

An induction sealing device which may be used for producing packages of pourable food products by transversely sealing a tube (13) of sheet packaging material having at least one layer (12) of induction-heatable material covered with plastic material (16). The sealing device has: a generator (3) for generating an alternating power signal  $S(\omega)$ ; an inductor (4) receiving the alternating power signal  $S(\omega)$  to induce a parasitic electric current in the layer (12) and locally melt the plastic material (16) to form a transverse seal; and a matching circuit (7) for achieving optimum power transfer between the generator (3) and the inductor (4). The matching circuit (7) includes an inductive-capacitive circuit, in which the capacitance of a variable-capacitance capacitive element (20, 24, 25, 26, 27) is adjustable so that the current-voltage phase angle is close to zero.