



2025

PRODUCTS CATALOG

THERMO
SMART[®]
Thermal Management Solutions

Hangzhou SMART Mfg. Group Co., Ltd.
杭州蒂那科科技有限公司

Contents

About us

SMART is a WFOE specializing in the manufacture of automotive cooling system parts. Our product range includes Engine Thermostats, Thermostat Housings, Water Flanges, Sensors, Auxiliary Water Pumps and Oil Coolers. Headquartered in Hangzhou, Zhejiang Province, China, we strive for excellence in every aspect of our business.

Product Range & Service

SMART is a manufacturer of its own branded engine thermostats, for European, American, Japanese, Korean & Chinese vehicles. Our focus is on delivering reliable, efficient and affordable solutions, while maintaining the highest standards of quality. As a result, SMART is a trusted partner for the automotive industry, providing top-performing cooling system parts that meet the needs of our clients.

Truck Competence

At SMART, we specialize in producing thermostats for the most demanding industries. Our products are designed for commercial medium and heavy-duty trucks, as well as construction, industrial, agricultural, and utility vehicles. We understand the importance of reliability in these industries, which is why we engineer our thermostats with exceptional quality and stability to ensure safe engine operation in even the toughest road and weather conditions.

The Best & First to the Market !

SMART is committed to bringing the latest innovations to market. We pioneered Aluminum Housings in early 2000s, led MAP Thermostat production in 2008, and in 2024 our experts have developed advanced Motorized Thermostats.

Quality

SMART has achieved the esteemed ISO 9001:2015, ISO-14001:2015, ISO-45001:2018 certification from CNAS/IAF, demonstrating our adherence to the international standards in the development, assembly, and sales of automotive thermostats and housings. We are steadfastly working towards obtaining IATF-16949 certification, a globally recognized standard for quality management in the automotive industry. This further reflects our unwavering commitment to providing products that consistently meet our customers' needs and expectations, resulting in exceptional customer satisfaction.”



Capabilities

Innovation & Excellence

Smart prioritizes innovation, quality, and service excellence. Our skilled R&D team develops over 50 new products annually, showcasing our strong R&D capabilities and leading market presence with a diverse range of offerings.

OEM & OES

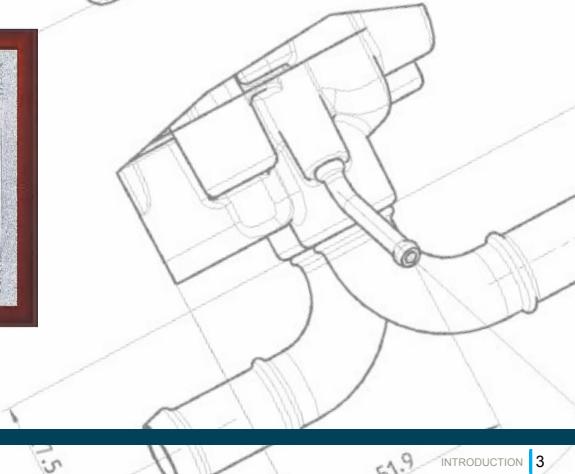
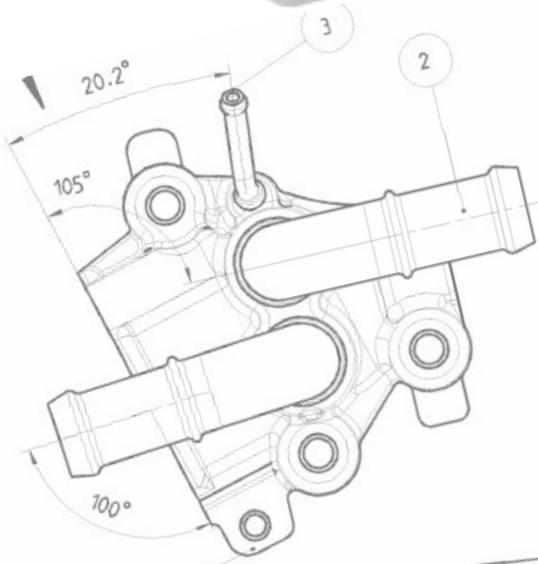
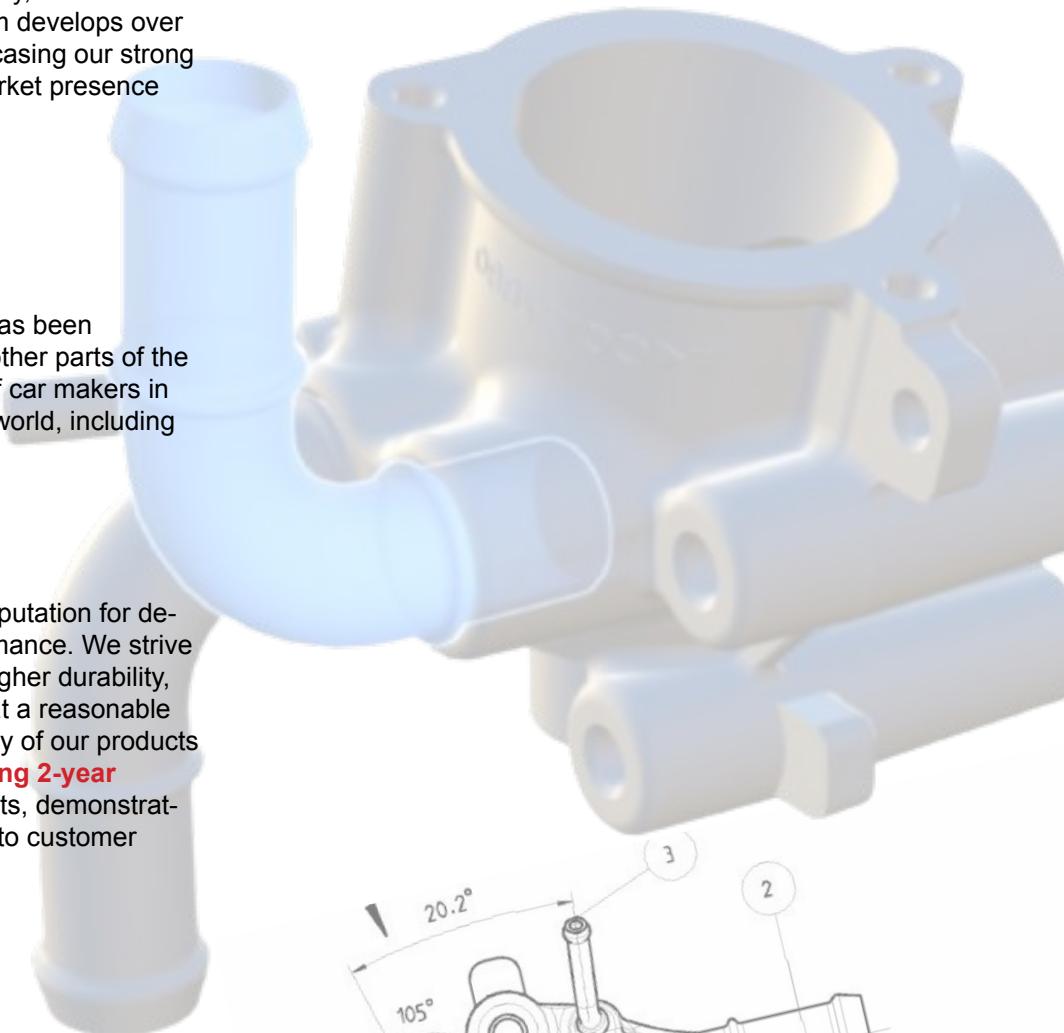
For more than a decade Smart has been manufacturing thermostats and other parts of the cooling system for the majority of car makers in mainland China and around the world, including **25 Premium OES Brands.**

Guaranteed Performance

Smart is a brand with a strong reputation for dependability and top-notch performance. We strive to provide better performance, higher durability, and improved engine efficiency at a reasonable cost. Our confidence in the quality of our products is reflected in our **industry-leading 2-year warranty** on our branded products, demonstrating our unwavering commitment to customer satisfaction.

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Thermostat : Types

Thermostat Inserts

These enable the precise regulation of coolant circuits to approximately 20 m³/h in passenger cars, commercial vehicles, stationary engines, and agricultural and construction machinery.

Sleeve Valve Thermostat

These regulate the cooling circuits in large engines with low volumes starting from approximately 20 m³/h, e.g. in commercial vehicles, ships, and trains. The sleeve valve principle provides axial relief.

Integral Thermostats

All components such as the thermostat insert, cover, and gasket are already integrated into the integral thermostat. It can be flange-mounted directly onto the engine block.

Electric Thermostat (MAP Controlled)

The most effective managers in the thermal system: an electrical heating resistor is integrated into the thermal expansion element. Consequently, these thermostats can be electrically activated, and thus have a considerably faster effect on the engine temperature to keep the engine within the optimum range under various load and operating conditions.

The result: improved engine output and a longer service life, as well as reduced consumption and emissions. An operating map stored in the engine control unit defines when and how heat is added.



Thermostat Housing

These consist of a combination of cover and housing, i.e. the mixing chamber is already integrated. Housing thermostats can be fully connected with hoses or equipped with flange and hose connectors.

Motorized Thermostat Assembly & ETM

A combination of Thermostat and housing, driven by an actuator for faster and precise performance in modern engines.



Technical Tips

Thermal Expansion Elements

The expansion material (wax) forms the core of the thermostat: when heated, it increases in volume and thus moves the piston. If the temperature drops again, it reduces in size, and a spring pushes the piston back into its starting position.

Thermal expansion elements are maintenance-free and durable. Their range of use is very versatile: actuation forces from 30 N to 2,500 N, short or long strokes, and a variety of control ranges within the temperature span of -20°C to +130°C (-4°F to +266°F).

Customize Temperature

With thermostat inserts specifically in mind, Smart has included thermostats with varying opening temperatures of the same design in its product range.

For example, the 86 is available with six different opening temperatures. The main application here is the 86, i.e. the thermostat fitted as standard has an opening temperature of 198°F.

Reasons for fitting a thermostat of the same design with a lower opening temperature include:

- Use in warmer climates
- Vehicle tuning
- A different area of application, e.g. in a stationary engine

This diversity is one of the outstanding features of the Smart thermostat range. The variants with special temperatures are indicated accordingly in the catalog.

How Thermostats Work?

In a cold engine, the coolant circuit is kept closed in order to warm up the components quickly. The coolant does not flow through the radiator but through a smaller circuit known as the bypass loop.

It warms the coolant with heat from the engine until the defined coolant temperature has been reached. Once the coolant is approaching the optimum temperature level, the thermostat opens the flow inlet to the radiator.

If the maximum permissible temperature is reached, it sends the entire flow of coolant to the radiator for effective cooling in order to prevent the unit from overheating. At the same time, the bypass loop is closed off (Fig. 2).

This functional diagram does not only apply to the engine's primary cooling circuit; the flow to the auxiliary units and other circuits can also be controlled separately.



Fig. 1

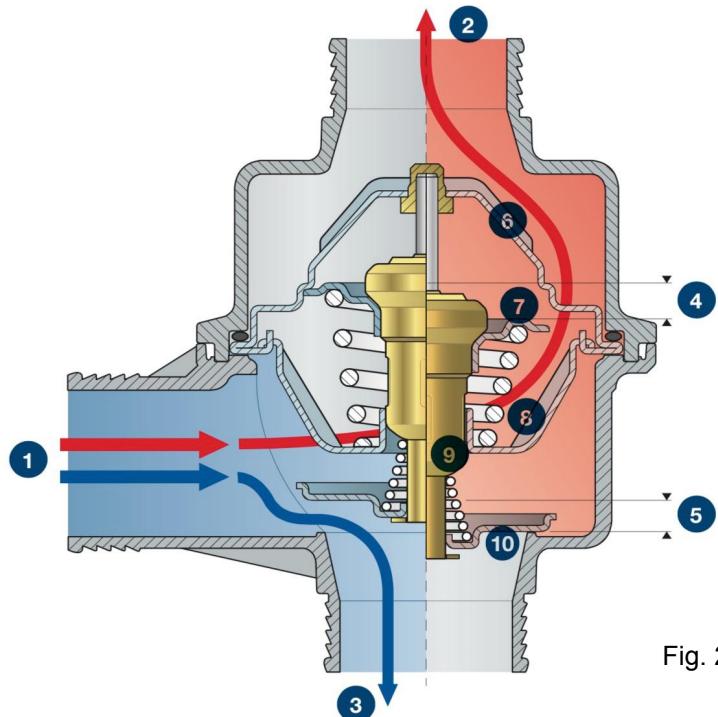


Fig. 2

- | | |
|--------------------|-----------------------------|
| 1 From the engine | 6 Base plate |
| 2 To the radiator | 7 Valve disc |
| 3 Bypass | 8 Guide |
| 4 Expansion stroke | 9 Thermal expansion element |
| 5 Bypass Stroke | 10 Bypass valve |



Product's Highlight

Unmatched durability and performance, from the experts in

Truck Thermostats

SMART is a leading manufacturer of engine thermostats for the commercial trucking industry. The company is dedicated to providing exceptional quality and reliability in their products. The engine thermostats meet and exceed strict European standards and undergo rigorous testing procedures. SMART offers a comprehensive product portfolio compatible with a wide range of truck types. The products deliver an exceptional level of performance and reliability at a competitive price. **SMART has earned a reputation for quality and reliability among leading truck parts original equipment supplier (OES) brands in Europe and America.** The company is committed to providing innovative solutions and delivering customer satisfaction.

When choosing SMART engine thermostats, companies can be confident in receiving a product that has been engineered for optimal performance and reliability. The engine thermostats are designed to handle the harshest weather and engine conditions, ensuring reliable performance for companies with demanding operations. The company's expertise in the commercial trucking sector makes them an ideal partner for large companies seeking to improve fleet efficiency and productivity. SMART is committed to delivering the quality and performance demanded by its customers at an affordable price.

In short, SMART is a trusted provider of high-quality engine thermostats for the commercial trucking industry, delivering exceptional performance and reliability at a competitive price point. The company's expertise and commitment to quality make it an ideal partner for large companies in the industry.



Product's Highlight

The Future of Engine Temperature Control

Motorized Thermostats

What is a Motorized Thermostat?

A motorized thermostat is an advanced engine thermostat that uses an electric actuator to control the opening and closing of the valve. Unlike traditional wax-based thermostats, it receives signals from the engine control unit (ECU) for precise temperature management. This enables faster and more accurate responses to changes in engine load and operating conditions. Motorized thermostats are common in modern engines and are designed to improve fuel efficiency, emissions control, and overall engine performance.

How Motorized Thermostats Works ?

Motorized thermostats offer several benefits over traditional designs. They provide more precise temperature control by responding to real-time signals from the ECU. This leads to improved fuel efficiency, reduced emissions, and enhanced engine performance. Faster temperature adjustments help engines reach optimal operating conditions quickly. Motorized thermostats also improve thermal management in high-performance engines, reducing the risk of overheating and ensuring reliable operation under various driving conditions.

What are SMART's Motorized Thermostat Advantages?

SMART's motorized thermostats are supported by technical expertise from the USA-based ITW actuator team. They feature independently designed PCB structures to eliminate chip patent risks. With reverse-engineering capabilities, SMART optimizes product characteristics for superior performance and reliability. These thermostats undergo rigorous testing, including motor performance, temperature hedging, water spray resistance, noise, response time, and comprehensive performance tests. As a result, SMART's motorized thermostats offer exceptional durability, precision, and reliability for high-performance and modern engine applications.

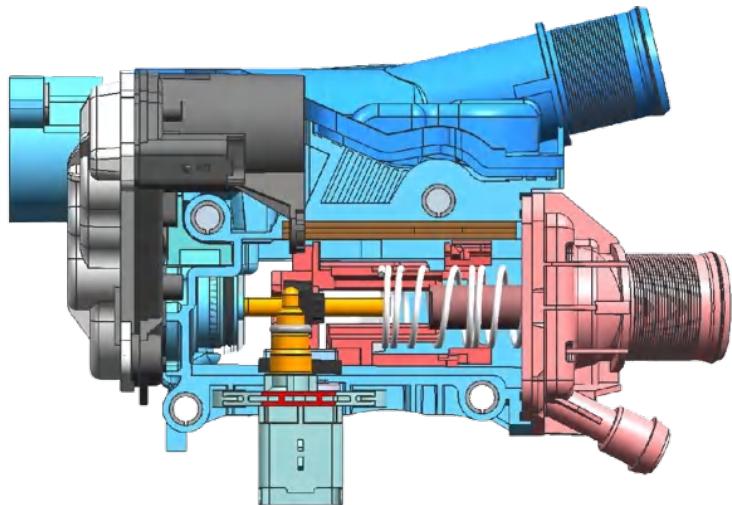


Fig. 3

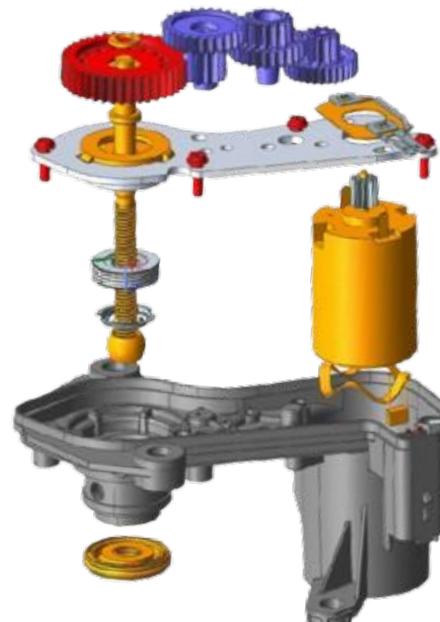
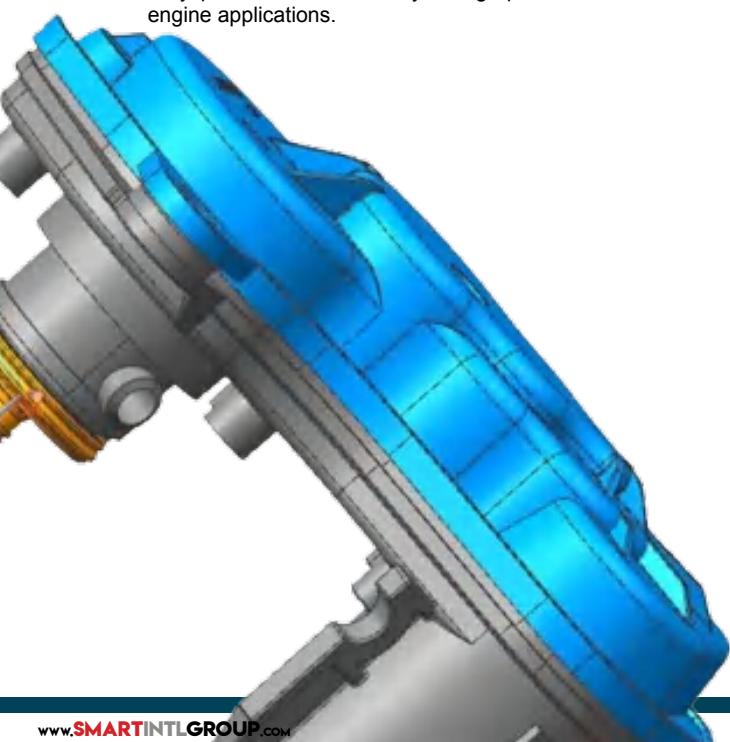


Fig. 4



Engine Thermostat : The Best from China

Thermostats—important components for original equipment...

To operate efficiently while minimizing wear and emissions, a combustion engine requires the temperature to be maintained at a certain level. This is what thermostats aim to do: they ensure that the engine reaches its operating temperature as quickly as possible and the optimum temperature is maintained. They also ensure that the vehicle's interior warms up quickly during the colder months of the year.

Thermostat technology is constantly evolving especially because thermal management plays a vital role in compliance with current and future emission standards.

...Replace Thermostats On-time

Thermostats are in use in every vehicle. In principle, they are designed to last for the entire service life of the vehicle, and are not naturally subjected to wear. However, external factors, such as the use of low-grade coolant, can lead to material fatigue. Contamination by small particles from the coolant circuit can also impair a thermostat's function and necessitate its replacement. Moreover, thermostats should be replaced any time work is carried out on the cooling system (coolant pump, radiator, heat exchanger, cylinder head gasket). This is because any loss of functionality or even complete failure can have serious consequences: if the thermostat is always open, the engine will be cooled too much. If the thermostat is always closed, then the engine will not be cooled at all and will overheat. However, the driver will generally notice this much too late; by that time, the cylinder head gasket has already been damaged, the cylinder head has overheated, and the coolant circuit has mixed into the oil circuit.

Smart One-Stop Cooling Parts Solution...

Thanks to its strategic collaboration with high-end OEM & OES clients ,our aftermarket customers stand to benefit from this development too: various thermostats in original equipment quality are gradually being added to the Smart product range. Whether you're looking for passenger car or commercial vehicle options, Smart Aftermarket offers thermostats , thermo housing and thermal switches, for a wide range of applications.

Technical Tips

How To Maintain The Right Engine Temperature:

- An effective thermostat controls the temperature of the engine, protecting it from the heat caused by fuel combustion.
- A thermostat does not add extra heat. Overheating will cause damage to the engine and to the thermostat.
- Every engine must run at a specified temperature. An engine that runs cold (without a thermostat) will use between 10-20% more fuel and will not function properly.
- Never run an engine without a thermostat in any climate. Engines are designed to run at a certain temperature. The thermostat brings the engine to that temperature and holds it there. Thermostats must always be used, in every climate, to prevent engine damage.
- Always match the correct pressure cap to the correct thermostat.

Overheating Can Result From:

- Pure water in the cooling system with a pressure cap \geq 4 PSI.
- Coolant not at the right mixture.
- A faulty pressure cap.
- A dirty radiator.
- A defective water pump.
- A defective thermo switch.
- And many other reasons.

In Cold Weather, To Create Sufficient Heat In The Engine:

- Check that the heat control is set to the correct temperature.
- Check that the anti-freeze level is correct.
- Check that the hoses to and from the radiator are not clogged.
- Change the thermostat to a higher temperature.
- Check that the thermostat is not stuck open.

Comment Garder La Bonne Température Dans Le Moteur

- Un bon thermostat contrôle la température du moteur et le protège de la chaleur dégagée par la combustion du carburant. Un thermostat n'ajoute pas de la chaleur. Toute surchauffe provoquera des dommages au moteur et au thermostat.
- Chaque moteur doit fonctionner à une température bien spécifiée. Un moteur qui fonctionne à froid (sans thermostat) consommera entre 10 et 20 % de carburant en plus et ne fonctionnera pas correctement.
- Ne faites jamais fonctionner un moteur sans thermostat quelle soit le climat. Les moteurs sont conçus pour fonctionner à une certaine température. Le thermostat porte le moteur à cette température et l'y maintient. Les thermostats doivent toujours être utilisés, qu'il importe le climat, pour prévenir tout dommage au moteur.
- Toujours utiliser le bouchon de pression adapté au Thermostat.

La surchauffe peut provenir de:

- L'eau pure dans le système de refroidissement avec une pression supérieure à 4 PSI.
- Le liquide de refroidissement n'est pas formé du bon mélange.
- Un bouchon de pression inadapté.
- Un radiateur sale.
- Une pompe à eau défectueuse.
- Un thermocontact défectueux.
- Et bien d'autres raisons.

Par temps froid, pour créer une chaleur suffisante dans le moteur:

- Revise que el control de calor está ajustado a la temperatura correcta.
- Revise que el nivel de anticongelante es correcto.
- Revise que las mangueras desde y al radiador no están obstruidas.
- Aumente la temperatura del termostato.
- Revise que el termostato no esté atascado en posición abierta.



Technical Tips

Cómo Mantener La Temperatura De Motor Correcta

- Un bon thermostat contrôle la température du moteur et le protège de la chaleur dégagée par la combustion du carburant. Un thermostat n'ajoute pas de la chaleur. Toute surchauffe provoquera des dommages au moteur et au thermostat.
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- Toujours utiliser le bouchon de pression adapté au Thermostat.

Se puede producir un sobrecalentamiento por:

- Agua pura en el sistema de refrigeración con tapa de presión superior a 4 PSI.
- Refrigerante en incorrecta mezcla.
- Tapa de presión defectuosa.
- Radiador sucio.
- Bomba de agua defectuosa.
- Interruptor térmico defectuoso.
- Y otras muchas más razones.

En clima frío, para crear calor suficiente en el motor:

- Revise que el control de calor está ajustado a la temperatura correcta.
- Revise que el nivel de anticongelante es correcto.
- Revise que las mangueras desde y al radiador no están obstruidas.
- Aumente la temperatura del termostato.
- Revise que el termostato no esté atascado en posición abierta.

Как Поддерживать Надлежащую Температуру Двигателя

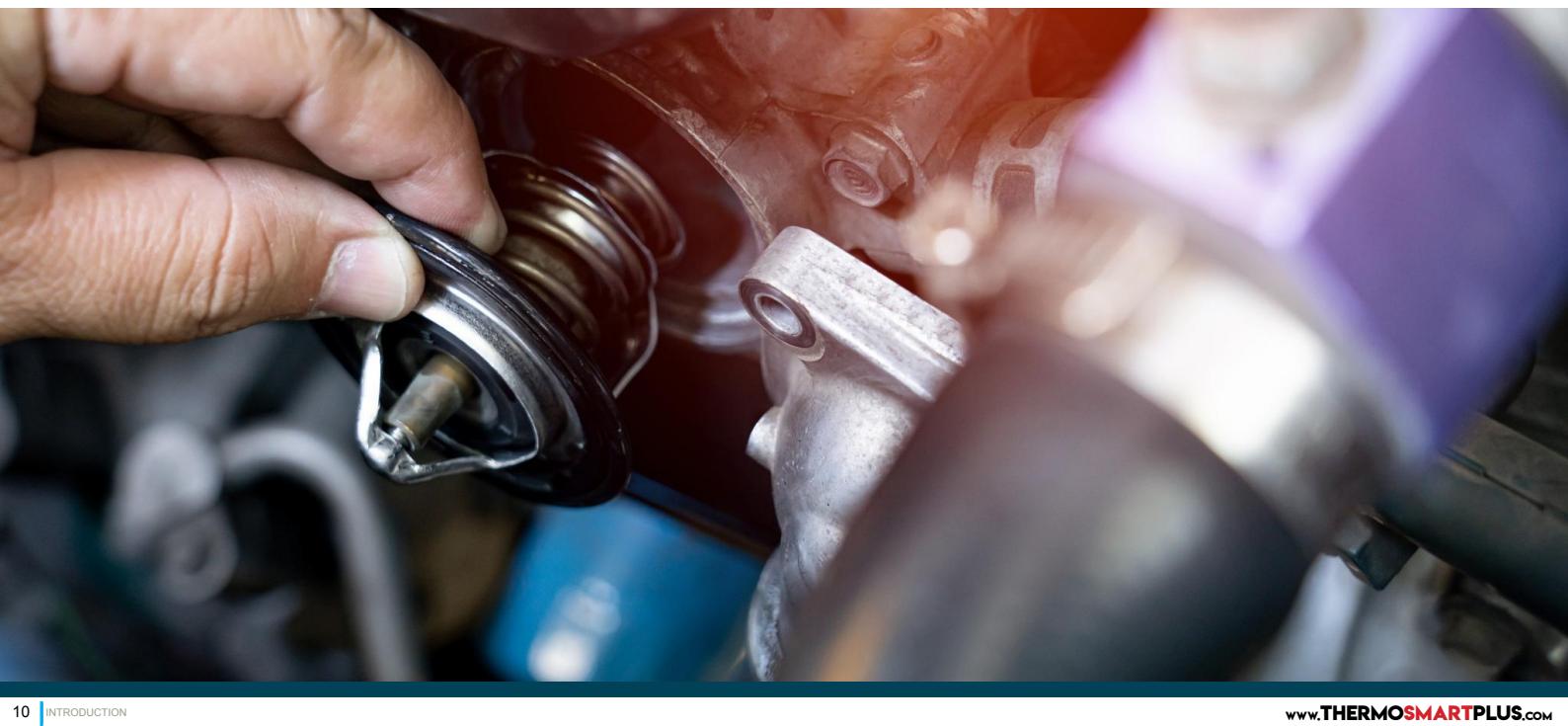
- Эффективный термостат управляет температурой двигателя, защищая его от тепла, которое выделяется при сгорании топлива. Термостат не добавляет дополнительного тепла. Переогрев ведет к повреждению двигателя и термостата.
- Каждый двигатель должен работать при определенной температуре. Двигатель работающий в холодном состоянии (без термостата), потребляет на 10-20 % больше топлива и не функционирует надлежащим образом.
- Эксплуатация двигателя без термостата ни в каких климатических условиях не рекомендуется. Двигатели рассчитаны на эксплуатацию при определенной температуре. Термостат обеспечивает поддержание этой температуры. Во избежание повреждения двигателя необходимо всегда и в любых климатических условиях использовать термостат.
- Герметичная крышка всегда должна соответствовать правильно выбранному термостату.

Перегрев может произойти в результате: следующего:

- В системе охлаждения чистая вода и герметичная крышка рассчитана на нагрузку более 4 PSI.
- Неправильное подобранные соотношение компонентов охлаждающей жидкости.
- Неисправная герметичная крышка.
- Загрязненный радиатор.
- Неисправный водяной насос.
- Неисправный тепловой выключатель.
- И многие другие причины.

Для достаточного прогревания двигателя в холодную погоду:

- Убедиться в том что регулятор подогрева установлен на надлежащую температуру.
- Убедиться в правильности уровня антифриза.
- Убедиться в том что подводящий и отводящий шланг радиатора не засорены.
- Установить термостат с более высокой температурой открытия.
- Убедиться в том что термостат не заблокирован в открытом положении.



**MISSION TO
GERMANY**

The German automotive industry is renowned for its excellence in engineering and cutting-edge technology, with German cars embodying values of reliability, safety, and design. Hangzhou Smart, a leading manufacturer of engine thermostats and cooling system parts, is proud to have established strong partnerships with clients in Germany and to have become a trusted supplier in the market. The company is committed to the development of new and innovative products specifically for the German market, recognizing its significance and welcoming new clients and partners to join in its exciting journey. With a focus on quality and service, Hangzhou Smart is proud to be a part of the thriving German automotive industry and dedicated to maintaining its commitment to quality and innovation.

**QUALITY
SERVICE
TRUST**

Warranty Terms:

SMART warrants that all of its thermostats and caps are manufactured to be free from defects in material and workmanship. If any products sold by **SMART** are proven to be defective when sold, then **SMART** will replace such products or credit the distributor for the purchase price.

Replacement/credit privileges apply only to products proven to be defective within the warranty period .

The duration of the warranty period for All engine thermostats and parts is 12 months and

Extended warranty of 24 months for "ThermoSmart" Branded products from the date of Shipment.

The replacement/credit privileges does not apply to

(i) accidents, alterations, negligence, misuse, wrong application or incorrect application which results in or contributes to product failure

(ii) products installed on racing, off-road, marine or unrelated motor vehicles.

Except as specifically set forth above, no other warranty, express or implied, is applicable to the products.

If warranty is requested, it must be requested within 30 days after the discovery of the damage and **SMART's** Warranty Claim Form must accompany the request. The Smart produced part, with the original invoice from the retailer or installer from whom the product was purchased, must also accompany the Warranty Claim Form.

SMART's technical services department reserves the right to examine the engine or equipment to determine the amount of damage and/or weather the damage was the result of a defective Smart product.

For up to date version of our terms and condition please refer to our website.

Legal Notice:

All product names, brands and registered trademarks are property of their respective owners.

All company, product and service names used in this catalog are for identification purposes only.

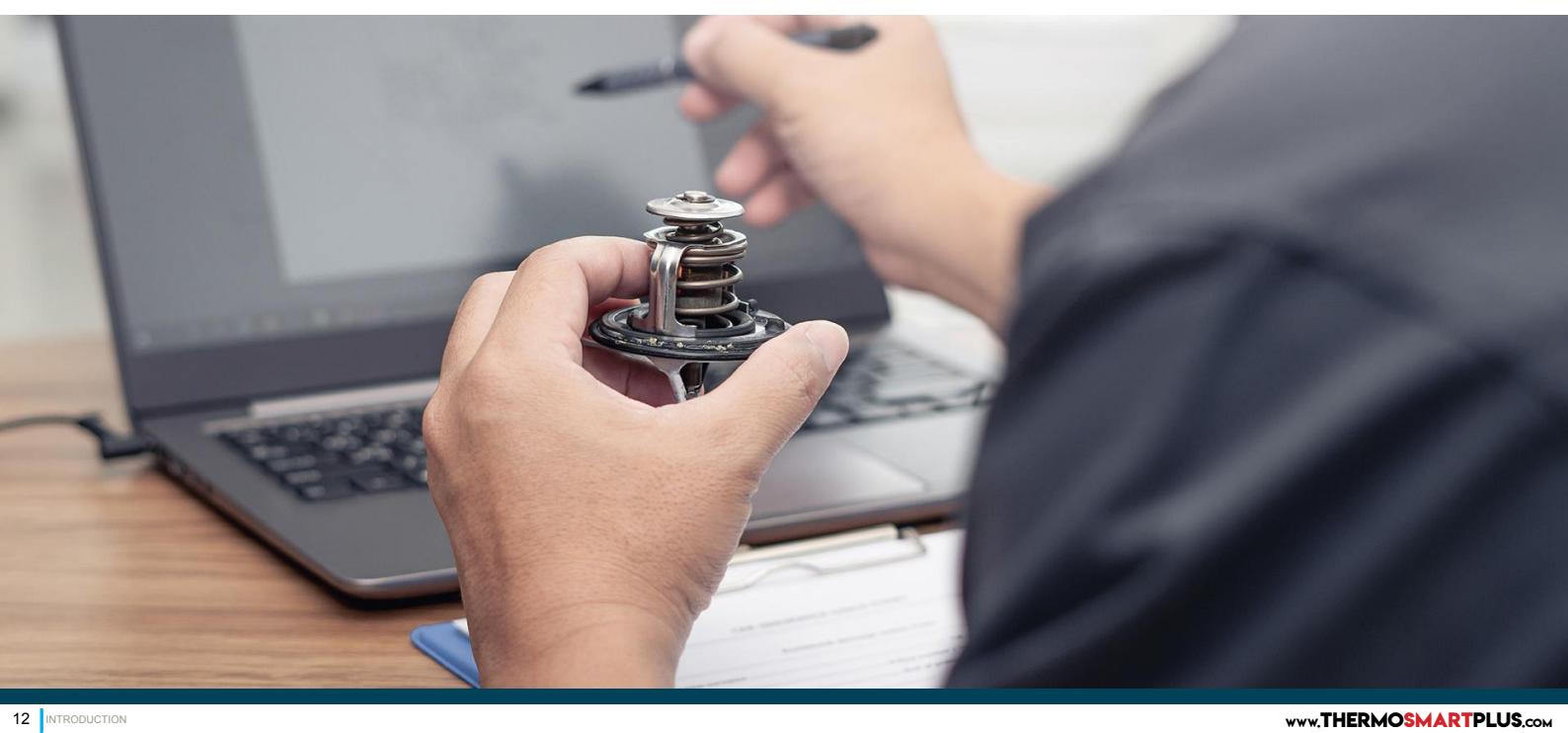
"Use of these names,trademarks and brands does not imply endorsement".

All other trademarks cited herein are the property of their respective owners.

Please contact us for more information regarding trademarks.

Disclaimer

Every Care has been taken to ensure the accuracy of the information contained in this catalog but no liability can be accepted for any loss or damage wheter direct,indirect or consequential arising out of the use of the information contained herein.



THERE IS NO SUBSTITUTE FOR QUALITY.

RIEN NE REMPLACA LA QUALITÉ.
NO HAY SUSTITUTO PARA LA CALIDAD.

Made with
GRADE A+

In-House WAX Formula &
Materials from Dupont, BASF, LG

100% NEW & Non-Recycled
Aluminum ADC12
Stainless Steel JIS G4305

Annual Production Capacity
5.000.000



WAX Thermostat



Integrated Assembly



Housings



Truck Thermostats



**2 YEARS
GUARANTEE**



ISO9001
IATF 16949



Switch & Sensor



Aluminium Assembly

1500+
Thermostats &
Assembly



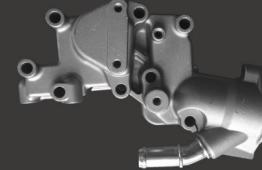
MAP Controlled
Electric Thermostat



Flanges

5000+
Available OE Numbers

National
High-Tech
Enterprise



In-House
Alu Die Cast

**★★★★★
PREMIUM**
Service & Aftersales



Marine
Thermostats



Motorcycle & ATV
Thermostats



Industrial Vehicles &
Truck Thermostats

OES
Europe & Americas

174
Employees

We are committed to maintaining the highest standards of excellence in all aspects of our operations.

With a focus on delivering exceptional quality and reliability, we have established partnerships with more than

25 leading original equipment supplier (OES) brands across the world.

At SMART, we are dedicated to providing our clients with innovative and effective solutions that meet their evolving needs.

**THERMO
SMART®**
蒂那科·腾立



**HANGZHOU
SMART**
MFG. GROUP CO., LTD.

How to use our Catalog:

Our product catalog is designed to provide a comprehensive and accurate resource for identifying products. Users may search for items using OEM numbers, manufacturer cross-reference numbers or other relevant identifiers. Please note that the use of this catalog for determining product applications is done at the user's own risk.

To initiate a search, simply press **Ctrl+F** in **Windows** or **Cmd+F** in **Mac OS**. To simplify the search process, we have standardized all OE numbers, removing any special characters or symbols. This is to avoid any confusion caused by the differing numbering formats used by various OE manufacturers, which may include hyphens, forward slashes or blank spaces.

Example of OE Number Search :

OE Number	Search Term	Search Result
17570-74001	1757074001	Smart Nr. :1214
19301-P08-316	19301P08316	Smart Nr. :1286
1A51 15 171	1A5115171	Smart Nr. :1336

Example of OE Cross Ref. Search :

For Cross Reference of other Thermostats Manufacturer, you may use each maker's format (without space) to search.

Cross Ref. Nr.	Search Term	Search Result
TM 12 105	TM12105	Smart Nr. :1675
TE6496.105J	TE6496.105J	Smart Nr. :1676
V30-99-0198	V30-99-0198	Smart Nr. :1667

Decoding SMART Numbers:

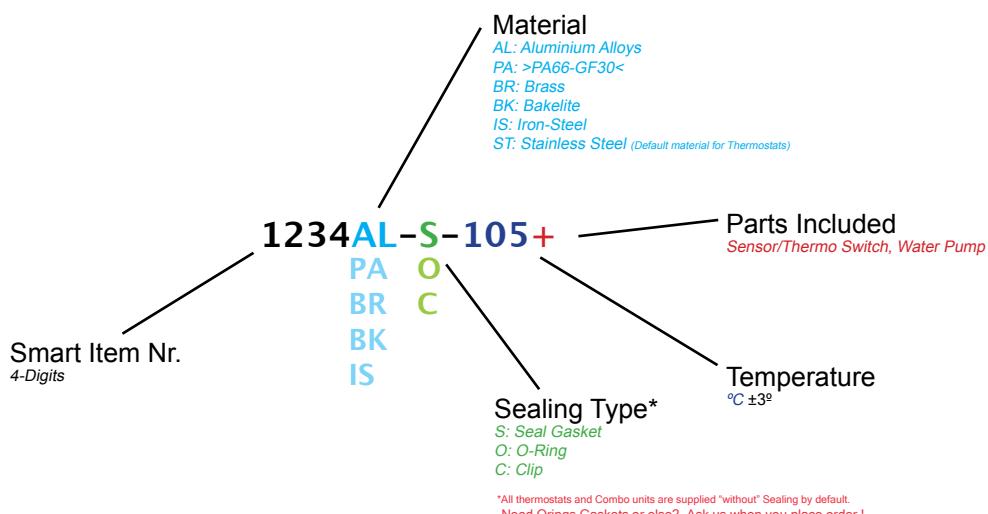
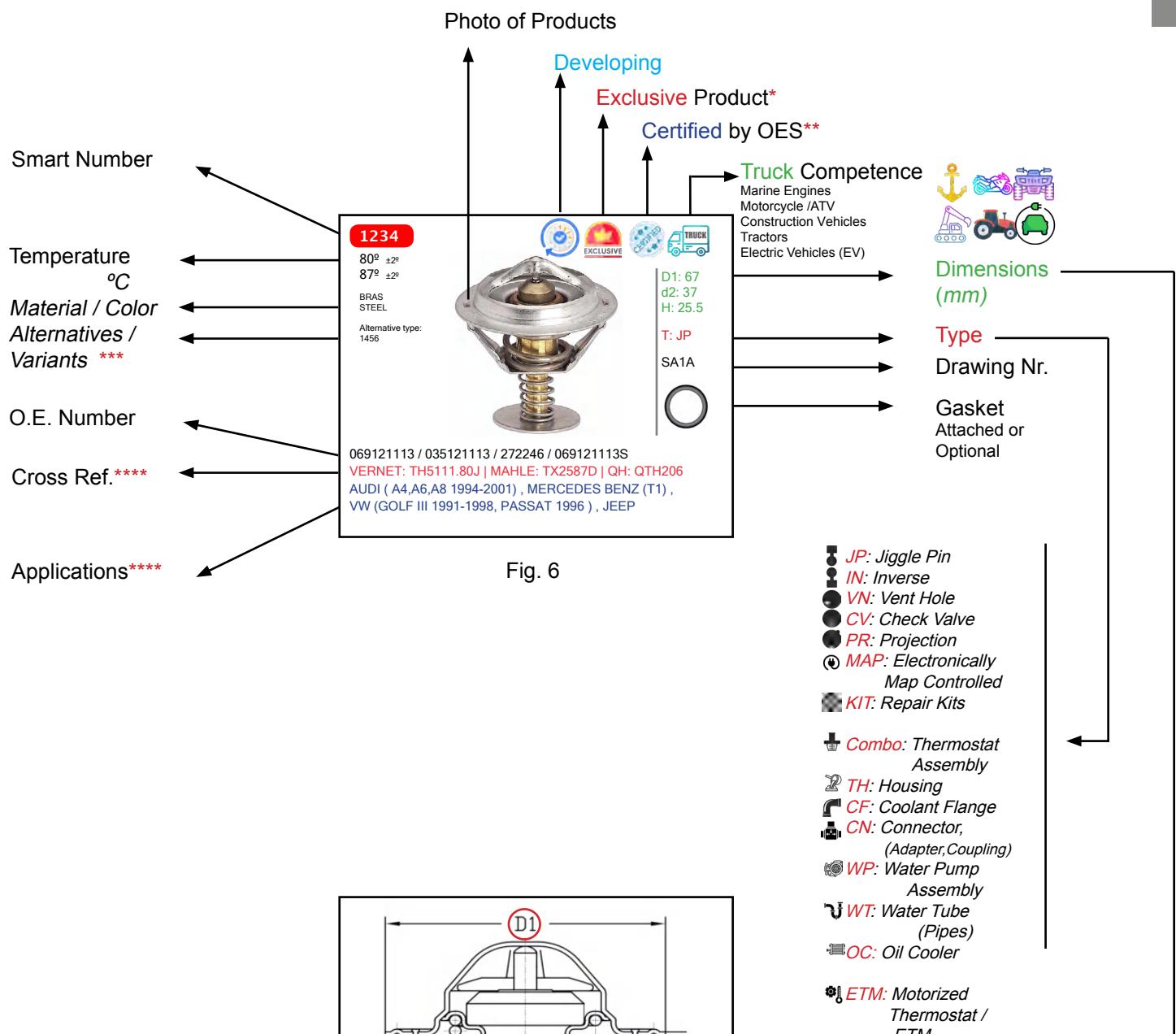


Fig. 5

Legend Tab:



- **JP:** Jiggle Pin
- **IN:** Inverse
- **VN:** Vent Hole
- **CV:** Check Valve
- **PR:** Projection
- **MAP:** Electronically Map Controlled
- **KIT:** Repair Kits
- **Combo:** Thermostat Assembly
- **TH:** Housing
- **CF:** Coolant Flange
- **CN:** Connector, (Adapter,Coupling)
- **WP:** Water Pump Assembly
- **WT:** Water Tube (Pipes)
- **OC:** Oil Cooler
- **ETM:** Motorized Thermostat / ETM

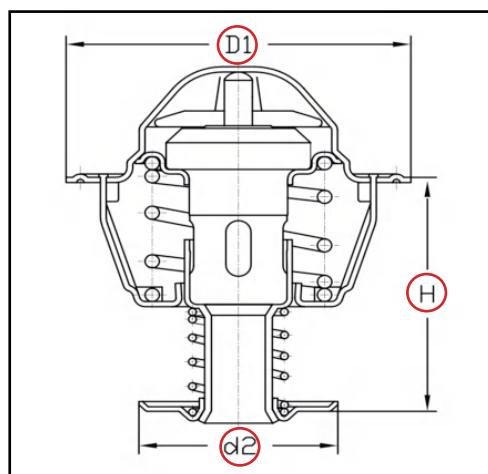


Fig. 7



* EXCLUSIVE: These items may not be sold to others in particular regions as they are manufactured exclusively for customers.

** CERTIFIED : These products have been approved and sold to leading Tier 1 or Tier 2 / OES brands in Europe and Americas.

*** ALTERNATIVES / VARIANTS: These products could either be identical or similar to the originals, featuring varying designs from different manufacturers.

**** BRANDS : All brands, company and product names & numbers cited here in this catalog as references are property of their respective owners.



**TRUSTED BY
OVER 25 WORLDWIDE OES BRANDS**



**THERMOSTAT ILLUSTRATIONS BY MODEL NUMBER |
ILLUSTRATIONS DES THERMOSTATS PAR RÉFÉRENCE DU MODÈLE |
ILUSTRAÇÕES DE TERMOSTATOS POR NÚMERO DE MODELO |
MODEL NUMARASI İLE Termostat ÇİZİMLERİ
ILUSTRACIONES DE TERMOSTATOS POR NÚMERO DE MODELO |
THERMOSTAT ABBILDUNGEN NACH MODELLNUMMERN |
ТЕРМОСТАТЫ - ИЛЛЮСТРАЦИИ ПО НОМЕРУ МОДЕЛИ |
节温器 图示(按型号编号) |
モデル番号別のサーモスタット図**

1000 80° ±2° 87° ±2° 069121113 VW, AUDI	1001 D1:66.7 d2:35 H:24.5 T: SA1A 	1002 80° ±2° 70809153, 6172001115, 0022038075, 269374, 0022037575, 0022038075, 6152001315, 6152001415, 6162000415, 6172000315, 6172000815, A6172001115, A6152001315, A6152001415, A6162000415, A0022037575, A0022038075, A6162000815, A6162001815, A617200315, A617200815, 276012, 0269374 MAHLE: TX2080 / TX2080D, VERNET: TH5111.80J, DIESEL TECHNIC: 1880046 MERCEDES-BENZ, SCANIA
1003 80° ±2° 075121113D, 035121113 MAHLE: TX2580D AUDI, CUPRA, SEAT, SKODA, VW (SHARAN I 2.8 00-10)	1004 D1:66.7 d2:29 H:24.5 T:VH SA1B 87° ±2° 	1005 87° ±2° VW , VOLVO
1006 Brass Brass	1007 D1:66.7 d2:29 H:25.5 T:JP SA1E 65° ±2° 71° ±2° 83° ±2° *Alternative Types: 1055, 1057, 1060 1102000915, 0022031675, 0032037375, 51064020006, 0042036575, 0052030475, 61673540, 04224846, 0002037075, 0012036975, 11531265086, 0012037975, 0022030475, 0022030575, 0255502, 0022033175, 0022033275, 0022034075, 0022034575, 1265086, 0022034775, 51064020042, 51064020045, 51064020052 MAHLE: TX1883D / TX2371D, MOTORAD: 248-71, VERNET: TH1513.71J, FEBI: 09671, VEMO: V30-99-0179 MERCEDES-BENZ, SCANIA, DAF, DEUTZ, IVECO, MAN, BMW	1008 D1:66.7 d2:43 H:25.5 T: SA1F1 DAF , DEUTZ , MERCEDES-BENZ , SCANIA , VW , VOLVO.
1009 DAF, DEUTZ, MERCEDES-BENZ, SCANIA, VW, VOLVO.	1010 D1:66.7 d2:33 H:23 T: SA1F3 DAF, DEUTZ, MERCEDES-BENZ, SCANIA, VW, VOLVO.	1011 D1:66.7 d2:29 H:35.5 T:IN SA1F4 DAF, DEUTZ, MERCEDES-BENZ, SCANIA, VW, VOLVO.
1012 DAF, DEUTZ, MERCEDES-BENZ, SCANIA, VW, VOLVO.	1013 D1:66.7 d2:33 H:24.5 T:IN SA1F6 DAF, DEUTZ, MERCEDES-BENZ, SCANIA, VW, VOLVO.	1014 D1:66.7 d2:33 H:26.7 T: SA1F7 DAF, DEUTZ, MERCEDES-BENZ, SCANIA, VW, VOLVO.

1015	Brass D1:74.4 d2:31 H:35 T:VN SA1G 	1016	Brass D1:75 d2:35 H:36 T:JP SA1G2 	1017	* Without inner rubber sleeves D1:66.7 d2:29 H:25.5 T:JP SA1H
1018	 DISCONTINUED D1:66.7 d2:29 H:25.5 T: SA1H2 	1019	 (OLD Type) D1:67.7 d2:46 H:23 T: SA1i 	1020	 (OLD Type) Brass D1:67.7 d2:29 H:27.5 T: SA1J
1021	D1:67.7 d2:37 H:25.5 T: SA1J2 	1022	D1:73 d2:36 H:31 T: JP SA1K 	1023	D1:73 d2:43 H:30 T: SA1K2
1024	D1:66.7 d2:35 H:33.5 T:JP SA1M 	1025	D1:66.7 d2:33 H:37 T:IN SA1N 	1026	82° ±2° D1:63.5 d2:29 H:41 T:IN SA1O 21200BN300, 7701052705, 5952148, 9091603117 , 21200BN30A MD174233, 21200BN301, 1305A285, 7701057805, 9091603094 VERNET: TH6583.82J MITSUBISHI, NISSAN, RENAULT, SAAB, TOYOTA , LEXUS
1027	83° ±2° D1:55 d2:29 H:36 T: SA1O2 	1028	83° ±2° * Without inner rubber sleeves *Alternative Type 1030 D1:55 d2: H:23 T: SA1O3 	1029	82° ±2° D1:56 d2:28 H:43 T:IN SA1O4 1608167380, 16081673, 6000611040 , 212002W201, 212002W202 212005715, 9091603084, 9091603107, MD178746 VERNET: TH6295.82J CITROEN, PEUGEOT, HYUNDAI, NISSAN, TOYOTA, MITSUBISHI

1030

83° ±2°

*With inner rubber sleeves

*Alternative
Type: 1028

133839, 9616090280, 9616090290

VERNET: TH4885.83J

PEUGEOT, CITROEN, FIAT, LANCIA

1031

82° ±2°

D1:55
d2:
H:23T:
SA105

1032

75° ±2°
80° ±2°
87° ±2°D1:54
d2:35
H:40T:
SA106D1:83.7
d2:43
H:32
T:IN
SA1P

1033

80° ±2°

D1:68
d2:28.5
H:26T:
ST3WD1:70
d2:
H:23
T:JP
SA1S

7700697157, 133764, 133768, 133814, 133820, 133825, 96159513
9609023080, 3470390, 93501386, 96080220, 96101599, 133818,
7700665226, 7700858087, 7700862200, T0697157, 88EF8575AA,
93501145, 1612191, 6182480, 83EF8575AA, ERT142

MAHLE: TX7580D

PEUGEOT, CITROEN, FORD, VOLVO, RENAULT, JEEP, TALBOT

1034



1035

D1:66.7
d2:28.8
H:36T:VH
SA1RD1:70
d2:
H:23
T:JP
SA1S

1036

D1:75
d2:36
H:24.5T:
SA1T

1037



1038

D1:66.6
d2:35
H:25T:
SA2AD1:66.6
d2:35
H:25.5

11531733803, 11531712043, 11537511083, 11531743528,
11531743542, 11537733803, 11232241628, 11531468057,
11532241628, 1468057, 1712043, 1733803, 1743528, 1743542,
2241628, 2241630, 7511083

MAHLE: TX2892D, VERNET: TH6243.92J, FACET: 7.8302S,

FAE: 5302692, GATES: TH14392G1, WAHLER: 4236.92D

BMW: BM14392G1

1039

D1:66.6
d2:35
H:25.5T:
SA2B2

1040



1041

D1:66.6
d2:35
H:25.5T:CV
SA2B3D1:66.6
d2:42.9
H:25.5

1032249, 1018799, 0052032975, 95510611300, 022121113,
A0052032975, 1224808, 3M218488AA, 95VW8488AA,
95VW8575BA

MAHLE: TX3080D

FORD, MERCEDES-BENZ, PORSCHE, VW, AUDI, SKODA, SEAT

1042

79° ±2°

83° ±2°

D1:66.6
d2:42.9
H:25.5T:VH
SA2C2

1043

79° ±2°



1044

80°± 87° ±2°

65° ±2°

75° ±2°

83° ±2°

88° ±2°

Housing: 2430, 2433

D1:122.5
d2:43
H:25.5

1404924, 1358995

MAHLE: TX3383D, VERNET: TH7106.83J, WAHLER: 4223.83D,

DT: 1.11205, FEBI: 21548, LASO: 85201502

SCANIA (TRUCK, P, G, R, T SERIES, 4 SERIES)

1045 	1046 D1:66.6 d2:29 H:25.5 T:JP SA2F 80° ±2° 07K121113B MAHLE: TX12580 VW, AUDI, CUPRA	1047 D1: 67 d2: H: 27 T: SA2B4 07K121113B USE FOR MOTORCYCLE
1048 87° ±2° 1112000315, 1112030375, A1112000315, A1112030375 MAHLE: TI2287, VERNET: TH6247.87J, GATES: TH34187G1, MALO: TER147, MEYLE: 0282870014, MOTORAD: 352-88, QH:QTH425. DAEWOO, MERCEDES-BENZ, SSANGYONG, GM (CHEVROLET)	1049 D1: d2:43 H:33 T:Combo SA4A 87° ±2° 92° ±2° 078121113C, 078121113D, 078121113F, 078121113J, AJ82697 11531713040, 11531710953, 272240, 07912111J, 07V121113A, 077121113B, , 077121113, 11231265085, 11531710954, 1710953, 1710954, 1713040, 78EF8575A2A MAHLE: TX3087D / TX2780D / TX3487D , MOTORAD:304-88 AUDI, BMW, VAG, VW, SKODA, FORD	1050 D1:66.7 d2:43 H:25.5 T: SA5A2 078121113C, 078121113D, 078121113F, 078121113J, AJ82697 11531713040, 11531710953, 272240, 07912111J, 07V121113A, 077121113B, , 077121113, 11231265085, 11531710954, 1710953, 1710954, 1713040, 78EF8575A2A MAHLE: TX3087D / TX2780D / TX3487D , MOTORAD:304-88 AUDI, BMW, VAG, VW, SKODA, FORD
1051 92° ±2° 078121113G, 078121113H MAHLE: TX3092D VW, VAG, AUDI, SKODA, SEAT, CUPRA	1052 D1:66.7 d2:35 H:25.5 T:CV SA5B 80° ±2° 85° ±2° 6012000115, 0032039875, 6062030175, 6032000015, 6022000015 6062000475, 6052030075 , 0042030975, 42030975, 6012000115S MAHLE: TX2980D, VERNET: TH5699.80J, GATES: TH12680G1, MOTORAD: 251-79, WAHLER: 4176.80D, FENOX: TS163 MERCEDES-BENZ, SSANGYOUNG, DAEWOO	1053 D1:66.7 d2:41.5 H:25 T:CV SA5C 6012000115, 0032039875, 6062030175, 6032000015, 6022000015 6062000475, 6052030075 , 0042030975, 42030975, 6012000115S MAHLE: TX2980D, VERNET: TH5699.80J, GATES: TH12680G1, MOTORAD: 251-79, WAHLER: 4176.80D, FENOX: TS163 MERCEDES-BENZ, SSANGYOUNG, DAEWOO
1054 85° ±2° MERCEDES-BENZ	1055 D1:64.7 d2:35 H:27.5 T: SA5D 65° ±2° 71° ±2° 75° ±2° 79° ±2° 83° ±2° 87° ±2° *Alternative Types: 1007, 1057, 1060 A1102000515 MAHLE: TX1887D MERCEDES-BENZ, BMW, DEUTZ, JAGUAR, DAEWOO, SSANGYONG	1056 D1:66.7 d2:43 H:25.5 T: SA5E 80° ±2° 87° ±2° 211487312, 035121113A, 035121113B, 2722460, 272246, 3273728, 11531721003, 069121113A MAHLE: TX2587D VAG, VOLVO, BMW, VW
1057 65° ±2° 75° ±2° 79° ±2° 83° ±2° 87° ±2° *Alternative Types: 1007, 1055, 1060 0022037675, 0032036975 MERCEDES-BENZ, JAGUAR, BMW, DEUTZ, DAEWOO, SSANGYONG	1058 D1:66.7 d2:43 H:25.5 T: SA6B2 80° ±2° SC14B	1059 D1: d2: H: T: SC36A 80° ±2° SC14B

1060  $87^\circ \pm 2^\circ$ <small>*Alternative Types: 1007, 1055, 1057</small> 1022001515 DAEWO, MERCEDES-BENZ, BMW, SSANGYOUNG, DEUTZ, JAGUAR.	 D1:66.7 d2:43 H:25.5 T: SA6C 71° ±2°	1061  D1:66.7 d2:37 H:25.5 T: SA6D 71° ±2°	1062  D1:66.7 d2:43 H:25.5 T: SA6E 71° ±2°
1063  D1:66.7 d2:43 H:25.5 T: SA7A 71° ±2°	 D1:66.7 d2:43 H:25.5 T: SA7A 71° ±2°	1064  71° ±2°	1065  D1:66.7 d2:35 H:26.5 T: SA7C 71° ±2°
1066  71° ±2° 87° ±2° 1112030875, 1112000915, 00A121113, 1612033775, 1612033375 111200415, 111200815, 1112030275, 1112030575, A1112030575, A1112000915, A1112000415, A1112000815, A1112030275 MAHLE: TI2187, VERNET: TH6285.87J, DT: 4.68172, GATES: TH1987G1, MOTORAD: 351-88, WAHLER: 4275.87D MERCEDES-BENZ, VW, GM (CHEVROLET), SSANGYONG, AUDI, DAEWOO	 D1: d2:43 H:33 T: Combo SA8A 82° ±2°	1067  82° ±2° 4936026 DONGFENG CUMMINS, DONGFENG 153 TIANLONG	 D1:68.5 d2:43 H:30 T: SA9A 89° ±2°
1069  78° ±2°	D1:73 d2:43 H:30 T:JP SA1K3	1070 Brass	 D1: d2: H: T:KIT SA13A 82° ±2° 84° ±2° 87° ±2° 92° ±2°
1072  60° ±2° 79° ±2° *Combo version: 2494	D1:54 d2:35 H:31.5 T:JP SB1A2 88° ±2°	1073  88° ±2° Brass 047121110 SKODA	 D1:46 d2: H:23 T: SB1B 1338024, 1338046, 030121113, 068121113, 9L9652, 9N5020, 9N5065, 4N6959, 9N5121, 9L9119, 1028392, 9N5488, 4N6958, 81TF8575CA, 6113611, 94410612905, 94410601900 VERNET: TH1439.80J CATERPILLAR, FORD, OPEL, PORSCHE, VAUXHALL, WV (GOLF III 1.4T 93-99)
1074  D1:54 d2:35 H:29 T:JP SB1C	D1:54 d2:35 H:29 T:JP SB1C		

1075 	1076 83° ±2° D1:54 d2: H:23 T: SB1D 	1077 D1:54 d2:29 H:31.5 T: SB1E 	D1:46 d2:30 H:22 T: SB1F
PEUGEOT, CITROEN, NISSAN			
1078 	1079 D1:54 d2:29 H:34 T: SB2A 	1080 D1:54 d2:29 H:31.5 T: SB2B 	D1:54 d2:29 H:31.5 T:JP SB2C
3830977, 273953, 1544297			
1081 82° ±2° 89° ±2° 30577561, 6129739	1082 D1:54 d2:29 H:34 T:JP SB2D 	1083 D1:54 d2:35 H:31 T:JP SB2E 	D1:56 d2:35 H:29 T: SB2F
PEUGEOT, CITROEN, SAAB			
1084 	1085 82° ±2° 1338008	1086 D1:54 d2: H:23 T: SB3B 	D1:54 d2: H:23 T: SB3C
OPEL			
1087 75° ±2° 133775	1088 75° ±2° 78° ±2° 133766, 5430115, 133711, 133713, 6058784, 133725, ERT106, ERT35, 133759 VERNET: TH1503.78, GATES: TH22375 & TH22375G1, MOTO RAD: 238-77, QH: QTH140 & QTH140K, WAHLER: 3053.78 PEUGEOT, CITROEN, FORD	1089 77° ±2° 80° ±2° 88° ±2° 114095090, 113095090 VERNET: TH4608.88J, WAHLER: 3032.88 FACET: 78461S, DELPHI: TMS1284, VALEO: 819927 SKODA (FAVORIT, FELICIA, FORMAN)	D1:60 d2: H:23 T:JP SB6A

1090  75° ±2° 82° ±2° Brass Steel Iron Steel	1091  D1:53.5 d2: H:23 T: SB5B 	1092  83° ±2°	D1: d2: H: T: KIT SC38A 
1093  50° ±2°	1094  D1: d2: H: T:PR SC5H 	1095  50° ±2°	 D1: d2: H: T:Combo SC5HX 
1096  88° ±2° 89° ±2° * Alternative Type: 1131	1097  D1:50 d2: H:23 T: SB7C 	1098  Brass	D1:56 d2:30 H:36.7 T: SB8A 
8200772985, 7700872554, 7700872635, 4408334, 93198345 4434460, 91159950, 212000QAA, 212000Q0B, 7700272554 VERNET: TH6047.89J RENAULT, DACIA, OPEL, VAUXHALL, NISSAN	1100  D1:63 d2:40.5 H:43 T:JP SB9A 	1101  D1:54 d2: H:23 T: SB7D2 	D1:56 d2:25.5 H:41.5 T: SB10A 
1099  Steel Brass 107130601004 LADA	1102  83° ±2° 86° ±2°	1103  D1:42.5 d2:33 H:25.5 H: 37 T: SB11A 	1104  Brass
7700858802, 7700742617, 6001543366 VERNET: TH5284.91J, GATES: TH23491G1, MAHELE: TH6691D, MOTORAD: 346-88 & 346-91, QH: QTH276 & QTH276K RENAULT, DACIA, RENAULT TRUCKS	1105  91° ±2°	1106  D1:50 d2:40 H:25.4 T: SB11B 	D1:54 d2:29 H:25.5 T:JP SB12A 

1105 Brass * Alternative Type: 1794	1106 Brass T:JP SB12B 	1107 D1:54 $d2:29$ $H:28.5$ T:JP SB12D 2485613 MAXION TRACTOR, PERKINS (236, 248, 354 DIESEL), MASSEY FERGUSON (375, 3050 DIESEL)
1108 $82^\circ \pm 2^\circ$ * Alternative Type: 1794 2485666 PERKINS	1109 $82^\circ \pm 2^\circ$ $74^\circ \pm 2^\circ$ * Without inner rubber sleeves 5088099 FIAT TRACTOR (450, 466, 480, 500, 540, 550, 566, 580, 600, 640)	1110 $82^\circ \pm 2^\circ$ * With inner rubber sleeves 5088099 FIAT TRACTOR 180F
1111 $87^\circ \pm 2^\circ$ * Singel thermostat: 1717 1662030275, 1662030075, 1662030175, A1662030175, A1662030275, A1662030075 MAHLE: TI1287, VERNET: TH6514.87J, GATES: TH39487G1, MOTORAD: 599-87, WAHLER: V30-99-0113, VALEO: 820491 MERCEDES-BENZ	1112 $80^\circ \pm 2^\circ$ $87^\circ \pm 2^\circ$ T: SB13D 	1113 $Brass$ * The front cover is not a perfect circle and has bumps (front: 53.7+2)
1114 $87^\circ \pm 2^\circ$ * Singel thermostat: 1717 1662030275, 1662030075, 1662030175, A1662030175, A1662030275, A1662030075 MAHLE: TI1287, VERNET: TH6514.87J, GATES: TH39487G1, MOTORAD: 599-87, WAHLER: V30-99-0113, VALEO: 820491 MERCEDES-BENZ	1115 $80^\circ \pm 2^\circ$ $87^\circ \pm 2^\circ$ T: MAP SC5GX 	1116 $80^\circ \pm 2^\circ$ T: SC5G3
1117 $D1:$ $d2:$ $H:$ T: KIT SB16A 	1118 $D1:54$ $d2:35.5$ $H:32$ T: SB17A 4121306010 FENOX: TS00307, MASTER-SPORT: 412-S-PCS-MS MOSKVICH	1119 $D1:56$ $d2:34$ $H:33$ T: SB18A

1120 	D1:56 d2:32 H:36.5 T: SB18B 1121 82° ±2° 	D1:56 d2:33 H:37.5 T: SB18C 1122 	D1:48 d2: H:23.3 T: SB19A
1123 	D1:54 d2:35 H:31.5 T: SB20A 1124 	D1:54 d2: H:23 T: SB20B 1125 	D1:54 d2: H:23 T:JP SB20C
1126 88° ±2° * Alternative Type: 1789 	D1:52 d2:33 H:40 T:VH SB21A 1127 	D1:52 d2:35 H:34 T: SB22A 1128 	D1:43.5 d2:29 H:35 T: SB23A
1129 87° ±2° 	D1:43.5 d2:30 H:41.5 T: SB23B 1130 	D1:54 d2:33 H:28.5 T: SB24A 1131 	D1:50 d2: H:23 T: SB25A
1A02173012			8200772985, 7700872554, 7700872635, 4408334, 93198345 4434460, 91159950, 2120000QAA, 2120000Q0B VERNET: TH6047.89J RENAULT, DACIA, OPEL, VAUXHALL, NISSAN
1132 	D1: d2: H: T: KIT SB26A 1133 71° ±2° 79° ±2° 87° ±2° 92° ±2° * Alternative dimension: 1249 	D1:48 d2: H:23 T: SB27A 1134 	D1: d2: H: T: KIT SB28A

1135  83° ±2° 89° ±2° PA66 Aluminum	1136  D1: d2: H: T: Combo SB28AX  89° ±2° PA66 Aluminum	1137  D1: d2: H: T: Combo SB28B  83° ±2°
8200400554, 8200558758, 8200954288, 1106100Q0D, 1769084A00 1106100QAM, 1106100Q1F, 1769084A51, 1769084A52, 176904A11 8200039885, 8200171021, 8200244023, 8200244402, 8200374994 MAHLE: TI21583 DACIA, NISSAN, RENAULT, SUZUKI	7700110716, 8200660882, 1106100Q0M, 1106100QAE, 1336T9 MAHLE: TI4189, VERNET: TH6126 89J, QH: QTH490K, GATES: TH26489G1, MOTORAD: 433-89, MTE: 371 89 PEUGEOT, CITROEN, DACIA, NISSAN, RENAULT, INFINITI	
1138  83° ±2° 89° ±2° *2 Pins *4 Pins	1139  D1: d2: H: T: Combo SB28D 	1140  D1: d2: H: T: Core SB28E  87° ±2°
8200558751, 8200400553, 1106000QAJ, 1106000Q0B, 1106000QA 110605536R, 110603026R, 1106000Q0S, 8200954328, 1106000Q0K 1106000Q0M, 1106000Q0P, 1106000QG, 110602309R, 8200248531, 8200267349, 1106000QQT, 1106000Q0M, 1106000Q0N, 8200558779 1106000Q0P, 8200954289 MAHLE: TI24783, VERNET: TH6703.83J NISSAN, RENAULT, DACIA, SUZUKI	7581200, 7581635, 758201, 7581636, 0007581201, 0007581635, 0007581200 MAHLE: TI6487D, VERNET: TH6598.87J, FACET: 7.8163, GATES: TH12087G1, MOTORAD: 285-87, QH: QTH338 FIAT (TIPO), ALFA ROMEO, LANCIA, INNOCENTI, FERRARI	
1141  87° ±2°	1142  D1: d2: H: T: Combo SB30A 	1143  D1: d2: H: T: SD32C  Under development
7589135, 7545958, 5459580, 75813190, 0000007545958, 46807285, 5459580, 75813190, 7789135 MAHLE: TI6887D, VEMO: V24-99-0019, VALEO: 819938 FIAT (PALIO 178BX 1.2 2001), AUTOBIANCHI, LANCIA		
1144  87° ±2°	1145  D1: d2: H: T: KIT SB31A  87° ±2° 92° ±2°	1146  D1: d2: H: T: MAP SB31A2  87° ±2°
	6112000515, 6112000315, 6112030875, 6112031175, 6112031375 6112000415, A6112000315, A6112030875, A6112031175, A6112031375 VALEO: 820800, VEMO: V30-99-0115 MERCEDES-BENZ	6112000715, 6112030475, A6112030475, K05080146AA , 05080146AA, 6112031575, A6462001215, 6112000215, 5080146AA, 5080146AB VALEO: 820589 , VEMO: V30-99-0100, VERNET: TH6847.87J MERCEDES-BENZ, CHRYSLER, JEEP
1147  87° ±2°	1148  D1: d2: H: T: MAP SB31A4  87° ±2°	1149  D1: d2: H: T: MAP SB31A5  92° ±2°
MERCEDES-BENZ	6122000015, 6122030275, A6122000015, A6122030275 VALEO: 820835, VEMO: V30-99-2267 MERCEDES-BENZ	6462001115, 6462000015, 6462030075, 6462030275, 64620000715, 64620000915, A64620000915, A64620000715 A6462030075, A6462030275 VALEO: 820571 , VERNET: TH6847.92J MERCEDES-BENZ

<p>1150</p> <p>87° ±2° 107° ±2° *Aluminum *Alternative Type: 2134</p>  <p>6112030275, 6112000015, 6112030075, A6112000015 A6112030075, A6112030275 MAHLE: TH987, VEMO: V30-99-0101 MERCEDES-BENZ</p>	<p>1151</p> <p>D1: d2: H: T: MAP SB31A7</p>  <p>92° ±2° *Aluminum</p> <p>1338096, 95517654, 12992692, 90570620, 1338423, 6338028 MAHLE: TI22492 & TI462, VERNET: TH6251.92J, FACET: 7.8653, GATES: TH33892G1, MOTORAD: 436-92, WAHLER: 4459.92D GM (GMC), OPEL (ASTRA J 1.4), VAUXHALL</p>	<p>1152</p> <p>D1:34 d2:22 H:30 T: Combo SB32A</p>  <p>D1: d2: H: T: CF SD25B</p>
<p>1153</p> <p>75° ±2° 83° ±2° 89° ±2° PA66 Aluminum BAKELITE *Inseparable *Separable version: 1788</p>  <p>1336N5, 1336Q1, 9630066780 MAHLE: TI4789, VALEO: 820434, WAHLER: 3463.89D PEUGEOT (1007,206,206+,306,307), CITROEN, FIAT</p>	<p>1154</p> <p>D1:32 d2:36 H:20 T: Combo SB33A2</p>  <p>86° ±2° 89° ±2° PA66 Aluminum BAKELITE * Inseparable</p> <p>1336Q2, 1336N1, 9648542680, 96048542680 MAHLE: TI18189, VALEO: 820430, QH: QTH489K PEUGEOT , CITROEN, FIAT, LANCIA</p>	<p>1155</p> <p>D1: d2: H: T: Combo SB33B2</p>  <p>89° ±2° PA66 BAKALITE *Inseparable *Separable version1173</p> <p>1338A0, 9630066680, 9675707780, 96300666 MAHLE: TX18279, VALEO: 820431, VERNET: TH6332.89J, QH: QTH502K, FACET: 78423 PEUGEOT , CITROEN , LANCIA</p>
<p>1156</p>  <p>D1: d2: H: T: SC8F3</p>	<p>1157</p>  <p>D1: d2: H: T: SC8F4</p>	<p>1158</p>  <p>D1: d2: H: T: SC8F5</p>
<p>1159</p> <p>103° ±2°</p>  <p>T: MAP SB33D</p> <p>1336Z2, 9650926280 MAHLE: TM32103, VERNET: TH6808.103J, GATES: TH386103G1, MOTORAD: 573-103, VEMO: V22-99-0010, VALEO: 820977 CITROEN, PEUGEOT, FIAT</p>	<p>1160</p> <p>D1:32 d2:44.5 H:36.5 T: MAP SB33D</p>  <p>103° ±2° 1306010A02AA CHANGAN (CS75)</p>	<p>1161</p> <p>82° ±2° T: Combo SB34A</p>  <p>4133L507, 2542267 CATERPILLAR(VIBRATORY COMPACTOR, ASPHALT PAVER, WHEEL-Type LOADER,EXCAVATOR,, BACKHOE LOADER) PERKINS (1103A-33, 1103A-33T, 1103B-33, 1103B-33T, 1103C-33T)</p>
<p>1162</p> <p>82° ±2°</p>  <p>D1: d2: H: T: Combo SB34B</p> <p>4133L509, PERKINS (1104D-44 1104D-44T 1104D-44TA 1104C-44 1104C-44T 1104C-E44T 1104C-44TA 1104C-E44TA)</p>	<p>1163</p> <p>82° ±2° T: Combo SB34C</p>  <p>4133L508 PERKINS(1103C-33 1103D-33T 1104A-44 1104C-44 1104C-E44 1104D-44 1104D-44T 1104D-44TA)</p>	<p>1164</p> <p>87° ±2° T: Combo SB35A</p>  <p>46523118 , 46737644 MAHLE: TI12287D FIAT, LANCIA, AUTOBIANCHI</p>

1165 	1166 D1: d2: H: T: KIT SB36A 	1167 D1:41.5 d2: 39 H: T: SB37A 	D1: d2: H: T: KIT SB38A
1168 88° ±2°	1169 D1: d2: H: T: KIT SB39A 	1170 83° ±2°	D1: d2: H: T: KIT SB43A
1171 D1:54 d2: H:24 T: SB40A 	1172 89° ±2° PEUGEOT, CITROEN.	1173 D1:49.5 d2:25 H:44 T: SB50A 89° ±2° PA66 Aluminum Separable *Inseparable version: 1155 1338A0, 9630066680 VALEO: 820431, VERNET: TH6332.89J, QH: QTH502K, FACET: 7.8423 PEUGEOT, CITROEN, LANCIA	D1:32 d2:25 H:44 T: Combo SB50AX
1174 88° ±2° 928M8575AE	1175 D1:52 d2:35 H:32 T:JP SB51A 	1176 D1:52 d2: H:23 T: SB52A 	D1:52 d2: H:23 T:JP SB52B
1177 FORD, MAZDA	1178 D1:52 d2:29 H:40.5 T: SB53A 	1179 D1:48 d2:29 H:32.5 T:JP SB54A 	D1: d2: H: T: S

1180 $89^\circ \pm 2^\circ$ 	1181 $88^\circ \pm 2^\circ$ 	1182 $88^\circ \pm 2^\circ$
D1:54 d2:29 H:34 T:JP SB55A2 	D1:52 d2:28 H:34 T:JP SB56A 	D1:52 d2:28 H:42 T: SB57A
1338F5 PEUGEOT, CITROEN		
1183 	1184 	1185 $88^\circ \pm 2^\circ$
D1:52 d2:28 H:41.5 T:IN SB58A 	D1:52 d2:29 H:32.5 T:JP SB59A 	D1:54 d2:28 H: 34 T:JP SJ1
255002E000. MAHLE: TX20688D		HYUNDAI, KIA.
1186 	1187 	1188 $88^\circ \pm 2^\circ$ *Single thermostat: 1379
D1:52 d2:35 H:34 T: SB60A 		D1:52 d2:35 H:34 T:JP SB60A2
11141688, 1C108A558AA, 1C1Q8A568AB BIRTH: 8941, ORIGINAL IMPERIUM: 90058, FARE SA: 9899, JP GROUP: 1514500300, METALCAUCHO: 03808, STC: T403808		FORD
1189 $88^\circ \pm 2^\circ$ 	1190 $88^\circ \pm 2^\circ$ 	1191 $88^\circ \pm 2^\circ$
8C1Q8A586AA, 6C1Q8A586BD, 1432394 BSG: BSG30-126-003, TRICLO: 468885, MALO: TER388 FORD	D1: d2: H: T: Combo SB74B 	D1: d2: H: T: Combo SB74C
9P28A586AA		6C1Q8A586AC,1336Z3, 9659248080, 1372334
FORD (TRANSIT 2006)		
1192 $88^\circ \pm 2^\circ$ 	1193 $88^\circ \pm 2^\circ$ 	1194 $88^\circ \pm 2^\circ$
D1: d2: H: T: Combo SB74E 	D1: d2: H: T: Combo SB74F 	D1: d2: H: T: Combo SB74G
T403810, 1125144, 1126704, XS7Q8A586AD, XS7Q8A586AE METALCAUCHO: 03810, STC: T403810 FORD	2S7Q8594BB, 2S7Q8A586AC, 1633900, 1358107, 1148326 MALO: TER413, STC: T403811, TRICLO: 468952, BORG: BBT407, FIRST LINE: FTK407, METALCAUCHO: 03811 FORD	1358105, 1120640, 1C1Q8A586AC, 1129747, 1C1Q8A586AB 1C1Q8A586AA MALO: TER386, TRICLO: 468829, CAUTEX: 955392, STC: T403706, FARE SA: 11610, FORD

1195  88° ±2° 92° ±2° <p>052121113A, 85HF8575AA, 74HF8575BA, 1059953, 96143533, 1338042, 1338047, 90108546, 036121113A MAHLE: TX588D / TX192D VW, FORD, GM (CHEVROLET, VAUXHALL), OPEL</p>	1196  91° ±2° 92° ±2° Brass T: SC1A 	1197  82° ±2° T: SC2A 	D1:46 d2: H:19.5 T: SC2B 
1198  82° ±2° Brass Steel  <p>D1:52 d2: H:22.5 T:JP SC3A  </p>	1199  82° ±2° <p>D1:44 d2: H:22.5 eccentric T:JP SC3B  </p>	1200  82° ±2° Brass  <p>D1:44 d2: H:22.5 eccentric T:JP SC3B2  </p>	1760082810, 2550002550, 1634187206000, 6554000601, 8BA115171, 2120005B00, 1760082860, 1760085811 MAHLE: TX9082D GM (CHEVROLET), SUZUKI, FIAT, HYUNDAI, NISSAN, MAZDA
1201  95° ±2° <p>D1:44 d2: H:22.5 eccentric T:VH SC3B3  </p> <p>55111017AD, K55111017AC, K68003583AA, 68003583AA, 55111017AB, 55111017AA, 55111017AC VERNET: TH7310.77J, MOPAR: 55111017AD ALFA ROMEO, CHRYSLER, DODGE, FIAT, JEEP</p>	1202  <p>D1: d2: H: T: SC3B4  </p>	1203  82° ±2° Brass  <p>D1:46 d2: H:20 T: SC4A  </p>	
1204  82° ±2° <p>D1:48 d2: H:20 T: SC4B  </p> <p>4801306020</p> <p>CHERY</p>	1205  82° ±2° <p>D1:44 d2: H:20 T:IN SC4C  </p> <p>24521479, 9025192</p> <p>OPEL</p>	1206  82° ±2° <p>D1: d2: H: T: Combo SC4CX  </p> <p>9046588, 12599085</p> <p>GM (CHEVROLET NEW SAIL 1.4L 2010)</p>	
1207  82° ±2° <p>D1: d2: H: T: Combo SC4C2  </p>	1208  82° ±2° *With 1872 Housing <p>D1: d2: H: T: Combo SC4C3  </p> <p>96317980</p> <p>BIRTH: 8056, ORIGINAL IMPERIUM: 90082</p> <p>DAEWOO (MATIZ), GM (CHEVROLET), OPEL</p>	1209  D1:48 d2:28 H:33.5 T: SC4D 	