



The OMC-3 Froment Engine

The **OMC-3 "Froment Engine"** is based on original designs of 1844 and working on just 4.5 volts dc, this fully working electro-magnetic engine kit represents how the early pioneers of electric engines made the break through from reciprocating motion to continual rotation in their search to harness the newly discovered phenomenon of electricity.

With over 80 parts to assemble and no machining or soldering necessary, this kit brings a satisfying learning experience for both adult and youngster alike.



Four armature blades are arranged on a flywheel and directly above an electric magnetic. As the armature blades approach the magnetic a cam operated switching system energises the magnetic rods which pull the armature around. Just as the blade is level with the magnetic rods the power is switched off and the flywheel continues to turn bringing the next blade around, and so on.

The “break piece” or contact points are fitted next to the shaft and are mounted in a contact housing and operated by a cam fitted to the shaft.

The timing can be very finely tuned as we have fitted a timing plate with an adjustable screw which together with the adjustable housing bracket allows for a wide variety of timing positions to be achieved.

The contact blades are constructed of nickel silver and fitted with high quality silver nickel contacts to ensure long lasting trouble free operation.

Great attention to detail has been taken to ensure that all the parts are made in the style of the period. The brass pillars, together with the finials are typical of the times as is the detailed flywheel. The terminal connections are also of authentic design.

The model is mounted on a classic wooden base that also conceals the battery box and other necessary modern concessions.

A “spares packet” is supplied containing the smaller parts most commonly “lost” during the assembly

Technical Specification

Based on original designs of Paul Gustav Froment and others:

The kit contains over 80 parts that need assembling

A very detailed and illustrated instruction manual is provided that also serves as a construction record

No machining or soldering is necessary. Only hand tools are required. A BA spanner tool is provided

The model operates on 4.5 volts dc. The battery box incorporates an on/off switch and dc power plug. It accepts 3 x AA batteries. (Not included). The model can also be operated from suitable external dc power sources via the 2.1mm inlet socket

The complete model is supplied in kit form in a box measuring 30cm (12) x 30cm x 5cm (2in)

The packing easily converts to an assembly JIG to help with the construction

The wooden base is unfinished and will need drilling (templates supplied). It will also need polishing or varnishing. The Base measures 14cm (5 1/2 in) in diameter and stands 3cm (1,1/4 in) high

The finished model stands 17cm (6,3/4in) high, approximately

A “spares packet” is supplied containing the smaller parts most commonly “lost” during the assembly

This product is not a toy and because of the small nature of many of the components this kit is not suitable for youngsters under the age of 12 years unless supervised by an adult.

The Old Model Company reserves the right to change the specification at any time without notice.