

**Application Report No. A 03-4e**  
**Cleaning of pipes using the "Tornado"**

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Status: 12/2004

PIOMAR, Poland / SS



Cleaning of an ash transportation pipe in a power plant in Poland, using the KAMAT System "Tornado"

Mainly in coal-fired and oil-fired power stations there is a recurrent problem of deposits blocking up the piping used to transport the ashes (from the boiler room to the dumpsite).

Hard incrustations build up which narrow the tube inner diameter and making it necessary to increase the pump performance enormously, in order to flush out the ashes.

In this particular case in a Polish power station, the incrustations are about 30 mm in thickness at the beginning, but further down the line, they reach a thickness of up to 70 mm.

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Photo above:

Propulsion unit fixed to the flange opening on the pipe

Ash transportation pipe (500 mm Ø and 1200 m length )

*before cleaning*

*after cleaning*



For the job, we used a KAMAT High Pressure Pump Unit Type **K 40036 A - DW 400 B**, built on a trailer with sound-proof van body

#### **Performance:**

Working pressure	:	1000 bar
Capacity	:	188 l/min.
Hose connection from the machine to the Tornado	:	40 m DN 20
Cleaning length in pipe	:	160 m
Cleaning results	:	80 – 100 m/h