

**ASSOCIATED™
FIRST RUBBER**

COOLTEC®

"QUALITY PRODUCTS with PROMPT and TIMELY DELIVERIES"

COOLTEC®
Group Of Companies



TÜV Rheinland®
CERT
ISO 9001
ISO/TS 16949

ISO 9001:2008
Cert No: 01 900 117281

ISO/TS 16949:2009
Cert No: 01 111 117281-01
Cert No: 01 111 117281-02

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INTRODUCTION

The company was found in 1989. **COOLTEC INDUSTRIES SDN BHD** started off from humble beginnings, servicing and installation of car air conditioning system. From the knowledge obtained over the years, COOLTEC had in 1993 ventured into manufacturing, wholesales and distributor of car air conditioning components, parts and accessories. The Company obtained the prestigious **ISO 9001:2008** Quality Management System in the year 2003, **ISO/TS 16949:2009** in the year 2011 and **TOWARD ISO 14001:2004 and OHSAS 18001:2007** in the year 2013.

- **COOLTEC INDUSTRIES SDN BHD** has devote years of experience and expertise to supply its products to local OEM car makers, the replacement and the international markets. Presently our products, Electronic Thermo Control, Sensors, Variable Resistors, Rubber O rings, Plastic Injection Parts, Radiator Gaskets, Molded Rubber Parts and Plastic Parts are widely used in our national cars; Proton Iswara, Wira, Waja, Satria, Arena, Juara, GEN-2, Saga, Saga BLM, Persona, Exora, Preve, Perodua Myvi, Perodua Alza, Mazda Lantis, Mazda B Truck, MTB Truck, Inokom Van, Suzuki Van, Dong Feng Truck, Hino Truck, Tata Truck, Isuzu Truck & FVR Truck. Our parts are also widely used in Toyota Crown and Nissan Cedric in Singapore, Toyota Kijang in Indonesia and Hyundai Getz in South Africa. Our latest project is Ev car for PROTON.
- **COOLTEC MARKETING SDN BHD** was officially established in 2003 to be the marketing arm of **COOLTEC INDUSTRIES SDN BHD** and **ASSOCIATED FIRST RUBBER (M) SDN BHD**. It is a 100% owned Company of **COOLTEC INDUSTRIES SDN BHD**. The Company caters the requirement of the local and oversea replacement market. The company has extensive marketing networks throughout the country. Its wide marketing network has enable the Company to become one of the pioneer in the automotive industries.
- **ASSOCIATED FIRST RUBBER (M) SDN BHD** was officially established in 1999. It is a joint venture between **FIRST RUBBER CO. LTD** of Thailand and **COOLTEC INDUSTRIES SDN BHD**. **FIRST RUBBER CO. LTD.** was first established in Taipei, Taiwan in 1972 and in 1992 transfers its entire operation to Bangkok, Thailand. **ASSOCIATED FIRST RUBBER (M) SDN BHD** specializes in the manufacturing of automotive and motorcycle parts & components, Rubber O rings, Rubber Packing, Rubber –Metal bonded Parts and Custom-Molded Rubber Parts. The Company obtained the prestigious **ISO 9001:2008** Quality Management System in the year 2003 and **ISO/TS 16949:2009** in the year 2011.

INTRODUCTION

ORGANIZATION STRUCTURE



COMPANY PROFILE

Company Address : No. 45, Jalan Sesama, Taman Perusahaan, Ringan 68100 Batu Caves, Selangor Darul Ehsan, Malaysia
Tel: (603) 6186-9969, (603) 6186-3396, (603) 6186-3378
Fax: 603-6186 6086
Skype name: cooltec1 Website: www.cooltecindustries.com
Email : group@cooltecindustries.com

Contact Person : Mr. KK Yeaw (Managing Director)
kkyeaw@cooltecindustries.com

Mr. Hing Joo Cheong
(General Manager)
jching@cooltecindustries.com



ISO 9001:2008 Cert No: 01 109 117281
ISO/TS 16949:2009 Cert No: 01 111 117281.01
Cert No: 01 111 117281.02

Factory Build-Up Area : 10500 sqm or 31500 sq

Paid-Up Capital : RM 500,000.00

Technical Associate & Support : - Rubber Research Institute of Malaysia (RRI)
- First Rubber Co. Ltd. (Thailand)
- Tun Abdul Razak Research Centre (TARRC, UNITED KINGDOM),
- MMC Electronics (M) S/B. - Malaysia
- Taiwan Auto Air Limited - Taiwan
- Shin Han Electro Mechanic CO. Ltd - Korea
- Jia Yang Enterprise Co, Ltd - Taiwan

Management System : - ISO 9001:2000 (Certified in 2003)
- ISO 9001:2008 (Certified in 2009)
- ISO/TS 16949:2009 (Certified in 2011)

Average Age Group : 35 (Young and aggressive team)

CERTIFICATE



GROUP VISION

It is the group vision to be a major and leading player both locally and internationally in the automotive parts, accessories, components industries and rubber molded parts in the years to come.

GROUP MISSION & SERVICE

It is the Group policy to provide service SECOND to NONE to all its valuable customers. If you are looking for automotive components, parts, accessories, plastic injection molded parts, rubber o rings and rubber molded parts, WE stand at all times to serve you with its forever motto : **"QUALITY PRODUCTS with PROMPT and TIMELY DELIVERIES"**.

QUALITY POLICY

We as a company of manufacturing/assembly of automotive air-conditioning electrical and electronic parts, components and accessories plastic injection molded parts, O-ring, custom made rubber molded part for all industries are committed to serve our customer with excellent quality products and timely delivery through uncompromising commitment towards total customer satisfaction and continual improvement

We shall also:

- i) Improve quality, productivity and reliability
- ii) Meet customer general requirements, ISO 9001:2000 and TS 16949:2009 standard
- iii) Minimize cost
- iv) Continually improve effectiveness of the quality management system
- v) Establish quality objectives at relevant functions

CUSTOMER SERVICE

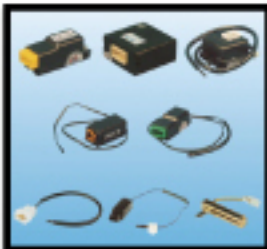
The Group approach to customer is simple; to serve as a reliable business partner. Your business goals, expectations and achievements are our priority. We believe that efficient customer support and technical quality are essential in our organization. Our resources are totally dedicated to high quality – from conception to consumption.

BUSINESS PROCEDURE

- 1** COOLTEC **visits** customers to explore what will be the future need of the customers.
- 2** Customer **requests** COOLTEC to develop new application.
- 3** COOLTEC considers what is the best application and determine quality and feasibility plan for the idea. COOLTEC presents the **idea** to the customer. Design concept differences are resolved.
- 4** Upon customer's acceptance on the idea, COOLTEC develops **prototype** for design confirmation.
- 5** Designer evaluates the prototype. Prototype is submitted to customer for evaluation and COOLTEC **improves the sample** if necessary.
- 6** Upon confirmation on the design, COOLTEC fabricates mass production **tooling**.
- 7** COOLTEC evaluates the **sample** and submits the samples to customer for acceptance.
- 8** **Mass-production** is started upon obtaining the customer's acceptance. In-process quality control is performed to ensure its conformance.
- 9** New products are **delivered** to customer

ELECTRICAL & ELECTRONIC PRODUCT RANGE

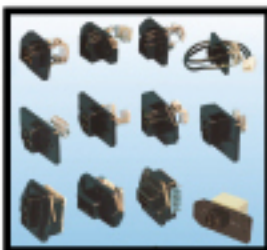
ELECTRONIC THERMO CONTROL & THERMISTOR ASSY



Description: The device is a transistor switch component driven by voltage or current derived from an integral thermistor. The device controlled the temperature of passenger compartment and prevent freezing at cooling coil.

Application: General purpose for automotive industries.

RESISTOR & RESISTANCE BLOWER



Description: This part function is to enable the blower motor to operate at its selected speed. The resistor is the most common electronic component and is used to limit and/or control the voltage and current in an electronic circuit.

Application: General Purpose for automotive industries.

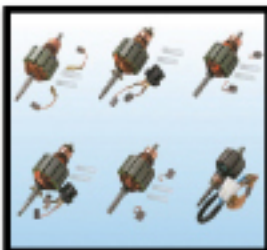
CONDENSER FAN MOTOR



Description: The motor that is used to run the cooling fan of condenser. Cooling fan / fan motor enable forcible cooling of condenser by the air drawn in the engine and the air stream created by the car when running.

Application: General Purpose for automotive industries.

BLOWER MOTOR ARMATURE



Description: The armature is an electromagnet made by coiling thin wire around two or more poles of a metal core. Receive the signal from resistor and will operate the blower follow the signal.

Application: General Purpose for automotive industries.

BLOWER MOTOR



Description: The cool air is drawn in from the blower motor. Then, is blown out and recycled through the cooling coil back to the car compartment.

Application: General purpose for automotive industries.

COMPONENT & ACCESSORIES PRODUCT RANGE

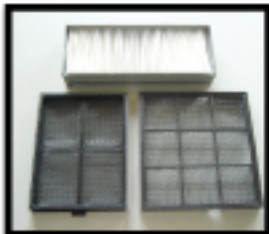
CONTROL SWITCH ASSY



Description: Switch to control the blower motor speed.

Application: General purpose for automotive air conditioning industries.

CABIN AIR FILTER



Description: To clean the smoke, pollen and air bore contaminations odors and gaseous pollutants and also to keep dust and road debris out of the engine.

Application: General purpose for automotive industries.

WIRE HARNESS ASSEMBLY



Description: A medium that is used to connect the controller and the system.

Application: General purpose for automotive industries.

UV LEAK DETECTOR



Description: This unique automobile air-conditioning system leak detector kit is used for the detection of tiny leaks within system.

Feature: Leak is easily detected, thus saving valuable man hours.

AUTOMOTIVE OEM (RUBBER)



Description: Specified Rubber Product for Automotive Parts.

Feature: Customized Molding and specified application; such as sealing system, anti-vibration function, and other purpose.

Application: Functional and performances Testing refer to OEM's specifications.

INDUSTRIES PRODUCT RANGE

METAL STAMPING



Description: Metal stamping part e.g.: bracket, motor lower casing, motor upper casing etc.

Application: Catering to the consumer, electronics, multimedia and automotive industries.

Mold Manufacturing: Design, manufacture, and development of high performance molds to produce consistently precise, high-volume parts.

Contract Manufacturing: Value added contract manufacturing services for assembly of mechanical and electro-mechanical products.

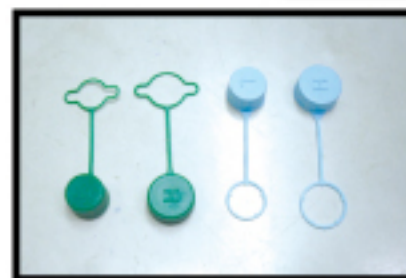
PLASTIC INJECTION MOLDED PARTS

Description: Customer focused project engineering to mold complex, precise functional thermoplastic part.

Application: Catering to the consumer, electronics, multimedia and automotive industries.

Mold Manufacturing: Design, manufacture, and development of high performance molds to produce consistently precise, high-volume parts. Multi-Cavity, Cold Runner, Semi-hot Runner. Fully hot Runner.

Contract Manufacturing: Value added contract manufacturing services for assembly of mechanical and electro-mechanical products.



RUBBER MOULDED PRODUCT RANGE

O-RING

Description : O-Ring is the simplest circular shape sealing system.

Feature of O-Rings : AFR provides almost all commercial o-ring, aerospace o-ring, military specification o-ring, automotive o-ring, A/C o-ring and customer sized o-ring.

Application : O-Ring are used for both static and rotational sealing applications. Good for hydraulic actuator seals, Transmission seals, oil and water pump seals.

Standard : JIS, AS-568, ASTM, DIN, SAE and Specifics for Automotive, high Precision for medical and watch case and heavy duty machine specifications.



O-RING KIT

Description : O-Ring Kit is the most popular contains set model of size o-rings.

Feature : O-Ring Sealing compact set for general renew upgrade or repairing purpose.

Application: General Purpose for machine shop, plumbing, Engineering Maintenance.



PACKING

Description : Likely hood O-Ring but not be circular shaped seals.

Feature of Packing : Mostly applies as connected seals (Flat surface) that called square ring also.

Application : Water sealing pipe, Sanitary were, hydraulic seals and others.



GROMMET

Description : Grommet is the rubber supporting joints.

Feature : Weathering and temperature resistance, high tension strength, corrosion resistance, anti-vibration, support and dust protector.

Application : General Support with bolt and nut for automotive condensing unit, Air condition, mounting base support for anti-vibration.



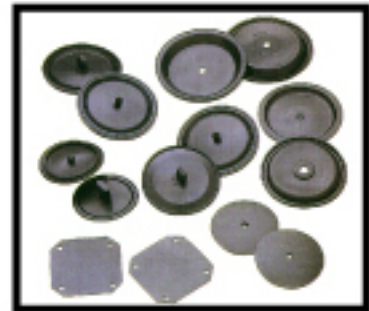
RUBBER MOULDED PRODUCT RANGE

FABRIC DIAPHRAGM

Description : Diaphragm is the rubber valve type with or without consolidated with high strength fabric.

Feature : Precious dimensional for on-off pressure gas or fluid controlling, reinforcement heavy duty, and High corrosion resistance.

Application : Apply as the valve for Open-Close, regulator pressure control for gas or pressured switch instruments and vacuum equipments.



RUBBER MOUNT

Description : Rubber Mounts bolt or rivet rubber with rubber cement coating al with hub or connecting sizes of plate or flange.

Feature : High Tension Strength and sealant for static or dynamic rotating , reinforcement for compress.-depress forces and anti-vibration control.

Application : Hydraulic piping seals, vacuum seals, anti vibration hub seals ,engine mount, transmission seals. inter-joint flange plate in motor.

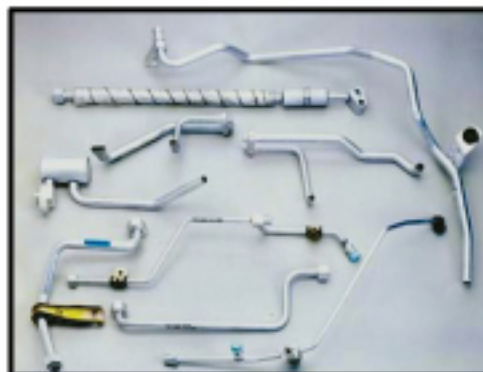


HOSE AND PIPING

Description: A route that let the refrigerant flows through in the air-conditioning system.

Feature: All sizes and types are available in all condition, which is high or low pressure purpose.

Application: General purpose for automotive industries.



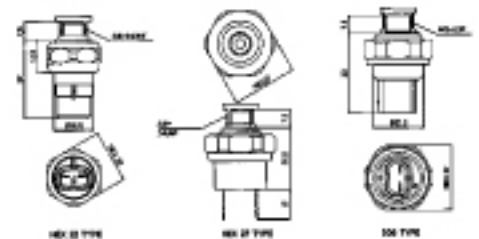
PRESSURE SWITCH

DUAL PRESSURE SWITCH

Application: Car air conditioner

Feature: This switch is installed to receive driver to prevent of over load in compressor due to abnormal low/med/high pressure of refrigerant. Dual action pressures switch operating both low and high pressure.

Type	Used Refrigerant	Operating Pressure (kg/cm ²)				Application Temp Range	Insulation Resistance	Electronic Ratings
		Low		High				
		Off	Diff	Off	Diff			
SHDP 101	R-134a	2.0±0.2	0.25	32±2.0	6±2	-30~120°C	100MΩ (DC500V)	DC12V, 3.5A DC24V 1.7A
SHDP 201	R-134a	2.0±0.2	0.25	32±2.0	6±2			
SHDP 501	R-134a	2.0±0.2	0.25	32±2.0	6±2			

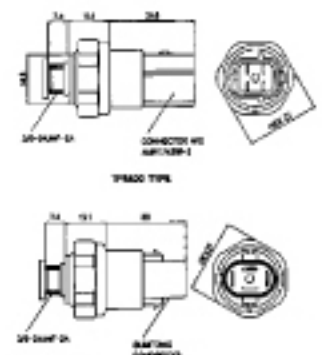


TRINARY PRESSURE SWITCH

Application: Car air conditioner

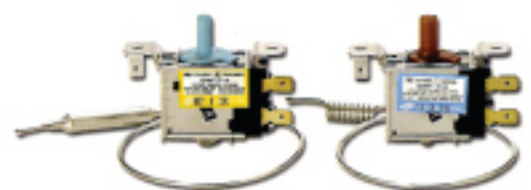
Feature: This switch is installed to receive driver to prevent of over load in compressor due to abnormal low/med/high pressure of refrigerant. Triple action pressure switch operating low, medium, high pressure.

Type	Used Refrigerant	Operating Pressure (kg/cm ²)						Application Temp Range	Insulation Resistance	Electronic Ratings
		Low		Medium		High				
		Off	On	On	Off	Off	Diff			
TPS-401	R-134a	2.0±0.2	2.3 +0.25 -0.29	15.5±0.8	11.5±1.2	32±2.0	6	-30~120°C	100MΩ (DC500V)	HI/LOW DC12V, 250mA Medium DC12V,1A
TPS-402	R-134a	2.0±0.2	2.3 +0.25 -0.30	18.0±0.8	14.0±1.2	32±2.0	6			
TPS-403	R-134a	2.0±0.2	2.3 +0.25 -0.29	15.5±0.8	11.5±1.2	27±2.0	6			
TPS-601	R-134a	2.0±0.2	2.3 +0.25 -0.29	15.5±0.8	11.5±1.2	30±2.0	6			



NORMAL THERMOSTAT

TYPE	GNF	GNA	GMB
Application	Refrigerator Show Case Water Cooler / Car Cooler / Freezer	Air Conditioner Show Case	Boiler Vending Machine
Temperature extent	-30 ~ 20°C	-20 ~ 40°C	0 ~ 90°C
On, Off Diff	3 ~ 12°C	3 ~ 7°C	3 ~ 8°C
Electrical Ratings	AC125V~250V 6A/4A FLA, 24/16 LRA	AC125V~250V MAX 20A FLA, 80 LRA	AC125V~ 250V MAX 20A FLA, 80 LRA
Certified Electrical Safety	UL, CUL (E 151837) VDE (128519, 126830)	UL, CUL (E 151837) VDE (128519, 126830)	



RESEARCH & DEVELOPMENT

The Group is keeping abreast and acquiring the latest equipment and technology for its R&D department. The Group is constantly developing new products to meet to the ever-dynamic market demand.

APQP is applied during the development.

R&D Team : Senior Engineer, Project Engineer, R&D Engineer, Draughts Person.

3D Software : Autodesk Inventor 2010
AutoCAD LT 2011
AutoCAD Mechanical 2010
AutoCAD 2005



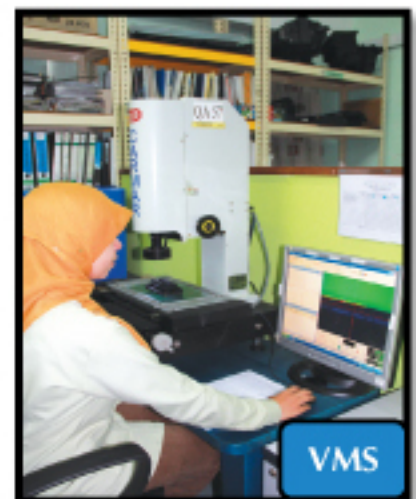
QUALITY CONTROL & QUALITY ASSURANCE

Quality Control is the operational techniques and activities that are used to fulfill requirements for quality. The techniques applied in our organization are Histograms, Cause & Effect Diagram, Check Sheets, Pareto Diagrams, Graphs, and Control Charts and. The Quality Control covers the products, reactive, focus on the line function and finding defects.

Quality assurance covers all those planned and systematic activities implemented to provide adequate confidence that an entity will fulfill requirements for quality. The Quality Assurance covers on the process, proactive, focus on the staff function and prevention of defects.

QA/QC Team : QA Engineer, Senior Technician, Assistant Technician, QC Inspector.

Facilities : Video Measurement System (VMS), Durometer Hardness Tester, Digital hardmetic, Height gauge, Radius Gage, Digital Vernier Caliper, and etc.



TOOL & DIE

Tool & Die department are involve in mould fabrication, maintenance and service of jig and mould. We do the design, manufacture, and development of high performance molds to produce consistently precise, high-volume parts. Multi-Cavity, Cold Runner, Semi-hot Runner. Fully hot Runner.

Application: In-house mould and jig maintenance or repairing will reduce production waiting time enhance can increase productivity.

Machine Facilities: Metal Cut Band Saw, Surface Grinding, Milling, Lathe, EDM and etc.



EDM Machine



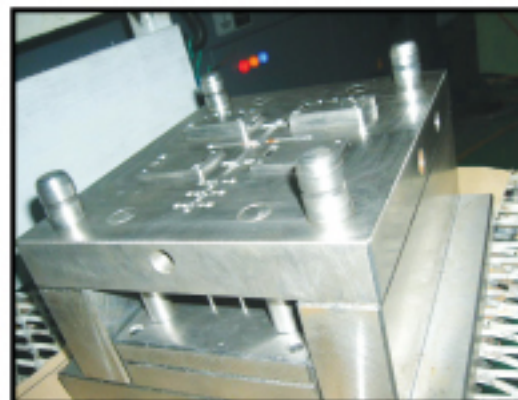
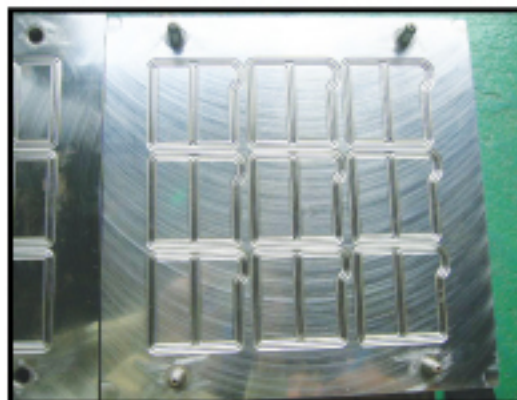
Lathe Machine



Milling Machine



Surface Grinding Machine



Mould Fabrication

PRODUCTION



MOTOR DEPARTMENT



RESISTOR DEPARTMENT



GENERAL LINE DEPARTMENT



TERMINAL CRIMPING



HOSE & PIPING DEPARTMENT



PLASTIC INJECTION

PRODUCTION



Automatic Hydraulic Compressing Moulding Machine



Rubber Injection Moulding Machine



Visual Inspection



Durometer Hardness Tester (Shore A)



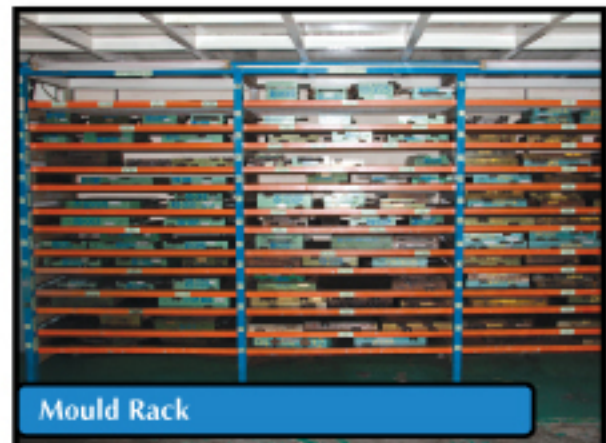
Cooling Area



Milling Roller



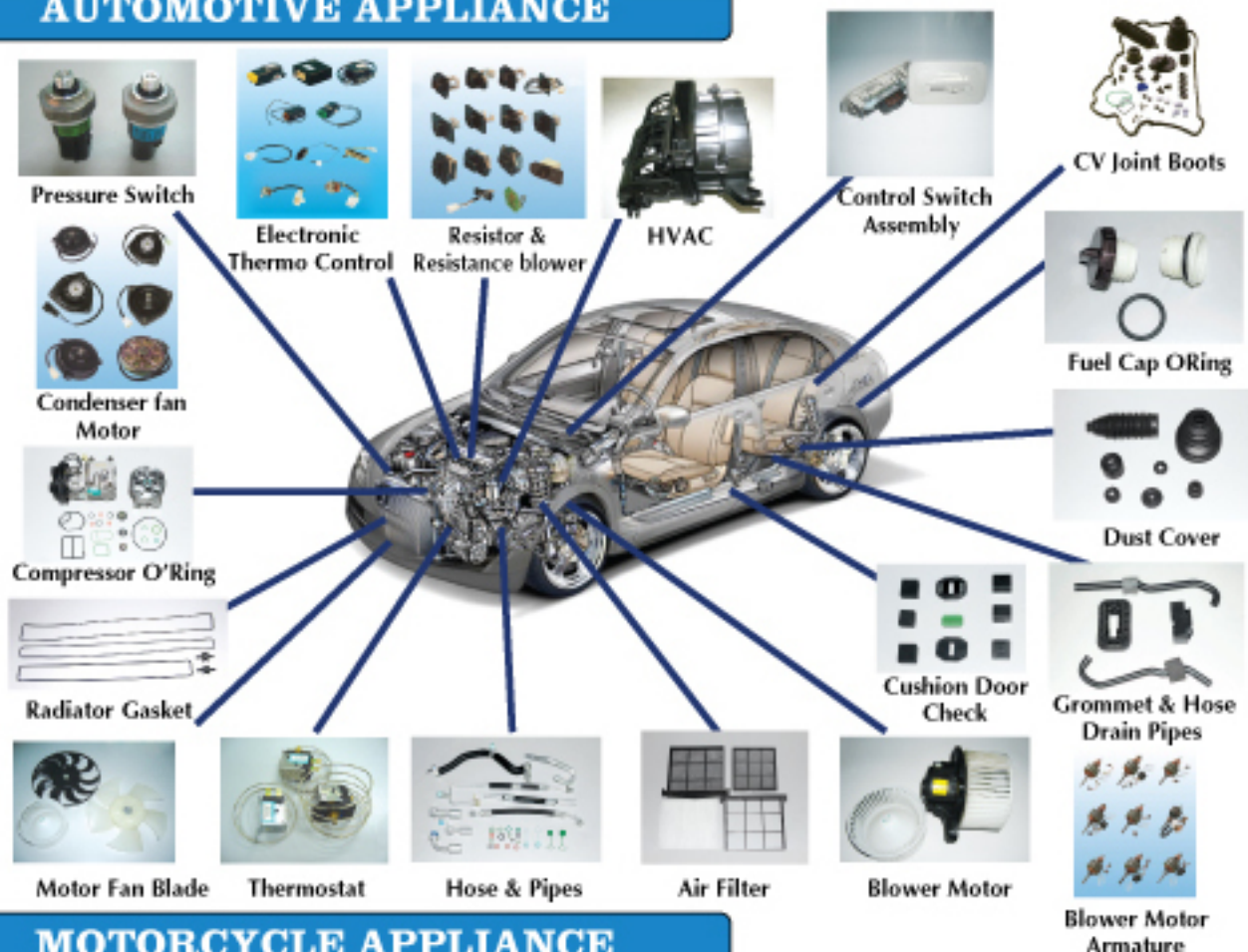
Vulcanise Oven



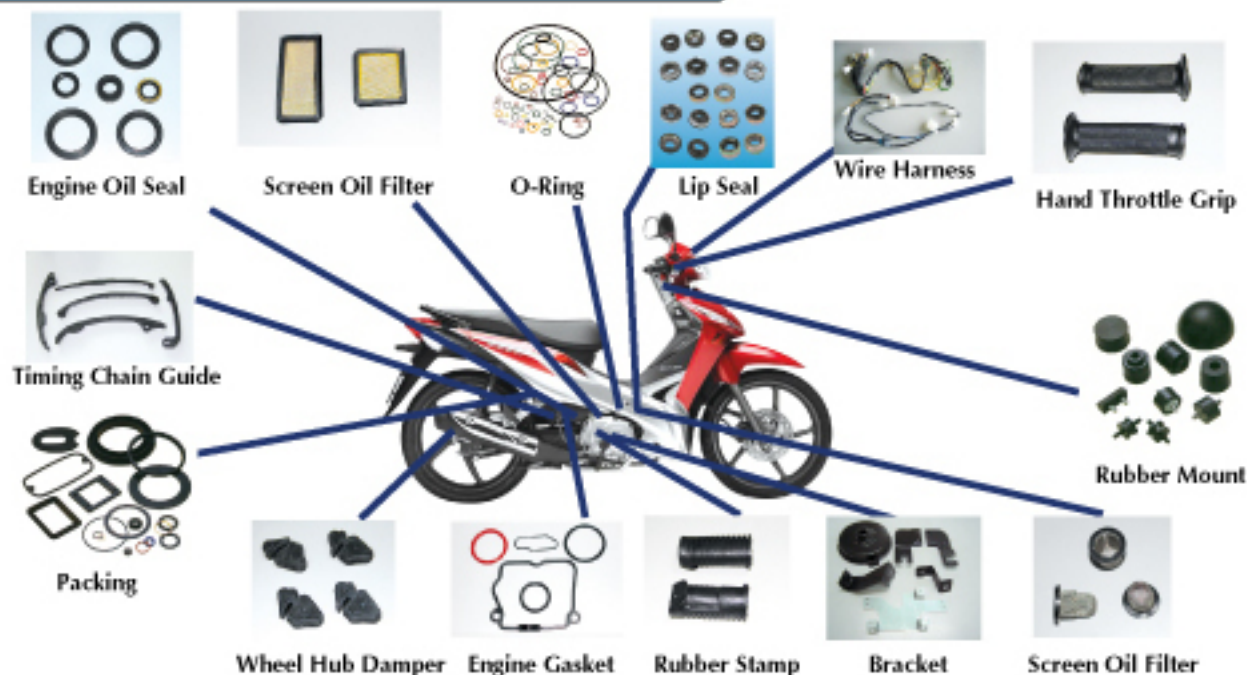
Mould Rack

APPLICATIONS

AUTOMOTIVE APPLIANCE



MOTORCYCLE APPLIANCE



AUTOMOTIVE AIR-CONDITIONING SYSTEM

COOLTEC[®]
Group Of Companies

Automotive Air-Conditioning System



TYPE OF O-RING

Q	FRIGID	HEATING	HEATING
FRIGID			
HEATING			

ALL PIPING - CONNECTING PARTS



HIGH, LOW PRESSURE HOSES



COOLING FAN / FAN MOTOR
to enable forcible cooling of condenser by the air drawn in the engine and the air stream created by the car when running.

LOW SIDE CHARGING VALVE

DISCHARGE HOSE

SUCTION HOSE

COMPRESSOR
draws off gaseous refrigerant from the evaporator and compresses it. This causes the refrigerant gas temperature and pressure to rise rapidly.

THERMO-AMPLIFIER O/W THERMISTOR
control the temperature of passenger compartment and prevent freezing at cooling coil.

SIGHT GLASS

HIGH SIDE CHARGING VALVE

DEHUMIDIFIER

RECEIVER DRYER
removes any traces of moisture and filters out dirt in the system. It also serves as a reservoir for excessive refrigerant.

EVAPORATOR / COOLING COIL

in which the released refrigerant expands and flows through the evaporator tubes. It then removes heat from the air blowing across the fins, tube and evaporator, causing the temperature inside the car to be lowered gradually.

CARBON AIR FILTER

to clear the dirt & smog, smoke, reactive gases and air borne contaminants odours and gaseous pollutants.

BLOWER MOTOR

the cool air drawn in from the blower motor is then blown out and recirculated through the cooling coil back to the car compartment.

RESISTOR / RESISTANCE

to enable blower motor to operate at its selected speed.

EXPANSION VALVE

control liquid refrigerant into the evaporator coils, causing a drop in pressure and consequently drop in temperature.

PRESSURE SWITCH

The pressure switch valve which control the start/stop function of the compressor since the pressure inside the cycle are higher or lower than specifications.

• High and low pressure switch
• O-ring material NBR & HNBR

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Email: cooling@cooltec.com Website: www.cooltec.com

OUR STRENGTH

- Innovative.
- Young and aggressive team.
- Commit to QUALITY is our top priority.
- Act fast in meeting customer's requirement.
- Offer best price & best services.
- Majority are new precision machines in production line.
- Self support production facilities enable better flexibility in meeting customer's requirement.



Associated First Rubber (M) Sdn Bhd (524138-X)

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***“QUALITY PRODUCTS with PROMPT and TIMELY
DELIVERIES”***