

# VOLVO GENUINE BATTERIES

The cars of today place high demands on high battery capacity, quick charging and high initial start power. The Volvo Genuine batteries fulfil all demands for maintenance free operation and are based on PowerFrame technology.



1.

## Technology designed around your needs.

The Volvo AGM battery is the optimal solution for Volvo owners with the highest demands. An AGM battery is specially designed for that extra high power needs and has a longer service life than a flooded battery. Virgin lead is used in all Volvo batteries to ensure homogeneity and expected performance and they are maintenance free.

2.

## The best performance for your Volvo.

A Volvo Genuine battery is always of the highest quality and carefully dimensioned for reliable performance in each specific Volvo model. The Volvo batteries have a 30% better cold start performance than other conventional batteries.

3.

## Longer service life.

The Volvo flooded batteries have a longer lifespan than most other batteries thanks to the PowerFrame technology. AGM batteries have the longest service life under the same conditions and a very low self discharge which makes them ideal for cars with low usage frequency and for cars with additional equipment that require extra power.

# HIGH DEMANDS

A modern Volvo has some 60 systems and components that consume electrical current, and several of them require power at the same time. This makes great demands on the battery. Volvo Batteries have been designed to use the entire battery potential in an optimal way. Because of this, the car will offer full functionality (for a longer duration).

Volvo's lead batteries are based on the PowerFrame technology. In general, they are superior to traditional lead batteries and not so susceptible to corrosion. The older production methods also lack the optimization and precision engineering of PowerFrame technology batteries.

Some cheaper batteries are made of recycled lead. Volvo Genuine batteries are made of virgin lead to ensure homogeneity and expected performance. The purity of the lead plates in a battery helps determine the Ampere hour capacity and life expectancy.

## VOLVO OFFERS THREE DIFFERENT TYPES OF BATTERIES:

### AGM, FLOODED AND ENHANCED BATTERIES

Absorbent Glass Mat (AGM) batteries are specially designed for higher power demands. They have a much longer service life and are much more cycling durable than flooded batteries. With a lower self-discharge and higher resistance to sulfation, they are more suitable for longer periods of inactivity. These types of batteries are not regarded as hazardous goods.

If you often listen to the radio with the engine off, have a lot of extra entertainment equipment or use the engine heater often, then Volvo would recommend to purchase an AGM battery.

Volvo flooded batteries have a longer lifespan than most other conventional flooded batteries thanks to the PowerFrame technology. The PowerFrame grid is designed for maximum flow of current, enabling faster recharge and optimal conductivity. The design ensures there is more lead where electrical current is greatest.

The new Enhanced Flooded Battery (EFB) is a newly developed technology with a performance level in-between

AGM batteries and conventional Flooded batteries in terms of overall performance. The EFB is significantly tougher than the conventional flooded battery and approaches AGM batteries' performance in terms of robustness and withstanding energy cycling which makes it suited for a manual transmission start/stop application.

The EFB battery shares technology with the conventional flooded battery in terms of free flowing liquid electrolyte, which makes it more effective in manufacturing aspects.

The EFB battery is used for all Start/Stop vehicles with manual gearbox.

It could also be used in an aftermarket situation for customers with higher cycling requirements without going all the way to an AGM battery.

Volvo batteries are carefully tested. The so-called Cold Cranking Amperage (CCA) is tested so that the battery can deliver on 100% of its capacity for 30 seconds at a temperature of  $-18^{\circ}\text{C}$ . The starting current is tested down to  $-30^{\circ}\text{C}$  both in a laboratory setting and in the actual cars in cold climate chambers – the ultimate test for suitability.

A car battery often lasts 4–6 years, but no one can tell exactly when it will be worn out since it depends on driving conditions, usage pattern and season.



### CLIMATE

Temperature affects the battery's performance in many ways. The colder it is, the greater demand is placed on the battery to start the car. Excessive heat shortens the life of the battery. Therefore, in areas with warmer climates it is necessary to check the batteries on a regular basis.

### SELF DISCHARGE

A certain degree of self-discharge is constantly taking place in a battery. Certain systems and components, such as the alarm, require current even when the car is parked. If a battery is not going to be used for an extended period, it should be left fully charged.

### START/STOP CARS

Battery development is about to take a new and exciting direction. Development is under way to find ways of reducing fuel consumption and  $\text{CO}_2$  emissions with the battery's help.

With start/stop vehicles, the engine is switched off during short stops – for example at traffic lights – in order to save fuel. Two AGM batteries are required for a start/stop car. The small AGM battery (the support battery) is kept charged by the systems and should have a long life time due to its limited usage and that it is kept charged.

