMR) and prepare for regular "Management Review Meetings" and interact with ISO Consultant and Auditor.

PROFESSIONAL TRAINING

- 1. Internal University Project Occupational Safety & Health, Ergonomic.
- 2. University Project Research Design Solar Panel that Assisted Drying Machine.
- 3. Internal Canon Training Job failiarization, Management Control.
- 4. Sime SIRIM Basic Calibration & Measurement (Sime SIRIM) / Product Environment System (EMS). Awareness, fire Evacuation Drill.
- S. External Canon Training Team Building & Skill Up.
- 6. Internal Canon Training Calibration Canon Training
- 7. CIDB Microsoft Project
- 8. Sysnovate Solutions Sdn. Bhd. Preparing Project Quality Plan & QA/QA Documentation.
- 9. Sysnovate Solutions Sdn. Bhd. Project filing System & Record Control.
- 10. CIDB Understanding Condition of Contract.
- 11. IfMA Certified facility Manager (CfM)
- 12. Goal Horizon Leadership Enhancement Program.
- 13. MPS Management 10 Tools for Highly Effective Management.
- 14. AEMAS Energy Manager Training Course.

COMPETENCY CERTIFICATIONS

- 1. Certified Energy Manager (CEM) Asian Energy Management Scheme (AEMAS)
- 2. Certified Healthcare facilities Manager, CHfM (GAfM, MY)
- 3. Certified Competent Of Healthcare Contractor, SKKK (JKR, MY)

COMPETENCY AFFILIATIONS

- 1. Secretariat of Persatuan Kontraktor Pakar Bumiputera Malaysia (PaKAR)
- 2. Member of International facility Management Association (IfMA) USA / Malaysia Chapter
- 3. Past Member of Association of Energy Engineers (AEE) USA / Malaysia Chapter
- 4. Past Member of The Malaysian Asset and Project Management Associaton (MAPMA) Malaysia
- S. Member of Biomedical Engineering Association Malaysia (BEAM)

PERSONAL INFO

Name : Mohd Nasir Bin Yatollah

Position : Operation Director

Email: mohdnasir@janatanmia.com.my

Years of Experience: 15 years

EDUCATION BACKGROUND

High School : SMK Seri Tanjung, Kuala Selangor (SPM)

College / University : Universiti Teknologi Mara (UiTM)



POSITION ROLES

Jana Tanmia Resources Sdn Bhd (2009- present)

Position: Operation Director

- 1. Understand and master all scope of works, responsibilities & terms of agreement entered between JTR and users or customers for each site to handle.
- Understand the level of installation quality that is required by the customers and ensure that project implementation will atleast meet the standard and quality required and most of time, exceed the quality required.
- 3. Control facility management and maintenance, operation or construction cost to be always lower than the project estimation.
- 4. Ensure the project delivery or completion of any task required by the customer or as required by the contract entered between JTR and customers always done within the stipulated time given.
- Undertake the preparation of Work Programme, Material Ordering, and Delivery Plan, responsible for own procument of parts and material other than major material projects procuments which will be handled by TSD.
- 6. Overview facilities management and maintenance contracts.

PROFESSIONAL TRAINING

- 1. Climaveneta Chat Union Technical Aftersales Training Course
- 2. ASHRAE Malaysia Chapter Technical Seminar on Cleanroom Design
- 3. *iKnowledge Beyond Maintenance 4* Integrating Proactive Maintenance Strategies and Engineering Asset Management, Maintenance Management Seminar
- 4. CWORKS Computerized Maintenance Management Systems (CMMS Netmain)
- 5. Jabatan Kerja Raya (JKR) Bengkel Kefahaman Perlaksanaan PWD FM 2008

COMPETENCY CERTIFICATION

1. Competent Person MGPS Installation - Eastwood Park Training

PROFESSIONAL AFFILIATIONS

- 1. Member of International Facility Management Association (IFMA) USA / Malaysia Chapter
- 2. Member of Persatuan Kontraktor Pakar Bumiputera Malaysia (PaKAR)- Malaysia

PERSONAL INFO

Name : Shahira Binti Mohammad Yusop

Position : Sr. Quantity Surveyor Email : shira.bdtsd.jtr@gmail.com

Years of Experience : 7 years

EDUCATION BACKGROUND

High School : SMK Jalan 3, Bandar Baru Bangi (SPM)
College / University : Universiti Tenaga Nasional (Uniten)

-Bachelor of Electrical Power Engineering (Hons)



POSITION ROLES

Jana Tanmia Resources Sdn Bhd (2017-present)

Position : Sr. Quantity Surveyor

- 1. Business development which include of sales, tender bid participation, tender document preparation and contract negotation.
- 2. Design M&E serices for building construction.
- 3. Project management for design and built project.
- 4. Project management for facility, mechanical and electrical services.
- S. Project procurement.

PROFESSIONAL TRAINING

- 1. ASHRAE Malaysia Chapter Technical Seminar on Cleanroom Design.
- 2. CIDB Microsoft Project.
- 3. CIDB GreenTech Malaysia Green Technology fundamentals and Opportunities.
- 4. Distech Control Distech Control Applications and Controllers factory Certification Program.
- S. iKnowledge Operation & Troubleshooting of Centralized Chilled Water HVAC System.
 - Efficient Operation & Troubleshooting of Centralized Chilled Water HVAC
 - Beyond Maintenance 4 Integrating Proactive Maintenance Strategies and Engineering Asset Management, Maintenance Management Seminar.

PROFESSIONAL TRAINING

- 1. Member of Association of Energy Engineers (AEE) USA
- 2. Member of International facility Management Association (IfMA) USA
- 3. Member of Persatuan Kontraktor Pakar Bumiputera Malaysia (PAKAR) Malaysia

11.0 KEY PERSONEL



11.0 KEY PERSONNALS



Name Nurul Hazwani Binti Ab Razak

Position HRA Manager

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Name Yasmin Binti Abdul Rashid

Position HR Executive

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Name Haslynda Binti Mohd Sam

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11.0 KEY PERSONNALS



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Name Mohd Azmin Bin Abdul Rashid
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12.0

SPECIALISATIONS & PROJECT REFERENCES



12.0 SPECIALIZATIONS & PROJECT REFERENCES



12.1 SUSTAINABLE FACILITY MANAGEMENT



12.2 ENERGY MANAGEMENT -ENERGY EFFICIENCY SYSTEM



12.3 ENERGY EFFICIENT HVAC/ACMV SYSTEM



12.4 BUILDING MANAGEMENT / AUTOMATION SYSTEM



12.5 CLEANROOM - OPERATION THEATER, BIOSAFETY LAB, GMP LAB & CLEANROOM



12.6 BUILDING, IAQ HUMIDITY & MOLD CONTROL



12.7 MEDICAL GAS PIPELINE SYSTEM



12.8 HOT WATER & STEAM SYSTEM



12.1SUSTAINABLE FACILITY MANAGEMENT

- 12.1.1 SUSTAINABLE FACILITY MANAGEMENT
- 12.1.2 CONSULTANCY OF FACILITIES MANAGEMENT BASED ON ISO 41001
- 12.1.3 CONSULTANCY OF ASSET MANAGEMENT BASED ON ISO SS001



12.1.1 SUSTAINABLE FACILITY MANAGEMENT

WHAT IS FACILITY MANAGEMENT?

EN 15221-1 2006

The integration of processes within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities.

INTERNATIONAL FACILITY MANAGEMENT ASSOCIATION (IFMA)

Facility management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology.

FACILITY MANAGEMENT SCOPE

- 1) Maintenance Of Civil, M & E Works
- 2) Landscaping And Ground Maintenance
- 3) Rubbish Collection & Disposal
- 4) Cleaning & Cleansing Services
- 5) Pest Control
- 6) Safety & Security
- Project Management (Renovation, Upgrading, Extension)

- 8) It (Information & Communication Technology)
- 9) Catering & Vending
- 10) Event Management
- 11) Logistics & Fleet Management
- 12) Parking
- 13) Design & Construction Services
- 14) Energy Management
- 15) Sustainability

CORE COMPETENCIES OF FM PROFESSION

- 1. Communication
- 2. Emergency Preparedness and Business Continuity
- 3. Environmental Stewardship and Sustainability
- 4. Finance and Business
- 5. Human Factors
- 6. Leadership and Strategy
- 7. Operations and Maintenance
- 8. Project Management
- 9. Quality
- 10. Real Estate and Property Management
- 11. Technology





12.1.1 SUSTAINABLE FACILITY MANAGEMENT

WHAT IS MAINTENANCE MANAGEMENT?

Maintenance management is an orderly and systematic approach to planning, organizing, monitoring and evaluating maintenance activities and their costs. A good maintenance management system coupled with knowledgeable and capable maintenance technical staff can prevent health and safety problems and environmental damage; yield longer asset life with fewer breakdowns; and result in lower operating costs and a higher quality of equipment reliability. Maintenance activity carried out on an asset in order to ensure that the asset continues to perform its intended functions, or to repair the equipment.

MAINTENANCE STRATEGIES

A maintenance strategy or option means a scheme for maintenance, i.e. an elaborate and systematic plan of maintenance action. Following are the maintenance strategies that are commonly applied in JTR Operation and Maintenance:

- Plan Preventive Maintenance or Scheduled Maintenance
- Predictive or Condition Based Maintenance
- Breakdown Maintenance or Operate to Failure or Unplanned Maintenance

TYPES OF MAINTENANCE

In general, maintenance can be classified into the following categories:

- a) Routine ongoing maintenance activities such as servicing HVAC equipments, cleaning, waste collection, landscaping and ground works which are required because of continuing use of the facilities
- b) **Preventive** periodic inspection, lubrication and adjustment of mechanical or other equipment to ensure continuing working condition
- c) **Condition Appraisal** major/minor projects such as equipment upgrading or replacement, redesign, or complete reporting which are performed once every few years
- d) Emergency unexpected breakdowns of assets or equipment. These are unpredictable or reactive type of maintenance and are more difficult to schedule than the above three categories

ELEMENTS OF EFFECTIVE MAINTENANCE MANAGEMENT

- 1. Maintenance Policy
- 2. Control of spareparts/materials
- 3. Preventive Maintenance
- 4. Condition Monitoring
- 5. Work Order

- 6. Job planning/schedule
- 7. Priority and backlog control
- 8. Data recording system (CMMS)
- 9. Performance measurement measures (KPI)



CONSULTANCY

FACILITIES MANAGEMENT SYSTEM CONSULTATION (ISO 41001)

- ★ Gap Analysis
- ★ Mentoring Session
- ★ Brainstorming Session
- ★ Alignment Report
- ★ Training & Education
- ★ Certification Body Audit Support

ISO 41001:2018 Facility Management (FM)

About ISO 41001 Facility Management (FM)

ISO 41001 establishes a benchmark for developing effective, strategic and operational facility management (fM) systems and practices. The standard applies to both fM within an organisation and external providers of fM services. Thus, the certification assists organisations seeking to outsource fM services. fM service providers that conform with ISO 41001 assures organisations that their approach and processes are verified and recognised





Benefits of ISO 41001 Facility Management (FM)

Improve workforce productivity, safety and health. Improve communication of requirements and methodologies between public and private sector organisations. Improve efficiency and effectiveness. Reduce cost by optimising the system. Improve consistency of service.



12.1.2 CONSULTANCY OF FACILITIES MANAGEMENT BASED ON ISO 41001

CONSULTANCY



The publication of the facilities management family of standard began in 2017. The series now comprises

- ISO 41001:2018 facility Management. Management System. Requirements with Guidance for use
- ISO 41011:2017 facility Management. Vocabulary
- ISO 41012:2017 facility Management Guidance on Strategic Sourcing and the Development of Agreements
- ISO/TR 41013:2017 facility Management, Scope, Key Concept and Benefits.
- ISO 41014:2020 facility Management Development of a facility Management Strategy
- ISO/CD 4101S facility Management Influencing Organizational Behaviours for Improved facility Outcomes (under development)
- ISO 41018:2022 facility Management-Development of a facility Management Policy

ISO 41001:2018 replaced the earlier European Standard (BS EN 1S221).



...What actually is..."Facility management"...

Facility Management definitions

- "Facilities Management is an enabler of sustainable enterprise performance through the whole life management of productive workplaces and effective business support services." (South African Facilities Management Association)
- integration of processes within an organisation to meintain and develop the agreed services which support and improve the effectiveness of its primary activities.*
- Facilities Management is a process by which an organisation delivers and sustains agreed support levels within a quality environment to provide full values in use to meet strategic objectives."
- "Facilities Management (FM) involves the total management of all services that support the core business of an organisation. It deals with those areas that the managers of the organisation consider to support their fundamental activities. FM focuses on the interaction between the core business, the support functions, and the facilities throughout all sections of industry, commerce, and services."

...What actually is..."Facility management"...

Facility Management definitions

- "Facility management is the practice of coordinating the physical workplace with the people and the work of the organization. It integrates the principles of business administration, architecture, and the behavioral and engineering sciences.
- "Facility management is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology."
- "Facilities management involves the management, operation and maintenance of buildings, precincts and community infrastructure."
- "Facilities management involves the management, operation and maintenance of buildings, precincts and community infrastructure."

 (BIFM British Institute of Facilities Management)

12.1.3 CONSULTANCY OF ASSET MANAGEMENT BASED ON ISO SS001

CONSULTANCY

ASSET MANAGEMENT SYSTEM CONSULTATION (ISO 55001)

- ★ Gap Analysis
- ★ Mentoring Session
- ★ Brainstorming Session
- ★ Alignment Report
- ★ Training & Education
- Certification Body Audit Support



About ISO 55001 Asset Management

The ISO SS001 Asset Management is an international standard for establishing, implementing, maintaining and improving an organisation's asset management system. This management system standard aims to help organisations where the management of physical assets is central to their business. Not only that, it is equally applicable to operations managing intangible assets.

Businesses should adopt the standard to improve performance, results and optimises asset control.

Consistent asset management demonstrates the company's good judgement and satisfies the needs and expectations of internal and external parties. The standard applies to organisations of any size or sector.

Benefits of ISO 55001 Asset Management

Improve organisational efficiency and effectiveness in managing risks associated with ownership of assets. Save cost through optimisation of asset life.

Improve health, safety, and environmental performance.

Improve health and safety in the industrial sector.

Demonstrates systematic supply chain security management.

Develop business cooperation along the supply chain.

Demonstrate a benchmark of good practice in asset management across industrial sectors.





12.1.3 CONSULTANCY OF ASSET MANAGEMENT BASED ON ISO SS001

WHAT ARE WE OFFERING

- Organize, consult and operate your asset and facilities management more efficiently
- Developing an appropriate balance between the costs, the risks and the required performance of the physical assets.
- Provides an integrated approach to asset management development through education & training; requirements gap analysis, mentoring, experience and real knowledge transfer.

OUR SCOPE

- Asset Management Consultation
- Gap Analysis & Brainstorming
- Mentoring & Training
- Reliability Centered Maintenance
- Full report on asset condition appraisal

WHAT IS ASSET MANAGEMENT?

AS/ISO 55000

An asset is an item, thing or entity that has potential or actual value to an organisation.

ASSET MANAGEMENT COUNCIL (AMC)

The life cycle management of physical assets to achieve the stated outputs of the enterprise

ISO 55000 CONSISTS OF:

ISO 55000

An overview of the principles, concepts and terminology relating to asset management.

ISO 55001

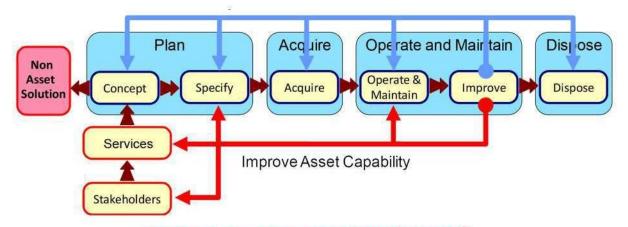
Specifies the requirements for establishing, implementing, maintaining and improving an asset management system.

ISO 55002

Provides guidance, explanatory on the application of ISO 55001.

OUR References

- ISO 55001: 2014 Asset Management Systems-Requirements
- ISO 31000 : 2009 Risk Management - Principles and Guidelines
- Asset Management Council (AMC)
- The Institute of Asset Management (IAM)
- International Facility Management Association (IFMA)
- British Institute of Facilities Management (BIFM)



ASSET/FACILITY LIFE CYCLE PROCESS



12.1.3 CONSULTANCY OF ASSET MANAGEMENT BASED ON ISO SS001

ASSET, FACILITY & MAINTENANCE MANAGEMENT LEVEL

ASSET MANAGEMENT CONCEPT MODEL

ASSET MANAGEMENT

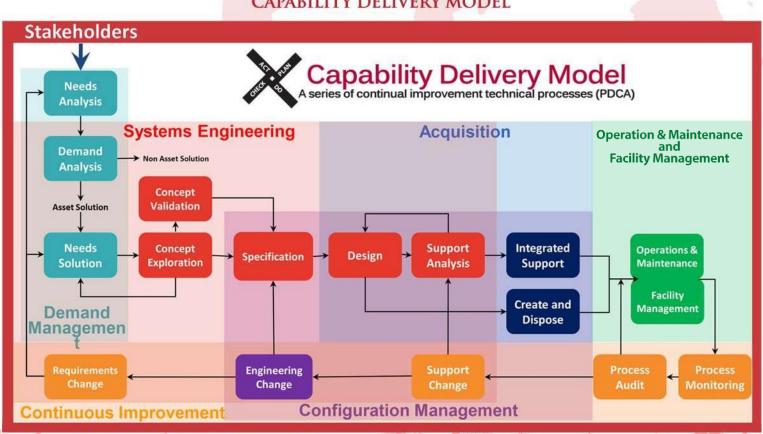
FACILITY MANAGEMENT

MAINTENANCE MANAGEMENT



Four principles - Plan, Do, Check, Act (PDCA) process.

CAPABILITY DELIVERY MODEL



No.	Clients	Projects / Work Description
1.	Faber Mediserve	Maintenance of centralized air conditioning system in : i. Queen Elizabeth Hospital (QEH) ii. Sipitang Hospital iii. Labuan Hospital
		Scope of works: i. Chillers ii. cooling towers iii. AHU's iv. FCU's, v. Coolant circulation pumps vi. Piping vii. Piping fittings viii. Ducting ix. Filters
2.	Majlis Perbandaran Subang Jaya	Proposal for Upgrading & Maintenance of Air Conditioning Centralize System at the "Majlis Perbandaran Subang Jaya" Headquarters for "Tetuan Majlis Perbandaran Subang Jaya".
3.	Hospital Kuala Lumpur	PPM works for air conditioning system at Hospital Kuala Lumpur.
4.	Faber Mediserve Radicare IMR	Package ML3 - Provision of M&E Equipment and Lift Maintenance Services in Sabah Region (Air Conditioning System)
5.	Radicare HKL	PPM for Air-conditioning system at Zone B HKL (824 unit asset)
6.	Radicare HKL	PPM for Air-conditioning System at Zone A (824 unit asset)
7.	Majlis Perbandaran Subang Jaya	Air Conditioning System Maintenance for 2 years at "Majlis Perbandaran Subang Jaya" Main Office

No.	Clients	Projects / Work Description
8.	Majlis Perbandaran Subang Jaya	Centralize Air Conditioning Maintenance Contract for One Year (2006-2007) at MPSJ Headquarters.
9.	Majlis Perbandaran Subang Jaya	Yearly maintenance Work for Split Unit Air Conditioning, Firefighting and Electrical System for MPSJ building at USJ, (2008)
10.	Majlis Perbandaran Subang Jaya	Maintenance Work for split Unit Air Conditioning and Electrical System for MPSJ Headquarters (2008)
11.	Majlis Perbandaran Subang Jaya	Yearly Maintenance Work for Split Unit Air Conditioning, Firefighting and Electrical System for 3C Building, Sunway Town, (2007 – 2008)
12.	Radicare Kuantan	Comprehensive Maintenance of Air Conditioning System and Freezer at Hospital Tengku Ampuan Afzan, Kuantan.
13.	Radicare Termerloh	Comprehensive Maintenance of Air Conditioning System and Freezer at Hospital Sultan Haji Ahmad Shah (HOSHAS), Temerloh.
14.	Faber Mediserve, Sabah	Air Conditioning Maintenance at Queen Elizabeth Hospital, Sabah.
15.	Radicare, Serdang	Non-Comprehensive Maintenance of Air Conditioning System and Freezer at Serdang Hospital
16.	Radicare, Temerloh	Comprehensive Maintenance of Air Conditioning System and Freezer at Hospital Sultan Haji Ahmad Shah Temerloh.
17.	Redicare, Kuantan	Comprehensive Maintenance of Air Conditioning System and Freezer at Hospital Tengku Ampuan Afzan, Kuantan

No.	Clients	Projects / Work Description
18.	Faber	Package ML3 - Provision of M&E Equipment and Lift Maintenance Services in
	Mediserve	Sabah Region (Hot Water Boiler)
10	5.1	
19.	Faber	Hospital Building & Facilities Maintenance for Hospital Support Services
	Mediserve	(Package 1G) at Hospital: i. Kudat
	4	ii. Kota Marudu
-	211	iii. Kota Belud
		iv. Tuaran
		v. Queen Elizabeth
	4.	vi. Bukit Padang
		vii. Papar
		Scope & System Under Supervision:
	1	i. Air Conditioning System
	The state of the s	ii. Lift
		iii. Fire Fighting
		iv. Building Automation System (BAS) v. Water Treatment
		v. Water Treatment vi. Medical Gas
		vii. PABX
		viii. Boiler
	_	
	3	
	- · ·	
20.	Faber	Hospital Building & Facilities Maintenance for Hospital Support services
	Mediserve	(Package 1G) at Hospital:
		i. Ranau ii. Tambunan
		iii. Keningau
		iv. Tenom
		v. Beaufort
		vi. Sipitang
		vii. Labuan
		Scope & System Under Supervision:
		i. Air Conditioning System
		ii. Lift iii. Fire Fighting
		iii. Fire Fighting iv. Building Automation System (BAS)
		v. Water Treatment
		vi. Medical Gas
		vii. PABX
		viii. Boiler
	<i>f</i>	

No.	Clients	Projects / Work Description
21.	Kementerian Kesihatan Malaysia	Penyelenggaraan Sistem Pencegah Kebakaran (Fire Alarm System) Hospital Building & Facilities Maintenance Untuk Hospital Support Services (Package 1H) di Hospital: i. Ranau ii. Tambunan iii. Keningau iv. Tenom, v. Beaufort vi. Sipitang
		vii. Labuan
1.5		
22.	Faber Mediserve	Scope & system under supervision: i. Air Conditioning System ii. Lift iii. Fire Fighting iv. Building Automation System (BAS) v. Water Treatment vi. Medical Gas vii. PABX viii. Boiler
23.	Faber Mediserve	Hospital Support Services (Package ML3) Maintenance of M&E Equipment and Lift in Sabah Region : i. Queen Elizabeth ii. Tawau iii. Lahad Datu iv. Labuan v. Sipitang vi. Beaufort
24.	Hospital Kuala Lumpur	Maintenance of Electrical equipment at Ward NW 17. Maintenance of Electrical Equipment at Ward NW URO 1B
25.	Hospital Besar Kuala Lumpur	Maintenance of Lights in the Hospital Area
26.	Majlis Perbandaran Subang Jaya	Maintenance of Street Lighting at Zon Kinrara B

Clients	Projects / Work Description
Majlis Perbandaran Subang Jaya	Maintenance of Street Lighting at Zon Subang Jaya B
Majlis Perbandaran Subang Jaya	Yearly Maintenance for Street Lights, Garden Lamp and Decorative Lamp for Whole One Year (2009) at "Kawasan Zon Subang Jaya B, Selangor"
Majlis Perbandaran Subang Jaya	Yearly Maintenance for Street Lights, Garden Lamp and Decorative Lamp for Whole One Year (2009) at "Kawasan Zon Subang Jaya A, Selangor"
Dewan Bandaraya Kuala Lumpur	Kerja-Kerja Pemasangan dan Penyelenggeraan Lampu-Lampu Jalan dan Hiasan di Wilayah Persekutuan Kuala Lumpur bagi tahun 2009 - 2011.
Majlis Perbandaran Subang Jaya	Maintenance of Traffic Light for Whole Area of Majlis Perbandaran Subang Jaya.
Majlis Perbandaran Subang Jaya	Maintenance of Traffic Light for Whole Area of Majlis Perbandaran Subang Jaya.
Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1G) at Hospital: i. Kudat ii. Kota Marudu iii. Kota Belud iv. Tuaran v. Queen Elizabeth vi. Bukit Padang vii. Papar Scope & system under supervision: i. Air Conditioning System ii. Lift iii. Fire Fighting iv. Building Automation System (BAS)
	Majlis Perbandaran Subang Jaya Majlis Perbandaran Subang Jaya Majlis Perbandaran Subang Jaya Dewan Bandaraya Kuala Lumpur Majlis Perbandaran Subang Jaya Majlis Perbandaran Subang Jaya

No.	Clients	Projects / Work Description
		vi. Medical Gas vii. PABX viii. Boiler
34.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1G) at Hospital: i. Ranau ii. Tambunan iii. Keningau iv. Tenom
	Te de la constant de	v. Beaufort vi. Sipitang vii. Labuan Scope & System Under Supervision: i. Air Conditioning System ii. Lift iii. Fire Fighting iv. Building Automation System (BAS) v. Water Treatment vi. Medical Gas vii. PABX viii. Boiler
35.	Jabatan Kesihatan Negeri Selangor	Perkhidmatan Penyelenggaran Peralatan Perubatan di Klinik-klinik Kesihatan Zon 2 bagi Tahun 2007 - 2008
36.	Pejabat Kesihatan Daerah Kubang Pasu	Perkhidmatan Penyelenggaran Peralatan Perubatan di Klinik Kesihatan, Klinik Pesakit Luar dan Klinik Desa, Pejabat Kesihatan Daerah Kubang Pasu, Jitra, Kedah
37.	Pejabat Setiausaha Kerajaan Negeri	Perkhidmatan Mengurus, Mengendali dan Menyelenggara Bangunan Dewan Jubli Perak, Sultan Abdul Aziz, Perak.
38.	JKR Putrajaya, Selangor	Perkhidmatan Pengurusan dan Penyelenggaraan Kuarters Kerajaan Persekutuan di Presint 10, Putrajaya.

No.	Clients	Projects / Work Description
		,
39.	Proton, Tanjung Malim	Contract for Comprehensive Maintenance of Air Conditioning at Proton, Tanjung Malim Plant.
40.	Hospital Universiti Sains Malaysia, Kelantan	Perkhidmatan, Penyelenggaran dan Servis Bulanan Bagi System Pendingin Udara dan Building Automation System untuk Kompleks Dewan Bedah Utama, Dewan Bedah Jabatan Keemasan dan Dewan Bedah PPSG di Hospital USM, Kampus Kesihatan, Kubang Kerian Kelantan
41.	Universiti Utara Malaysia (UUM)	Service & Maintenance Air Conditioning Package C at Universiti Utara Malaysia, Sintok.
42.	Pos Malaysia	Integrated Facility Management & Maintenance Services at Pos Malaysia Premises in Selangor (Zone 1 & 4)
43.	Pos Malaysia	Integrated Facility Management & Maintenance Services at Pos Malaysia Premises in Kuala Lumpur (Zone 1 & 2)
44.	Proton	Comprehensive Maintenance of Air Conditioning System for Main Plant, Casting Plant & Tanjung Malim Plant
45.	Iskandar Education Enterprise Sdn Bhd	Mechanical, Electrical, and Plumbing Service, Provided For Educity, Iskandar Puteri, Johor Darul Takzim. Scope Of Works i. ACMV Maintenance. ii. Sanitary, Cold, & Hot Water Plumbing. iii. CMMS iv. Electrical Services v. Civil Works
46.	Edgenta Energy Project Sdn Bhd	Package AC01 (Region Perak): Provision Of Comprehensive Maintenance Services For Air Conditioning, Mechanical Ventilation (ACMV) System at Northern Region Hospital Support Services Scope Of Works
	<i>f</i>	i. ACMV Maintenance.

No.	Clients	Projects / Work Description
		Perkhidmatan Sokongan Klinik (PSK) Kementerian Kesihatan Malaysia di Negeri Johor.
47.	Kementerian Kesihatan	Scope Of Works :-
	Malaysia	i. Civil Works
		ii. Mechanical Systems
		iii. Cleansing
	-	iv. Electrical Systems
	-61 7 3	v. Pest Control
		vi. Ground Maintenance
1	-	



12.2ENERGY MANAGEMENT-ENERGY EFFICIENCY SYSTEM

- 12.2.1 CONSULTANCY OF ENERGY MANAGEMENT BASED ON ISO S0001
- 12.2.2 ENERGY PERFORMANCE CONTRACTING



12.2 ENERGY MANAGEMENT - ENERGY EFFICIENCY SYSTEM

WHAT WE ARE OFFER?

- Provides an integrated approach to energy management systems development through consultation, education & training based on experience and knowledge.
- Energy savings and/or provision of the same level of energy service at no cost (low hanging fruits), medium cost & investment grade.
- Implementing energy-efficiency proposals & projects.
- Offer energy services to final energy users, including the supply and installation of energy-efficient equipment and/or equipment retrofitting, maintenance and operation, facility management.

WHY ENERGY EFFICIENCY?

As global energy demand continues to grow, actions to increase energy efficiency will be essential. The technical opportunities are potential savings real, but consumers and utilities have so far been slow to invest in the most cost-effectives, energy-efficient technologies available.

The energy efficiency of buildings, HVAC and electric equipment, and appliances in use falls far short of what is technically attainable. HVAC, lighting and hot water & steam system utility energy efficiency techniques have great potential to narrow this gap and achieve significant energy savings. Some of the recent trends in energy efficiency technologies that have been successful and also used widely worldwide are:

- 1. Energy efficiency oil free chiller with Magnetic Levitation Shaft
- 2. Energy efficient compressors
- 3. Energy efficient motors and pumps
- 4. Soft starters with energy saver
- 5. Variable /frequency/speed drives
- 6. Energy efficient transformers
- 7. Occupancy sensors & Energy efficient lighting controls
- 8. Energy efficient by using Building Energy Management System

OUR SCOPE

- 1. Site survey, preliminary, evaluation energy analysis and audits,
- 2. Energy management,
- Identification of possible energy saving and efficiency improving actions
- 4. Technical & financial (ROI) presentation for client decision;
- 5. Comprehensive engineering project design, specification and implementation,
- 6. Operation & maintenance and facility management,
- 7. Energy and/or equipment supply,
- 8. Measurement & verification, monitoring and evaluation of the savings
- 9. Provision of service & product (HVAC, BMS, lighting, etc.)



ENERGY EFFICIENCY

- HVAC / R System
- Electric Motor
- Compressed Air System
- Lighting System
- Building Equipment
- Boiler
- Energy Efficient Equipment
- Building Envelope



12.2 **ENERGY MANAGEMENT -**ENERGY EFFICIENCY SYSTEM

ENERGY MANAGEMENT SYSTEM

ENERGY MANAGEMENT GOLD STANDARD







BENEFITS OF IMPLEMENTING EMGS

- 1. Develop the systematic energy cost management for energy cost saving
- 2. Develop energy target and plan
- 3. Increase knowledge in energy management
- 4. Increase awareness for energy conservation
- 5. Reduce operation and maintenance cost





ISO 50001 - ENERGY MANAGEMENT SYSTEMS

BENEFITS OF IMPLEMENTING ISO 50001

- 1. Assist organization in making better use of their existing energy consuming assets.
- 2. Offer guidance in benchmarking, measuring, documenting, and reporting energy intensity improvements and their projected reductions in greenhouse gas emissions.
- 3. Create transparency and facilitate communication in the management.
- 4. Promote energy management best practices and reinforce good energy management behaviors.
- 5. Assist facilities in evaluating and prioritizing the implementation of new energy-efficient technologies.
- 6. Provide a framework for promoting energy efficiency throughout the supply chain.
- 7. Facilitate energy management improvements for greenhouse gas emission reduction projects.

STANDARDS

- ISO 50001
- ISO 55001
- BS 7750
- ISO 14001
- EN 16001
- MS 1525

OUR REFRENCES

- KeTTHA
- Green Tech Malaysia
- **AEMAS**
- Suruhanjaya Tenaga
- Asean Centre for Energy
- AEE

















ENERGY MANAGEMENT SYSTEM CONSULTATION (ISO 50001)

- ★ Prelim Energy Audit
- ★ Energy Management System (ISO S0001)
- ★ Detail Energy Audit
- ★ ASEAN Energy Management Accreditation Scheme (AEMAS)

Developing an Energy Management System

ISO 50001 is based on the management system model of continual improvement also used for other well-known standards such as ISO 9001 or ISO 14001. This makes it easier for organizations to integrate energy management into their overall efforts to improve quality and environmental management.

ISO 50001 provides a framework of requirements for organizations to:

- ★ Develop a policy for more efficient use of energy
- ★ Fix targets and objectives to meet the policy
- ★ Use data to better understand and make decisions about energy use
- ★ Measure the results
- ★ Review how well the policy works, and
- ★ Continually improve energy management.

ISO 50001

Certification to ISO 50001

Like other ISO management system standards, certification to ISO 50001 is possible but not obligatory. Some organizations decide to implement the standard solely for the benefits it provides. Others decide to get certified to it, to show external parties they have implemented an energy management system. ISO does not perform certification.



12.2.2 ENERGY PERFORMANCE CONTRACTING

ENERGY PERFORMANCE CONTRACTING

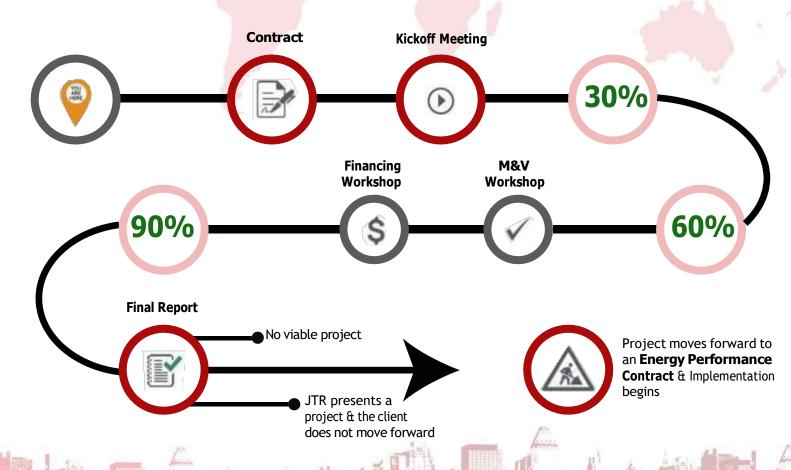
ENERGY PERFORMANCE CONTRACTING AND SYSTEM DESIGN & INSTALLATION

- Chiller Plant Room Optimisation
- ★ Air Side HVAC Optimisation Control
- ★ BMS Optimisation

- ★ Lighting and Lighting Control System
- ★ Compress Air System Optimisation
- ★ Hot Water & Steam System Optimisation

Our Approach to Energy Performace Contracting (EPC)

We don't believe in limited scope services-we take price in creating a comprehensive energy strategy that's entirely unique to your needs. Still, we'll give you a rundown of EPC contracts and how we utilies to maximize efficiency.....



Preliminary Energy Audit Base on ASEAN Energy Management Scheme (AEMAS) for 1S Hospitals under Hospital Support Services (HSS),

Radicare (M) Sdn Bhd and Ministry of Health

PAHANG:

- 1. HOSPITAL TENGKU AMPUAN AFZAN, KUANTAN
- 2. HOSPITAL MUADZAM SHAH
- 3. HOSPITAL PEKAN
- 4. HOSPITAL RAUB
- S. HOSPITAL KUALA LIPIS
- 6. HOSPITAL JENGKA
- 7. HOSPITAL JERANTUT
- 8. HOSPITAL SULTANAH HJH. KALSOM, CAMERON HIGHLAND





SELANGOR & WILAYAH PERSEKUTUAN

- 1. HOSPITAL KAJANG
- 2. KOLEJ SAINS KESIHATAN BERSEKUTU, SG. BULOH
- 3. INSTITUT PENYELIDIKAN PERUBATAN, KUALA LUMPUR
- 4. PUSAT KAWALAN KUSTA NEGARA
- S. PUSAT DARAH NEGARA
- 6. INSTITUT KESIHATAN UMUM, KUALA LUMPUR
- 7. INSTITUT PENYELDIKAN SISTEM KESIHATAN, KUALA LUMPUR





Execution Of Energy Efficiency Initiatives In 9 States - Owned Buildings In Melaka Of Which The first Phase (1st Phase) Shall Be following Buildings Locate At Putra Specialist Hospital Melaka



















12.3ENERGY EFFICIENT HVAC & ACMV SYSTEM



We Provide customers HVAC Equipment with the best selection plan, reasonable system configuration, and professional technical consulting and support. Our factory fully implementing modern management, has a professional technical development team and high-quality production, quality, environmental management team, The management team are from the world top 500 enterprises. We also have advanced production equipments and testing equipments, so we basically achieve the management standardization, modernization of production, professional of product testing and comprehensive quality and environmental management system.

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The integrated technology enables to lower the start-up current, and automatically adjust the quantity of refrigeration through the frequency conversion technology to adapt present requirement of refrigeration. BSE's products has reached the highest energy efficiency, and, in particular, the partial load efficiency of the machine's actual operating point has reached an advanced level in the whole industry.





QUESTCHILLER™

BSE QUESTCHILLER™ family chillers are the oil-free, variable frequency and centrifugal water-cooled chillers, including three series of Q1, Q2, and Q3 with both a vertical structure and a horizontal structure and a cooling capacity covering 300kW (85RT) to 4925kW (1400RT).



QUESTCHILLER™ family chillers are the combinations of the most advanced technologies in the world, which allows a new height of the chiller's efficiency. The products are the new generations of the chillers with a distinguished operational efficiency and reliability without obvious reduction in performance. That could be widely used in the newly-built and reconstructed public architectures, such as the guesthouses, the hotels, the schools, the shopping malls and the office buildings etc, or also be used in the industrial cooling and industrial environment control, such as the factory buildings and industrial laboratories.

QUESTCHILLER™ family chillers have the following characteristics:

- Oil-Free VFD centrifugal compressor
- Super high IPLV and COP
- R134a refrigerants, no harm to the ozone
- Oil-Free, an absolute solution to the oil-return problem and a great improvement to the reduction of the cooling capacity
- Low noise and small vibration
- PAC programmable auto-controller
- Small size and light weight
- Tiny start-up current with no strike to the electronic grids
- Intelligent alarming and failures handling



I-CHILLER™

BSE I-CHILLER™ Family Oil-Free VFD Centrifugal Modular Unit Chiller/Heat are your smart choices now and in the future. The chiller is in the design of 250kw(71RT)-4200kw(1200RT) and uniform measure of 0.89m(W)x1.2m(L)x1.8m(H).

I-CHILLER™ Modular Units is oil-free, frequency conversion centrifugal chillers/heat pumps in modular units that are applied with all digital oil-free centrifugal compressors. Combined with the high-efficient plate exchanger and the powerful PAC controller, it allows a 40% improvement of the annual operational efficiency than that of the traditional chillers. The single unit only occupies a footprint of 1m² with a tiny height of 1.8m and a weight of 1 ton. They are currently the chillers that are the smallest in volume, the lightest in weight, and the least needs in refrigerant charge in the world when outputting the same cold energy.



BSE I-CHILLER™ Family Oil-Free Variable Centrifugal Modular Unit Chillers/Heat Pumps have the following characteristics:

- i) Small size and light weight
- ii) Low noise and small vibration
- iii) Oil-Free VFD centrifugal compressor
- iv) Intelligent alarming and failures handing
- v) Tiny start-up current with no strike to the electronic grids
- vi) R134a refrigerants, no harm to the ozone
- vii) Super high IPLV and COP
- viii) Oil-Free, an absolute solution to the oil-return problem and a great improvement to the reduction of the cooling capacity





CLOUDCHILLER™

BSE CLOUD-CHILLER™ family chillers are the oil-free, frequency conversion air cooled chillers, which could be used independently when no cooling water is available, including two types for conventional and free cooling, optional hydraulic module and a cooling capacity covering 200kW (57RT) to 1800kW (512RT).

The integrated part load value(IPLV) of BSE air cooled chillers is 50% more than the traditional ones. This is a great breakthrough for air cooled chillers as it could sharply decrease the operational cost and reduce the carbon emissions. The application of the chillers vibration free, and compared with a screw chiller which provides the same cooling energy, their operational noise is only 60dB.

CLOUDCHILLER™ family chillers have the following characteristics:

- i) Oil-Free VFD centrifugal compressor
- ii) Super high IPLV and COP
- iii) R134a refrigerants, no harm to the ozone
- iv) Oil-Free, an absolute solution to the oil-return problem and a great improvement to the

reduction of the cooling capacity

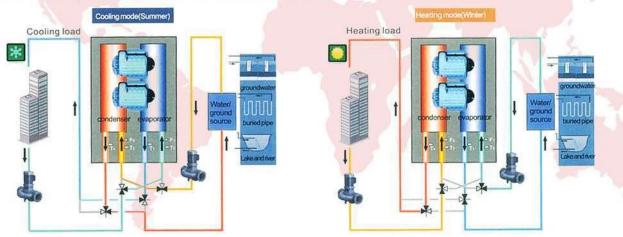
- v) Low noise and small vibration
- vi) PAC programmable auto-controller
- vii) Small size and light weight
- viii) Tiny start-up current with no strike to the electronic grids
- ix) Intelligent alarming and failureshandling





FIRECHILLER™

Heat pump is a new approach for heating source. With more attentions are paid from all sectors of community to the measures taken in energy-saving, emission-reduction and building energy conservation. The heat pump has been listed as one of the main measures for building energy conservation and the development of renewable energies, which will be greatly promoted for the heating in northern part of China. The heat pump works by power drive, which is to take heat from low-temperature heat sources, such as the surface water, the sea water, the groundwater, the municipal wastewater and also the underground soils, etc., the heating energy of which is taken by the heat pump in the winter and is released back in the summer. Therefore, these sources are able to serve as the cooling sources in the summer for the air-conditioning and then to offer the heat source for the building heating in the winter. The chillers are able to work without the cooling tower system when it is refrigerating to avoid the noise pollution cause by it and the waste of the water resources; and are able to work without the boil water system when it is heating to avoid the discharge of the pollution and achieving a cleaner environment.



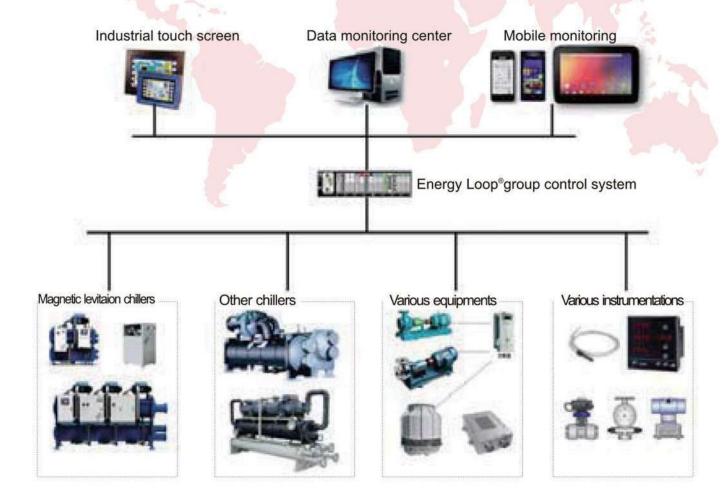
According to the statistics, among the buildings with the central air conditioning accounts 55% of the total energy consumption. The energy consumption of the central air-conditioning system is mainly generated in the following three parts: the cooling and heating sources of air conditioning system, the air conditioning unit and terminal equipment, and the transport system of water or air. The cooling and heating source of air conditioning system is the main part of these three parts, which contributes around half energy consumption. In order to reduce the high energy consumption BSE developed the new energy-saving Firechiller™ series oil-free, centrifugal heat pump unit. This unit is applied with the new generation of oil-free, frequency invert centrifugal compressor, direct drive, digital magnetic levitation bearing, permanent magnet motor, etc. When the compressor speed is reduced, the power consumption is reduced significantly; the use of magnetic levitation technology was achieved oil-free operation, which help the maximum degree of reduction of the efficiency of the oil and the attenuation, so that the system is more efficient, while increasing the service life of the unit. The IPLV of Firechiller™ series oil-free centrifugal heat pump unit is more than 9, and the power consumption is reduced by more than 35%. The unit can provide high temperature chilled water in the summer, and it can realize the independant application of temperature and humidity of geothermal heat pump. In addition, the oil-centrifugal heat pump unit with the use of renewable energy sources, such as water source, geothermal source, can make the whole air conditioning system energy efficiency has been further improved, and become a model of energy conservation.



ENERGY LOOP® GROUP CONTROL SYSTEM

Energy Loop® Group Control System is self-developed by BSE on the base of the PAC control units with the strong processing powers. Combined with BSE's technologies and experience accumulated for many years and targeted at the temperature, the flow and the pressure of the chillers, the cooling pumps, the condensor pumps and the cooling towers, Energy Loop® Group Control System provides the automatic control, the energy-saving strategies and the overall solutions to fulfill a flexible central group control system that could communicate with chillers.

The chiller plant configured with Energy Loop® Group Control System is able to promote 80% efficiency that of the original one. This group control system is also able to offer the standard communicative accesses to support Modbus communication protocol. All Testing data are able to be transferred remotely through WIFI/3G network, and then are applied in the remote control. The users are allowed to check the instant data of the group control system on their office computers or mobile phones easily.



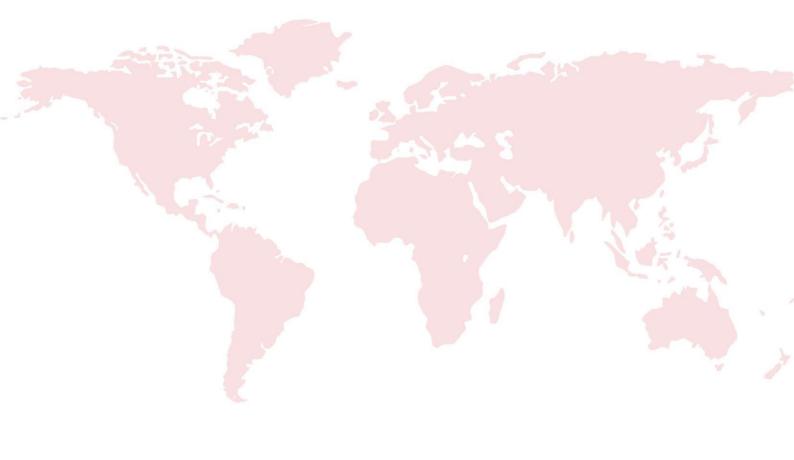
No.	Clients	Projects / Work Description
1.	Hospital Besar Kuala Lumpur	Supply and Install Air Conditioning Units at Jabatan Rehabilitasi Replacement of Air Duct at Unit Microbiology Store Room 4.Maintain and Repair of AHU, FCU and Window Units at Ward
2.	Hospital Besar Kuala Lumpur	Wiring and Installation of Air Conditioner at Pusat Harian Stroke
3.	Hospital Besar Kuala Lumpur	Supply of P3 Pre-Insulated Aluminium Air Duct for Drug Store Replacement of the Existing Damage G1 Duct
4.	Hospital Besar Kuala Lumpur	Repair the AHU Room at 1 st Floor Radiotherapy
5.	Hospital Besar Kuala Lumpur	Repair Ducting Water Leakage at AHU Room Neurology
6.	Hospital Universiti Sains Malaysia (HUSM)	Repair of Air Handling Unit at Operation Theatres
7.	Hospital Besar Kuala Lumpur	Repair Air Conditioner at Operation Theatre 1 & 3
8.	Hospital Besar Kuala Lumpur	Minor Work at AHU & Duct Maternity Building
9.	Radicare Sabak Bernam	Installation of York Reciprocating Air Cooled Chiller
10.	Radicare Hospital Besar Kuala Lumpur	Repair of Air Conditioning System at Mobile OT (Mitsubishi Inverter)

No.	Clients	Projects / Work Description
11.	Radicare Sabak Bernam	Supply and Install Blower Fan Motor
12.	Faber Mediserve	Install / Supply Water Separator, Thermodynamic Auto Condensate Drain and Filters
13.	Radicare, Kuala Lumpur	Repair Cooling Tower No. 1 and Replace Fan Blade, Hub and Service Gearbox
14.	Radicare Sabak Bernam	Repair Dunham-Bush Chiller
15.	Radicare Sabak Bernam	Supply Workmanship, Transport, Tool and Material to Attend Breakdown Call for Chiller 2 System no.2 c/w Leak Check and Top Up R22 and Test Run
16.	Radicare Hospital Besar Kuala Lumpur	Supply and Install 2 Nos Contactor, Overload Relay. Replace 2 Sets of Compressor Cable & Tranducers
17.	Hospital Universiti Sains Malaysia (HUSM)	Upgrade Air Conditioning System at Neuroscience Laboratory, Bangunan Perubatan Nuklear, USM Kubang Kerian, Kelantan
18.	Radicare Hospital Besar Kuala Lumpur	Supply and Install 2 Nos Contactor, Overload Relay. Replace 2 Sets of Compressor Cable & Tranducers (Mitsubishi VRV)
19.	Radicare Hospital Besar Kuala Lumpur	Repair Diod, Capacitor, and PCB Card. Replace 10hp Inverter Compressor (Mitsubishi VRV)

No.	Clients	Projects / Work Description
20.	Hospital Universiti Sains Malaysia (HUSM)	 * Repair 1 unit of Kelvinator Scientific Plasma Freezer (s/ n 4461541) c/w replacement of thermostat, expansion valve, filter gas R12 refilling and testing / commissioning * Repair 1 unit Special Freezer (-40c to 80c). Replace 1hp compressor, filter, relay, capacitor, R508 gas,repair PCB board and gas system, vacuum and flushing * Repair 1 unit Forma Scientific Plasma Freezer, change thermostat, expenses valve, filter and refill gas R12 * Repair 1 unit Harris 2 doors chiller, refrigerator, change defrost timer, thermostat and modify system * Repair 1 unit Forma Scientific blood bank refrigeration, change electronic thermostat, control system and wiring
21.	Radicare, IMR	Repair Chiller Refrigerator
22.	Radicare Sabak Bernam	Replace Compressor and 1 Unit Chiller Refrigerator, Refill Gas Servicing, Change Filter and Thermometer
23.	Hospital Universiti Sains Malaysia (HUSM)	Service and Repair Deep Freeze NUAIRE NU6502E Neurology Building
24.	Radicare, IMR	To Repair 3 Units of Deep Freezer - 82°C Complete with Supply and Install of Freezer High Side Compressor, Filter and Refill Gas
25.	Hospital Universiti Sains Malaysia (HUSM)	Supply and Install of HVAC System for GMP Cleanroom
26.	Kementerian Kesihatan Malaysia (KKM)	Supply and Install of 2 Units Chiller and Associated System at Hospital Sibu
27.	Pusat Pembedahan Katarak	Design, Supply, Deliver, Install, Testing and Commissioning Air Conditioning and Mechanical Ventilation System

No.	Clients	Projects / Work Description
28.	Jabatan Patologi Hospital Miri	Supply and Install of Chiller Cooling Tower, AHU and VRV System
29.	Kementerian Kesihatan Malaysia (KKM)	Supply and Install of Complete Central Air Conditioning System Consist of Replacement of Pump, Chillers, Cooling Towers and AHU's at Hospital Umum Sarawak, Kuching
30.	PROTON	Maintenance of HVAC System for the Period of 3+3 Years at PROTON Tg Malim and PROTON Shah Alam
31.	Universiti Utara Malaysia (UUM)	Maintenance of HVAC System for the Period of 3 Years at Universiti Utara Malaysia, Sintok
32.	Faber Mediserve	Maintenance of HVAC System and Mechanical/Electrical System for Hospital in Sabah Region
33.	Kumpulan Wang Simpanan Guru (KWSG)	Kerja-Kerja Pemasangan Sistem Penyaman Udara dan Pengalih Udara Mekanikal (Wisma KWSG)
34.	Danish Energy Efficiency Partners (DEEP)	Magnetic Bearing Oil Free Chiller Replacement at Putra Specialist Hospital Malacca
35	KPJ Healthcare Berhad	Proposed 7 Storey KPJ Miri Specialist Hospital on Lot 8838, Block 11, Kuala Baram Land District, Off Tudan Kuala Baram Link Road, Bandar Baru Permyjaya, Miri Sarawak
36	Hati Muda Sdn Bhd	Pembinaan Hospital Swasta (95 katil) yang mengandungi 1 blok Hospital 8 tingkat diatas lot PT 1331 & lot PT 1328, Sungai Bakau Mukim Rawang Selangor Darul Ehsan untuk Selgate Rawang Hospital Sdn Bhd - Air Conditioning & Mechanical Ventilation (ACMV) Package

No.	Clients	Projects / Work Description
37	Ahmad Zaki Sdn Bhd	Project Mass Rapid Transit Laluan 2: Sg. Buloh-Serdang-Putrajaya (SSP) Package S206: Construction and Completion of Elavated Stations and Other Associated Works at Serdang Raya (South), Seri Kembangan and UPM.





12.4 BUILDING MANAGEMENT & AUTOMATION SYSTEM



12.4 BUILDING MANAGEMENT/ AUTOMATION SYSTEM

An innovation leader in energy management solutions, JTR provides quality building management system (BMS) and services that optimize energy efficiency and comfort in buildings, all the while reducing operating costs. We deliver innovative solutions for greener buildings through our passion for innovation, quality, customer satisfaction, and sustainability.

Building Management System (BMS) provides a complete, integrated solution for HVAC, Lighting, Access Control, CCTV, and Energy Management, achieving over 30% energy and operational cost savings.



Building Management Systems cater to both small and large installations, ranging from 50 to 100,000 analog and digital points Building Management Systems provide integrated building management technology, and remote management of 1 to 1000 buildings

Your investment is well protected, as the system is fully backward compatible, modular and extensible



12.4 BUILDING MANAGEMENT/ AUTOMATION SYSTEM



A Truly Sustainable Green Building Solution

- 1. Energy harvesting eliminates the need for batteries
- 2. Reduces cable and wiring materials to preserve building envelope and architectural integrity
- 3. Provides enhanced comfort and functionality througheasy relocation of sensors and switches
- 4. Contributes to LEED points

MULTIPLE APPLICATIONS

- Wireless, battery-less sensors and switches require no drilling or external wiring, simplifying installation.
- Readily mount on any surface including concrete, brick, glass, or stone.
- Increase occupant comfort and reduce energy consumption by easily placing wireless sensors in optimal locations.
- Control spaces where sensor placement would otherwise be difficult, including atriums and greenhouses.
- Optimizes conditions in large open spaces with localized needs, such as office cubicles.

COST & TIME REDUCTION

- Easy, quick, and low-cost relocation of devices when room configuration or floor plans change.
- Removes expenses for wiring plans, wire and conduit installation, electrician fees, and other associated labor costs, at installation or retrofit of space.
- Easily correct design errors in initial sensor placement.
- Significantly improves a system's quality and reliability since devices are virtually service-free.
- Up to 15% cost savings in new construction projects and 70% in retrofit projects.



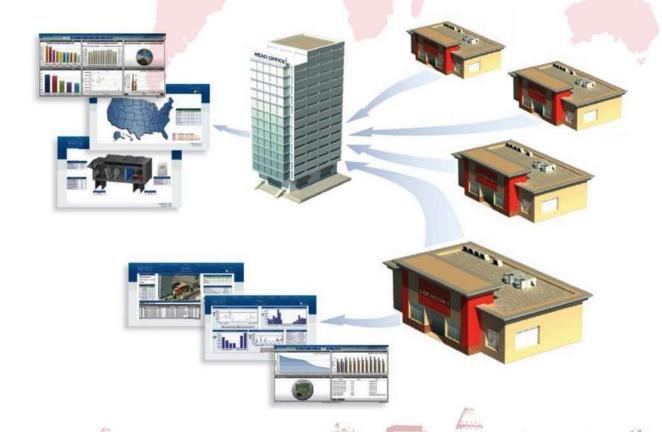
12.4 BUILDING MANAGEMENT/ AUTOMATION SYSTEM

Reduce energy cost and manage your BAS

Scheduling
Alarming
Identify consumption

Reduce operational cost

Effective knowledge
Predict failures
Manage servicing
Identify costs







WHAT WE ARE OFFER?

- Consultation, design & build the Critical Environment Facility.
- Supply and Install Equipment for Laboratory, Operation Theatre & Cleanroom.
- Testing and Balancing the System.
- Certification of NEBB / ICS.



OVERVIEW

A 'clean room' or a 'clean space' is defined as a room, a suite of rooms or an area within a controlled environment. The concentration of airborne particles in these areas is strictly controlled. Other factors may also be controlled within the limits of this space.

Clean spaces are used in manufacturing, packaging, laboratories and research. They are most often seen in the pharmaceutical, biotechnology, semiconductor, microelectronics and aerospace industries. Hospital theatres have a similar 'clean space', however here there is a need to control particular types of contamination, rather than the quantities of particles present.

We provides comprehensive Design & Built for Operation Theatre, Biosafety Lab, GMP Lab and Cleanroom which includes all the following:

- 1. Bio Cleanroom including Operation Theatre and Biohazard Rooms
- 2. Laboratories
- 3. Negative and Positive Pressure Isolation Rooms
- 4. Pharmaceutical Cleanrooms

THE **DESIGN & BUILD** FLOW CHARTS

DATA COLLECTION

DESIGN

PROCUREMENT

CONSTRUCTION

MAINTENANCE SERVICES

CERTIFICATION

PERFORMANCE TEST

SYSTEM BALANCING



OUR CRITICAL ENVIRONMENT TESTING EQUIPMENTS

- ELECTRONIC BALANCING TOOLS WITH AIR FLOW PRO HOOD
- VELOMETER
- KISTOCK DATA LOGGER
- MINNEAPOLIS DOOR BLOWER
- INFRARED THERMOMETER
- AIR SAMPLING SYSTEM
- MINI INCUBATOR
- PARTICLE COUNTER
- TACHOMETER





MEMBERSHIP OF

- ASHRAE
- ASHRAE TC 9.11 Clean Spaces

CRITICAL ENVIRONMENT BUILT WILL BE MADE

TO COMPLY TO THE FOLLOWING STANDARDS

- FEDERAL STANDARD 209E

 Limits of microbiological containment in clean areas

- PIC/S GMP for Medical Product

- BS EN ISO 14644-1

- EC GMP ANNEX 1

- BS 5295

- ASHRAE TC 9.6 Healthcare
- BIOMEDICAL ENGINEERING
- ASSOCIATION MALAYSIA (BEAM)
- Irish Cleanroom Society (ICS)
- International Society for Pharmaceutical Engineering (ISPE)
- Institute of Environmental Sciences and Technology (IEST)













CRITICAL ENVIRONMENT

COMMON REQUIREMENTS

Particle & Room Cleanliness Room Pressurization Airflow Velocity & Volume Temperature Humidity

CONTROL PARAMETERS

SPECIAL & UNIQUE REQUIREMENT

Microbial Contamination Electrostatic Discharge (ESD) Gaseous Contamination Room Air Recovery Particle Fallout Lighting Level and Uniformity

Sound Level

Conductivity

Electromagnetic Interference (EMI)

Air Change Rate (ACH)



- Tek-Air, Inc (USA)
- Engsysco, Inc







FUME HOOD VENTILATION CONTROL SYSTEM



Tek-Air offers the widest variety of fume hood ventilation control for today's demanding laboratory requirements. Applications using face velocity control, measuring airflow through fume hood opening or sash position control are available. Sash position control is standard for vertical, horizontal or combination sash fume hoods. Tek-Air's FVC Fume Hood Ventilation Control Systems all use our patented VorTekTM airflow sensor to guarantee the best in operator safety.

AIRFLOW MEASUREMENT DEVICES



Tek-Air continues the theme of "Good, Better, Best" in our airflow measure options. Static pressure measuring probes, differential traverse probes, and our patented line of digital VortekTM shedding probes are available in various materials of construction; as fan inlet probes, duct insertion probes or factory installed duct measurement flow stations. Measuring actual airflow is the best means of assuring personnel safety.

SPACE PRESSURE MONITORING SYSTEM



Assures critical space pressure measurement for cleanrooms, isolation rooms, laboratories and hospitals.

- Capable of measuring ultra-low pressures as low as 0.0001" wc.
- Configurable to meet a wide variety of application

requirements.

- Provides digital communication with Building Automation Systems.
- N2 communications capable.

OUTDOOR AIR VOLUME MEASUREMENT SYSTEM



Complete System for Measuring Outdoor Air Intake Volume and Temperature Over a Wide Range of conditions

- Designed to mount in confined space be tween O.A louver and O.A modulating damper
- Simple installation in a

wide variety of intake configurations.

- Retrofit or new installations.
- Operates over -40 to +120 °F.
- Simplified commissioning with built-in Set-up Wizards.

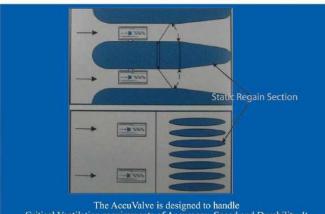






- True Flow Feedback
- High Accuracy and Turndown
- Linear Response
- Quiet
- No Scheduled Maintenance
- Electric Actuation
- Fast Speed of Response
- No Straight Run Requirements
- Low Pressure Drop

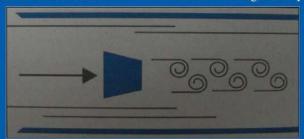
CRITICAL VENTILATION CONTROL VALVES



Critical Ventilation requirements of Accurancy, Speed and Durability. It modulates the air flow in a linear fashion, and the volume of the air flow with VorTek air flow sensors. The combined use of the VorTek sensors, along with a Valve designed for low pressure drop and linear control, make these valves the best available in the market for your critical ventilation requirement in the laboratory, clean room, or animal care facility.

VORTEX METER & VORTEX SHEDDING

A Unique, Patented Approach For All Critical Environment That Yields The Most Reliable Ventilation Airflow Management System



The principle of physics known as vortex sheeding is the basis for Tek Air's patented digital approach to airflow measurement. When an obstacle, such as the trapezoidal shedder in a VorTex probe, is placed in the path of the airflow, spiraling eddy currents are created. These vortices, in accordance with the laws of physics, are shed in alternating fashion from one side of the shedder to the other. Tek Air measures the rates at which these vortices are produced, converting alternating pulses into digital signals for the precise measurement of airflow volume. of airflow volume.

Performance Benefits of Vortex Airflow Measurement

- * No compensation is required for temperature, density and humidity changes * Linear primary signal

 - * Lower cost of ownership
 * Primary signal is directly proportional to velocity

No.	Clients	Projects / Work Description
1.	Hospital Universiti Sains Malaysia (Kelantan)	Supply & Install Air Conditioning System for Class 100 & 1000 Neuro Science Lab, Medical Nuclear Department, Kampus USM, Kubang Kerian, Kelantan
2.	Hospital Besar Kuala Lumpur	Supply & Install of HEPA filter at Cytotoxic Laboratory to comply to Class 10k room specification design of New CDR & TPN Laboratory in Hospital Kuala Lumpur
3.	Hospital Besar Kuala Lumpur	Supply & Install of Heterogeneous PVC vynil Flooring Installation at Radiotherapy OT
4.	Hospital Besar Kuala Lumpur	Supply & Install HEPA filter for AHU at OT room (Verification Test) at Hospital Kuala Lumpur.
5.	Hospital Universiti Sains Malaysia (Kelantan)	Supply and Install Air Purifier filter Portable Type at HUSM (Kelantan)
6.	Hospital Unive <mark>rsiti</mark> Sains Malays <mark>ia</mark> (Kelantan)	Supply and Install Air Purifier filter at South Ward 2 at HUSM, Kelantan.
7.	Hospital Besar Kuala Lumpur	Supply & Install of HEPA Filter at the Cytotoxic Laboratory to comply with Class 10k room specification at Hospital Kuala Lumpur.
8.	Hospital Besar Kuala Lumpur	Repair Air Conditioner at OT 1 & OT 3 at Hospital Kuala Lumpur.
9.	Hospital Universiti Sains Malaysia (Kelantan)	Renovating Operation Theatre, "Pusat Pengajian Sains Pergigian, Kampus Kesihatan, University Sains Malaysia, Kubang Kerian, Kelantan"

No.	Clients	Project / Work Description
10.	Hospital	Renovation work of the Operating Room, PPSG, Universiti Sains
	Universiti Sains	Malaysia, Kubang Kerian, Kelantan (Including Medical Gas System).
	Malaysia	
	(Kelantan)	
	432	
11.	Universiti Sains	Design, Build, Completing, Maintainning, Testing and Commissioning
	Malaysia (Pulau	Biosafety Laboratory Level 2 (BSL) at Level 1, Block A, Science @ USM
10	Pinang)	on the 2164 lot and Territory 13, East District, for Pharmaceutical
	70-2	Research Lab, Pharmaceutical Institute and Nutraceutical Malaysia,
	y	Ministry of Science Technology and Innovation.
N N	1	"Universiti Sains Malaysia, Pulau Pinang".
12.	Universiti	Dropoged Depayation and Ungrading of Plack I12 (Carond Level) and
12.	Univerisiti Sains Malaysia	Proposed Renovation and Upgrading of Block J12 (Second Level) and Block 13 (Ground Level) to be used as Research and Learning
	(Pulau Pinang)	Laboratories for the School of Pharmaceutical Sciences, USM, Penang.
	(I diad I ilialig)	Laboratories for the School of Final maceutical Sciences, OSM, Fenang.
13.	Pusat Bedah	Proposal to Design, Build, Complete, Accredit and Maintain a Cataract
101	Katarak	Surgery Center (MAIWP).
	Selayang,	
	Selangor	
	1 7	
14.	Institute of	Work Proposal, Design, Upgrade, Build, Accredit and Maintain a Stem
	Medical	Cell Laboratory at the Institute of Medical Research (IMR), Kuala
	Research (IMR),	Lumpur.
	Kuala Lumpur	
15.	KPJ Miri	Air Conditioning and Ventilation Services at the KPJ Miri Specialist
	Specialist	Hospital, Sarawak.
	Hospital,	
	Sarawak	
16	Poliklinik Ayer	Air Conditioning System Repair, Fungal Eradication & Prevention Work
10	Keroh, Melaka	at Poliklinik Komuniti Ayer Keroh, Melaka.
	ixeron, meiaka	at I officially Rolling Ayer Keron, Melaka.
17.	Putra Specialist	Proposed Work, Replacement of Centralized Air Conditioning Chiller
	Hospital,	System at Putra Specialist Hospital, Melaka.
	Melaka	,
L	l	All the second s

No.	Clients	Project / Work Description
18.	Wisma Co-	Proposed Additions and Alterations to the Existing 14-Storey Office
	Opbank	Building at Lot 3203, Section 41, Jalan Raja Muda Abdul Aziz, Kampung
	Pertama, Kuala	Bharu, Kuala Lumpur, for Co-Operative Co-Opbank Pertama Malaysia
	Lumpur	Berhad.



12.6 BUILDING, IAQ, HUMIDITY & MOLD CONTROL



12.6 BUILDING, IAQ, HUMIDITY & MOLD CONTROL

WHAT WE ARE OFFER?

- Full Site Investigation with Testing & Report.
- Proposal to Prevent or Solve the Mold & Humidity Problems.
- Modification & Repair Works.
- Decontamination.

WHAT IS INDOOR AIR QUALITY (IAQ)?

Indoor Air Quality (IAQ) deals with the content of interior air that could affect health and comfort of building occupants. The IAQ may be compromised by microbial contaminants (mold, bacteria), chemicals (such as carbon monoxide, radon), allergens, or any mass or energy stressor that can induce health effects. Recent findings have demonstrated that indoor air is often more polluted than outdoor air (albeit with different pollutants) although this has not changed the common understanding of air pollution. In fact, indoor air is often a greater health hazard than the corresponding outdoor setting. Using ventilation to dilute contaminants, filtration, and source control are the primary methods for improving indoor air quality in most buildings.

OUR EXPERTISE ON

PREVENT AND SOLVE HIGH HUMIDITY & MOLD CONTROL PROBLEMS









COLLABRATION WITH

SPECIALIST FROM THE ASHRAE RESEARCH COMMITTEE, MASON - GRANT CONSULTING (USA)



WE ARE EQUIPPED WITH

- 1. Electronic Balancing Tool with Air Flow Pro Hood
- 2. Velometer for IAQ Monitoring
- 3. Temperature & Humidity Data Logger
- 4. Door Blower for Room Leakage Test
- 5. Infrared Thermometer for Surface Temperature
- 6. Air Sampling System
- 7. Particle Counter
- 8. Thermal Imager
- 9. Negative Air Machine
- 10. Air Scrubber
- 11. Heater Blower
- 12. Exhaust Extractor
- 13. Dust Collector
- 14. IAQ Meter
- 15. Formaldehyde Monitoring Kit
- 16. Particulate Monitoring Kit



OUR SERVICES ARE COMPLYING WITH

OUR CLIENTS











12.6 BUILDING, IAQ, HUMIDITY & MOLD CONTROL

ASSESMENT OF INDOOR AIR QUALITY BY DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH (DOSH)

PARAMETER

- 1. Air Temperature
- 2. Relative Humidity
- 3. Air Movement

CHEMICAL CONTAMINANTS

- 4. Carbon Monoxide
- 5. Formaldehyde
- 6. Ozone
- 7. Respirable Particulates
- 8. Total Volatile Organic Compounds (TVOC)

BIOLOGICAL CONTAMINANTS

- 9. Total Bacterial Counts
- 10. Total Fungal Counts

VENTILATION PERFORMANCE INDICATOR

11. Carbon Dioxide

No.	Clients	Projects / Work Description
1.	Kementerian Kesihatan Malaysia (KKM)	Air Conditioning Work, Extermination Work and Preventing Fungal Growing at Poliklinik Ayer Keroh, Melaka
2.	JKR, Pulau Pinang	Perkhidmatan Menanggal, Membersih Dan Merawat Kulat di Tingkat 5, Bangunan Wisma Persekutuan, SPU, Pulau Pinang.
3.	JKR, Putrajaya	Kerja-Kerja Mengenalpasti masalah Kulapuk di Tingkat 6, Kementerian Perusahaan Perladangan dan Komoditi. Lot 2G4, Putrajaya
4.	JKR, Perak	Kerja Mengalpasti Masalah Kulat di Dewan Undangan Negeri Perak, Ipoh.
5.	Faber Mediserve	Kerja Mengenalpati dan Mengkaji Masalah Kulat di Bangunan Tambahan Hospital Queen Elizabeth (QEH), Kota Kinabalu, Sabah.
6.	JKR, Putrajaya	Kerja-Kerja Kajian Masalah Kulapuk di Tingkat 6, Kementerian Perusahaan Perladangan dan Komoditi. Lot 2G4, Putrajaya
7.	JKR, Putrajaya	Kerja-Kerja Pengujian dan Pengambilan / Analisa Sampel Punca Kulat di Aras Lima dan Enam, Bangunan Lot 2G8, Presint 2, Putrajaya.
8.	JKR, Putrajaya	Kerja-Kerja Pembasmian Kulat dan Spora dengan Kaedah "Decontainmination" di Aras Lima dan Enam Kementerian Kewangan, Bangunan Lot 2G8, Putrajaya
9.	Wisma Lembaga Kemajuan Ikan Malaysia (LKIM)	Perkhidmatan Membasmi Kulat di Bangunan Ibu Pejabat (Wisma LKIM) Pulau Meranti, Puchong, Selangor



12.7MEDICAL GAS PIPELINE SYSTEM



12.7 MEDICAL GAS PIPELINE SYSTEM

G.SAM



RAS HOSPITAL

























MEDICAL GAS PIPELINE SYSTEM



- • • GREECE ALBANIA ALGERIA ANGOLA BOSNIA AND HERZEGOVINA BRASIL BULGARIA CAMBODIA CYPRUS CZECH REPUBLIC EGYPT FINLAND FYROM GEORGIA GHANA · HUNGARY • INDIA • INDONESIA • IRAN • IRAQ • ISRAEL • ITALY • IVORY COAST • JORDAN • KOSOVO • KUWAIT • LEBANON • LIBYA • LITHUANIA • MALAYSIA • MALTA • MAURITIUS • MOLDOVA · MONTENEGRO · MOROCCO · MYANMAR · NAMIBIA · NEPAL · NETHERLANDS · NIGERIA · OMAN · PAKISTAN · PALESTINE · PHILIPPINES · POLAND · PORTUGAL · QATAR · ROMANIA · RUSSIA
- · SAUDI ARABIA · SENEGAL · SERBIA · SEYCHELLES · SINGAPORE · SPAIN · SUDAN · SYRIA · TAIWAN · TANZANIA · TURKEY · U.A.E. · U.K. · UKRAINE · VIETNAM

ABOUT OUR COMPANY

G. SAMARAS S.A. is an international manufacturing company located in Thessaloniki, Greece. Having been active in the medical gas field since 1968, the company has a track record of continuous evolution and development. G. SAMARAS S.A. has become the leader in the Greek medical characterized by completeness, quality and a high degree of customization gas supply systems market, in which it holds more than 85% of the share. From the very beginning, G. SAMARAS S.A. recognized the importance of international growth. Thus, the company has managed to achieve a broad exports activity and network and, consequently, an extensive worldwide reference list. Having professionalism, reliability, solvency and flexibility as its key principles and guidelines, the company has gained not only valuable experience, but also strong domestic and international recognition and

reputation. Its strong know - how of medical gas supply systems and the durability of its products, has led the company to a strong market position. G. SAMARAS S.A. holds a very wide service and product portfolio, which is on everything related to medical gas supply systems. The company's 2 facilities occupy a building of 4000 m in the Industrial Area of Thermi, Thessaloniki (Northern Greece). The company's skilled personnel consists of electrical and mechanical engineers, graduate and post-graduate economists, as well as licensed welders and electricians, who constitutes the driving force of the company.

WHYG. SAMARAS S.A.?

- · More than 50 years of experience and expertise
- Extensive product portfolio
- High quality of services and products
- · Know how on everything related to medical gas supply systems
- · Flexibility to every medical gas solution
- Well trained and skilled personnel
- Competitive pricing

- Short delivery times
- · Raw materials and spare parts availability
- Ease of use
- · Remote control and monitoring
- · Highly responsive after sales service and customer - focused support
- Conformity with all standards
- CE marked products

12.7 MEDICAL GAS PIPELINE SYSTEM



MEDICAL GAS NETWORK

- Copper pipes
- Copper parts (elbows, tees, couplings)
- Brass parts (nipples, elbows, caps, unions, adapters)
- Clamps
- Railways
- Tapes
- Welding materials
- Shut off/electromagnetic/non-return/safety valves
- Antistatic tubes
- Special tools



CYLINDER STATIONS

Their purpose is to reduce the pressure of medical gases originating either from cylinders or vessels. Their operation could be pneumatic, electrical or manual, the available capacities of reducers are 50/75/160/170/180m /h (440m /h only for vessels) whereas the outlet pressure could be between 4 and 8bar. Optionally they may include integrated medical gas alarm panel

- Manifolds-cylinder ramps
- Pigtails
- Cylinder holders
- Cylinders
- High pressure evacuation valves
- Vessels.
- · High pressure flexible tubes



PATHOLOGY LABORATORY GAS SYSTEMS

According to Health Technical Memorandum (HTM 08-06), all laboratory gas systems should be discriminated from medical systems. For toxicity, flammability, corrosiveness and safety factors, those systems are being manufactured according to specific standards and from special materials.



MEDICAL VACUUM SYSTEMS

Our company manufactures medical vacuum systems according to each project's specifications.

- ·Vacuum pumps (oil-lubricated/oil-free) of nominal capacity 6-635m /h
- · Vessels (vertical/horizontal) of capacity 270-5.000lt
- Antibacterial filters 48-900m /h
- · Electrical control panels



MEDICAL AIR COMPRESSOR SYSTEMS

Our company manufactures medical air compressor systems according to each project's specifications

Compressors (screw/scroll/piston), oil-lubricated or oil-free of nominal capacity 4-2500m /h

- · Vessels (vertical/horizontal) of capacity 50-5.000lt
- · Filters/sterile filters
- Condensate separators/aftercoolers
- Dryers (cooling/adsorption/membrane)
- · Condensate drains
- Water/oil separators
- · Electrical control panels





PRODUCT PORTFOLIO

OXYGEN-NITROGEN GENERATORS

Pressure Swing Adsorption (PSA) is a low power consuming solution, efficient and reliable for onsite production of high purity medical oxygen. It uses the basic principle of passing air over adsorbent material which bound with nitrogen to leave rich stream of oxygen. Our company provides various solutions according to the size and needs of each hospital.



ANAESTHETIC GAS SCAVENGING SYSTEMS

The suction and disposal to the environment of the redundant gases from the anesthetic equipment inside the operating theatres but also from the emitted anesthetic gases from patients in the stage of recovery, is being applied by using an automatic anesthetic gas scavenging disposal system (AGSS), through the AGSS outlets which are installed in various departments. Available solutions:

- · Central systems of capacity 40-330m /h
- · Autonomous scavenging outlets
- Venturi apparatus



MEDICAL GAS TERMINAL UNITS / OUTLETS

Outlets are installed at the final delivery points in a medical gas pipeline system. They are used by personnel to supply the various gases using special probes. They are available in accordance with the following norms:

- ENV 737-6
- AFNOR NF S 90-116
- DIN 13260-2
- BS 5682
- SS 875 24 30
- ISO 9170-2
- SANS 1409:2008
- UNI
- NIST EN 739



SECOND STAGE CONTROL AND REDUCER PANELS / AREA VALVE SERVICE UNITS

Installed in wards in order to ensure normal pressure of the medical gases and provide the ability to shut off, check and maintain the local medical gas network. Provided for 1-6 gases with or without medical gas alarm panel.



MEDICAL GAS ALARM SYSTEMS

The monitoring and alarm systems are used to provide all the important information to the control room. They indicate the pressure level of each gas (Low, Normal, High) whereas they can supply with information about a single medical station. Moreover, they are able to send useful data to a remote user.





PRODUCT PORTFOLIO

BED HEAD UNITS

Their aim is to provide all essential services (medical gases, electrical supply, lighting, nurse call, data, etc.) to the patient / nurse / doctor.

G. Samaras SA has a broad range of models in horizontal / vertical / round / ceiling suspended configuration able to cover all needs of each single department.



CEILING PENDANT ARMS

The ceiling pendants are being placed on the ceiling of intensive care units and operating theaters for grouping and providing all necessary electrical, data and medical gases services to the medical staff. They are available in various configurations and according to each project's needs.

- Without arm
- With one arm
- With two arms
- With electrical movement (one/two arms)
- With electrical-telescopical movement



OPT CONTROL PANELS

OPT Control Panel, is the central device gathering all necessary control signals, alarms and information required in an Operating Theater.



NURSE CALL SYSTEMS

The nurse call system is installed in a nursing unit. It helps patients/relatives/nurses/doctors to call a nurse in case of an emergency or any other need of a patient. Typically they are consisted of:

- Central station
- Handsets
- Room stations
- WC pull cords
- Corridor lights



SECONDARY MEDICAL EQUIPMENT

- Hospital clocks
- Flowmeters
- Vacuum regulators
- Suction devices
- Carts
- IV stands
- Anaesthesia machines
- Pneumatic tube systems
- Emergency lighting-Fire detection-Gas detection systems
- OPT tables
- Hospital beds/cabinets
- OPT Examination lights

No.	Clients	Projects / Work Description
1.	Hospital Tengku Ampuan Rahimah,Klang	Air-Conditioning Work, Medical Gas System , Fire Fighting, Water pipe, Insulations at Jabatan Pesakit Luat HTAR, Klang Selangor
2.	Queen Elizabeth Hospital (Hosp. Support Service)	Medical Gas Pipeline System- Decanting ward at Queen Elizabeth Hospital
3.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1G) at Kudat, Kota Marudu, Kota Belud, Tuaran, Queen Elizabeth, Bukit Padang & Papar. System under supervision: -PABX, Boiler, Lift, Fire Fighting, Air Conditioning, System Water Treatment, BAS Medical Gas Pipeline System
4.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1H) at Ranau, Tambunan, Keningai, Tenom, Beaufort, Sipitang and Labuan. System under supervision: -PABX, Boiler, Lift, Fire Fighting, Air Conditioning, System Water Treatment, BAS Medical Gas
5.	Hospital Universiti Sains Malaysia (HUSM)	Kerja-kerja Menaiktaraf Penambahan Wall Type Outlet Point Gas Perubatan di Wad 3 Utara, Universiti Sains Malaysia, Kubang Kerian, Kelantan
6.	Hospital Universiti Sains Malaysia (HUSM)	Kerja-kerja Menaiktaraf Penambahan Wall Type Outlet Point Gas Perubatan di Wad 7 Utara, Universiti Sains Malaysia, Kubang Kerian, Kelantan
7.	Radicare, HKL	Supply & Install of Medical Alarm at Hospital Kuala Lumpur
8.	Radicare, Klang	Replacement of Medical Vacuum Filter

No.	Clients	Projects / Work Description
9.	Faber Mediserve	Medical Gas System for Old Block at Queen Elizabeth Hosp. (QEH), Kota Kinabalu
10.	Hospital Universiti Sains Malaysia (HUSM)	Kerja-Kerja Ubah suai Dewan Bedah, PPSG, USM, Kubang Kerian, Kelantan.
11.	Radicare Kajang	Servicing Hydrovane Air-Compressor at Hospital Kajang
12.	Radicare	Supply & Install Medical Air & Vacuum Outlets at Hospital Banting
13.	Pusat Perubatan Universiti Malaya (PPUM)	Tawaran bagi membekal, menghantar, memasang, menguji dan mentauliahkan 2 unit Medical Vacuum System di Pusat Perubatan Universiti Malaya (PPUM)
14.	Faber Mediserve	Supply, delivery, install, testing & commissioning of Dominick Hunter Refrigeration Dryer & Coalescer Filters at Nilai Plant
15.	Faber Mediserve	Supply and install of instrument Air Dryer at Nilai Plant
16.	Faber Mediserve	Design, Supply and Install of Air Dryer & Filter Set at Nilai Plant
17.	Lembaga Penduduk dan Pembangunan Keluarga Negara (LPPKN)	Kerja-kerja Pembaikan dan Pengubahsuaian Dewan Bedah, Tingkat 7, Bangunan Ibu Pejabat LPPKN, Jalan Raja Laut, Kuala Lumpur
18.	UiTM Sungai Buloh	Cadangan membina dan menyiapkan Fakulti Pergigian dan Kolej kediaman untuk Universiti Teknologi Mara (UiTM) di Kampus Sungai Buloh, Selangor

No.	Clients	Projects / Work Description
19.	Hospital Tengku Ampuan Rahimah, Klang	Kerja-Kerja Penggantian Sistem Gas Perubatan Dan Perpaipan Bagi Compressed Air Dan Vakum Termasuk Kerja-Kerja Lain Berkaitan Di Hospital Tengku Ampuan Rahimah, Klang, Selangor
20.	Hospital Bintulu, Sarawak	Cadangan Menaiktaraf Unit Rawatan Kebakaran Hospital Bintulu, Lot 3606, Blok 26, Kemena Land District, Sarawak
21.	Pusat Perubatan Universiti Malaya	Cadangan Mengubahsuai Serta Menukar Kegunaan Ruang Letak Kereta Di Tingkat 4 Bangunan Menara Selatan Pusat Perubatan Universiti Malaya Untuk Dijadikan Wad Kardiologi (CCU) Untuk Tetuan Pusat Perubatan Universiti Malaya.
22.	Hati Muda Sdn Bhd	Pembinaan Hospital Swasta (95 katil) yang mengandungi 1 blok Hospital 8 tingkat diatas lot PT 1331 & lot PT 1328, Sungai Bakau Mukim Rawang Selangor Darul Ehsan untuk Selgate Rawang Hospital Sdn Bhd
23.	Sri Esbina (M) Sdn Bhd	Proposed 7-Storey Building Extension With 154-Bedded Wards & Specialist Clinics For Tawau Hospital, On Part of TL.107524505, Tawau, Sabah.
24.	B.H.O Sdn Bhd	Naiktaraf Hospital Papar, Sabah.



12.8 HOT WATER & STEAM SYSTEM



HOT WATER & STEAM SYSTEM

Steam, hot water and process heating are all essential resources of many industries. They often provide convenient, reliable and cost effective energy with which to undertake the processes that are fundamental to your business. As such an indispensable tool, there are great benefits to be gained from running these systems at their optimum efficiency, providing the best performance, safety and energy efficiency possible.

Whether you are looking for advice on choosing the right steam trap or building a complete new plant, you can be sure that our flexible steam system services will yield genuine business benefits. Our specialists will work closely with your team to identify, design and implement improvements to your steam system and maintain the resulting efficiency gains.

If you are planning a new steam, hot water or process heating system, this process outlines the steps required to ensure you achieve excellent design and to help you understand where to spend your valuable capital. If your requirements have changed, for example, if there have been significant upgrades to the process plant or equipment, you may need to install more efficient equipment or expand your current system. This will involve elements of both solutions. Firstly, ensure your existing system is running efficiently (Solution 1) and secondly, design the new components of the expanded system (Solution 2). Following this process will ensure that you are not wasting money purchasing more than you actually need. Additionally, information gained from reviewing efficiency may guide the selection and design of the new components of the system.







OUR SCOPE

Provides design and build for:
- Hot Water System
Primary System | Secondary

- Steam System Generation Plant | Distribution System | Utilization Condensate | Energy Recovery

WHAT IS HOT WATER & STEAM SYSTEM?

Steam and hot water boilers are defined according to design pressure and operating pressure. Design pressure is the maximum pressure used in the design of the boiler for the purpose of calculating the minimum permissible thickness or physical characteristics of the pressure vessel parts of the boiler.

Typically, the safety valves are set at or below design pressure. Operating pressure is the pressure of the boiler at which it normally operates. The operating pressure usually is maintained at a suitable level below the setting of the pressure relieving valve(s) to prevent their frequent opening during normal operation.

Some steam applications may require superheated steam. It should be noted that superheated steam has a high enthalpy, so there is more energy per pound of steam and higher (drier) steam quality. One example of an application where superheated steam may be required is with a steam turbine. The turbine's blades require very dry steam because the moisture can destroy the blades. When very high pressure or superheated steam is required, an industrial watertube boiler should be selected.

WHAT WE OFFER?

We will always strive to provide the most effective ways to improve your business performance by optimising your steam system.

We bring a knowledgeable approach to the control and efficient use of steam systems and equipments. By taking the time to understand your business needs, we can create the best solution using our expertise and high quality products and services. Whether your target is to reduce energy consumption and carbon emissions, boost productivity, ensure safe operations or something else, we'll help you achieve sustainable success.

OUR CLIENTS





No.	Clients	Projects / Work Description
1.	Radicare Teluk Panglima Garang	Supply, delivery, installs, testing and commissioning of process piping & ancillary equipment for the proposed laundry plant. Steam supply & condensate return piping & installation
2.	Radicare Selayang	Supply, delivery, installation of water tap electric water boiler. Supply and install pressure gauge, brass hose & hose clip. Supply & install PRV fitting and accessories. Steam Pipe Autoklaf Bitology. Supply & install timer at boiler room control panel.
3.	Faber Mediserve	Upgrading of steam system at Faber Mediserve Laundry Plant in Nilai
4.	Faber Mediserve	Repair of steam piping at F.M Laundry Plant in Nilai
5.	Faber Mediserve	Repair of steam piping at F.M Laundry Plant in Nilai
6.	Faber Mediserve	Supply of boiler spare parts during overhauling work
7.	Faber Mediserve	Overhauling steam boiler
8.	Faber Mediserve	Repair of boiler and steam equipment
9.	Hospital Besar Kuala Lumpur	Upgrading of the steam at autoclave 5,6 &7 at MCSSD
10.	Hospital Besar Kuala Lumpur	Steam piping works at general operation theater (GOT)
11.	Faber Mediserve	Piping work at Faber Nilai
12.	Hospital Besar Kuala Lumpur	PRV Installation for Steam Piping at GOT

No.	Clients	Projects / Work Description
13.	Faber Mediserve	Package ML3-Provision of M&E equipment & lift maintenance services in Sabah region (Hot Water Boiler)
14.	Hospital Kuala Pilah, Negeri Sembilan	The design, construction & commissioning of hot water system & associated accessories at Hosp. Kuala Pilah, Negeri Sembilan
15.	Hospital Besar Kuala Lumpur	The design, construction & commissioning of hot water system & associated accessories at Pediatric HKL
16.	Madilaund Radicare, Teluk Panglima Garang	Supply, delivery, install, testing & commissioning of process piping and ancillary equipment for the proposed centralized laundry plant. The package includes all the system as follow: 1. Water pumping plant & control system 2. Water storage tank i.e. reinforced FRP tank 3. Steam & condensate piping 0.6M 4. Process water piping 5. Compressed air piping 6. Natural Gas (LPG)Piping

13.0

PROJECT SHOWCASE

// PROJECT SHOWCASE

13. 1 - ASSET, FACILITY & MAINTENANCE MANAGEMENT

- PROTON SHAH ALAM
- PROTON TANJUNG MALIM
- POS MALAYSIA (ZON KL & SELANGOR)
- KUARTERS KERAJAAN PRESINT 10, PUTRAJAYA
- HOSPITAL QUEEN ELIZABETH
- HOSPITAL SANDAKAN
- HOSPITAL LAHAD DATU
- HOSPITAL TAWAU
- HOSPITAL LABUAN
- HOSPITAL BEAUFORT
- HOSPITAL SIPITANG

- HOSPITAL LIKAS
- HOSPITAL RANAU
- HOSPITAL TENOM
- HOPITAL KENINGAU
- HOSPITAL TAMBUNAN
- HOSPITAL KUALA PENYU
- HOSPITAL PAPAR

13. 2 - PROJECTS MANAGEMENT

- PUSAT PEMBEDAHAN KATARAK SELAYANG
- POLIKLINIK KOMUNITI AYER KEROH, MELAKA
- MAKMAL J12/J13, USM PULAU PINANG
- MAKMAL BSL, USM PULAU PINANG
- UiTM KAMPUS SUNGAI BULOH
- HOSPITAL BINTULU, SARAWAK
- HOSPITAL UMUM SARAWAK
- HOSPITAL SIBU, SARAWAK
- JABATAN PATOLOGI, HOSPITAL MIRI, SARAWAK
- PUTRA SPECIALIST HOSPITAL, MELAKA

// PROJECT SHOWCASE

13. 1 - ASSET, FACILITY & MAINTENANCE MANAGEMENT

- PROTON SHAH ALAM
- PROTON TANJUNG MALIM
- POS MALAYSIA (ZON KL & SELANGOR)
- KUARTERS KERAJAAN PRESINT 10, PUTRAJAYA
- HOSPITAL QUEEN ELIZABETH
- HOSPITAL SANDAKAN
- HOSPITAL LAHAD DATU
- HOSPITAL TAWAU
- HOSPITAL LABUAN
- HOSPITAL BEAUFORT
- HOSPITAL SIPITANG

- HOSPITAL LIKAS
- HOSPITAL RANAU
- HOSPITAL TENOM
- HOPITAL KENINGAU
- HOSPITAL TAMBUNAN
- HOSPITAL KUALA PENYU
- HOSPITAL PAPAR



PROTON SHAH ALAM

MAINTENANCE OF HVAC SYSTEM FOR THE PERIOD OF 3+3 YEAR AT PROTON TANJUNG MALIM AND PROTON SHAH ALAM













PROTON TG.MALIM











POS MALAYSIA (ZON KL & SELANGOR)

INTEGRATED FACILITY MANAGEMENT & MAINTENANCE SERVICES AT POS MALAYSIA PREMISES IN **KUALA LUMPUR & SELANGOR**

Scope & system under supervision:

- 1. Air Conditioning Maintenance
 - Split Unit
 - Water Chiller Unit
- 2. Housekeeping and Cleaning Services
 - Internal / External Cleaning
 - Stairwell
 - Elevators
 - Rest room / Toilet
 - Cafeteria / Eating Area

- 3. Landscaping and Ground Maintenance
 - Parking & Driveways
 - Passageway & Coveredway
 - Refuse Bin Center
 - Water Features
 - Softscape / Hardscape
 - Managing of Potted Plant
 - Pest Control Services
- 4. Waste Collection Services
 - Waste Management Services

List of Pos Malaysia Branches in Kuala Lumpur (Zone 1):

- 1. Pos Kuala Lumpur City Center (KLCC)
- 2. Pos Ampang Park
- 3. Pos Ampang Point
- 4. Pos Ampang Spectrum
- 5. Pos Taman Dagang
- 6. Pos Taman Seraya
- 7. Pos Pandan Indah
- 8. Pos Pandan Prima
- 9. Pos Desa Pandan
- 10. Pos Taman Sri Gombak
- 11. Pos Gombak
- 12. Pos Batu Caves

- 13. Serahan Batu Caves
- 14. Pos TESCO Selayang
- 15. Pos Selayang Baru
- 16. Pos Selayang Mall
- 17. Pos JUSCO Kepong
- 18. Pos TESCO Manjalara
- 19. Pos Jinjang
- 20. Serahan Jinjang
- 21. Pos Jalan Kuching
- 22. Pos UIAM
- 23. Pos Melawati
- 24. Pos Wangsa Maju

- 25. Pos TTDI
- 26. Serahan TTDI
- 27. Pos Mont Kiara
- 28. Pos Bangsar
- 29. Pos Universiti Malaya (UM)
- 30. Pos Mid Valley
- 31. Pos Bukit Angkasa
- 32. Poslaju Batu Caves
- 33. Poslaju Brickfields
- 34. Pos Brickfields
- 35. Pos Bandar Sri Damansara
- 36. Pos Setiawangsa

List of Pos Malaysia Branches in Kuala Lumpur (Zone 2):

- 1. Pos Pudu
- 2. Pos Jalan Peel
- 3. Pos Taman Maluri
- 4. Serahan Cheras
- 5. Serahan Ampang
- 6. Pos Damai Perdana
- 7. Pos Taman Connaught
- 8. Pos Taman Midah
- 9. Pos Cheras Makmur
- 10. Poslaju Cheras

- 11. Pos Bandar Tun Razak
- 12. Pos Salak Selatan
- 13. Pos Sungai Besi
- 14. Pos Sri Petaling
- 15. Pos Taman Kinrara
- 16. Pos Jalan Klang Lama
- 17. Pos Petaling
- 18. Pos Sq Wang
- 19. Pos Medan Tuanku
- 20. Pos Jalan TAR

- 21. Pos Kampung Baru
- 22. Pos Hospital Kuala Lumpur (HKL)
- 23. Pos Setapak
- 24. Pos Sentul
- 25. Pos Jalan Ipoh
- 26. Pos PULAPOL
- 27. Pos Jalan Gurney
- 28. Pos Chan Saw Lin
- 29. Pos Viva Home

POS MALAYSIA (ZON KL & SELANGOR)

INTEGRATED FACILITY MANAGEMENT & MAINTENANCE SERVICES AT SELECTED LOCATION OF POS MALAYSIA PREMISES IN SELANGOR

Scope & system under supervision:

- 1. Air Conditioning Maintenance
 - Split Unit
 - Water Chiller Unit
- 2. Housekeeping and Cleaning Services
 - Internal / External Cleaning
 - Stairwell
 - Elevators
 - Rest room / Toilet
 - Cafeteria / Eating Area

- 3. Landscaping and Ground Maintenance
 - Parking & Driveways
 - Passageway & Coveredway
 - Refuse Bin Center
 - Water Features
 - Softscape / Hardscape
 - Managing of Potted Plant
 - Pest Control Services
- 4. Waste Collection Services
- Waste Management Services

- 5. Maintenance of Civil & Electrical
 - Elevators

List of Pos Malaysia Branches in Selangor (Zone 1):

- 1. Pos Taman Equine
- 2. Pos Universiti Putra Malaysia (UPM)
- 3. Pos Sri Kembangan
- 4. Poslaju Bangi
- 5. Serahan Bandar Baru
- 6. Serahan Seri Kembangan
- 7. Pos Bandar Baru Bangi
- 8. Pos Universiti Kebangsaan Malaysia (UKM)
- 9. Pos Hentian Kajang
- 10. Pos Kajang 2020

- 11. Pos Alamanda
- 12. Pos Putrajaya
- 13. Pusat Mel Kerajaan
- 14. Pos Cyberjaya
- 15. Pos Dengkil
- 16. Serahan Dengkil
- 17. Pos Bandar Baru Salak
- 18. Pos KLIA Selatan
- 19. Pos KLIA Ter<mark>minal</mark>
- 20. Pos Sepang

- 21. Pos Balakong
- 22. Pos Cheras Selatan
- 23. Pos Batu 9, Cheras
- 24. Pos Ulu Langat
- 25. Serahan Batu 9, Cheras
- 26. Pos Beranang
- 27. Pos Semenvih
- 28. Serahan Semenyih
- 29. Pos Bandar Teknologi
- 30. Pos TESCO Kajang
- 31. Pos Bukit Dukong

List of Pos Malaysia Branches in Selangor (Zone 4):

- 1. Pos Putra Height
- 2. Pos Puchong Perdana
- 3. Pos Bukit Puchong
- 4. Serahan Puchong
- 5. Pos Puchong Jaya
- 6. Pos Bandar Kinrara
- 7. Pos USJ 9, Subang Jaya
- 8. Pos USJ 1, Subang Jaya
- 9. Pos Subang Jaya
- 10. Serahan Subang Jaya
- 11. Pos Bandar Sunway

- 12. Pos SS16 AEON Subang Jaya
- 13. Pos One Utama
- 14. Pos Damansara Jaya
- 15. Pos Tropicana Mall
- 16. Pos Seksyen 17, Petaling Jaya
- 17. Pos Jalan Semangat
- 18. Pos Seksyen 20, Petaling Jaya
- 19. Pos SS2 Seapark, Petaling Jaya
- 20. Pos Kelana Jaya
- 21. Pos Kg. Tunku
- 22. Pos Jalan Sultan

- 23. Serahan Jalan Sultan
- 24. Pos Jalan Othman
- 25. Pos Taman Sri Muda
- 26. Pos Seksyen 16, Shah Alam
- 27. Pos UiTM Shah Alam
- 28. Pos PKNS Shah Alam
- 29. Pos Besar Shah Alam (GPO)
- 30. Pos TESCO Shah Alam
- 31. Pos Seksyen 13 Giant Shah Alam
- 32. Pos Laju Shah Alam
- 33. Pos Terminal 3 Subang
- 34. Pos Kg. Melayu Subang



POS MALAYSIA Zon K.L. & Selangor

INTEGRATED FACILITY MANAGEMENT & MAINTENANCE SERVICES AT POS MALAYSIA PREMISES IN KUALA LUMPUR & SELANGOR











PRESINT 10, PUTRAJAYA

PERKHIDMATAN PENGURUSAN DAN PENYELENGGARAAN KUARTERS KERAJAAN PERSEKUTUAN DI PRESINT 10, PUTRAJAYA













HOSPITAL QUEEN ELIZABETE



Hospital Building & Facilities Maintenance for Hospital Support Services - Comprehensive Maintenance Air Conditioning Split & Window Unit at:

- 1. Hospital Queen Elizabeth
- 2. Hospital Sandakan
- 3. Hospital Lahad Datu



HOSPITAL SANDAKAN





HOSPITAL





















Hospital Building & Facilities Maintenance for Hospital Support Services - Non Comprehensive HOSPITAL SANDAKAN Maintenance Package ML3 at:

- 1. Hospital Queen Elizabeth
- 2. Hospital Lahad Datu
- 3. Hospital Sandakan
- 4. Hospital Tawau
- 5. Hospital Labuan
- 6. Hospital Beaufort
- 7. Hospital Sipitang

Scope & system under supervision:

- 1. Air Conditioning System
 - Air Handling Unit
 - ii. Fan Coil Unit
 - iii. Lift
 - iv. Cooling Tower
 - v. Chiller
 - vi. Chiller Water Pump
 - vii. Chiller Condensor
 - viii. Water Treatment Cooling Tower
- 2. Building Automation System (BAS)
- 3. Medical Gas
- 4. Lift
- 5. Fire Fighting
- 6. PABX
- 7. Boiler

HOSPITAL QUEEN ELIZABETH



HOSPITAL **Lahad Datu**





HOSPITAL **Tawau**



HOSPITAL **Labuan**



HOSPITAL BEAUFORT



HOSPITAL SIPITANG



Provision of Supply & Management of Labour (Cleaning Services) for Zone SS5 in Sabah Region HOSPITAL TAMBUNAN

- 1. Hospital Likas
- 6. Hospital Sipitang
- 2. Hospital Ranau
- 7. Hospital Kuala Penyu
- 3. Hospital Tenom
- 8. Hospital Beaufort
- 4. Hospital Keningau
- 9. Hospital Papar
- 5. Hospital Tambunan

C HOSPITAL TANBUNIAN

HOSPITAL LIKAS





HOSPITAL TENOM



HOSPITAL KENINGAU



HOSPITAL **SIPITANG**



HOSPITAL K. PENYU



HOSPITAL BEAUFORT



HOSPITAL PAPAR



// PROJECT SHOWCASE

13.2 - PROJECTS MANAGEMENT

- PUSAT PEMBEDAHAN KATARAK SELAYANG
- POLIKLINIK KOMUNITI AYER KEROH, MELAKA
- MAKMAL J12/J13, USM PULAU PINANG
- MAKMAL BSL, USM PULAU PINANG
- UiTM KAMPUS SUNGAI BULOH
- HOSPITAL BINTULU, SARAWAK
- HOSPITAL UMUM SARAWAK
- HOSPITAL SIBU, SARAWAK
- JABATAN PATOLOGI, HOSPITAL MIRI, SARAWAK
- PUTRA SPECIALIST HOSPITAL, MELAKA







PUSAT PEMBEDAHAN **KATARAK**

CADANGAN MEREKABENTUK, MEMBINA, MENYIAPKAN, MENTAULIAH & MENYELENGGARA PUSAT BEDAH KATARAK (MAIWP)











POLIKLINIK KOMUNITI

AIR CONDITIONING WORK, EXTERMINATION AND PREVENTING FUNGAL GROWING AT POLIKLINIK AYER KEROH, MELAKA













UNI. SAINS MALAYSIA J12 / J13 LABORATORY

CADANGAN UBAHSUAI DAN NAIK TARAF BLOK J12 (ARAS 2) DAN BLOK 13 (ARAS BAWAH) UNTUK DIJADIKAN MAKMAL-MAKMAL PENYELIDIKAN DAN PEMBELAJARAN UNTUK PUSAT PENGAJIAN SAINS FARMASI USM, PULAU PINANG.















UNI. SAINS MALAYSIA BSI. LABORATORY

CADANGAN MEREKABENTUK, MEMBINA, MENYIAPKAN, MELENGKAKAN, MENYELENGGARA DAN MENTAULIAH "BIOSAFETY LABORATORY LEVEL 2 (BSL) DI TINGKAT 1, BLOK A, SAINS @USM DI ATAS LOT 2164 DAN 2494 MUKIM 13, DAERAH TIMUR LAUT UNTUK MAKMAL PENYELIDIKAN FAR MASEUTIKAL, INSTITUT FARMASEUTIKAL DAN NUTRASEUTIKAL MALAYSIA, KEMENTERIAN SAINS TEKNOLOGI DAN INOVASI, UNIVERSITI SAINS MALAYSIA, PULAU PINANG















UNI.TEKNOLOGI MARA SG. BULOH

CADANGAN MEMBINA DAN MENYIAPKAN FAKULTI PERGIGIAN DAN KOLEJ KEDIAMAN UNTUK UNIVERSITI TEKNOLOGI MARA (UITM) DI KAMPUS SUNGAI BULOH











HOSPITAL **BINTULU**

CADANGAN MENAIKTARAF UNIT RAWATAN KEBAKARAN HOSPITAL BINTULU, LOT 3606, BLOK 26, KEMENA LAND DISTRICT, SARAWAK















HOSPITAL UMUM SARAWAK

CADANGAN PENGGANTIAN SISTEM PENYAMAN UDARA BERPUSAT TERMASUK AHU DAN PERALATAN -PERALATAN LAIN BERKAITAN UNTUK BANGUNAN PESAKIT LUAR HOSPITAL UMUM SARAWAK.











HOSPITAL SIBU, SARAWAK

CADANGAN KERJA-KERJA PENGGANTIAN CHILLER SISTEM PENYAMAN UDARA BERPUSAT DI HOSPITAL SIBU, SARAWAK













JABATAN PATOLOGI

HOSPITAL MIRI, SARAWAK

CADANGAN MENAIKTARAF JABATAN PATOLOGI HOSPITAL MIRI KE MAKMAL PERUBATAN ZON UTARA NEGERI SARAWAK





















PUTRA SPECIALIST HOSPITAL MELAKA

EXECUTION OF ENERGY EFFICIENCY INITIATIVES IN 9 STATE-OWNED BUILDINGS IN MELAKA OF WHICH THE FIRST PHASE (1ST PHASE) SHALL BE FOLLOWING BUILDINGS LOCATED AT:

PUTRA SPECIALIST HOSPITAL, MELAKA













14.0 PRODUCTS

14.0 PRODUCTS



14.1 Oil Free Chiller



14.2 Advance Air Filtration



14.3 Cleanroom Air Flow Control



14.4 Medical Gas Pipeline System



14.5 Medical Gas Pipeline System



14.6 Building Management/Automation System



We Provide customers HVAC Equipment with the best selection plan, reasonable system configuration, and professional technical consulting and support. Our factory fully implementing modern management, has a professional technical development team and high-quality production, quality, environmental management team, The management team are from the world top 500 enterprises. We also have advanced production equipments and testing equipments, so we basically achieve the management standardization, modernization of production, professional of product testing and comprehensive quality and environmental management system.

We Provide customers HVAC Equipment with the best selection plan, reasonable system configuration, and professional technical consulting and support. Our factory fully implementing modern management, has a professional technical development team and high-quality production, quality, environmental management team, The management team are from the world top 500 enterprises. We also have advanced production equipments and testing equipments, so we basically achieve the management standardization, modernization of production, professional of product testing and comprehensive quality and environmental management system.

The integrated technology enables to lower the start-up current, and automatically adjust the quantity of refrigeration through the frequency conversion technology to adapt present requirement of refrigeration. BSE's products has reached the highest energy efficiency, and, in particular, the partial load efficiency of the machine's actual operating point has reached an advanced level in the whole industry.





QUESTCHILLER™

BSE QUESTCHILLER™ family chillers are the oil-free, variable frequency and centrifugal water-cooled chillers, including three series of Q1, Q2, and Q3 with both a vertical structure and a horizontal structure and a cooling capacity covering 300kW (85RT) to 4925kW (1400RT).



QUESTCHILLER™ family chillers are the combinations of the most advanced technologies in the world, which allows a new height of the chiller's efficiency. The products are the new generations of the chillers with a distinguished operational efficiency and reliability without obvious reduction in performance. That could be widely used in the newly-built and reconstructed public architectures, such as the guesthouses, the hotels, the schools, the shopping malls and the office buildings etc, or also be used in the industrial cooling and industrial environment control, such as the factory buildings and industrial laboratories.

QUESTCHILLER™ family chillers have the following characteristics:

- Oil-Free VFD centrifugal compressor
- Super high IPLV and COP
- R134a refrigerants, no harm to the ozone
- Oil-Free, an absolute solution to the oil-return problem and a great improvement to the reduction of the cooling capacity
- Low noise and small vibration
- PAC programmable auto-controller
- Small size and light weight
- Tiny start-up current with no strike to the electronic grids
- Intelligent alarming and failures handling



I-CHILLER™

BSE I-CHILLER™ Family Oil-Free VFD Centrifugal Modular Unit Chiller/Heat are your smart choices now and in the future. The chiller is in the design of 250kw(71RT)-4200kw(1200RT) and uniform measure of 0.89m(W)x1.2m(L)x1.8m(H).

I-CHILLER™ Modular Units is oil-free, frequency conversion centrifugal chillers/heat pumps in modular units that are applied with all digital oil-free centrifugal compressors. Combined with the high-efficient plate exchanger and the powerful PAC controller, it allows a 40% improvement of the annual operational efficiency than that of the traditional chillers. The single unit only occupies a footprint of 1m² with a tiny height of 1.8m and a weight of 1 ton. They are currently the chillers that are the smallest in volume, the lightest in weight, and the least needs in refrigerant charge in the world when outputting the same cold energy.



BSE I-CHILLER™ Family Oil-Free Variable Centrifugal Modular Unit Chillers/Heat Pumps have the following characteristics:

- i) Small size and light weight
- ii) Low noise and small vibration
- iii) Oil-Free VFD centrifugal compressor
- iv) Intelligent alarming and failures handing
- v) Tiny start-up current with no strike to the electronic grids
- vi) R134a refrigerants, no harm to the ozone
- vii) Super high IPLV and COP
- viii) Oil-Free, an absolute solution to the oil-return problem and a great improvement to the reduction of the cooling capacity





CLOUDCHILLER™

BSE CLOUD-CHILLER™ family chillers are the oil-free, frequency conversion air cooled chillers, which could be used independently when no cooling water is available, including two types for conventional and free cooling, optional hydraulic module and a cooling capacity covering 200kW (57RT) to 1800kW (512RT).

The integrated part load value(IPLV) of BSE air cooled chillers is 50% more than the traditional ones. This is a great breakthrough for air cooled chillers as it could sharply decrease the operational cost and reduce the carbon emissions. The application of the chillers vibration free, and compared with a screw chiller which provides the same cooling energy, their operational noise is only 60dB.

CLOUDCHILLER™ family chillers have the following characteristics:

- Oil-Free VFD centrifugal compressor i)
- ii) Super high IPLV and COP
- iii) R134a refrigerants, no harm to the ozone
- iv) Oil-Free, an absolute solution to the oil-return problem and a great improvement to the

reduction of the cooling capacity

- Low noise and small vibration V)
- vi) PAC programmable auto-controller
- vii) Small size and light weight
- viii) Tiny start-up current with no strike to the electronic grids
- ix) Intelligent alarming and failures handling







FIRECHILLER™

Heat pump is a new approach for heating source. With more attentions are paid from all sectors of community to the measures taken in energy-saving, emission-reduction and building energy conservation. The heat pump has been listed as one of the main measures for building energy conservation and the development of renewable energies, which will be greatly promoted for the heating in northern part of China. The heat pump works by power drive, which is to take heat from low-temperature heat sources, such as the surface water, the sea water, the groundwater, the municipal wastewater and also the underground soils, etc., the heating energy of which is taken by the heat pump in the winter and is released back in the summer. Therefore, these sources are able to serve as the cooling sources in the summer for the air-conditioning and then to offer the heat source for the building heating in the winter. The chillers are able to work without the cooling tower system when it is refrigerating to avoid the noise pollution cause by it and the waste of the water resources; and are able to work without the boil water system when it is heating to avoid the discharge of the pollution and achieving a cleaner environment.



According to the statistics, among the buildings with the central air conditioning accounts 55% of the total energy consumption. The energy consumption of the central air-conditioning system is mainly generated in the following three parts: the cooling and heating sources of air conditioning system, the air conditioning unit and terminal equipment, and the transport system of water or air. The cooling and heating source of air conditioning system is the main part of these three parts, which contributes around half energy consumption. In order to reduce the high energy consumption BSE developed the new energy-saving Firechiller™ series oil-free, centrifugal heat pump unit. This unit is applied with the new generation of oil-free, frequency invert centrifugal compressor, direct drive, digital magnetic levitation bearing, permanent magnet motor, etc. When the compressor speed is reduced, the power consumption is reduced significantly; the use of magnetic levitation technology was achieved oil-free operation, which help the maximum degree of reduction of the efficiency of the oil and the attenuation, so that the system is more efficient, while increasing the service life of the unit. The IPLV of Firechiller™ series oil-free centrifugal heat pump unit is more than 9, and the power consumption is reduced by more than 35%. The unit can provide high temperature chilled water in the summer, and it can realize the independant application of temperature and humidity of geothermal heat pump. In addition, the oil-centrifugal heat pump unit with the use of renewable energy sources, such as water source, geothermal source, can make the whole air conditioning system energy efficiency has been further improved, and become a model of energy conservation.



14.2 ADVANCE AIR fILTRATION

A natural phenomenon, surprising and efficient as the sun light. This is Bioxigen® a process of bipolar ionization that produces a sanitizing antibacterial eff ect through the activation of oxygen molecules, purifying the air from smells, bacteria, viruses and moulds.

Un fenomeno naturale, sorprendente ed effi cace come la luce del sole. Questo è Bioxigen® un processo di ionizzazione bipolare che mediante l'attivazione delle molecole di ossigeno produce un'azione sanitizzante, antibatterica, purifi cando l'aria da odori, batteri, virus e muff e.







The result is a clear improvement of the air quality, of its healthiness and an increase of environmental comfort is perceived from all the people who spend the most of their days in indoor locations and in particular from individuals with respiratory problems (asthmatics).

Il risultato è un netto miglioramento della qualità dell'aria e della sua salubrità. L'aumento del comfort ambientale viene percepito da tutte le persone che trascorrono la maggior parte delle loro giornate in ambienti chiusi e in particolare da persone con problemi respiratori (asmatici).



14.2 ADVANCE AIR FILTRATION

Bioxigen® is employed at the beginning in sensitive environments, such as hospitals and social welfare structures where the risk of nosocomial infections is high.

The use of the technology has been extended to alimentary industry, highly controlled environment at microbiological level.

Bioxigen® trova inizialmente applicazione in ambienti sensibili, quali ospedali e strutture socio-assistenziali dove è alto il rischio di infezioni nosocomiali.

L'utilizzo della tecnologia si è esteso all'industria alimentare, ambito fortemente controllato a livello microbiologico.



Operating rooms Sale operatorie





Appliances Elettrodomestici



Food industry Industria alimentare



Air ducts

Canalizzazioni





OEM OEM



Air Handling Units Unità Trattamento Aria



Now professional devices are adopted in

civil buildings, hotels, shops and private residences or integrated in other devices. During the years the innovation has brought to L'innovazione ha portato negli anni a defi nire defi ne high quality materials and constructive characteristics to reproduce the best sanitization with low energy consumptions.

Ora dispositivi professionali sono adottati in edifi ci civili, alberghi, negozi e residenze private o inseriti in altre apparecchiature. materiali di elevata qualità e caratteristiche costruttive per riprodurre la migliore sanifi cazione con bassi consumi energetici.



Water Treatment Trattamento acqua



14.2 ADVANCE AIR FILTRATION

The effectiveness of Bioxigen ® system has been veri Med in different ⊠elds from important Research Institutes and Universities, among them there are University of Padua (environmental medicine department), University of Udine (alimentary science department). Bioxigen® has obtained the validation of e fficacy from the German authority TÜV Hessen.

L'efficacia del sistema Bioxigen ® è stata veri ⊠cata in diversi ambiti da importanti Istituti di Ricerca e Università tra i quali Università di Padova (dipartimento di medicina ambientale), Università di Udine (dipartimento di scienze degli alimenti). Bioxigen ® ha ottenuto la validazione di efficacia dall'ente Tedesco TÜV Hessen.

Before Prima	After Dopo	Decrease microbical contents	Abbattimento co	ontenuto microbico
1 18		Staphylococcus aureus		100%
A Tall		Tempo Time — 3 h	-70,90 %	THE PROPERTY OF THE PROPERTY O
to a second	F	Tempo Time — 8 h	-97,02 %	97,02%
and the		Tempo Time — 24 h	-98,80 %	0% 3h 8h tanga di seperatione a l'ini sepera i la cas
		Escherichia coli		N. I.
- 5	and the same of th	Tempo Time — 3 h	-84,07 %	
		Tempo Time — 8 h	-89,77 %	84,07% Jn.7%
	•	Tempo Time — 24 h	-99,53 %	, 99,
- 20-1-0		Saccaromices cerevisiae		100%
	0	Tempo Time — 3 h	-97,71 %	
8	6	Tempo Time — 8 h	-98,14 %	97,71% 98,14%
		Tempo Time — 24 h	-99,05 %	0% 3h 8h temperid ago al done a Sin ages - in ces 24
		Legionella	UFC / 0,1 ml	TE 'S
		Controllo negativo Negative control	0	The same
		Controllo positivo Positive control	191	200 138 180
		Dopo After — 05 min	180	10 10 10 10 10 10 10 10 10 10 10 10 10 1
	100	Dopo After — 15 min	3	5
	1	Dopo After — 30 min	0	SIR 1500 3000 sumpo d'exposicione a librique — 4 conincid 60
		Dopo After — 60 min	0	

Tested against COVID-19

LabAnalysis de gned Bioxigen as "e ffective against all enveloped viruses (including the coronaviruses such as SARS-Cov-2)" LabAnalysis di Pavia, ha denito Bioxigen: "efficace contro tutti i virus con involucro (inclusi i coronavirus come SARS-Cov-2)"



TÜV PROFI-CERT TÜV PRODUCT

E ffectiveness validation of the system.

Validazione di efficacia del sistema.











14.2 ADVANCE AIR FILTRATION



Efficient antibacterial effect

Tests have shown more than 95% of destruction of microbial load on different gram (+) and gram (-) bacterial strains.

Efficace effetto antibatterico

Test hanno dimostrato più del 95% di abbattimento della carica microbica su diversi ceppi batterici gram (+) e gram (-).



An healthier environment: inactivation of moulds

Thanks to the oxidizing power of Bioxigen ®, molds, spores, fungi and pollens are inactivated by improving the environmental comfort with the bene n for all the people who carry out their activities in indoor environments.

Un ambiente più sano: inattivazione di mu ffe

Grazie al potere ossidante di Bioxigen [®] muffe, spore, funghi e pollini vengono inattivati migliorando il comfort ambientale con bene ci per tutte le persone che svolgono le loro attività in ambienti chiusi.



Removal of smells and of the harmful pollutants present in indoor environments

Oxygen molecules activated by Bioxigen ® attack the unpleasant smells deriving from cooking, from waste, from smoke etc. by disgregating the odorous substances into simpler compounds. Also the harmful volatile pollutants (VOC normally present in indoor environments) produced from paints, furnishings, detergents, are attacked by the active oxygen molecules generated by Bioxigen®.

Rimozione degli odori e degli inquinanti nocivi presenti in ambienti interni

Le molecole di ossigeno attivate da Bioxigen [®] aggrediscono gli sgradevoli odori da cottura, da riguti, da fumo ecc.. disgregando le sostanze odorigene in composti più semplici.

Anche gli inquinanti volatili nocivi (COV normalmente presenti negli ambienti chiusi) prodotti da vernici, suppellettili, detergenti, vengono aggrediti dalle molecole di ossigeno attivo generate da Bioxigen.



More well-being and health for people

Bioxigen ® improves the air quality that we breath limiting not only the diseases of viral and bacterial origin vehiculated by air, but also the causes of many allergies with remarkable bene pts for the respiratory apparatus. Studies show also other good for health e ffects tied to a balanced ionic concentration:

- Improvement of sleep quality
- Improvement of mood status
- Decrease of headache

Più benessere e salute per le persone

Bioxigen ® migliora la qualità dell'aria che respiriamo limitando non solo le malattie di origine virale e batterica veicolate dall'aria, ma anche le cause di molte allergie con notevoli benegci per l'apparato respiratorio. Studi dimostrano anche altri e ffetti benegici sulla salute legati ad una bilanciata concentrazione ionica:

- Miglioramento della qualità del sonno
- Miglioramento dello stato d'umore
- Riduzione del mal di testa.



Ionization - Ionizzazione

The ionization phenomenon triggers reactions of oxidation-reduction on organic volatile compounds reducing the pollutants present in the environments in a calibrated and sizable way and with measurable e ffects. On the micro-organisms ionization causes damages to the cell membrane preventing their vital functions.

Il fenomeno di ionizzazione innesca reazioni di ossidoriduzione sui composti volatili organici riducendo gli inquinanti presenti negli ambienti, in modo calibrato, dimensionabile e con e ffetti misurabili. Sui microrganismi la ionizzazione provoca danni alla membrana cellulare impedendo le funzioni vitali degli stessi.



Home &



- Living Soggiorno
- Kitchen Cucina
- Bathroom Bagno

- **Fashion shops** Negozi fashion
- Showroom S howroom
- **Book stores** Librerie

- Meeting rooms Sale riunioni
- Smoking rooms Sale fumatori

Community



HEALTH CARE

- Hospitals Ospedali
- Nursing home Case di cura
- Dentistry & medical study Studi medici e dentistici

WELLNESS

- **SPA** C entri benessere
- Hairdressers Parrucchieri

FREE TIME

- Meeting places Luoghi di ritrovo
- Cultural activities Attività culturali
- Schools Scuole
- Hotels Settore alberghiero

Industry/ Food/ **OEM**

FOOD

- Meat industry Industria delle carni
- Fruits and vegetables Ortofrutta
- Diary farming, cheese factory Caseixci, industrie, laboratori
- Fish industry Industria ittica
- Fresh pasta production P roduzione pasta fresca
- Ready meal packing C onfezionamento alimenti pronti

INDUSTRY

- Factory farm Azienda agricola
- Pharmacy factory Industria farmaceutica
- Plastic and chemical factory Industria chimica e plastica
- Waste treatment Trattamento esalazione ri⊠uti
- Restaurants and catering Ristorazione

OEM

- Clean room Camere bianche
- Cold equipment C elle e abbattitori di temperatura
- Cooking hood Cappe aspiranti
- Fan coil Fan coil
- Custom products Prodotti su misura



FOOD

Food processing water

Acque di processo

INDUSTRY

Fish industry Itticoltura

SWIMMING POOL

S wimming pools & ponds

Piscine e laghetti



Application chart Dimensionamento







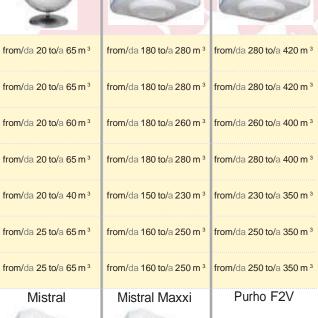


Bedrooms Stanze da letto	from/da 35 to/a 40 m ³	from/da 70 to/a 100 m ³	from/da 40 to/a 80 m ³
Bathrooms Stanza da bagno	from/da 20 to/a 30 m ³	from/da 60 to/a 80 m ³	from/da 30 to/a 60 m ³
Studios Studio	from/da 30 to/a 40 m ³	from/da 60 to/a 90 m ³	from/da 30 to/a 60 m ³
Offices Uffici	from/da 30 to/a 40 m ³	from/da 60 to/a 90 m ³	from/da 40 to/a 80 m ³
Shops Negozi	from/da 25 to/a 35 m ³	from/da 50 to/a 80 m ³	from/da 20 to/a 60 m ³
Kitchens Cucine domestiche	from/da 25 to/a 35 m ³	from/da 55 to/a 80 m ³	from/da 20 to/a 65 m ³
	Maia	Sfera	Mistral
Community			6

Community	
Waiting room	
Sale d'attesa	
Dentist's surgeries	
Studi dentistici	
Libraries	
Biblioteche	
Hairdressing salons	
Saloni parrucchiere	
Public toilets	
Bagni pubblici	
Multi-purpose rooms	
Sale polivalenti	

from/da 55 to/a 80 m ³
from/da 55 to/a 80 m ³
from/da 60 to/a 90 m ³
from/da 55 to/a 80 m ³
from/da 40 to/a 70 m ³
from/da 60 to/a 90 m ³
from/da 60 to/a 90 m ³









Classrooms

Aule



from/da 1 to/a 1,75 ml	
from/da 15 to/a 30 m ³	
from/da 40 to/a 60 m³	



3	from/da 150 to/a 290 m ³



Mistral Maxxi



Purho F4V

Banchi frigo	from/da 1 to/a 1,75 ml				
Cold rooms Celle frigorifere	from/da 15 to/a 30 m ³	from/da 90 to/a 180 m ³	from/da 150 to/a 290 m ³	from/da 200 to/a 450 m ³	from/da 300 to/a 650 m
Product processing					
rooms Sale lavorazione prodotti	from/da 40 to/a 60 m ³	from/da 120 to/a 200 m ³	from/da 180 to/a 280 m ³	from/da 350 to/a 450 m ³	from/da 450 to/a 650 m
Cellars Cantine	from/da 25 to/a 30 m ³	from/da 140 to/a 220 m ³	from/da 240 to/a 340 m ³	from/da 400 to/a 500 m ³	from/da 500 to/a 700 m ⁻³
/			CALL DESCRIPTION	I THE COLUMN TWO IS NOT THE OWNER.	4.5

[*] The unit volumes used are just an indication and can vary, even considerably, according to the quality of the air and the I 🕆 I volumi unitar<mark>i di imp</mark>iego sono indicativi e possono variare, anche ampiamente, in dipendenza della qualità dell'aria e de

oad in the volume to be treated. I carico presente nel volume da trattare.





The award-winning Accutrol AVC Fume Hood Control System with Accutrol Insight graphical software provides an unprecedented evolution in fume hood control technology. It significantly simplifies the start-up, operation and modification for VAV fume hoods.

The Accutrol AVC Fume Hood Control System combines the award-winning design of the low pressure drop AccuValve® Airflow Control Valve with a "smart" fume hood display and a powerful and intuitive user interface. This innovative combination allows owners to easily set up and change the fume hood configuration without complicated manuals.

Applications

Life science
Pharmaceutical
Biotech
Healthcare laboratories
Secondary school laboratories
Retrofit applications

University research and development

Features & Benefits

Integral operation with low pressure drcp AccuValve®
Visual/Audible indication with flow, alarm and purge
Provides text alarm messages on display
Purge set point is programmable
Up to 4 user-defined setback sequences
Optimized energy savings
Simple installation and wiring
Simplified set-up (no menus)
Intuitive graphical user interface using
our Insight software





The award winning AccuValve is designed for sustainable critical environments with very low pressure drop for energy savings and safety through true airflow measurement. The AccuValve was introduced as the first critical environments airflow control valve designed for use with electronic actuation.

- Low Pressure Drop
- True Air Flow Measurement
- No Straight Run Requirement
- Simple Layout & Installation
- ASHRAE Standard 90.1 Compliant Without Additional Hardware

For Fast Speed of Response



AccuVaive Model AV3000

- Fast Speed of Response (lab and critical Spaces)
- Supply, General Exhaust, Specialized Exhaust
- Universal I/O (for closed loop control through Accutrol controller or BAS controller)



AccuValve Model AVC5000 (AccuValve with ePI)

- Fast Speed of Response (lab and critical Spaces)
- Fume Hoods
- Supply, General Exhaust, Specialized Exhaust
- Constant Volume. Multi-position Constant Volume
- Stand-Alone Closed Loop Control (or set point control through Accutrol controller or BAS controller)
- Native BACnet® Communication

For Standard Speed Actuation



AccuValve Model H-AV3000

- Standard Speed (healthcare and life science support spaces)
- Supply, Return, General Exhaust, Specialized Exhaust
- Universal I/O (for closed loop control through Accutrol controller or BAS controller)



AccuValve Model H-AVC5000 (AccuValve with ePI)

- Standard Speed (healthcare and lie science support spaces)
- Supply, Return, General Exhaust, Specialized Exhaust
- Constant Volume. Multi-position Constant Volume
- Stand-Alone Closed Loop Control (or set point control through Accutrol controller or BAS controller)
- Native BACnet® Communication





VorTek G3 Duct Airflow Measurement Probes



VorTek G3 Fan Inlet Airflow Measurement Probes

Digital Airflow Sensing
Modular Design
Intuitive User Interface
Stable - Drift Free
Resistant to Contamination
Not Affected by Humidity

Not Affected by Temperature
Not Affected by Altitude
Linear Over Entire Range
Low Power Requirements
Universal Voltage and Current Output
Native BACnet MS/TP Optional



Simple Installation
Operates over -40° to 120° F
Probes require minimal straight runs of duct
Setup Wizard
Resistant to Contamination





Airflow Products



Accutrol provides a complete line of controllers to maintain precise airflow and temperature conditions. Applications include critical environments such as laboratories, healthcare and life science support spaces.



Laboratory Airflow Control

Laboratory Airflow Control

Laboratory airflow control and large space critical environment control through high-speed, native BACnet room controllers can be easily programmed to maintain precise airflow, temperature and humidity conditions.

Support Space Control

Support space control and smaller space airflow and temperature control through dedicated native BACnet room airflow and temperature controller.



Support Space Control



Healthcare Space

Healthcare Space Control

Healthcare space control or control of areas such as operating rooms, isolation rooms and patient rooms for precise room airflow and temperature control. The Accutrol HealthTrack Room Controller is specifically designed for these spaces and provides BACnet interface to the building automation system.



Room & Duct Temperature Sensor

Accutrol provides a complete line of controllers to maintain precise airflow and temperature conditions. Applications include critical environments such as laboratories, healthcare and life science support spaces.



Room Temperature Sensor RTS 100

The Accutrol RTS100 Series includes wall mounted Room Temperature Sensors and combination Room Temperature/ Humidity Sensors. Options include temperature setpoint adjustment slider as well as manual override switch where required. The RTS100 Series Sensors are designed to be used with Accutrol AC7000 Series Controllers, Accutrol HTC100/ RTC100 Room Temperature Controllers and BAS Controllers.



Duct Mounted Temperature Sensor DTS 100

The Accutrol DTS100 Duct Mounted Temperature Sensor is designed to be used with the AC7000 Series Controllers as well as the HTC100 and RTC100 Room Temperature Controllers. The DTS100 is a duct mounted series 10K Ohm. Type III thermistor designed for measurement of duct temperature in the discharge of a reheat coil or in the

Room Pressure Monitor





SRPM SRCM

Applications for use of the Accutrol line of pressure monitors include healthcare. pharmaceutical manufacturing, cleanrooms, research laboratories and animal resource facilities





PRECISION UK Ltd > K

Specialists in HTM02-01 Medical Gas Pipeline Equipment



Precision UK Ltd is a British Manufacturer and World Leader in supplying Medical Gas Pipeline equipment compliant with HTM 02-01, c11 and BS En 7396. With over 40 years combined experience of company staff within the medical gas pipeline industry, Precision UK Ltd and its products recognise and embrace the specialist requirements of this industry to include all aspects of customer service, product design, cleanliness, packaging and usability required to become a successful partner for installations of pipeline equipment.

We truly are the only British Company accredited to BSI ISO 9001, ISO 13485 and 93/42/EEC The Medical Device Directive, that offers the complete range of medical gas pipeline equipment from its own manufactured stock.

All products certified as medical devices (arry the CE mark and are registered with the British Standards Institute. Core products include Degreased Copper Tube and Fittings, Lockable Line Valves, Nist Pieœs, Silver Solder, Pipeline Identification Tape, Munsen Ring Brackets, Area Valve Service Units (AVSU) Single and Modular, Area and Plant Alarms, Pressure Switch Assemblies and Rigid/Retractable Pendants. Our extending product range include Medical Air Plant, Medical Vacuum Plant, AGSS Plant, Gas Manifolds and Medical Gas Outlets, all compliant to British and European Directives.

Specialists in the complete range of HTM02-01, C11 & BS EN 7396 Medical Gas Pipeline Systems



EXCELLENCE | MUTUAL RESPECT | ETHICS | SAFETY | SUSTAINABILITY | FAIR RETURN















- • • GREECE ALBANIA ALGERIA ANGOLA BOSNIA AND HERZEGOVINA BRASIL BULGARIA CAMBODIA CYPRUS CZECH REPUBLIC EGYPT FINLAND FYROM GEORGIA GHANA · HUNGARY • INDIA • INDONESIA • IRAN • IRAQ • ISRAEL • ITALY • IVORY COAST • JORDAN • KOSOVO • KUWAIT • LEBANON • LIBYA • LITHUANIA • MALAYSIA • MALTA • MAURITIUS • MOLDOVA · MONTENEGRO · MOROCCO · MYANMAR · NAMIBIA · NEPAL · NETHERLANDS · NIGERIA · OMAN · PAKISTAN · PALESTINE · PHILIPPINES · POLAND · PORTUGAL · QATAR · ROMANIA · RUSSIA
- · SAUDI ARABIA · SENEGAL · SERBIA · SEYCHELLES · SINGAPORE · SPAIN · SUDAN · SYRIA · TAIWAN · TANZANIA · TURKEY · U.A.E. · U.K. · UKRAINE · VIETNAM

ABOUT OUR COMPANY

G. SAMARAS S.A. is an international manufacturing company located in Thessaloniki, Greece. Having been active in the medical gas field since 1968, the company has a track record of continuous evolution and development. G. SAMARAS S.A. has become the leader in the Greek medical characterized by completeness, quality and a high degree of customization gas supply systems market, in which it holds more than 85% of the share. From the very beginning, G. SAMARAS S.A. recognized the importance of international growth. Thus, the company has managed to achieve a broad exports activity and network and, consequently, an extensive worldwide reference list. Having professionalism, reliability, solvency and flexibility as its key principles and guidelines, the company has gained not only valuable experience, but also strong domestic and international recognition and

reputation. Its strong know - how of medical gas supply systems and the durability of its products, has led the company to a strong market position. G. SAMARAS S.A. holds a very wide service and product portfolio, which is on everything related to medical gas supply systems. The company's 2 facilities occupy a building of 4000 m in the Industrial Area of Thermi, Thessaloniki (Northern Greece). The company's skilled personnel consists of electrical and mechanical engineers, graduate and post-graduate economists, as well as licensed welders and electricians, who constitutes the driving force of the company.

WHYG. SAMARAS S.A.?

- · More than 50 years of experience and expertise
- Extensive product portfolio
- · High quality of services and products
- · Know how on everything related to medical gas supply systems
- · Flexibility to every medical gas solution
- · Well trained and skilled personnel
- Competitive pricing

- Short delivery times
- · Raw materials and spare parts availability
- Ease of use
- · Remote control and monitoring
- · Highly responsive after sales service and customer - focused support
- Conformity with all standards
- · CE marked products





MEDICAL GAS NETWORK

- Copper pipes
- Copper parts (elbows, tees, couplings)
- Brass parts (nipples, elbows, caps, unions, adapters)
- Clamps
- Railways
- Tapes
- Welding materials
- Shut off/electromagnetic/non-return/safety valves
- Antistatic tubes
- Special tools



CYLINDER STATIONS

Their purpose is to reduce the pressure of medical gases originating either from cylinders or vessels. Their operation could be pneumatic, electrical or manual, the available capacities of reducers are 50/75/160/170/180m /h (440m /h only for vessels) whereas the outlet pressure could be between 4 and 8bar. Optionally they may include integrated medical gas alarm panel

- Manifolds-cylinder ramps
- Pigtails
- Cylinder holders
- Cylinders
- High pressure evacuation valves
- Vessels.
- High pressure flexible tubes



PATHOLOGY LABORATORY GAS SYSTEMS

According to Health Technical Memorandum (HTM 08-06), all laboratory gas systems should be discriminated from medical systems. For toxicity, flammability, corrosiveness and safety factors, those systems are being manufactured according to specific standards and from special materials.



MEDICAL VACUUM SYSTEMS

Our company manufactures medical vacuum systems according to each project's specifications.

- ·Vacuum pumps (oil-lubricated/oil-free) of nominal capacity 6-635m /h
- · Vessels (vertical/horizontal) of capacity 270-5.000lt
- Antibacterial filters 48-900m /h
- Electrical control panels



MEDICAL AIR COMPRESSOR SYSTEMS

Our company manufactures medical air compressor systems according to each project's specifications

Compressors (screw/scroll/piston), oil-lubricated or oil-free of nominal capacity 4-2500m /h

- · Vessels (vertical/horizontal) of capacity 50-5.000lt
- · Filters/sterile filters
- Condensate separators/aftercoolers
- Dryers (cooling/adsorption/membrane)
- · Condensate drains
- Water/oil separators
- · Electrical control panels



PRODUCT PORTFOLIO



OXYGEN-NITROGEN GENERATORS

Pressure Swing Adsorption (PSA) is a low power consuming solution, efficient and reliable for onsite production of high purity medical oxygen. It uses the basic principle of passing air over adsorbent material which bound with nitrogen to leave rich stream of oxygen. Our company provides various solutions according to the size and needs of each hospital.



ANAESTHETIC GAS SCAVENGING SYSTEMS

The suction and disposal to the environment of the redundant gases from the anesthetic equipment inside the operating theatres but also from the emitted anesthetic gases from patients in the stage of recovery, is being applied by using an automatic anesthetic gas scavenging disposal system (AGSS), through the AGSS outlets which are installed in various departments. Available solutions:

- · Central systems of capacity 40-330m /h
- Autonomous scavenging outlets
- Venturi apparatus



MEDICAL GAS TERMINAL UNITS / OUTLETS

Outlets are installed at the final delivery points in a medical gas pipeline system. They are used by personnel to supply the various gases using special probes. They are available in accordance with the following norms:

- ENV 737-6
- AFNOR NF S 90-116
- DIN 13260-2
- BS 5682
- SS 875 24 30
- ISO 9170-2
- SANS 1409:2008
- UNI
- NIST EN 739



SECOND STAGE CONTROL AND REDUCER PANELS / AREA VALVE SERVICE UNITS

Installed in wards in order to ensure normal pressure of the medical gases and provide the ability to shut off, check and maintain the local medical gas network. Provided for 1-6 gases with or without medical gas alarm panel.



MEDICAL GAS ALARM SYSTEMS

The monitoring and alarm systems are used to provide all the important information to the control room. They indicate the pressure level of each gas (Low, Normal, High) whereas they can supply with information about a single medical station. Moreover, they are able to send useful data to a remote user.



PRODUCT PORTFOLIO



BED HEAD UNITS

Their aim is to provide all essential services (medical gases, electrical supply, lighting, nurse call, data, etc.) to the patient / nurse / doctor.

G. Samaras SA has a broad range of models in horizontal / vertical / round / ceiling suspended configuration able to cover all needs of each single department.



CEILING PENDANT ARMS

The ceiling pendants are being placed on the ceiling of intensive care units and operating theaters for grouping and providing all necessary electrical, data and medical gases services to the medical staff. They are available in various configurations and according to each project's needs.

- Without arm
- With one arm
- With two arms
- With electrical movement (one/two arms)
- With electrical-telescopical movement



OPT CONTROL PANELS

OPT Control Panel, is the central device gathering all necessary control signals, alarms and information required in an Operating Theater.



NURSE CALL SYSTEMS

The nurse call system is installed in a nursing unit. It helps patients/relatives/nurses/doctors to call a nurse in case of an emergency or any other need of a patient. Typically they are consisted of:

- Central station
- Handsets
- Room stations
- WC pull cords
- Corridor lights



SECONDARY MEDICAL EQUIPMENT

- Hospital clocks
- Flowmeters
- Vacuum regulators
- Suction devices
- Carts
- IV stands
- Anaesthesia machines
- Pneumatic tube systems
- Emergency lighting-Fire detection-Gas detection systems
- OPT tables
- · Hospital beds/cabinets
- OPT Examination lights



14.6 - BUILDING MANAGEMENT SYSTEM

Distech Control's building management system provides a complete, integrated solution for HVAC, Lighting, Access Control, CCTV, and Energy Management, achieving over 30% energy and operational cost savings. Designed to meet the highest standards of green stewardship and durable performance, our open solutions provide not only a competitive advantage today, but sustainability tomorrow and beyond.

EC-Net^{AX}: Web-based Integrated Building **Management System**



Open-to-Wireless™: Wireless, Battery-less Sensing, Wireless Mesh Networks



BACnet® and LonWorks® HVAC Controllers: Air Quality and Comfort



Energy Management and Metering



EC-Light: Lighting Control for Indoor, Outdoor, and Signage



Multi-Site and Campus Solutions



EC-Net AX Security: Access Control and CCTV



Other Building Systems and Applications: Elevators, Networked Equipment, etc.



Efficient Building Automation System

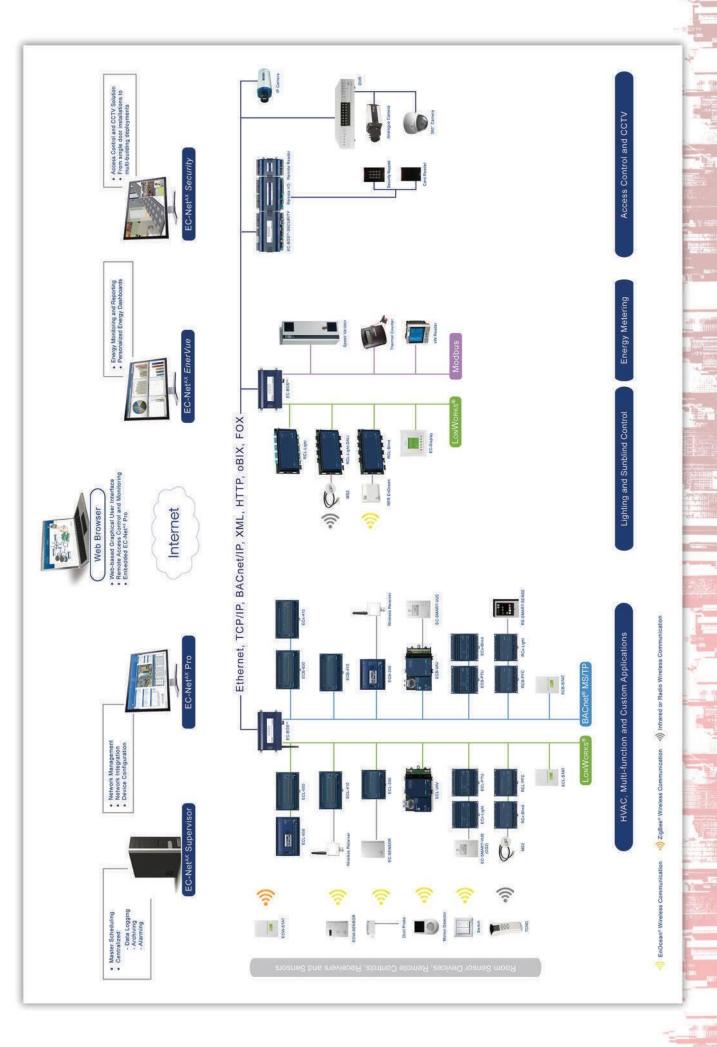
Reduce energy cost and manage your BAS

- Controlling & monitoring
- Scheduling
- Alarming
- Identify Consumption

Reduce operational costs

- Effective knowledge
- Predict failures
- Manage servicing
- Identify costs





EXCELLENCE | MUTUAL RESPECT | ETHICS | SAFETY | SUSTAINABILITY | FAIR RETURN BUILDING ON FAMILY LEGACY OF

18.0

OTHER PROJECT REFERENCES



No.	Clients	Projects / Work Description
1.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1G) at Kudat , Kota Marudu, Kota Belud, Tuaran, Queen Elizabeth, Bukit Padang and Papar.
2.	Faber Mediserve	Fire Fighting System consist of RPPU, Fire Alarm System, Hose Reel, Dry Riser / Wet Riser, Sprinkler System, CO2 System, Fire Tank, Fire Pump, Diesel Engine, Fire Extinguisher System and Fire Certification.
3.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1H) at Ranau, Tambunan, Keningau, Tenom, Beaufort, Sipitang and Labuan.
4.	Faber Mediserve	Fire Fighting System consist of RPPU, Fire Alarm System, Hose Reel, Dry Riser / Wet Riser, Sprinkler System, CO2 System, Fire Tank, Fire Pump, Diesel Engine, Fire Extinguisher System and Fire Certification.
5.	Hospital Besar Kuala Lumpur	Proposed Fire Protection Services Installation at General Hospital Kuala Lumpur for Sprinkler System and Fire Alarm System.
6.	Hospital Besar Kuala Lumpur	Cadangan Tambahan dan Ubahsuai Sistem Pencegah Api bagi 'Drug & Pharmaceutical Store / Office & Flammable Liquid Store' Di Atas Hospital Besar (South Ward Block) Kuala Lumpur – CO2 System.
7.	Syarikat Federal Api	Cadangan Merekabentuk, Membina dan Menyiapkan Projek Sek. Keb. Taman Prima, Gombak, Kuala Lumpur untuk Kementerian Pendidikan Malaysia.
8.	Syarikat Federal Api	Cadangan Membina Sebuah Kilang beserta Pejabat 3 Tingkat di Lot 15, Jalan U1/15, Sek. U1, Shah Alam.
9.	Hospital Universiti Sains Malaysia	Upgrading of Fire Fighting System at UPS and Battery Room. (Total Flooding System – Pyrogen)

No.	Clients	Projects / Work Description
10.	Radicare, Raub	Supply and replace Fire Fighting Equipment at Hospital Raub.
11.	Hospital Besar Kuala Lumpur	Penyelenggaraan Sistem Pencegah Kebakaran (Fire Alarm System)
12.	Radicare Blood Bank	Fire Fighting PPM System Works, Replace Smoke Detector (Basement), Pump Room, and Genset Room.
13.	Radicare Putrajaya	Dismantling of Manifold and Auto changeover from Regulator, Service Manifold and re-Setting Alarm Panel.
14.	Radicare Banting	Service and Refill Fire Extinguisher Unit
15.	Radicare IMR	Check and and recify the fault fire alarm panel, including control cards, electronic components, zoning cards battery chargesunit and to make sure that the system is in good condition. For the following panel:- Guard Post, Administration Building, Kolej TMP, New Collage, Library and Monaklonal, Library and Parasite, Museum of Biomedical and Canteen.
16.	Syarikat Federal Api	Cadangan Membina Sebuah Kilang beserta Pejabat 3 Tingkat di Lot 15, Jalan U1/15, Seksyen U1, Shah Alam.
17.	Hospital Universiti Sains Malaysia	Upgrading of Fire Fighting System at UPS and Battery Room. (Total Flooding System – Pyrogen)
18.	Radicare Raub	Supply and Replace Fire Fighting Equipment at Hospital Raub
19.	Hospital Kuala Lumpur	Penyelenggaraan Sistem Pencegah Kebakaran (Fire Alarm System)
20.	Radicare Blood Bank	Fire Fighting PPM System Works. Replace Smoker Detector (Basement), Pump Room and Genset Room.

No.	Clients	Projects / Work Description
21.	Radicare Putrajaya	Dismantling of manifold and autochangeover from regulator, service manifold and re-setting alarm panel.
22.	Radicare Banting	Service and refill fire extinguisher unit
23.	Radicare IMR	Check and and recify the fault fire alarm panel, including control cards, electronic components, zoning cards battery chargesunit and to make sure that the system is in good condition. For the following panel:- Guard Post, Administration Building, Kolej TMP, New Collage, Library and Monaklonal, Library and Parasite, Museum of Biomedical and Canteen.
24.	Radicare IMR	Service and renew BOMBA certification for the following Portable Fire Extinguisher.
25.	SN Akmida	Fire Protection Project at Kem PGA, Gong Badak, Terengganu
26.	Radicare Hospital Kuala Lumpur	 Modification of GI Pipe including additional couping assemblies, leak thread replacement and civil works. Supply and deliver 30' – 1/2'" Grey P.V.C Dusting Hose Supply and Install Grundfos Vertical in Line Pump Supply & Install 10" Paper Layer Filter Joint New Water Pipe at V.I.E Urology Supply Install water filter system
27.	Medilaund (Radicare Teluk Panglima Garang – Centralised Laundry)	 Supply,delivery, install, testing and commissioning of process piping and ancillary equipment for the proposed centralized laundry plant, Teluk Panglima Garang Industrial Estate, Steam Supply and Install Water Filter & Condensate return piping & installation. FRP water storge tank Pumping system (6 units of KSB pump with inverter and auto control)
28.	Hospital Kuala Lumpur	Supply and Install of Water Storage Tank (Replacement) - Roltank Water Storage Model RT6 (6000 gallons)
29.	Hospital Kuala Lumpur	Supplying, installing and testing decoration lamp, X-mas lights and spotlights.

No.	Clients	Projects / Work Description
30.	Majlis Perbandaran Subang Jaya	Proposal for supplying and installing lights at housing area in Taman SS 18/5A Subang Jaya.
31.	Majlis Perbandaran Subang Jaya	Proposal for supplying and installing lights at housing area in Seri Puchong 1, Taman Seri Puchong.
32.	Majlis Perbandaran Subang Jaya	Proposal for supplying and installing lights at housing area in Jalan Merak 1, Bandar Puchong Jaya, Puchong.
33.	Majlis Perbandaran Subang Jaya	Proposal for supplying and installing lights at housing area in Puchong Perdana.
34.	Majlis Perbandaran Subang Jaya	Upgrading street lights and other works at Jalan 17/21, Seksyen 17, Petaling Jaya.
35.	Majlis Perbandaran Subang Jaya	Upgrading Light System at Jalan Tujuan, Subang Jaya.
36.	Majlis Perbandaran Subang Jaya	Supplying and Installing Spotlight at Subang Jaya Playground.
37.	Majlis Perbandaran Subang Jaya	Supplying and Installing Garden Lamp at all spacious area at Subang Jaya and Kinrara in MPSJ.
38.	Majlis Perbandaran Subang Jaya	Installing Spotlight for Futsal Arena at Jalan SS18/30 and Jalan USJ 5/34.
39.	Majlis Perbandaran Subang Jaya	Installing Spotlight for Garden at Jalan SS2/23, Petaling Jaya.

No.	Clients	Projects / Work Description
40.	Majlis Perbandaran Subang Jaya	Supplying Spotlight Lamp Post (8m Height) with 4 lamps, (each 250W) at Sun Subang Jaya.
41.	Majlis Perbandaran Subang Jaya	Supplying Spotlight Lamp Post (8m Height) with 4 lamps, (each 250W) at Sun Subang Jaya.
42.	Majlis Perbandaran Subang Jaya	Supplying Spotlight Lamp Post (8m Height) with 4 lamps, (each 250W) at Sun Subang Jaya.
43.	Majlis Perbandaran Subang Jaya	Supplying Spotlight Lamp Post (8m Height) with 4 lamps, (each 250W) at Sun Subang Jaya.
44.	Majlis Perbandaran Subang Jaya	Supplying 6 Electrical Lamp Post with 250W lamp at Basketball Arena at Taman SS18/4, SS 17 and USJ 1.
45.	Pusat Pembedahan Katarak	Design, Supply, Deliver, Install, Testing and Commissioning Fire Protection System.

15.2 TELEPHONE, KEYPHONE & PABX SYSTEM

No.	Clients	Projects / Work Description
1.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1G) at Hospital: i. Kudat ii. Kota Marudu iii. Kota Belud iv. Tuaran v. Queen Elizabeth vi. Bukit Padang vii. Papar
		Scope & System Under Supervision: i. Air Conditioning System ii. Lift iii. Fire Fighting iv. Building Automation System (BAS) v. Water Treatment vi. Medical Gas vii. PABX viii. Boiler
2.	Faber Mediserve	Hospital Building & Facilities Maintenance for Hospital Support Services (Package 1H) at Hospital: i. Ranau ii. Tambunan iii. Keningai iv. Tenom v. Beaufort vi. Sipitang vii. Labuan Scope & System Under Supervision: i. PABX ii. Boiler iii. Lift iv. Fire Fighting v. Air System vi. Water Treatment vii. BAS

15.2 TELEPHONE, KEYPHONE & PABX SYSTEM

No.	Clients	Projects / Work Description	
3.	Hicom Properties Sdn Bhd	Cadangan Membekal, Memasang, Menguji Serta Mentauliah Perkhidmatan Infrastruktur Telefon bagi Pembangunan Bercampur Taman Hicom Pagoh (Fasa 1) Mukim Pagoh, Daerah Alor Gajah, Melaka	
4.	Pusat Pembedahan Katarak	Supply & Install Isolated System (IPS) or IT System for each OT Room	

15.3 GENERATOR SET

No.	Clients	Projects / Work Description	
1.	Kementerian Kesihatan Malaysia	The Design, Upgrade, Construction and Commissioning of Generator Set and Associated Works at Maternity Hospital Pulau Pinang.	

15.4 BUILDING WIRING SYSTEM

No.	Clients	Projects / Work Description
1.	JKR Selangor	Kerja-kerja Pendawaian Semula di SK Tun Abdul Razak, Daerah Hulu Selangor, Selangor
2.	JKR Selangor	Kerja-kerja Pendawaian Semula di SK Kerling, Daerah Hulu Selangor, Selangor
3.	JKR Selangor	Kerja-kerja Pendawaian Semula di SMK Soeharto, Daerah Hulu Selangor, Selangor
4.	JKR Selangor	Kerja-kerja Pendawaian Semula di SK Kuala Kubu Bharu, Daerah Hulu Selangor, Selangor
5.	JKR Selangor	Kerja-kerja Pendawaian Semula di SK Ulu Yam, Daerah Hulu Selangor, Selangor

15.5 TRAFFIC CONTROL SYSTEM

No.	Clients Projects / Work Description	
1.	Majlis Perbandaran Subang Jaya	The Design, Upgrade, Construction and Commissioning of Generator Set and Associated Works at Maternity Hospital Pulau Pinang.

15.6 CCTV

No.	Clients	Projects / Work Description	
1.	Billion Network	Supply and Install 8 Cameras in Warehouse.	
2.	Arensi Marley	Supply and Install 16 Cameras in Warehouse and Office.	
3.	Vincenco Italiano Restaurant	Supply and Install 4 Cameras.	
4.	Hideki Japanese Restaurant	Supply and Install 4 Cameras.	
5.	Filtration Technology	Supply and Install 16 Cameras for Workshop.	
6.	Pusat Pembedahan Katarak	Supply and Install Complete to Monitor Waiting Area, Entrance and Main Entrance from Reception Counter.	
7.	Jabatan patologi Hospital Miri	Cadangan Menaiktaraf Jabatan Patologi Hospital Miri ke Makmal Perubatan Zon Utara Tengah.	

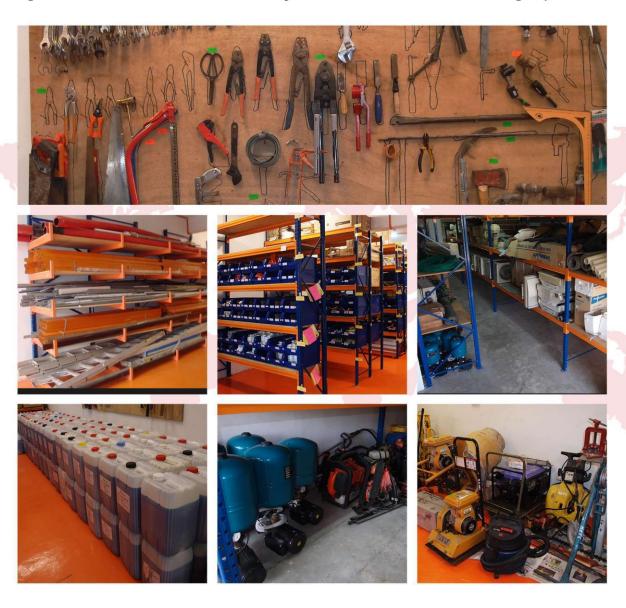
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CENTRAL WAREHOUSE, MACHINERIES & TOOLS



16.1 CENTRAL WAREHOUSE

The warehouse is dedicated to store all fast moving items for all sites operation whether it is for facility maintenance sites and for project sites.



The dual level 22' x 75' shoplot has been renovated with proper industrial standard racking system. There is also another 1 level for 'junk' warehouse storing all other parts for project cost control and fast delivery to sites.



16.1 LIST OF STOCK

CIVIL (USED)

- CIVIL (USED)

 BATU 3/4

 BOTTLE TRAP PVC

 BRACKET BENDERA DINDING

 DOOR CLOSER

 KANVAS

 KEPALA PAIP PVC

 KEPALA PAIP TOMBOL PLASTIC

 BULAT TRIP BAWAH

 KEPALA PAIP TOMBOL CHROME

 BULAT TRIP DINDING

 TILE PINK 8" × 8"

 TILE PINK 8" × 8"

 TILE PINK 8" N8"

 SIMEN

 SUMA PAIP

 DOUBLE TAP SWAN PAIP

 SWAN PAIP

 SWAN NECK

 KEPALA PAIP TOMBOL BULAT

 CHROME TRIP BAWAH

 KEPALA PAIP PULAS CHROME

 TRIP DINDING

 KEPALA PAIP JENIS LEFT

 TURN ON

 PVC STOP END 1 1/2

 PVC STOP END 1 1/2

 PVC TS OCKET 3/4

 PVC T SOCKET 3/4

 PVC CLBOW PAIP 2

 PVC T SOCKET 3/4 (USED)

 CONSUMABLES

- CONSUMABLES

- CONSUMABLES

 ALUMINIUM TAPE
 ALLMINIUM ZINK
 AUTOSOL
 ALUMINIUM ZINK
 AUTOSOL
 ALUMINIUM CLEANER
 BRAZING ALLOY/ROD
 BRASS FLUX
 BRAZING ALLOY/ROD
 BRASS FLUX
 BLACK TAPE
 CAT KILAT
 CAT (KILAT (MERAH)
 CAT (KILAT
 CAT (SUNDE)
 CAT (GUSTIC) TUNGOLAC
 CAT (RUST)
 CAT (PUTIH) 18 LITRE
 CAT (MARINE BLUE)
 CAT (MARINE BLUE)
 CAT (MARINE BLUE)
 CAT (GRAY) 5 LITRE
 CAT (GRAY) 5 LITRE
 CAT (CANDLEGLOW)
 CAT (BLUE)
 CAT (BLU
- DAWAI
 DUCTING ALUMINIUM FOIL
 ENSEL PINTU KECIL
 ENSEL PINTU BESAR
 EAR LOCK
 ELECTROD WELD
 GAS R134 4
 GAS R124
 GAB R125

- GAS RI2
 GREASE
 GETAH DOOR STOPPER
 GAM PAIP
 GAM DUNLOP
 GABUS (BROWN)
 G.I ZINK
 G.I WALL HOOK PIPE
 GAS RI2
 HIGH VACUM PUMP OIL
 IRON CULTER BILADE 12*
 INTERGAL WATERPROOFER
 KERTAS PASIR
 LATEX MORTAR ADDITIVE
 MATA GEROBER
 MATA GRENDER
 MATA GRENDER
 MATA GRENDER
 PEMOTONG BESI
 MATA GRENDER
 METAL POLISH
 MULTIL LUBE 100
 MAPP GAS

- MAPP GAS NAT 11
- NAT 12 NAT 13
- NAT 15
- PAKU PAYUNG
- PAKU KAYU 1' PAKU KAYU 2'
- PAKU BATU KECIL

CONSUMABLES

- PAKU BATU BESAR PASTE WAX PELUNTUR
- PUTTY FILLA
- PVC SOKET 3/4"
 RACUN SERANGGA
 ROD SILFOCE
 RUBBER BUSH

- RUBBER BUSH
 RACUN
 SKRU 1"
 SKRU 11/2"
 SKRU 2"
 SKRU 2LLENKEY
 SKRU ALLENKEY 2 1/2"
 SKRU AMBUNG TRUNKING
 SPORT RIM NAT
 SULICONE

- SPORT RIM NAT SELICONE SHADERING FLUX SELAK PINTU ALUMINIUM SELAK PINTU SKRU ALLENKEY 1 1/2" SKRU ALLENKEY 1/2"

- SKRU BASE LAMPU IALAN

- THINNER U CLIP CABLE ROAD 16"

- U CLIP CABLE ROAD 16"
 U BRAKET 2"
 U CLIP CABLE ROAD 8"
 WALL PLUG BESI 3/8
 WALL PLUG BESI 1/4
 WALL PLUG BESI 5/16
 WASHER
 WOOD FILL
 WALL PLUG PARTITION
 WALL PLUG PASTIK
 WAYAR POD
- WAYAR ROD WD-40 WHITE TAPE

- WD.-40
 WHITE TAPE
 WALL PLUG KAYU
 CAT PROTECTIVE COATING
 1460 FERN GREEN
 CAT PROTECTIVE
 COATINGS HARDENER
 CAT TIMBER FINISH T 108
 ROSEWOOD
 CAT (HITAM)
 CAT 3044 GOLDEN BROWN
 CAT 9102 WHITE
 CAT PUTIMBER SEAL 100
 (VARNISH)
 CAT BRIGHT GOLD (KUNING)
 CAT 116 SUEDE
 CAT SUPER GLO (WHITE 9102)
 CAT SUPER GLO
 (SIGNAL RED 6613)
 CAT (WHITE)
 CAT (WHITE)

- CAT (BROWN)
 CAT (WHITE)
 CAT (GREY)
 CAT (1145 WHITE)
 CAT SUPER GLO (NEPTUNE)
 CAT PIONEER 200 (PUTIH)
 CAT MATEX (CORAL BRUSH)
 CAT SUPER MATEX
 (PEACH 568)
 CAT SUPER MATEY
- · CAT SUPER MATEX
- CAT WEATHERBOND PLUM PINK PASTEL SKIM WOOD FILLA (NATURAL)

- ANCHOR 3/8 x 12
 ANCHORS 5/16 x 10
 MATA PEMOTONG KAYU
 BERUS DAWAI
 BERUS PLASTIK

- BERUS PLASTIK
 ADJUSTABLE HOOK
 SKRUTAPPING KECIL
 BOLT NUT 8
 SKRU SUIS/SOKET
 SPOT RIM NUT
 SKRU PUTIH 1/2"
 PAKU BATU 16MM
 SKRU TAPPING 1
 SKRU HTAM
 FLARE NUT 1/4"
 U CLIP CABLE 35MM
 U CLIP CABLE 22MM
 BRAKET FIRE FIGHTING
 PAKU 16MM
 CABLE 1 ARM CLAMP 16
 CABLE 1 ARM CLAMP 8
 ALUMINIUM CABLE 4
 CORE 25MM

- ALUMINIUM CABLE 4
 CORE 25MM
 BALLAST 18W
 BLADE FAN (GREY)
 BLADE FAN (WHITE)
 BULB PLC 18W
 CABLE 1.5MM RED
 CABLE 1.5MM YELLOW
 CABLE 1.5MM BLUE

ELECTRICAL GENERAL

- · CABLE 1.5MM BLACK

- CABLE 1.5MM BLACK
 CABLE 1.5MM GREN
 CABLE 2.5MM RED
 CABLE 2.5MM YELLOW
 CABLE 2.5MM BLUE
 CABLE 2.5MM BLUE
 CABLE 2.5MM BLUE
 CABLE 2.5MM BLOK
 CABLE 2.5MM BLOK
 CABLE 2.5MM GREEN
 COVER DOWN LIGHT
 COVER LAMP DOWN
 LIGHT
 COVER LAMP DOWN
 LIGHT
- · COVER LAMPU PENDAFLOUR

- COMER CLAIM DOWN
 LIGHT
 COVER LAMPU PENDAFLOUF
 D.B
 EMERGENCY LIGHT
 FIDDER FILLER
 FIEXIBLE CONDUIT
 METER BOX 3 PHASE
 PENDAFLOUR 2" X 4"
 BULB PLC PIN TYPE 18W
 ROD KIPAS (WHITE)
 TELEPHONE CABLE 4 CORE
 CABLE 3 CORE
 TRUNKING (WHITE) 3" X 4"
 TRUNKING (OREN) 2" X 3"
 TRUNKING (OREN) 2" X 3"
 TRUNKING (OREN) 2" X 3"
 TRUNKING (OREN) 2" X 4"
 KIPAS SILING
 CABLE 4MM (RED)
 CABLE 4MM (BLUE)
 CABLE 4MM (BLUE)
 CABLE 4MM (BLUE)
 CABLE 4MM (BLUE)
 CABLE 4MM (BACK)
 CABLE 4MM (BACK)
 CABLE 4MM (BACK)
 GABLE 4MM (BACK)
 GABLE 4MM (BACK)
 CABLE 6MM (RED)
 CABLE 6MM (BLACK)
 CABLE 6MM (BLACK)
 CABLE 6MM (BLACK)
 CABLE 6MM (BLOCK)
 CABLE 6MM

- · STARTER S10

- STARTER S10
 EMERGENCY LIGHT

 "KELUAR"
 TRANSFORMER 240V-12V
 KABLE 4MM (BLUE)
 CABLE LUG 4MM
 KABLE 4MM (RED)
 KABLE 4MM (RED)
 KABLE 4MM (YELLOW)
 MCB 63A 3 POLE
 MCB 32A 3 POLE
 BULB (ECOTONE) 15W-20W
 RAYCHAM (4COVE)
 PVC STOP VALVE 3/4
 BULB PENDAFLOUR 36W
- BLB PENDAFLOUR 36W

• G.I DOUBLE BASE BOX 3"X 3" • G.I SOKET 13 AMP SINGLE

ELECTRICAL GENERAL

- · ALUMINIUM CABEL 16 MM 1
- CORE BULB 70 W (SON) E

- BULB 70 W (SON) E
 BULB POWERTON E 27 70 W
 (SON) TUBE
 BULB 150 W (SON)
 BULB 250 W (METAL HALIDE)
 BULB 250 W (SON)
 BULB 400 W (METAL HALIDE)
 BULB 400 W (SON)
 BULB 400 W (SON)
 BALLAST 70 W
 BALLAST 250 W
 BALLAST 250 W
- BALLAST 250 W
 BALLAST 400 W
 BULB PENDAFLOUR 18 W
- (WHITE) (PENDEK) BULB PENDAFLOUR 36 W
- BOLLAST 18 -20 W
 BALLAST 18 -20 W
 BALLAST 32 40 W
 BRACKET SIGNAGE T LIGHT
- BULB (ECOTONE) WHITE 20 W
 BULB 25 W (KUNING) 15 W
 BULB 60 W (SOFTONE SKRU
- BUSBAR 14 WAY
- BUSBAR 46 WAY
 BUSBAR 48 WAY
 CABLE (BLACK) 4 MM
 CABLE DRUM (BLACK) 16 MM · CORRUGATED PAIP MERAH

· CONTACTOR 2040/20 A

· COXIAL CABLE · COPPER TAPE 1"

ELECTRICAL GENERAL

- · CABLE DRUM (BLACK) 10 MM
- 2 CORE CABLE GLAND 204
- CABLE GLAND 204
 CABLE GLAND 206
 CABLE GLAND 256
 CABLE GLAND 254
 CABLE LUG 16 MM
 CABLE LUG 25 MM
 CABLE LUG 70 MM
 CABLE CABLE
 CCTV

- · CHILI BULB (YELLOW) 25 W

- CHILI BULB (YELLOW) 25

 CABLE 1.5 MM (BLACK)

 CABLE 1.5 MM (YELLOW)

 CABLE 1.5 MM (YELLOW)

 CABLE 1.5 MM (YELLOW)

 CABLE 1.5 MM (GREEN)

 D HOOK (ROD KIPAS)

 CABLE 2.5 MM (BLACK)

 CABLE 2.5 MM (RED)

 CABLE 2.5 MM (RED)
- CABLE 2.5 MM (RED)
 CABLE (GREEN) 4 MM
 CABLE (RED) 4 MM
 CABLE (YELLOW) 4 MM
 DEAD AND CLAMP
 DECORATIVE BUNGA
 MANGGAR (RED)
 EARTHING ROD
 ELCB 3 PHASE 63 AMP
 FMPROFINCY LIGHT
 FMPROFINCY LIGHT
 CABLE 2.5 MM
 CAB

- EMERGENCY LIGHT (KELUAR SIGN)
 FUSE 15 AMP (WHITE)
 FIUS HOLDER 20 A HRC
- FLOATLESS SWITCH

- FILOATLESS SWITCH
 FUSE 15 A (WHITE)
 FUSE 50 A (WHITE)
 FUSE 000 MLETE SET 100
 AMP (CUT OUT 100 A)
 FUSE 100 AMP (WHITE)
 FUSE 10 A 250 V
 FUSE 15 AMP 20 AMP
 FUSE 16 A 250 V
 FUSE 16 A 250 V
 FUSE 63 AMP HRC 500 V
 FUSE 64 AMP
 FUSE 60 AMP
 (CUT OUT 60 A)
 FUSE HOLDER 20 AMP
 FUSE HOLDER 20 AMP
- FUSE HOLDER 63 AMP HRC (BLACK) FLOOD PAR 38 (WHITE) 120 W FUJI LAMP (BULB PAR 38)

- YELLOW
 G.I ELBOW 1"
 G.1 ELBOW 3/4"
- G.I TEE 1" · G.I TEE 3/4"
- G.I END BOX 3/4" G.I 4 WAY BOX 1" G.I 2 WAY BOX 1"
- G.I PIPE 4

- GI PIPE 4"
 HOLDER E 40
 HOLDER E 27
 HALOGEN BULB 50 W (YELLOW)
 HALOGEN BULB 12 V 50 W
 HALOGEN BULB 12 V 50 W
 HOLDER PENDAFLOUR
 IPC CABLE 16: 25
 IGNITOR (70 W 400 W)
- KAPASITOR 30 MICRO UF UCLIP 3/4"
- U CLIP 3/4"

 LAMP HOLDER PIN TYPE (BLACK)

 MALE FEMALE 3/4" (WHITE)

 PVC MALE FEMALE 1" (WHITE)

 PVC MALE FEMALE 1" (WHITE)

 MAINSWITCH 3 20LE 32 AMP

 MAINSWITCH 63 AMP (WHITE)

 MCB 10A 1 POLE

 MCB 20A 1 PO

- * MENTOL 40 W
 * MENTOL 40 W
 * NEUTRAL LINK 60 A
 * PVC TRUNKING 4 " X 2 " (NEW)
 * PVC TRUNKING 2 " X 3 " (NEW)
 * PVC TRUNKING 2 " X 2 " (NEW)
 * PVC CONDIT WALL HOOK
 * PVC ELBOW 3/4 " (WHITE)
 * PVC SOKET 3/4 " (WHITE)
 * PVC SOKET 1 " (WHITE)
 * PVC SOKET 1 " (WHITE)
 * PING PONG BULB 5 W (KILDE)
 * PING PONG BULB 5 W (GREN)
 * PING PONG BULB 5 W (GREY)
 * PING PONG BULB 5 W (PREY)
 * PILC 18 W (227) PIN TYPE (WHITE)
 * BULB 15W

- ELECTRICAL GENERAL
- PLCE (SKRU) 8 W PLCE (SKRU) 14 W PLC (WHITE) 15 W

- PLC (WHITE) 15 W
 PVC BOX 1 GENG 3" X 3" (BLACK)
 PVC BOX 1 GENG 3" X 3" (WHITE)
 PVC BOX 4 GENG 3" X 3" (WHITE)
 PVC CONDUIT 3" (WHITE)
 PVC CONDUIT 3" (WHITE)
 PVC CONDUIT 1" (WHITE)
 PVC

- RING BULB 40 W
- RING BULB 40 W
 RING BULB HOLDER (WHITE)
 SOCKET TRUNKING 2" X 2" (OREN)
 SOCKET TRUNKING 2" X 3" (OREN)
 SOCKET TRUNKING 2" X 3" (PUTIH)
 SOCKET TRUNKING 2" X 3" (PUTIH)
 SOCKET TRUNKING 2" X 4" (PUTIH)
 SOCKET 13 AMP
 SPORTLIGHT (YELLOW) 100 W
 SPORTLIGHT 250 W (YELLOW)
 SPORTLIGHT 400 W (YELLOW)
 SPORTLIGHT 400 W (YELLOW)
 SPORTLIGHT 500W
 (METAL HALIDE)
 SPORTLIGHT TSOW (WELLOW)

- (WHITE) STARTER S 10
- STARTER S 2 STROBE LIGHT CONTROLLER

- (WHITE)

- COVER

- · G.I SOKET 1"

- G.I REDUSER 3/4" 1"
 TRUNKING 2" X 2" (G.I COLOUR)
 COPPER MALE BUSH 3/4"
- · COPPER LINK (2 HOLE)
- · LAMPU PENDAFLOUR 18W
- G.I 4 WAY BOX 3/4" PVC 4 WAY BOX 1" (CONDUIT) PVC BASE BOX DOUBLE (PUTIH)

- · KIPAS SILING · ROSE CEILING
- · CABLE 6MM (BLACK)

- (WHITE)
 TIMER HEAGER
 TRANSFORMER HALOGEN
 (WHITE)
 TRUNKING 2" X 3" (GREEN)
 TRUNKING (WHITE) 3" X 4" (NEW)
 TRUNKING (OREN) 2" X 3" (NEW)
 TRUNKING (OREN) 2" X 2" (NEW)
 TRUNKING (OREN) 2" X 2" (NEW)
 TRUNKING (OREN) 2" X 4" (NEW)
 TRUNKING 2" X 4" (WHITE)
 TWIN FLET CABLE 2.5 MM
 U CLIP 1"
 UNDERWATER FLOODLIGHT
 COVER

- COVER

 CABLE 2.5MM (YELLOW)

 CABLE 2.5MM (BLUE)

 CABLE 4MM (BLUE)

 CABLE 4MM (BLACK)
- G.I 2 WAY BOX 3/4" G.I 3 WAY BOX 3/4" G.I 'L' BOX 3/4" G.I SOKET 3/4"
- G.I SOKET 1"
 G.I SOKET 1"
 G.I SOKET 2"
 G.I SADLE & BAR 3/4"
 G.I SADLE & BAR 1"
 PVC SADLE & BAR 20MM
 PVC SADLE & BAR 25MM
 CONTACTOR 60 AMP
 CONTACTOR 100 AMP
 G.I CONDUIT 3/4" (OREN)
 SOCKET 13 AMP (METALCLAD)
 SUIS 1 GANG 1 WAY (METALCLAD)
 SUIS 1 GANG 2 WAY (METALCLAD)
 SUIS 2 GANG 1 WAY (METALCLAD)
 SUIS 3 GANG 1 WAY (METALCLAD)
 GUIS 4 GANG 1 WAY (METALCLAD)
 GUIS 4 GANG 1 WAY (METALCLAD)
 GUIS 5 GANG 1 WAY (METALCLAD)
 G.I LONG BAND 3/4"
 KIPAS SILING
- CONNECTOR
 SOCKET 13 AMP X 2 (METALCLAD)
 LAMPU PENDAFLOUR 36W
 LAMPU PENDAFLOUR 36W X 2
- EXHAUSE FAN
 KIPAS DINDING
 CABLE 6MM (RED)
- · LAMPU LED (OREN)

16.1 LIST OF STOCK

ELECTRICAL GENERAL

- LAMPU LED (HIJAU)
 LAMPU LED (KUNING)
 LAMPU LED (PUTIH)
 CABLE LUG 50MM
 FIUS 100AMP HRC 500V
 LAMPU LED (MERAH)
 CABLE LUG 10MM
 DEDINITANIC

- PERINTANG
 CABLE LUG 35MM
 HOLDER PENDAFLOUR
 KABLE GLAND 326
 FIUS 100AMP HRC (PUTIH)

- G-I 'L' BOX PAIP 1'
 MCB 6A (HITAM)
 TRANSFORMER ELECTRONIC

- *TRANSFORMER ELECTRONIC

 *FUSE HOLDER 100A BLACK

 HALOGEN BULB 240V 500W

 *SOCKET TRUNKING 1' X 5' PUTIH

 *SOCKET TRUNKING 2' X 4' PUTIH

 *SOCKET TRUNKING 2' X 4' PUTIH

 *PVC 3 WAY BOX 1" (OREN)

 *PVC LONG BAND 1" (OREN)

 *PVC 4 WAY BOX 1" (OREN)

 *PVC 4 WAY BOX 1" (OREN)

 *PVC WAY BOX 1" (OREN)

 *PVC 2 WAY BOX 1" (OREN)

 *PVC END BOX 1" CONDUIT

 *PVC TRUNKING 1" (OREN)

 *PVC END BOX 1" CONDUIT
- PUTIH)
 PVC 4 WAY BOX 3/4 " CONDUIT (WHITE)
 PVC END BOX 3/4" CONDUIT
- (WHITE)
- PVC SINGLE BASE BOX (PARTICION) PVC BASE BOX DOUBLE
- (PARTICION) LONG BAND 3/4" CONDUIT
- PVC ELBOW 1" (CONDUIT)
 (WHITE)
 PVC TEE SOKET 3/4" CONDUIT
- · GI 3 WAY BOX 1"

MEKANIKAL (GENERAL)

- · BEARING 6309 Z
- BEARING 6305 Z
- BEARING 6306 Z BEARING 6307 Z BEARING 6308 Z
- BEARING 6206 Z CASTER (P.KECIL)
- CASTER (160/40 -CASTER 100 X 25 CASTER 125
- CASTER KERUSI KOMPUTER

- CASTER 400 CASTER 400 EXPANSION BELOW FLANGED TYPE 2" EXPANSION BELOW
- FLANGED TYPE (32/AF) 4" FLANGE 2 1/2" FLANGE 4"

- FIBER FLEXIBLE DUCTING GATE VALVE 3/4"
- GLOBE VALVE 2 1/2"
 G.I PIPE SOCKET 2 1/2" (SILVER)
 HAND VALVE 1/2"

MEKANIKAL (GENERAL)

- PRESSURE GAUGE
 STRAINER (COPPER)
 TRAY DRAIN (SILVER)
 VALVE (STOP COCK) (GOLD) 2"
- VALVE 1/2" VALVE 2 1/2"

· VALVE 3/4"

USED

- · MOTOR PUMP.
- STRAINER 10K 50K EXPANSION BELOW FLANGED

MEKANIKAL (GENERAL)

MEKANIKAL STEAM

- PRESSURE GAUGE (OIL FILL) STEAM PRESSURE GAUGE PRESSURE GAUGE TUBE

- STEAM TRAP 3 1/4'
- STIM SEPERATOR STRAINER

MEKANIKAL HOT WATER USED

- HOT WATER PUMP 2.2HP
- XPANSION VESSEL(BLUE)
- HOT WATER PUMP
 HOT WATER PUMP
 COLD WATER PUMP 3.0HP
 HOT WATER PUMP 2.25KW

MEKANIKAL FIRE FIGHTING

- SMOKE DETECTOR (RED)
 SPRINKLER HEAD
- · ALARM BELL

MECHANICAL FIRE FIGHTING (USED)

- PEMADAM API (MERAH)
 PEMADAM API CO2
 PEMADAM API (BIRU)
 PEMADAM API (BIRU)
 PEMADAM API (BIRU)
 PEMADAM API (MERAH)
 PEMADAM API (MERAH)
 PEMADAM API (MERAH)

MEKANIKAL AIR COND

- COPPER NAT 1/4" COPPER NAT 1/2" COPPER NAT 5/8"
- BELTING 3320 13 X 785 Li

- BELTING 3320 13
 BELTING A 27
 BELTING A 32
 BELTING B 131
 BELTING B 25
 BELTING B 25
 BELTING B 31
 BELTING B 37

MEKANIKAL AIR COND

- STRAINER 3 125 T COPPER (GOLD) 1/2"

MEKANIKAL AIR COND

- BELTING SPZ 1120

 BELTING SPZ 1037

 BELTING SPZ 1037

 BELTING SPZ 1087

 BELTING SPZ 1687

 BELTING SPZ 1687

 BELTING SPZ 1562

 BELTING B 9 52 71

 BELTING B 37

 BELTING B 37

 BELTING 3340 13 X 835 Li

 BELTING 3340 13 X 760 Li

 BELTING 3325 13 X 760 Li

 BELTING SPZ 10325 13 X 760 Li BELTING 3325 13 X 800 Li

MEKANIKAL AIR COND (USED)

• INDOOR (WALL MOUNTED) 1.0 H.P • INDOOR (WALL MOUNTED) 1.5 H.P • INDOOR (WALL MOUNTED) 3.0 H.P • INDOOR (WALL MOUNTED) 1.0 H.P • INDOOR (WALL MOUNTED) 1.5 H.P • INDOOR (WALL MOUNTED) 1.5 H.P • INDOOR (WALL MOUNTED) 2.0 H.P • INDOOR (WALL INDOOR (WALL MOUNTED) 2.0 H.P INDOOR (WALL MOUNTED) 2.5 H.P

MEKANIKAL AIR

- COND (USED)
- INDOOR (WALL MOUNTED) 1.0 H.P INDOOR (WALL MOUNTED) 1.5 H.P

- MOUNTED) 1.5 H.P

 INDOOR (WALL
 MOUNTED) 2.0 H.P

 INDOOR (WALL
 MOUNTED) 2.5 H.P

 INDOOR (WALL STAND)

 OUTDOOR 1.5 H.P

 OUTDOOR 1.5 H.P

 OUTDOOR 2.0 H.P

 OUTDOOR 2.5 H.P

 OUTDOOR 2.5 H.P

 OUTDOOR 1.5 H.P

 OUTDOOR 2.5 H.P

 OUTDOOR 2.5 H.P

 OUTDOOR 3.0 H.P

MEKANIKAL MEDICAL

GAS (USED)

• AVSU

- SMALL TOOLS (LOOSE)

SMALL TOOLS (LOOSE)

- GUNTING BESI HAMMER CONCRETE (BESAR) HOLE SAW 25" (SILVER) HOLE SAW 54" (SILVER)
- · HOSE PIPE (HIJAU)
- HOSE PIPE (OREN)
 KAPAK
 KAYU PERATA SIMEN

- KAYU PERATA SIMEN
 KIKIR BULAT (SILVER)
 KIKIR LEPER (SILVER)
 MATA DRILL BATU
 MATA DRILL BATU
 MATA DRILL KAYU
 MOP CLEAN ROOM
 PAHAT BATU
 PAHAT BATU
 PAHAT KAYU (SILVER)
 GI THREADER (BIG)
 PENCEDOK TAR
 BERUS PENJOLOK TIUB
 PENJOLOK TIUB
 PENJOLOK TIUB ROTAN

- PENJOLOK TIUB ROTAN
 PENYODOK SAMPAH
 PERENGKUH PIPE 12"
 PERENGKUH PAIP 18"
- · PERENGKUH PIPE 24
- PERENGKUH PIPE 250 MM (RED)
 PULLER
 ROLLER CAT BESAR
- SERVICE DOOR KEY

- SERVICE DOOR KEY
 SPANAR RICET
 TEST PEN
 TOOL BOX (BIRU)
 TRAY CAT
 TUBE CUTTER
 TURBO TORCH
 VACUM CLEANER FILTER
 WATER PUMP 0.5 HP
 PISAU SIMEN BESI
 PISAU SIMEN KAYU
 KUKIK IK AMBING
 KUKIK IK AMBING

- KUKU KAMBING
 SCRAPPER
 LEVEL PLUM
- · SILICONE GUN
- ALAT PENIMBANG PIPE CUTTER 50 MM VACUM PUMP
- · NITROGEN TANK REGULATOR
- ACETYLENE TANK REGULATOR
 ROLL CAT KECIL
 WATER LEVEL
- GERGAJI KAYU
 GERGAJI BESI
 GERGAJI POKOK
 GERGAJI SILING
 PUMP GREEZE

- · HAND RIVET
- CLAMP CABEL (BIASA)
 PUMP CHEMICAL
 COMPRESSOR SPRAY GUN (CAT)
 FLARING TOOLS

- SPRING BENDER 1'
 SPRING BENDER 1/2'
 SPRING BENDER (COPPER)
 G.I THREADER (SMALL)

SPAN SIMEN · BERUS CAT

 SESIKU (L)
 SUDU SIMEN MOZAIK
 PENGIKAT DAWAI
 FIN COMB • BAKUL SAMPAH
• BALDI SIMEN
• BENDER BRC (KECIL)
• BENDER BRC (BESAR)
• COMPRESSOR SPRAY GUN (ANGIN)
• EXTENSION CABLE
• EL OW CHOP.

- BATTON LIGHT · AWAS GANTUNG SIGN
- (WQB 8596) · AWAS MUATAN PANJAN
- KON
- (WPE 9075) AWAS MUATAN PANJANG

(WNN 1148)

· BAJU HUJAN

SAFETY VASE

· SHOES BOOTS

- ROAD SIGNAGE
- SAFETY HELMET
- HEAD LAMP SAFETY HARNEST
- · SARUNG TANGAN WELDING MASK

SAFETY EQUIPMENT

- · HAZARD LAMP AWAS MUATAN PANJANG

 - TOPI KEBUN

· EAR PLUGS

· GOOGLE

TORCH LIGHT

BUILDING ON FAMILY LEGACY OF

EXCELLENCE | MUTUAL RESPECT | ETHICS | SAFETY | SUSTAINABILITY | FAIR RETURN

16.2 MACHINERIES

LIGHT MACHINERIES





ITEM	UNIT
Generator Set	3
Vibratory Plate	1
Compactor	1
Water Pump Jet	1
Concrete Cutter	2
Air Compressor	1
Oxy Cutter	2
Concrete Mixer	1
Arc Welding	1
Barbender	1









HEAVY MACHINERIES



17.0

TESTING EQUIPMENT



1.



ELECTRONIC BALANCING TOOLS WITH AIR FLOW PRO HOOD

Brand Alnor

Model EBT 721

Serial No. 90802016

Calibration J10400

2.



THERMO ANEMOMETER

Brand Alnor

Model AVM 440

Serial No. AVM 440802007

Calibration | 10399

3.



INFRARED THERMOMETER

Brand Fluke

Model 561 HVAC Pro

Serial No. 0612875

Calibration -

4.



PARTICLE COUNTER

Brand Alnor

Model Lasair III 310c

Serial No. 66359

Calibration | 18266

5.



PRESSURE GAUGE TEST EQUIPMENT

Brand DRUCK

Model DP 1705

Serial No. 70541130

Calibration 7369

6.



AGSS TEST EQUIPMENT

Brand MEC

Model BS 6834

Serial No. F 124399/14

Calibration -

7.



AIR SAMPLING SYSTEM

Brand SAS

Model EW-33687-02

Serial No. 09-L-06101

Calibration J10392

8.



LIGHT INTENSITY MEASURING INSTRUMENT

Brand TESTO

Model Testo 540

Serial No. 05541776

Calibration -



HCHO DETECTOR

Brand RIKEN KEIKI

Model FP-30

Serial No. 065020022RNT

Calibration -



MINI INCUBATOR

Brand PBI BRAND

Model Anno 2008

Serial No. 61476

Calibration -





PHOTOMETER

Brand ATI

Model TDA-2G/2H

Serial No. -

Calibration -





THERMO SCIENTIFIC

Brand THERMO SCIENTIFIC

Model PDR-1500

Serial No. 1018243129

Calibration -

13.



GREYWOLF SENSOR

Brand GREYWOLF

Model AS-201 / TG 501

Serial No. -

Calibration -

14.



TACHOMETER

Brand KIMO

Model CT 100 0

Serial No. 05060620

Calibration J8593

15.



MINNEAPOLIS DOOR BLOWER

Brand ALNOR

Model AVM 440

Serial No. AVM 440802007

Calibration J10399

18.0

COMPANY VEHICLES



18.0 COMPANY VEHICLES

























Proton Wira WPA 1499
Proton Iswara BFK 6009



Van-Toyota Hiace WQT 3975



Lorry-Daihatsu Delta WNN 1148 WPE 9075 BKT 5201



Van-Nissan Vaneete WPF 7923 WJL 2426 WLQ 1152 SAA 3278B



Lorry-Mitsubishi WQB 8596

19.0

SUPPLIERS & CREDITORS

19.0 SUPPLIERS & CREDITORS

COMPANY'S NAME MATERIAL SUPPLIED

Precision UK Ltd. Medical Gas Pipeline System
Chat Union Climaveneta Chiller, AHU, FCU, Fan Coil

Distech Control Pte. Ltd.Building Management System (Hardware/Software)

Accutrol Tek-Air System, Inc.
Acson Malaysia Sales & Service
Topaire Sales & Services Sdn. Bhd.

Critical Air Flow Control System
Air Conditioner & Freezer Products
Air Cond & Refrigeration Products

Dunham-Bush Malaysia
Syn Tai Hung Trading Sdn. Bhd.

Air Cond & Refrigeration Products
Building Materials & Hardware

Spirax Sarco Sdn. Bhd. Steam Ancillaries Products

Environmental Building System Special Air Cond Ducting System

MSM Marketing Sdn. Bhd. Kitchen Equipments
Alliance Precast Industries Sdn. Bhd. Concrete Products

Yong Hardware Trading Sdn. Bhd.

Building Materials & Hardware

Semafori Controlli Automazione Electronica

Traffic Light System & Products

George Kent Boilers/Press. Vessel/Hot Water Installation

Rigel Technology (M) Sdn. Bhd.

Sanitary Fittings & Wares

Koon Hoe & Company Sdn. Bhd.

Sanitary Fittings & Wares

Bumhan Sanitary Wares Sdn. Bhd. Sanitary Fittings, Wares & Services

Guocera Marketing Sdn. Bhd. Tiles & Finishes

Tileron Enterprise Sdn. Bhd. Polycarbonate Roof System & Products

Lafarge Roofing System Roofing Tiles Products
Fidecco Sdn. Bhd. Glass Doors & Products

Pristine Frontier Sdn. Bhd. Iron Mongery & Door Accesories

Sham Pest Control Sdn. Bhd. Pest Control & Services
Entropest Sdn. Bhd. Pest Control & Services

Reka Taman Landscaping Materials, Products & Services

Titi Maju Lift Installation, Maint & Services

Insafoam Insulation Thermal & Insulation System & Products
Tractors Malaysia (1982) Sdn. Bhd. Plants & Machineries Rental & Services

Yi-Lai Industry Berhad Tiles Products

Kimgress Marketing Sdn. Bhd.

Tiles & Finishes Products

White Horse Marketing Sdn. Bhd.

Tiles & Finishes Products

MNH Jati Sdn. Bhd. Mechanical, Electrical, Automation Fittings, Equipments & Tools

Hardware & Tools

Linear Technology Cooling Tower

Magnipower Enterprise Electrical Materials & Products

Everdollar Machinery & Hardware Supply Sdn. Bhd.Building Works Equipments, Machinery etc.

CSM Hardware Sdn. Bhd.

Buildcon Concrete Ready-Mix Concrete etc.

Lysaght Marketing Sdn. Bhd. Street Lighting Products

Bubble Network Electrical Panel

Pro Trade Advance Sdn. Bhd.Traf. Light Controller, Countdown System, Road Signages etc.

Tricmatic Electrical Automation Sdn. Bhd. Electrical & Electronic Products, Fire Fighting,

Security, PLC System, Cabling Installation, Earthing Works

KVC Electric (Selangor) Sdn. Bhd. Electrical Products

Electroms Sdn. Bhd. Trunk Radio

Oversea Lighting & Electric (M) Sdn. Bhd.

Lighting Products etc.

Midor Interior Designer & Furnishing Sdn. Bhd.

Interior Design & Furnishing

AM Office System Sdn. Bhd. Furnishing & Fittings
Alphamatic Systems Sdn. Bhd. Virtual Office Solution

Stone World Sdn. Bhd. Marble, Granite, Limestones & Travertine Products & Installation

Cyberharvest (M) Sdn. Bhd. Iron Mongery, Doors, Folding/sliding Gear System &

General Basic Building Materials

20.0

REFERENCES

20.1

20.2

INTERNATIONAL LOCAL



20.0 REFERENCES

20.1 INTERNATIONAL

a. PRECISION UK

b.DISTECH CONTROL

DISTECH

Innovative Solutions for Greener Buildings"

Date: 12 Jan 2015 Our Ref: DT/2015/L120115

To Whom It May Concern

Distech Controls - Authorized System Integrator

We are pleased to confirm that Jana Tanmia (M) Sdn Bhd with their office located in No 11, Jalan Kota Raja HZ/TH, Hicom Town Centre, Seksyen 40400 Shah Alam, Selangor Darul Ehsan, Malaysia is appointed by Distech Controls as the Authorized System Integrator for the Territory of Malaysia specifically for Government / Public

As our System Integrator, Jana Tanmia will be responsible for activities in the overall Government Public sector includes CLCs. They are fully capable of providing all sales and technical support for the supply, installation, testing, commissioning and training of Distech Controls products in all categories of public projects.

Distech Controls will provide additional factory sales and technical support if required

Yours Sincerely

Dennis Tia Regional Sales Manager Jun short

PRECISION UK LTD

Specialists in HTM02-01 Medical Gas Pipeline Equipmen

Jana Tanmia Resources Sdn Bhd,

Hicom Town Centre, Seksyen 27, No. 11, Jalan Kota Raja H27/H,

40400, Shah Alam,

Selangor, Malaysia

Tuesday, 06 January 2015

Ref: Malaysian Distribution

Dear Mr. Zaidi

We are pleased to inform on our appointment of Jana Tanmia Resources Sdn Bhd as our Exclusive Distributor for overall Malaysian market We also agree for Jana Tanmia Resources Sdn Bhd to undertake as local manufacturer of our product in Malaysia and proceed with Malaysia brand application with Malaysian local authorities Please do not hesitate to contact me if you require any further information

MECISION UK LEGISE Medical Costs in Frincisco Per New Polentia European Polentia Costs Supplied to Sept Costs Polentia Costs P

Thank you and Kind Regards

Precision UK Edd Robert Parry

Managing Director

CPX Technology Building, Pepper Road Hazel Grove, Stockport, UK, Sk7 55W Tet +444 (ii) 161-487 282. Fac +444 (ii) 164 487 2816. Email: infulfiginessionals. co. sk.

Company Repaired

Registered in England

Aut he 8500700 67

CPX

Distech Controls Pte. Ltd.

20.1 INTERNATIONAL

d. DISTECH CONTROL



The healthy atternative to water purification

SCALE HASTER®

MineralPURE

4/8/2014

To whom it may concern;

Please accept this letter as conformation that Jana Tanmia Corporation is an Authorized Dealer

Of Clearwater Enviro Technologies, Largo, FL USA. The products represented are ScaleBlaster,

Mineral Pure and Ozone Max.

If you need any other information please feel free to contact me.

Best Regards,

Bill Glass
V.P. Sales and Operations
Clearwater Enviro Technologies

bill@clearwater-enviro.com

8767 115th Avenue North • Largo, FL 33773 • USA • Phone: 727-562-5186 • Fax: 727-562-5187

c. TEK AIR



REGIONAL OFFICES Atlanta Chicago Danbury Phoenix

December 5, 2007,

Tek-Air Systems, Inc. Announcement

Tek-Air Systems, Inc., a leader in critical airflow control is pleased to announce that, Jana Tanmia (M) Sdn. Bhd, Enginnering, Construction & Maintenance, has been selected to represent Tek-Air Systems, Inc. in Malaysia.

Jana Tanmia (M) Sdn. Bhd, was established in April 1996 and is managed by Mr. Mohd Zaidi Ilamdin. Jana Tanmia (M) Sdn. Bhd, is experienced in providing engineering, construction, maintenance and support to today's modern and complex facilities in Malaysia.

Tek-Air Systems, Inc. manufactures air flow measurement devices, air flow control valves and control systems for pressurization and laboratory air flow management and control. Tek-Air Systems, Inc. products and systems have been installed world wide for over 28 years in hospitals, research labs, universities, industrial buildings and major pharmacutical companies.

We know that the combination of proven high performance Tek-Air products with a local knowledgable and experienced installation and support services company will deliver the project as designed. This is why we are pleased to be working with Jana Tanmia (M) Sdn. Bhd. for all of Malaysia.

Sincerely,

Tow Checksfield
Tom Checksfield
General Manager
Tek-Air Systems, Inc.

BUILDING ON FAMILY LEGACY OF
EXCELLENCE | MUTUAL RESPECT | ETHICS | SAFETY | SUSTAINABILITY | FAIR RETUR

FAIR RETURN

f. RGf ENVIRONMENTAL GROUP

e. DELL MALAYSIA



Environmental Group, Inc.

April 8, 2014

Jana Tanmia (M) Sdn. Bhd. No. 11, Jalan Kota Raja HZ7/H Seksyen 27, Hicom Town Centre 40400 Shah Alam, Selangor Darul Ehsan Malaysia

Dear sir,

Please be advised that RGF Environmental Group, Inc. hereby confirms Jana Tanmia (M) Sdn. Bhd. is authorized to distribute and sell our Guardian Air product line and to provide warranty and service for RGF Environmental Group's products in Malaysia.

Best Regards,

Sharon B. Rinehimer Vice President-General Counsel

cop/l-





Dell Sales Malaysia Sdn Bhd 2900 Persiaran APEC 63000 Cyberjaya, Setangor Darui Ehsan Tetenbone Line: 03-8310 1888 Fax Line: 03-8318 061

Date

To Whom It May Concern:

LETTER OF AUTHORIZATION

Dell Sales Malaysia Sdn Bhd, formerly known as Computer Direct Sdn., hereby certifles JANA TANMIA (M) SDN BHD having address No. 11 Jalan Kota Raja H27H, Hicom Town Centre, Section 27, 40400 Shah Alam, Selangor (Reseller") is a Dell Authorized Reseller in Malaysia, solely for the supply of Dell products, particulars of which are set out in the Schedule here to (the "Products"), to "End User",.

Provided that the sale of the Products to "End User" is in compliance with United States Export Control Laws and Regulations, the Reseller is authorized to act as a Reseller of Dell computer products to you in Malaysia and has Dell's commitment to provide products, services, and support in accordance with Dell's prevailing terms and conditions of sale (the "Terms and Conditions").

This authorization is void if Dell suspects or receives information or otherwise determines that (a) the end user of the Products will utilize the Products directly or indirectly in nuclear activities listed in US EAR 778.3(b)(1), (2) & (3), whether the items are specifically designed or modified for such activities, or (b) that the Products will be destined for or used in the design, development, production or use of missiles or missile projects, or designing, developing, abricating or testing nuclear, chemical, biological weapons or explosive devices, or (c) permisor for the sale of the Products (if requested) is withheld, for any reason, by the United States Department of Commerce or other United States Government Agency. Please be advised that the Products may include technical data subject to export and reseport restrictions imposed by the USA.

This authorization is valid for a period of ninety (90) days commencing from the date of this letter.

Yours sincerely,

DELL SALES MALAYSIA SDN BHD

By : ABD SHUKOR AZRIN PUBLIC SALES DIRECTOR

1101 West 13th Street (Port of Palm Beach Enterprise Zone) Riviera Beach, Florida 33404 FL 561 848-1826 • 800 842-7771 • Fax 561 848-9454 • www.rgf.com

20.0 REFERENCES

20.1 INTERNATIONAL

g. G SAMARAS S.A.



Thermi industrial area 57001 Thessaloniki Greece Tel: +30 2310463388

Fax: +302310464570 Email: sales@gsamaras.ur Web: www.gsamaras.gr

 Medical Device Authority Malaysia

Date, 13/10/2022

Dear Sir/Madam.

Subject: Letter of Authorisation for Jana Tanmia Resources Sdn Bhd

We G. Samaras S.A. as the manufacturer of the medical device listed in Attachment 1, hereby authorize Jana Tanmia Resources Sdn Bhd, as the Authorised Representative to prepare and submit applications for the evaluation and registration of medical devices to the Medical Device Authority on our behalf.

We also authorize Jana Tanmia Resources Sdn Bhd to make declarations and to submit documents on our behalf, regarding the above medical devices, in support of this application. These declarations and submissions are made pursuant to the requirements of the Medical Device Act 2012 (Act 737), the Medical Device Regulations 2012 and any other applicable laws that may also be in force.

This authorization shall remain in effect until our notification to the Medical Device Authority in writing (either by postal mail or e-mail) that the authorization is revoked subject to any condition imposed by the Authority.

We undertake to provide all the necessary support and assistance to the distributor/importer as may be required in relation to any matter involving the medical devices listed in Attachment 1.

We acknowledge that any non-compliance with any condition issued by the Medical Device Authority in relation to medical devices registered under Act 737 may result in the suspension or cancellation of the medical device registration.

We agree to furnish and assist the Medical Device Authority with any request for information on the above medical devices.

MDA/GD/0027

Yours sincerely.

Menelaos Samaras General Manager

b. ACSON MALAYSIA



Acson Malaysia Sales & Service



Our Ref: DA100813-011

Date : 13TH AUG 2010

TO WHOM IT MAY CONCERN

We hereby certify that Messrs. JANA TANMIA SDN BHD, No 11 JALAN KOTA RAJA H27/H, HICOM TOWN CENTRE, SEKSYEN 27,40400 Shah Alam ,Selangor is eligible to promote our complete range of ACSON Air Conditioners and Products

We have extending our fullest support to Messrs. JANA TANMIA SDN BHD in all matters regarding installation commissioning and maintenance of all ACSON equipment's.

This letter was issued without any responsibility or obligation on the part of the company and any of its employees.

The management reserves the right to revise and review of the facility when deemed necessary.

Regards,

Yours faithfully

ACSON MALAYSIA SALES & SERVICE SDN BHD

Yeap Kin Oun Sr. Manager, National Sales

Acson Mataysia Sales & Service Sdn Bhd (12688-0)
Lot 4, Lorong 19/14, Section 19, 46300 Petaling Jaya, Setangor Dana Ehsan, Mataysia.
Tel: 03-7964 8200 Fax: 03-7956 9907/9 E-mait: acson@acson.com.my
"Visit us at www.acson.com.my"

a. TOPAIRE



Topaire Sales & Services Sdn Bhd

(274725 - W)

20 December 2006

TO WHOM IT MAY CONCERN

We are the Sole Distributor for the complete range of TOPAIRE air conditioning and refrigeration equipment in Malaysia. The above products are fully guaranteed and manufactured by our own factories, DUNHAM-BUSH INDUSTRIES SDN BHD and DUNHAM-BUSH TOPAIRE SDN BHD. Both factories are certified MS ISO 9002 air-conditioner manufacturers.

We hereby certify: -

That JANA TANMIA (M) SDN BHD of NO. 11, JALAN KOTA RAJA H 27/H, SEKSYEN 27, HICOM TOWN CENTRE, 40400 SHAH ALAM, SELANGOR is our authorized dealer for the complete range of TOPAIRE equipment.

This company has our full support in all technical matters in regards to system design, selection, installation, service and maintenance.

With our support, we hope that you will consider them favorably in their tender for TOPAIRE air conditioning and ventilation projects, including contracts for repairing, servicing and maintenance of our equipment.

Thank you.

Yours faithfully,

Tony Lau Area Manager

LOCB, JALAN P./7, SEKSYEN 13, KAWASAN PERUSAHAAN BANGI, P.O. BOX 17, 43650 BANDAR BARJI BANGI, SELANGOR DARJI, EHSAN, TEL: 03 - 8925-2022 FAX: 03 - 8925-5609

d. DUNHAM BUSH MALAYSIA

DUNHAM-BUSH SALES & SERVICES SON. BHD.

(2722037)
Corporate Office:
Lot 9755-6, Kidamavindustrial Park, Bukk Angkat,
43000 Kaisen, Gelegor Durul Elesen, Mellersia.
PO, Box No. 03, 43057 Bankar Baru Bang,
Balkinger David Elsan, Malleria.
Pol. 603-8720899. Fox 403-87342178 / 87346178

Date: 18th December 2006

Jana Tanmia (M) Sdn Bhd No.11, Jalan Kota Raja H 27/H. Seksyen 27, Hicom Town Centre. 40400 Shah Alam, Selangor

Attn: En. Mohd Zaidi Ilamdin

Dear sir.

Hereby, we wish to confirm that we would give our full support in all technical matters concerning sales, applications, installation, service and maintenance of our range of DUNHAM-BUSH products as follows:

- 1. Full range of air-conditioning and refrigeration equipment.
- 2. Cooling Towers.
- 3. Ventilation fans.
- 4. Grilles and Air diffusers.

The terms of payment will be discussed and negotiated on the basis of project and the type of equipment that will be involved in.

Thank you.

Yours faithfully,

DUNHAM-BUSH SALES & SERVICES SDN. BHD.

General Manager



Products That Perform...By People Who Care

c. YORK MALAYSIA



York (M) Sales & Service Sdn Bhd

51B, Jalan SS 21/1A, Damansam Utama 47400 Petaling Jaya, Selangor Darul Elisan. Tel No.: 6-03-7727 6779 (Hunting) Fax No: 6-03-7729 2802 (Service)

Our Ref.: YMSS/HO/SFR/SL/03

26 MARCH 2013

To Whom It May Concern:

This is to acknowledge that York (M) Sales & Service Sdn. Bhd will provide full technical support to the below authorized contractor

JANA TANMIA (M) SDN BHD NO. 11, JALAN KOTA RAJA H27/H, HICOM TOWN CENTRE, 40400 SHAH ALAM. SELANGOR DARUL EHSAN

for all range of York Equipment in Malaysia.

We will extend our service back-up and warranty to ensure the success of the project they are undertaking.

We hope that they will succeed in their business endeavours and grow this company to greater heights.

Thank you.

Yours sincerely, York (M) Sales & Service Sdn. Bhd.



Shamsul Fazri Ramli Area Sales Head

f. CARRIER MALAYSIA

e. MS ELEVATORS ENGINEERING

Carrier (Malaysia) Sdn Bhd (3895 A)

www.carrier.com.mv

Lot 877, Jelan Subang 9, Taman Perindustrian Subang, 47510 Subang Joye, Salangor Darul Ehsen, Molaysis, Tel. [603] 8034 7788

Fax (803) 8024 8977 (Service) [603] 8024 8006 (Grudo/Customar Service) [603] 8024 9032 (Sases & Marketting) [603] 8024 9902 (Totaline)

16031 8024 8824 (Warehouse [603] 8023 1766/9024 9654 (Warranly) [603] 8024 2211 (Carrior Retrigeration)

6.3/AB/070214-001/SUPP/rf

14 February, 2007

To Whom It May Concern

Dear Sir

Re: JANA TANMIA (M) SDN BHD

This is to advise you that the above-mentioned company is an authorized contractor for Carrier Malaysia's range of equipment and will be able to provide with necessary technical and engineering support as deem necessary.

When you acquire any of Carrier Malaysia's product, you are assured of the services and expertise of our contractors as well as the support from the company. Carrier Malaysia has been present in Malaysia since 1955, and its product offering extends from residential, light commercial, commercial, industrial, refrigeration, aftermarket parts and service. We are in a position to cater for all your air conditioning and refrigeration requirement, including after-sales parts and service support. In addition to our head-office at Subang Jaya, Selangor, we also have five branch offices and eight Totaline parts outlet nationwide. Our Subang Jaya outlet carries 5,000 SKU of spare parts to ensure you have quick and efficient service.

Should you require any further clarification or reference, please do not hesitate to contact the undersigned.

Thank you.

CARRIER (MALAYSIA) SDN BHD

NAJMI CHEOK BH

Sr. Sales Manager - Dealer Group





Our Ref :MSL/M04/594H&M04/595H/SVCLK00011-07/G/RL/rd

05th January 2007

JANA TANMIA (M) SDN. BHD. No. 11, Jalan Kota Raja H/27H. Seksyen 27, Hicom Town Centre, 40400 Shah Alam, Selangor Darul Ehsan

ATTN: ENCIK MOHD ZAIDI BIN ZAINUDDIN

Dear Sir

RE: AUTHORISED DEALER CERTIFICATION LETTER

We refer to your letter ref:SA/FL/0881/06/man dated 28th December 2006 and are pleased to submit herewith our authorized letter as 'Authorized Dealer' for your reference.

We trust the above are clarify and should you need any further clarification, please do not hesitate to contact our Mr. Raymond Loh at 012-2841233 who will be able to assist you on the above.

Thank you.

Yours faithfully MS ELEVATORS ENGINEERING SDN BHD

JENNY NG Service Sales Manager



h. NIHON SPINDLE COOLING TOWER g. LYSAGHT MARKETING

NIHON SPINDLE COOLING TOWERS SDN BHD (THEFTOD)

Head Office / Factory

20 B. Jefan Perusahaan, Prai Industrial Estate 4. 13600 Pray, Penang, Midaysin. Tel: +60 4 501 3322 Fex: +60 4 508 3355

www.spindle.com.my

B-03-28, Merchant Square, Jalen Tropicana Selatan 1, PJU 3, 47410 Selengor, Melaysia. Tel: +60 3 7885 0788 Fex: +60 3 7885 0787





NO: NS/LZ/001/0810

JANA TANMIA (M) SDN BHD

No 11, Jalan Kota Raja H27/H Seksyen 27, Hicom Tower Centre 40400 Shah Alam, Selangor Tel: 03-5191 4505 Fax: 03-5191 4508

Date: 02.08.2010

RE: SUPPORTING LETTER TO JANA TANMIA (M) SON BHD

We are the manufacturer of Nihon Spindle Cooling Towers & Spare Parts in Malaysia. This letter is to confirm that we will support JANA TANMIA (M) SDN BHD in terms of Technical, Product and Spare Part

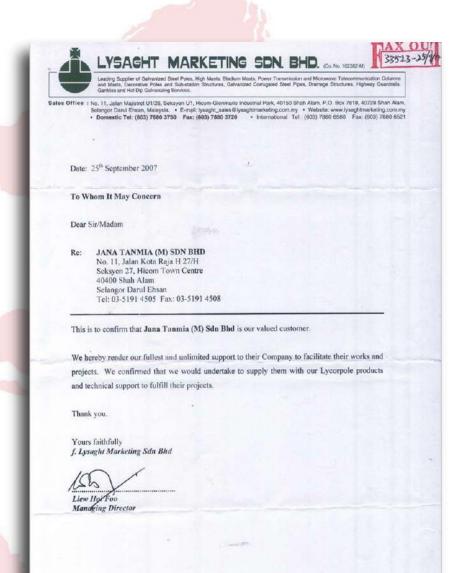
Should you have any further enquiries please do not hesitate to contact us.

Thank you,

Best Regards,

NIHON SPINDLE COOLING TOWERS SON BHD

MS.HARZLIZA BT.MOHD.SAHAR Bosiness Development Manager Hp: 012-606 3807 liza@spindle.com.my



j. BRY-AIR MALAYSIA

Bry-Air

BRY-AIR (MALAYSIA) SDN. BHD. (197712-W)

Manufacturers of Dehumidfliers, Plastics Auxiliary Equipment, Energy Recovery Complete Environmental Control Systems. Plants at: U.S.A. • Brazil • India • China • Malaysia

August 16, 2010

Jana Tanmia (M) Sdn Bhd

No. 1, Jalan Kota Raja H27/H, Hicom Town Centre, Seksyen 27, 40400 Shah Alam, Selangor.

As you know, the core strength of Bry Air Malaysia is concentrated in desiccant and desiccant based technologies. Bry-Air engineers are trained to solve humidity-related problems and can provide support from designing to the installation and commissioning of the equipment.

Since being invited to address this exciting opportunity, our team willing to cooperate with Jana Tanmia (M) Sdn Bhd to compliance the design condition, specification and delivery schedules. Beside that, Bry Air Malaysia also will provide spare parts, maintenance and service support as

We are a team of professionals with a proven track record in this region that has the ability to successfully achieve the design requirement. Our team is comprised of members who have worked together on numerous successful projects.

On behalf of our entire company I thank you in advance for your kind invitation.



i. SMARTECH



Smartech Sales & Services 5dn Bhd

Company No : 829707K No.15D, Jalan PJS 1/27 (Jalan Petaling Utama 6), Petaling Utama Batu 7, Off Jalan Klang Lama 46000 Petaling Java, Selangor F: 603-7783 9181 W: www.smart-hvac.com.my

SMT/Dealer/Aug10_SMT

Date

12 August, 2010

TO WHOM IT MAY CONCERN

This is to confirm that JANA TANMIA (M) SDN BHD (Address: No 11, Jalan Kota Raja H27/H, syeksyen 27, Hicom Town Centre, 40400 Shah Alam Selangor) is our authorized dealer for Hitachi Air-conditioning and Smartech Air-conditioning and Refrigeration products. The Hitachi products include Absorption Chillers, Centrifugal Chillers, Rotary Screw Chillers, VRV Air Conditioners and Smartech products include Air Handling Units, Split and Packaged Type Air Conditioners and Associated Products.

As such, this company will have our full supports in all technical matters concerning design, application, installation, testing and commissioning, service, maintenance, parts and repair of all Hitachi and Smartech Air-Conditioning and Refrigeration Products.

We hope you will consider them favorably in their application. Thank you,

Yours faithfully,

SMARTECH SALES & SERVICES SDN BHD

AZMAN ABDULLAH General Manager

H.O., Factory & Int'l Sales Office:

Lot 11, Jalan P77, Bangi Industrial Estate, 43650 Bandar Baru Bangi, Setangor, Malaysia. P.O. Box 22, 43657 Bandar Baru Bangi, Setangor. Tot. +60-3-8925 6622 • Fox. +60-3-8925 9957 • E-mail: bryair@bryair.com.my • Website: www.bryair.com.my

Unt 3.07, Block C, 3rd Floor, Damansara Intan, No. 1, Jalan SS20/27, 47400 Petaling Jaya, Selangor, Malaysia. Tel. +80-3-7725 9919 • Fax: +60-3-7725 9957 • E-mail: barn@bryair.com.my

HITACHI Inspire the Next

20.0 REFERENCES

20.2 LOCAL

k. SPIRAX SARCO

Our Ref.: GL/141/02/ACL

Date: 18 November 2002

Spirax Sarco Sdn. Bhd.

Company No. 61571-D) 25, Jalan PJS 1171, Bandar Sunway, 46150 Petating Jaya Selangor Darul Etsan, Tel. 03-7353323 (5 Lines) Fax: 03-7357117

Homepage: www.spiraxsarco.com.m/ E-mail: spirax-kl@spiraxsarco.com.m

To Whom It May Concern:

Jana Tanmia (M) Sdn Bhd

Exclusive Authorized Distributorship in Petronas Group of Companies

We are pleased to announce the appointment of the above mentioned company as our Exclusive Authorized Distributor for the business conducted within the Petronas Group of Companies or in the area where Petronas license is required.

We would also like to confirm on our commitment in giving all the necessary support to the company in order for them to provide the best services to their customer. The supports that could be provided are as follows: -

- Technical and After Sales Supports
- Site Inspection and Troubleshooting
- 2) 3) 4) Special Products Presentation
 - Training

We wish Jana Tanmia (M) Sdn Bhd all the success in providing solution for the steam system in Petronas Group of Companies.

Thank you,

Yours faithfully

A C Lee General Manager

21.0 FINANCIAL STATUS



21.0 FINANCIAL STATUS



1. AMBANK GROUP

Address: C102 & C103, Jalan SS 6/2, Kelana Parkview, 47301 Petaling

Jaya, Selangor

Overdraft (OD) : RM1,700,000.00

 Multi Trade Finance Facilities (MTF)
 RM1,500,000.00

 Letter of Credit (LC)
 (RM1,500,000.00)

 Trust Receipt (TR)
 (RM1,500,000.00)

 Banker Acceptance (BA)
 (RM1,500,000.00)

 Bank Guarantee (BG)
 (RM1,500,000.00)



2. BAY SMART CAPITAL VENTURES

Address: Unit 13A01, Level 13A, Tropicana Gardens Office Tower,

CAPITAL VENTURES 2A, Persiaran Surian, Tropicana

Indah, 47810 Petaling Jaya, Selangor

Invoices Financing (Notified) Facility-Islam : RM3,000,000.00

Revolving Credit (RM350,000.00)

Term Financing - Islamic 1 : RM1,000,000.00 **Term Financing Islamic 2** : RM1,000,000.00



382767-D

HEAD OFFICE

No. 11, Jalan Kota Raja H/27H, Hicom Town centre Seksyen 27, 40400 Shah Alam, Selangor Darul Ehsan.

TEL:+603-51914505 | FAX:+603-51914508 EMAIL:enquiry@jtr.my | WEBSITE:www.jtr.my