

# Linde Gas Cryogenic Tank Test



## Case Study

- Linde Gas (Singapore) Pte Ltd
- 5 Year Old Vacuum Insulated Liquid Oxygen Cryogenic Tank

## Tank Dimensions



Date	Tank Level		Tank Pressure Level (kpa)	
	Morning	Evening	Morning	Evening
3/Jul/03	2350	5750	1350	950
4/Jul/03	5730	1	1000	1
7/Jul/03	5700	5700	1100	1120
8/Jul/03	5690	5690	1150	1180
9/Jul/03	5690	5690	1200	1200
10/Jul/03	5670	5670	1220	1250
11/Jul/03	5670	5565	1260	1290
14/Jul/03	5620	5560	1350	1350
15/Jul/03	5610	5610	1360	1350
16/Jul/03	5610	5600	1370	1340
17/Jul/03	5600	5600	1370	1340
18/Jul/03	5600	5600	1380	1340
19/Jul/03	5600	5600	1340	1340
21/Jul/03	5600	5600	1370	1340
22/Jul/03	5550	1	1370	1
23/Jul/03	5520	5320	1390	1390
24/Jul/03	5338	5320	1390	1350
25/Jul/03	1	1	1	1
26/Jul/03	1	1	1	1

27/Jul/03	1	1	1	1
28/Jul/03	4990	4990	1110	1110
29/Jul/03	4980	1	1180	1
30/Jul/03	1	1	1	1
31/Jul/03	4950	1	1220	1
1/Aug/03	4940	1	1300	1
2/Aug/03	4910	1	1310	1
3/Aug/03	1	1	1	1
4/Aug/03	4900	4900	1380	1380
5/Aug/03	4900	4895	1380	1380

### Case Studies

The LINDE's monitoring records indicate that the average pressure level of the tank was 1500 (kpa) before the tank was painted with INSULADD ThermalBlock Radiant Barrier Tank and Pipe Coating. The achieved estimated annual savings each yeay after the application of INSULADD ThermalBlock is USD\$3,000 and the average pressure level in the tank was 1277 (kpa).

The cost for painting the tank was about \$1,000 USD, A full payback and return on investment within a period of four (4) months.

### Conclusion

- Potential Huge Savings for Cryogenic Tank or Pipe Owners or Manufacturers
- Hassle Free Method
- Short Payback Period
- An Investment rather than Expenditure
- Huge potential savings for Petroleum & Chemical Storage Facilities.