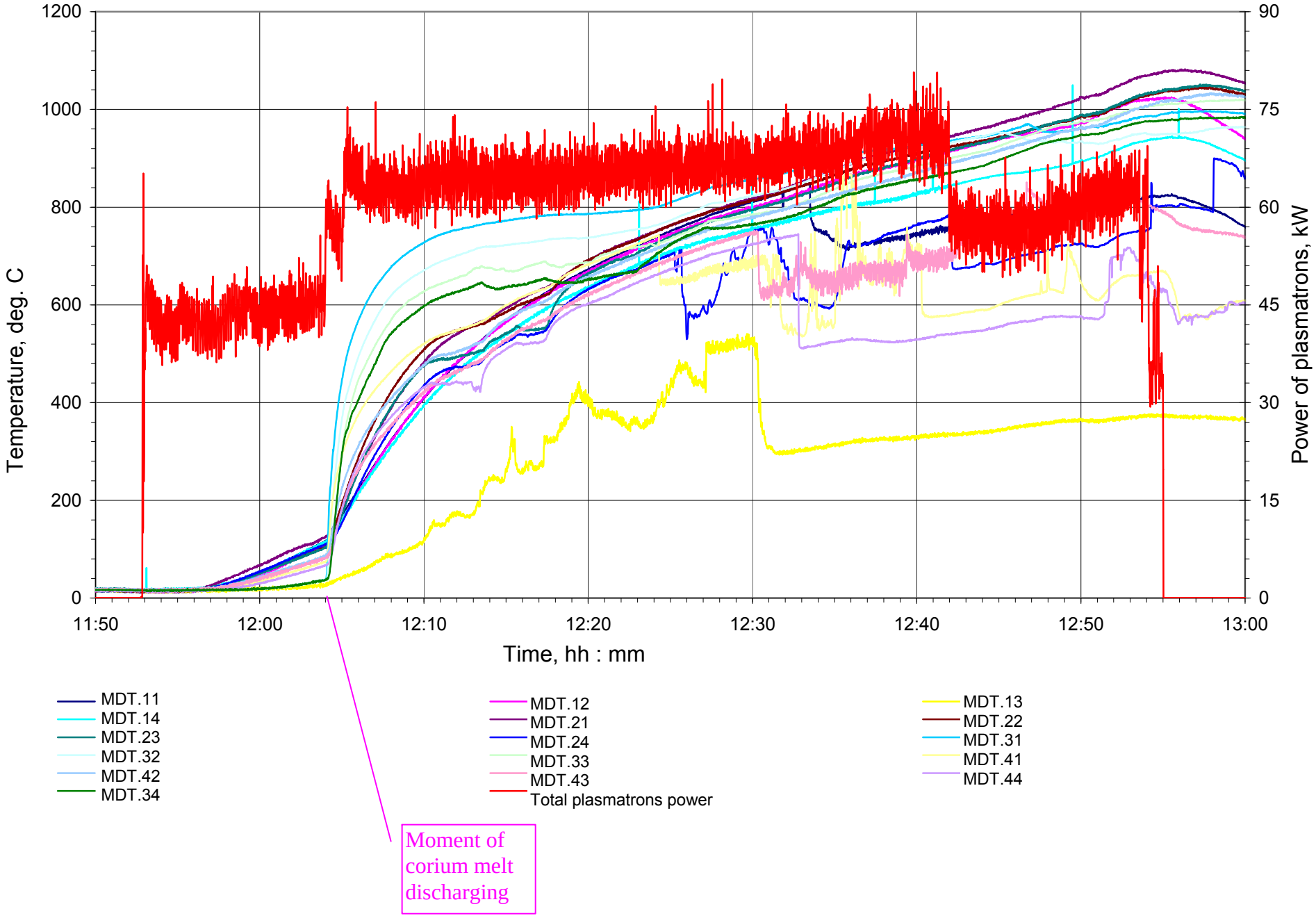
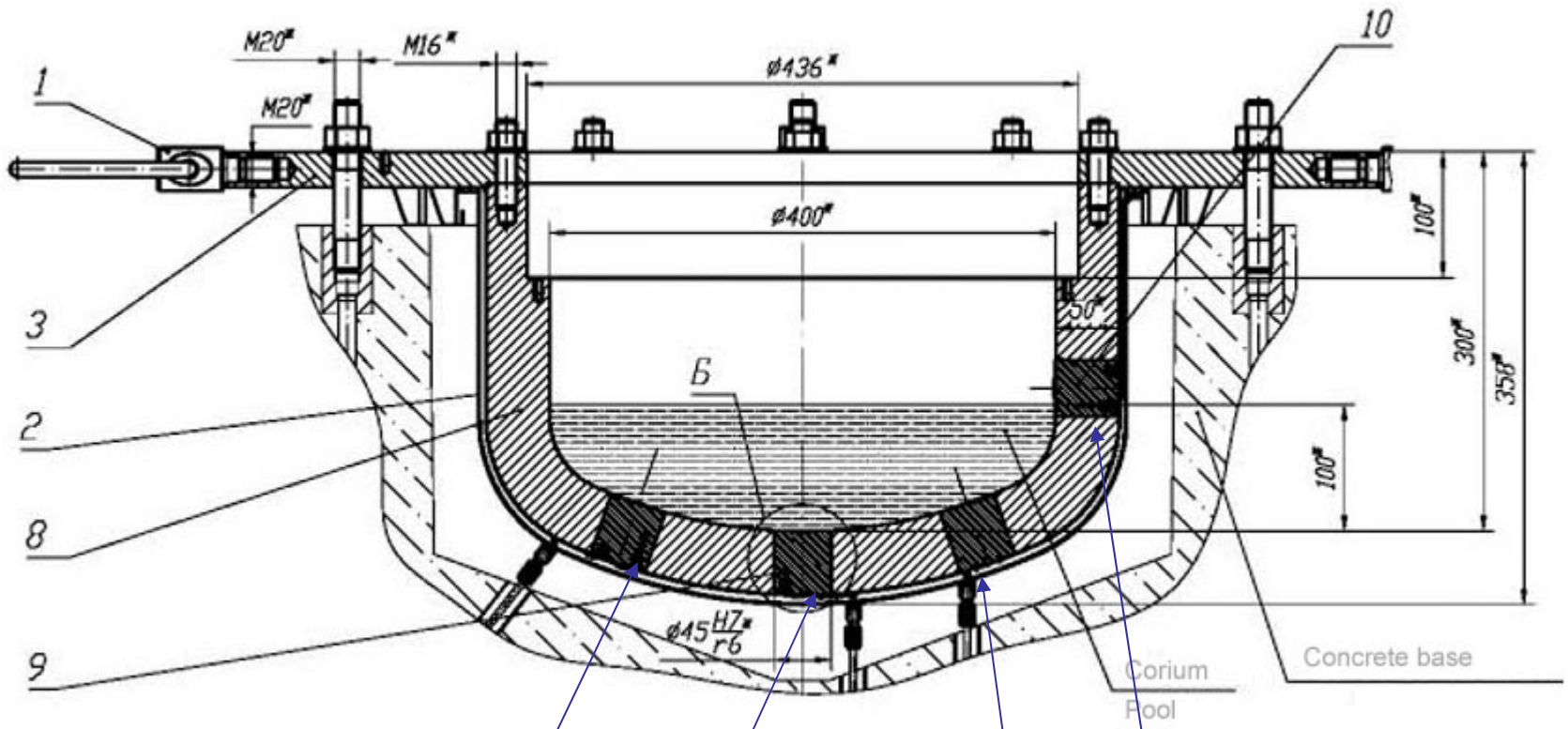

Temperature, deg. C
Power of plasmatrons, kW
Time, hh : mm
1200
1000
800
600
400
200
0
90
75
60
45
30
15
0
11:50
12:00
12:10
12:20
12:30
12:40
12:50
13:00
MDT.11
MDT.14
MDT.23
MDT.32
MDT.42
MDT.34
MDT.12
MDT.21
MDT.24
MDT.33
MDT.43
Total plasmatrons power
MDT.13
MDT.22
MDT.31
MDT.41
MDT.44
Moment of corium melt discharging

Thermocouples placement in the RPV model wall



Bottom of the model (between two plasmatrons end faces)
MDT.41 – 20 mm from the inner surface
MDT.42 – 30 mm from the inner surface
MDT.43 – 38 mm from the inner surface
MDT.44 – outer surface (50 mm from the interface

Lateral wall of RPV model
MDT.11 – 20 mm from the inner surface
MDT.12 – 30 mm from the inner surface
MDT.13 – 38 mm from the inner surface
MDT.14 – outer surface (50 mm from the interface

Bottom of the model (just under plasmatrons end face)
MDT.21 – 20 mm from the inner surface
MDT.22 – 30 mm from the inner surface
MDT.23 – 38 mm from the inner surface
MDT.24 – outer surface (50 mm from the interface

Bottom of the model (center of the bottom)
MDT.31 – 20 mm from the inner surface
MDT.32 – 30 mm from the inner surface
MDT.33 – 38 mm from the inner surface
MDT.34 – outer surface (50 mm from the interface

Condition of INVECOR-2 test

1. 60 kg of corium components (C-32) has been loaded in the crucible.
2. 10 kg of once molten corium (C-95) has been placed on the bottom of RPV model via crumbs (layer thickness about 2 cm).
3. Stainless steel sheet has been placed on the inner wall of RPV model (1 mm thickness) and fixed by point welding to carbon steel.
4. Total initial loading has been melted in the Electric melting furnace an discharged into RPV model (total corium mass in RPV model was 70 kg).
5. Measured temperature of corium melt was 2600 deg.C before discharging into RPV model.
6. Plasmatrons have been switched on 11 min before melt discharging.
7. Total time of plasmatrons operation was about 1 hour.
8. Maximum measured temperature of RPV model wall was 1080 deg.C (bottom part - at the distance of 20 mm from the corium/steel interface).
9. The investigation of the electric arc interruption in plasmatrons is under way.

Primary test results

1. Particulate debris bed about 2 cm thickness has been found above continuous corium ingot
2. No graphite erosion in the plasmatrons nozzles was observed
3. Total corium layer thickness in the RPV model was about 12-13 cm