ASTON MARTIN EMPLOYEE OPEN DAY SEPTEMBER 8TH & 9TH GAYDON FACTORY TOUR GUIDE

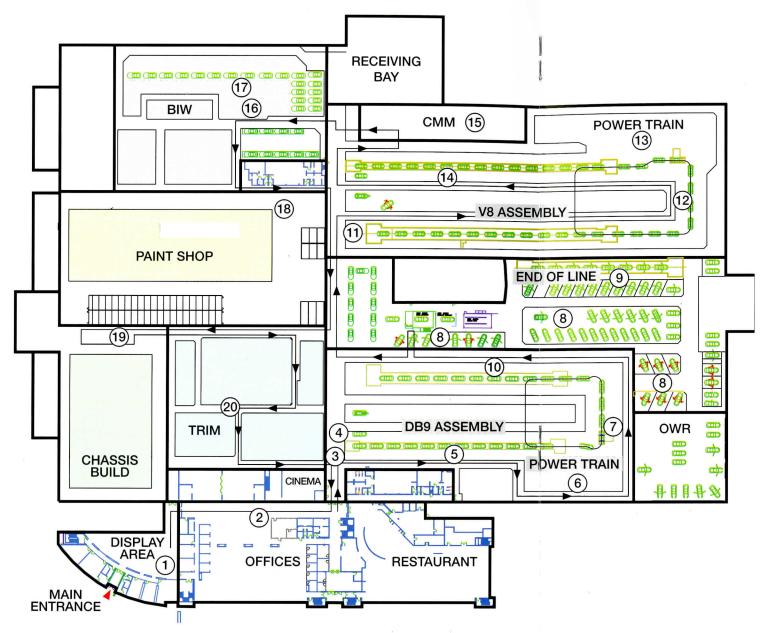




FACTORY MAP

To make your tour easier please look out for the numbers which correspond to the map below. In certain areas Aston Martin employees will be able to give you more details about the section where they work.

We hope you enjoy your tour.



1. Customer Atrium: The customer atrium is the start and end point of every customer tour of Aston Martin. Finished in travertine marble, it is a typical example of the company's corporate identity which has been adopted throughout the worldwide dealer network. The design captures the essence of a clean, classical style and provides the finest background to display the Power, Beauty and Soul of every Aston Martin.

The three dedicated customer rooms are designed to provide a private space for hosting customers. With PC Configurators and traditional sample displays, the room's main focus is to aid customers with choice of colour, specification and options of their Aston Martin.

2. The Street: The Street was designed by our architect as a central feature of the factory acting as a natural 'light well' and an informal meeting place. Displayed on the wall is a timeline depicting the key models, events and people in the 94 year history of Aston Martin. The Street is normally used to display a number of Aston Martins, many of which are kindly loaned by customers and private collectors.

During the Open Days Children's activities will be located in The Street.

- **3. Entrance to Production:** The entrance to production has information boards describing the layout of the factory and how the building and site were developed.
- 4. DB9 Assembly Line: Design and craftsmanship remain a vital element in the Aston Martin DNA, therefore we still assemble our cars by hand offering greater flexibility and precision in manufacture. Each car and major subassembly has its own 'Build Sheet' listing the features of final specification and options. The production line moves one station approximately every 25 minutes, affording enough time for each of the highly skilled team to complete their tasks.

Mounting Station

Each car has the bumpers, sill covers, doors and front crash structure carefully removed before being mounted onto the assembly line. All parts that are removed at this point are carefully marked with the unique Build Number of the car and then built in sub-assembly in the centre of the U-shaped line.

Once mounted to the line each car is marked in two places with its unique VIN (Vehicle Identification Number).

- 5. 3010 NVH & VIN
 - 3020 Cabin Harness & Peddle Box
 - 3040 ROPS
 - 3050 Audio System Speakers
 - 3070 IP Fit & Front Glass
 - 3090 Rear Glass fit
 - 3100 Carpet

Car is lifted into Carousel System.
The Body is prepared for the powertrain assembly by fitting fuel tank and connections, brake pipes, heat shielding etc.

- 6. Powertrain Assembly: The Aston Martin 6.0 litre V12 producing 450bhp and 420 lbs/ft of torque is delivered already assembled and bench-tested from the Aston Martin Engine Plant in Cologne. The DB9 is available with either a 6-speed Touchtronic II (Automatic with Paddle Shift) or a 6-speed manual transmission. Connecting the engine and gearbox is a cast aluminium torque tube with a carbon fibre prop shaft. The front mid-mounted engine and rear mounted gearbox help achieve the perfect 50:50 weight distribution. All round independent double wishbone suspension. Steel grooved and ventilated discs four pot monobloc callipers.
- 7. 3150 Powertrain Marriage: A rail-guided vehicle transfers the powertrain to the marriage station. A hydraulic lift and electric pantograph are used to install the powertrain into the body.

3160 - 3190

Connection of Brake system
Brake fluid and power steering fluid added
Headlights fitted

8. Geometry & Alignment: The car's steering geometry and caster/camber are set. Computer control compares vehicle ride heights with individual geometry for each wheel. The laser technology system allows accurate and effective setting to 1/30th of degree.

Rolling Road

The car is put through a driving test cycle up to 60mph. The car's exhaust emissions and braking systems are tested and validated by computer.

Road / Water Test

Every Aston Martin is test driven on our track, going through a process of functional checks. Once this has been passed, the car moves to the water test area where 4,200 litres of water are sprayed from 270 degrees to check for water leaks.

9. Customer Audit Line (CAL): Every Aston Martin passes through a series of audits and checks to determine that it is of the correct standard to be sent to the customer. Paint Inspection and final polishing is carried out to ensure that all of the hard work carried out by the Paint Shop is shown at its best. Once all of the audits and checks are finished the car passes to one of Aston Martin's Final Inspectors. Only when he is fully satisfied will he place a plaque with his name on it into the engine bay of the car.

Following 94 years of tradition, it is only at this point that an Aston Martin is presented with its Wings.

Pass to Sales (PTS) and Collection

Aston Martins leave the factory in dedicated covered transporters before beginning their journey to one of dealers in 29 countries around the world.

- 10: 3200 Wheel Fit
 - 3230 Volante roof fit
 - 3240 Battery Fit
 - 3250 Coolant added
 - 3260 Seats
 - 3270 Doors built as a sub-assembly in the middle of the line
 - 3280 Fuel
 - 3300 Computer Software load and Sign Off to testing
 - 3290 Profile check and body fit check

You will now walk past the PBS (Painted Body Store) where, having been painted, DB9 and V8 Vantage bodies are loaded before being fed to the line by an AGV (Automated Guided Vehicle).

- 11. V8 Vantage Assembly Line (in reverse order):
 - 4390 Computer Software and sign off to Testing
 - 4380 Panel Profile / body fit check
 - 4360 40 litres of Unleaded Fuel added
 - 4350 Doors- Built as a sub-assemble in the middle of the line

4340 - Seats

4300 - Roadster Hood fitted

4250 - Coolant levels, brake fluid and power steering fluid added

Choice of 3 wheel variants and two tyre variants added.

Front and rear bumper fit
Link-up and brake connections

- **12. Powertrain Marriage:** A rail-guided vehicle transfers the powertrain to the marriage station. A hydraulic lift and electric pantograph are used to install the powertrain into the body.
- **13. Powertrain Assembly:** See information boards and Engine Cutaway.

14. Stations 4110 - 4030:

Car is lifted into Carousel System.
The Body is prepared for the powertrain assembly by fitting fuel tank and connections, brake pipes, heat shielding etc.

Dashboard (IP)
Front Windscreen
Rear Screen Bonded
ROPS (Roll Over Protection System) for
Roadster
Tailgate
Battery
Cabin Wiring Harness
VIN & NVH

15. CMM (Co-ordinate Measuring Machine):

These state-of-the-art machines are built to accurately measure everything from an entire car body down to the smallest component. Absolute precision in manufacture is a key element to the superb handling and refinement levels achieved by today's Aston Martins.

- 16. Robot Adhesive Cell: The robot is used to apply a polyurethane based adhesive to roofs/windscreen surrounds, rear quarters and boot substructures. The robot ensures a consistent bead size and accurate position of up to 23 metres of adhesive on each Aston Martin body.
- 17. Body Framing Station: Once bonding has been applied, each panel is manually loaded into the body fixture (jig) then automatically clamped. The adhesive is then cured using a computer controlled Hot Air Impingement System which carefully monitors the flow, pressure and temperature of the air.

- 18. Paint Shop: The quality of paint finish on Aston Martins is best in class due to the time and skill dedicated to treating every car as individual. A car is first inspected and prepared by hand before having its primer applied by robot to ensure a consistent film build. Waterbased paint (base coat) is then applied using traditional skills and a wet-on-wet application method. Although we have a standard range of 20 paint colours, any colour can be mixed on site to meet a customer's requirements. After the lacquer (clear coat) is applied and the finish had been cured, every car is flatted and polished by hand. The entire application process strives to ensure that the eventual finish - its lustre and depth of reflection- is industry leading.
- 19. Aluminium Underframe Production: This area is dedicated to creating each individual Aston Martin VH Platform. Providing a strong, rigid and lightweight structure, the VH Platform is a highly adaptable chassis principle unique to Aston Martin.

Each chassis takes 24 hours to construct and demands continuous working over 3 shifts. Aluminium extrusions, castings sheet sections and superformings are selected and then assembled using self piercing rivets and an epoxy adhesive. A special 'vision system' incorporating 8 cameras scans every component to check correct type and position.

Sub-assemblies are constructed using geometry fixtures before everything is brought together to be cured at 185 degrees centigrade for 30 minutes.

Composite panels are then bonded onto the aluminium before a co-ordinate measuring machine finally checks the complete chassis.

20. Trim Shop: The Trim Shop individually hand-crafts every Aston Martin interior to the customers specification. An average of 9 leather hides will be used to trim the interior of one DB9 and 5-6 hides on a V8 Vantage. Every component is either stitched together or bonded onto a substrate by hand. Dashboards (Instrument Packs) are built in a single unit on a short line. This sub-assembly principle offers a higher level of build quality and an opportunity to fully test the unit before it joins the rest of the car.





BESPOKE SERVICE

Every Aston Martin is bespoke.

The standard range of choices include: 20 Paint Colours, 20 Leather Colours, 20 Fine Stitch Colours, 7 Course Stitch Colours, 10 Headlining Colours, 8 Carpet Colours, 4 Natural Wood Veneers, and 2 Seatbelt Colours. Two further tiers of personalisation are available with a selection of Previous Aston Martin Colours / Other Manufacturers and a special 'match to sample' service for unique colours.

ASTON MARTIN RESTAURANT

Visit the Aston Martin restaurant where a large selection of hot and cold meals, snacks and beverages are on sale. You can pay by either cash or company ID cards.

Also in the restaurant is the Aston Martin Collection where you will find a selection of merchandise for sale and some special offers.

Look out too for our roving magician who will be performing some conjuring tricks in the restaurant.

As you leave the restaurant and walk into the factory the cinema is located on the left-hand side. Here you will be able to view a selection of Aston Martin footage, but be sure to take your own popcorn.







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