

## Sidhee Cement Ltd. (Case Study)

**Equipment:** Kiln Supported Gear Box (Kiln Pier-III)

**Oil Used:** Servo 680

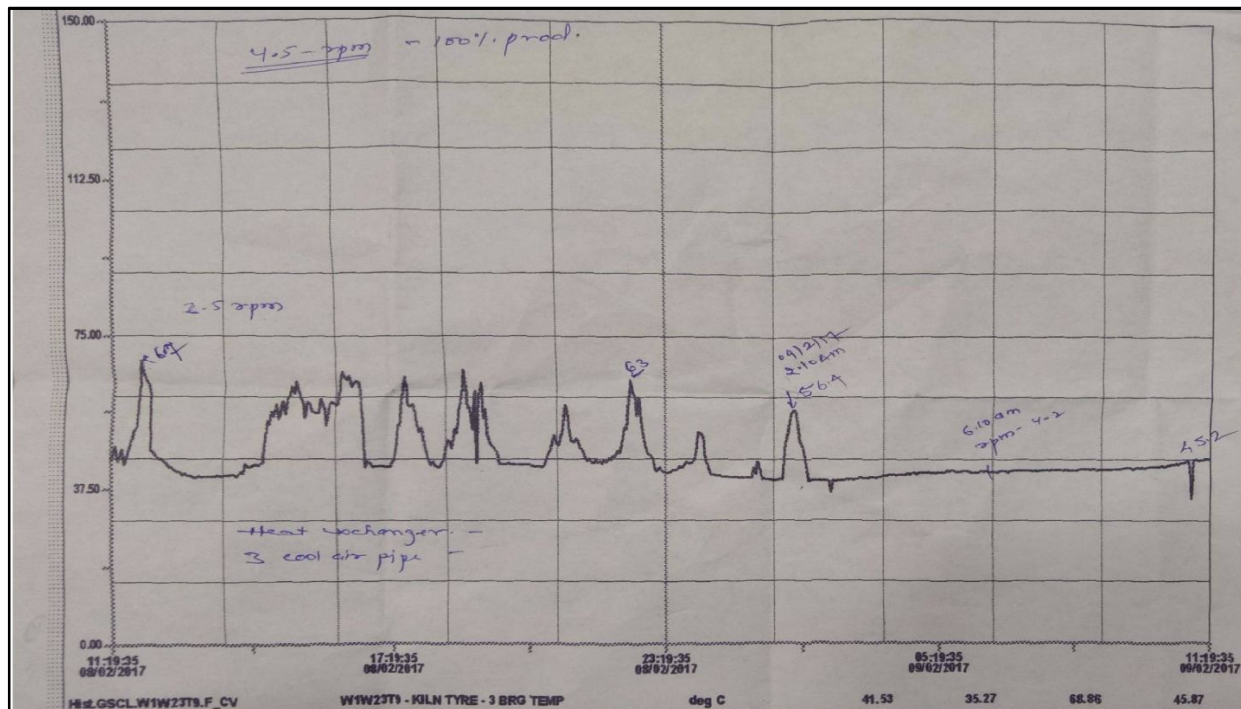
**Sump Capacity :** 30 Ltr.

**Polytron MTC used :** 3 Ltr.

**Brq No. 4**

Description	Before Adding Polytron			After Adding Polytron				
Date	8/2/17	8/2/17	8/2/17	9/2/17	9/2/17	9/2/17	9/2/17	9/2/17
Time	13:10	17:19	22:00	2:10	3:15	4:30	6:10	11:00
Feed Rate (TPH)	280	280	280	280	300	310	320	330
RPM	2.4	2.2	2.3	2.5	2.5	3.5	4.2	4.2
Temperature °C	67	48	63	56.4	39-40	40	40-41	42-43
Additional Equipment for cooling	H.E	H.E	H.E	H.E	H.E	H.E	H.E	H.E
	3 ACP	3 ACP	3 ACP	3 ACP	1 ACP	1 ACP	1 ACP	1 ACP

**H.E-Heat Exchanger  
ACP-Air Cooling Pipe**



## **Before Polytron**

Temperature reached to tripping point due to friction between gear shaft & white metal bearing under 50% of the rpm speed of the Kiln.

To control this, we had to attach heat Exchanger to cool the running oil inside the gear box which got heated due to the friction and 3 air inlet pipes, but still the problem persisted.

By this problem, we lost the

- Production of 50%,
- Manpower
- Time consuming

## **After Polytron**

After treating with Polytron, the temperature of the shaft came in control on immediate application. There was raise in rpm. Even after raising rpm, the temperature was steady. Gradually we started removing additional equipments which were used to control the temperature. After that the temperature remained the same.