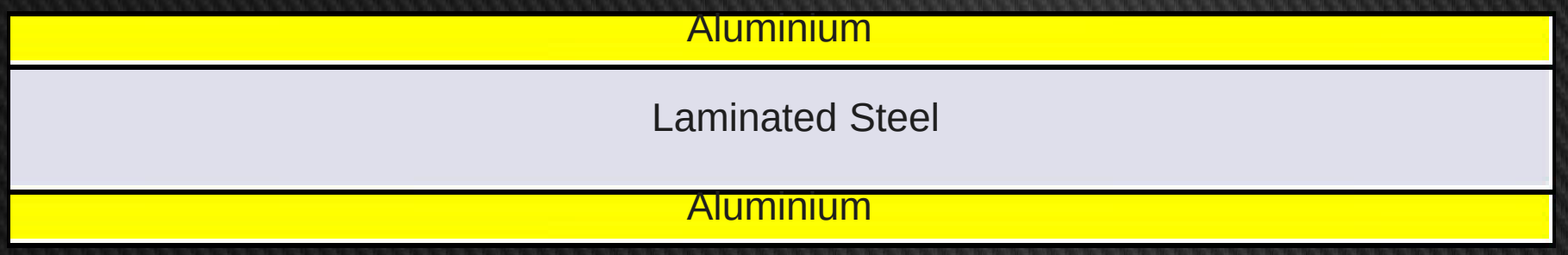
EMISSIONS CONTROL

WALKER®
SILENCERS AND PIPES

Walker® silencers and pipes

Did you know that…

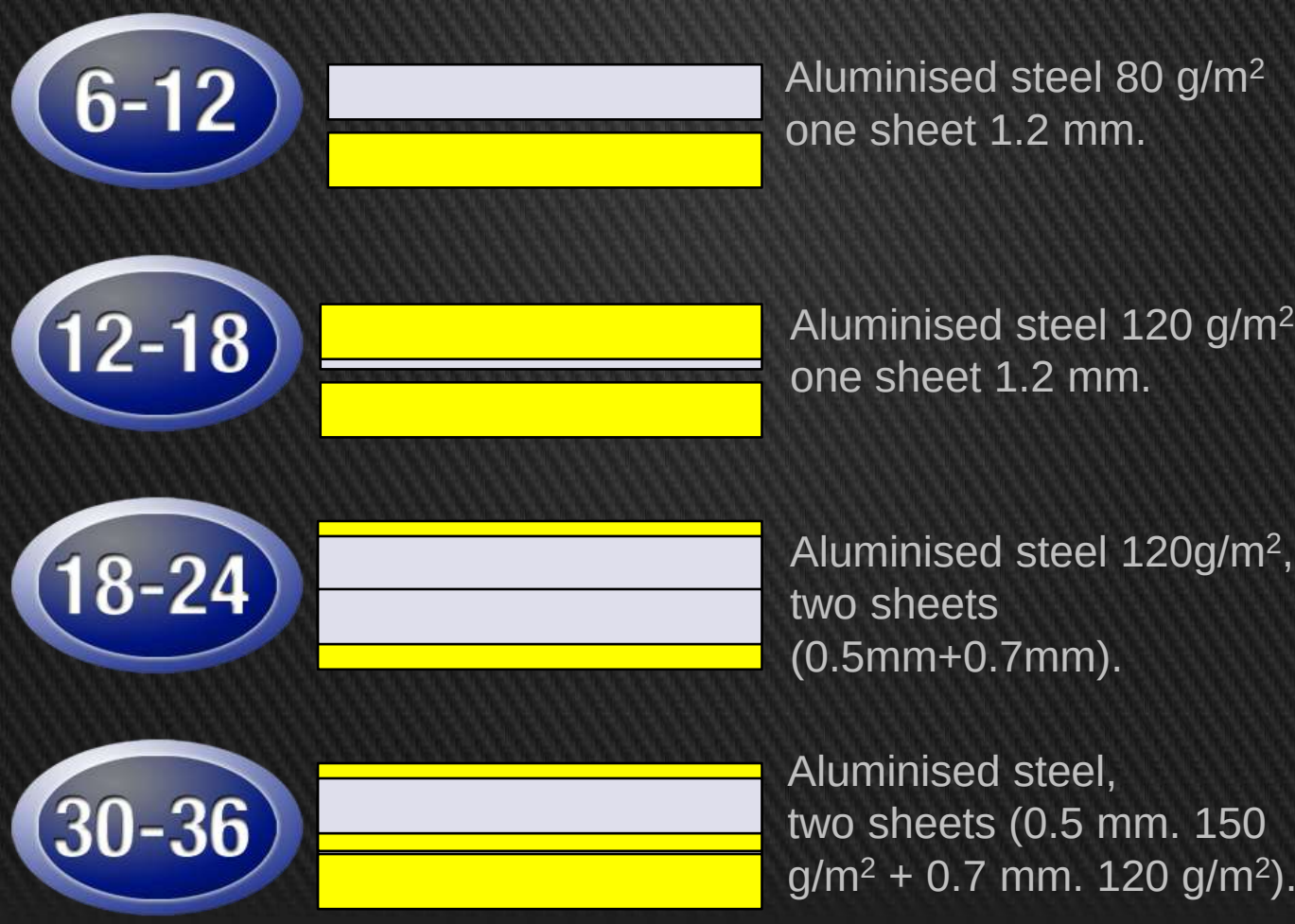
- Almost all after-market exhaust systems made for the passenger cars are built in aluminised steel. Aluminised steel has a layer of laminate steel to give it its mechanical strength, covered on both sides by an aluminium lining for rustproofing.



Walker® silencers and pipes

Did you know that…

- Exhaust pipes for the after-market are generally made with aluminised leaf thicknesses of 1.2 mm. At the same thickness, the larger the aluminium lining, the better the quality of the aluminised steel will be and the higher the price. The quality of the aluminised steel is determined by the amount of aluminium expressed in grams per square metre of surface. The aluminised steel is on the market vary from 80 gr/m^2 (for low-cost manufacturers) to the 150 gr/m^2 supplied by Walker® in many of its exhaust systems. The choice of the type of aluminised steel used for construction is, along with the thickness of the leaf, the most important factor that will determine the useful life of the silencer.



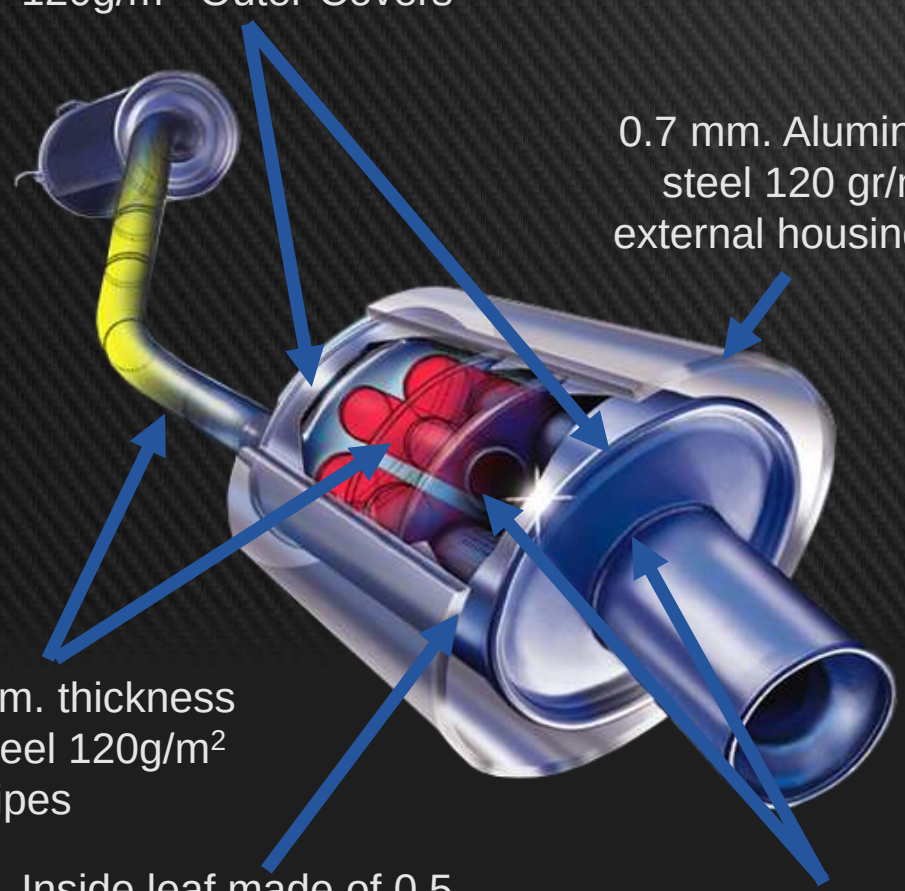
Walker® silencers and pipes

Did you know that…

- Unlike the vast majority of its competitors, Walker® produces all of its exhaust pipes with a double layer of aluminized steel, which makes Walker® exhaust pipes more lasting and silent than those produced in a single layer of aluminized steel of the same thickness.

- Double layer exhaust pipes are more silent as the intermediate chamber created between the two layers of aluminized steel works as acoustic insulation for the sound waves. In the case of exhaust pipes made in a double layer of aluminized steel, the corrosion must pass through 4 layers of aluminium (rustproof material) instead of the two in single layer exhaust systems in order to perforate the insulation and get out.

Walker® Quality Plus



Walker® silencers and pipes

Did you know that…

- Sometimes, silencer pipes (especially the longest) receive knocks, generally due to transport, which deform the connection areas with other pipes generating sealing problems that will end not only damaging the performance and increasing the fuel consumption of the engine but also destroying expensive emission control elements as catalytic converters, diesel particulate filters and SCR units, and in some cases even the engine. It is of vital importance for the correct operation of the emission systems that before they are fitted, these areas must be repaired and given their cylindrical shape by means of expanded cones, and sealing paste must be applied between both surfaces (only if the connection takes place after the last lambda sensor and catalytic converter) in order to guarantee the seal and avoid the dangerous consequences of back-pressure changes in the exhaust system.

Walker® silencers and pipes

Did you know that…

- One of the main factors affecting the duration of an exhaust system aside from the materials in which it was built is the water condensation inside, which depends directly on the temperature of the exhaust system. If the vehicle is not used very often and most of the time in short trips (generally in the city) it will almost always be full of water due to the condensation from the exhaust gases inside the exhaust housing. This water combines with the oxides produced at the combustion chamber that are travelling within the exhaust gases (SO_2, NO_2, etc.) producing as a result powerful acids (such as sulphuric acid H_2SO_4 and nitric acid HNO_3) which end up perforating the internal walls and pipes as well as the external housing of the silencer shortening significantly its lifespan.

Walker® silencers and pipes

Did you know that…

- It is estimated that for the silencer to be completely dry it must circulate for 40 minutes at an average number of revolutions (over 2,000 rpm). In this way, as there is no condensated water inside, the action of the acids cannot be developed and the lifespan of the exhaust pipe is extended, protecting as well all the rest of the components of the emission control system (catalytic converter, particulate filter, etc.).