



Flame and Boiler Monitoring

Ignition, fuel temperature, gas ...



IR picture of pulverized 40 MWth flame.
Water-cooled infrared endoscope was used.
Dark region indicate low temperature.

Water-cooled probes

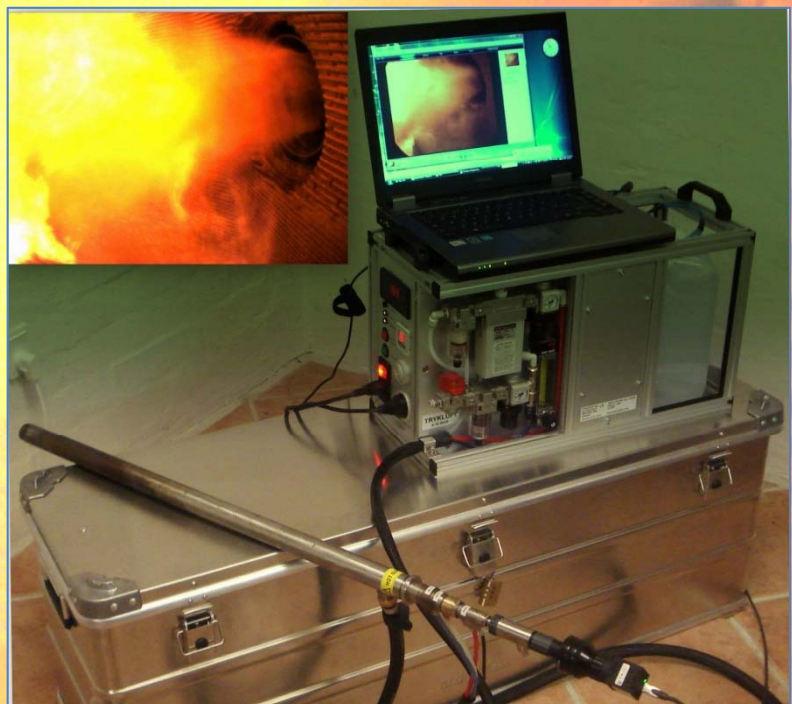
Pyrooptic manufacture a wide range of water-cooled probes for measurement and inspection in boilers and flames at temperatures up to 1800°C. Miniature and long stainless steel probes with length up to 9 m can be delivered with cold probe tip that allow mounting of video camera or sensitive measurement devices (gas and particle sampling, electronics, optics, particle sizing, heat flux, etc.) inside probe tip.

Contact Sonnik Clausen for discussion of your application.

Video: Fair pictures, regions with soot is observed, ignition, flow behavior, low cost
IR-camera: Good pictures, look through soot/flame, visualization of fuel temperature

Portable Video System

A portable video system is a flexible tool for flame inspection without need of cooling-water supply and drain. Pyrooptic has developed a 850 mm long video endoscope system that can be inserted directly into the boiler in the hot flue gas. The video probe is cooled by compressed air and a minor flow of pure water injected and evaporated in probe. Only 5 liter water is needed to inspect a flame for ½-1 hour. The control unit is connected to the video-probe, compressed air and power and pictures and movies of flames can be stored on portable PC from digital USB2 video camera.



Portable system; control unit, video-probe, PC and box for storage

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