

STEEL SHELL TESTER (Koenen Tester)

Introduction: Testing the response of solid, liquid or pasty substances to impact, friction and thermal stimuli is required in various standards like : EEC, Official Journal of the European Communities , as well as the UN Recommendations on the Transport of Dangerous Goods, 11.5.1 Test 1(b) and 12.5.1 Test 2(b) Koenen test and STANAG 4491 C1.

The Steel Shell Tester (also known as Koenen - Tester) is used to determine whether or not a solid, liquid or pasty material or preparation presents a danger of explosion when submitted to the effect of intense heat under high confinement.

The apparatus consists essentially of a protection device, four propane gas burners, an ignition burner and the heating assembly.

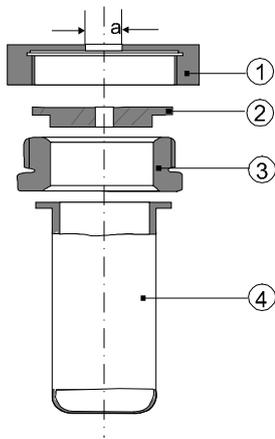
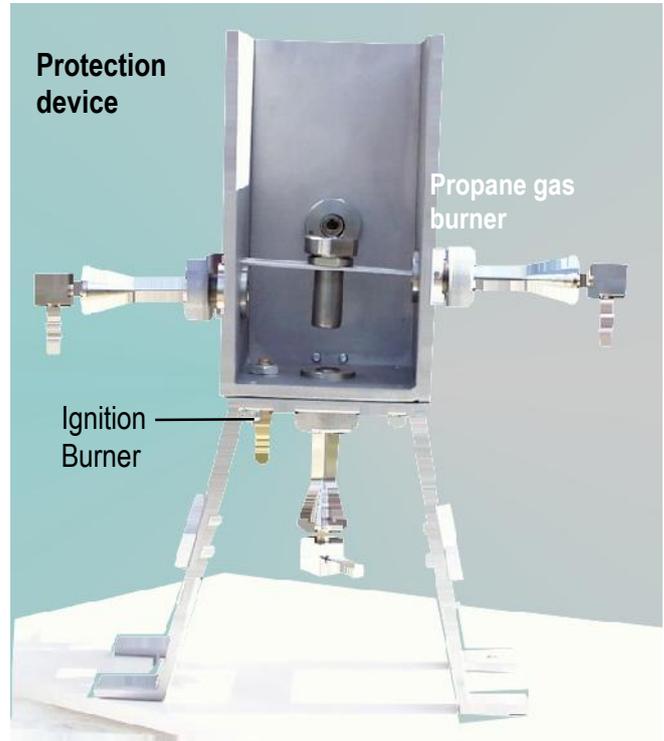
This assembly consists of the steel tube^④ (internal diameter: 24 mm, length: 75 mm, wall thickness: 0.5 mm, tested by the BAM) in which the sample is filled-in, a two-part thread collar ①+③ and a nozzle plate ②.

Nozzle plates (high grade, heat-resistant CrNiW-steel)

are available with orifice of 1.0 - 1.5 - 2.0 - 2.5 - 3.0 - 3.5 - 4 - 5 - 6 - 8 - 10 - 12 - 14 - 16 - 18 or 20 mm. The two-part thread socket is made of high grade, heat-resistant chromium manganese steel which is spark free up to 800°C and is available with 10 mm opening (used for nozzle plates with an orifice from 1 to 8 mm) or 20 mm opening.

Heating is provided by propane, taken from an industrial cylinder fitted with a pressure regulator (appr. 60-70 mbar), through a gas meter and distributed by a manifold to the four burners.

The Steel Shell Tester should be located in a room that is separated from the observation place. The test room itself should be protected from air draughts and should be fitted with an exhaust device in order to suck off all released gases and smoke after each test.



Technical Data and Spare Parts:

Part-No:	785-0000
Weight:	27 Kg, net
785-1027	set of 100 steel shells, BAM tested
785-1053	two-part thread socket 10 mm
785-1054	two-part thread socket 20 mm
785-1029 to -1044	nozzles plates 1 to 20 mm opening
785-1052	propane gas burner

Standard Accessories:

1 set of steel shells,
5 two-part thread sockets 10 mm,
6 nozzle plates 2 and 6 mm opening
4 propane gas burners
1 ignition burner
1 mounting device