



A successful Energy Saving Case

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FAD Statistics before improvement since Oct. 01~Oct. 20, 2010

	consumption M ³	power consumption KWH	Consumption for compressed air per M ³ KWH/M ³
10/1	538230	73777	0.1371
10/2	595180	83688	0.1406
10/3	591000	87162	0.1475
10/4	604400	85162	0.1409
10/5	631770	88363	0.1399
10/6	621600	87211	0.1403
10/7	582250	82838	0.1423
10/8	519080	75105	0.1447
10/9	505220	71724	0.1420
10/10	561810	78097	0.1390
10/11	540290	80537	0.1491
10/12	593180	81521	0.1374
10/13	583940	83307	0.1427
10/14	535070	77786	0.1454
10/15	622780	87219	0.1400
10/16	593860	85273	0.1436
10/17	603160	85461	0.1417
10/18	611850	84979	0.1389
10/19	626100	86244	0.1377
10/20	607520	87646	0.1443
Average	607520	87646	0.1417

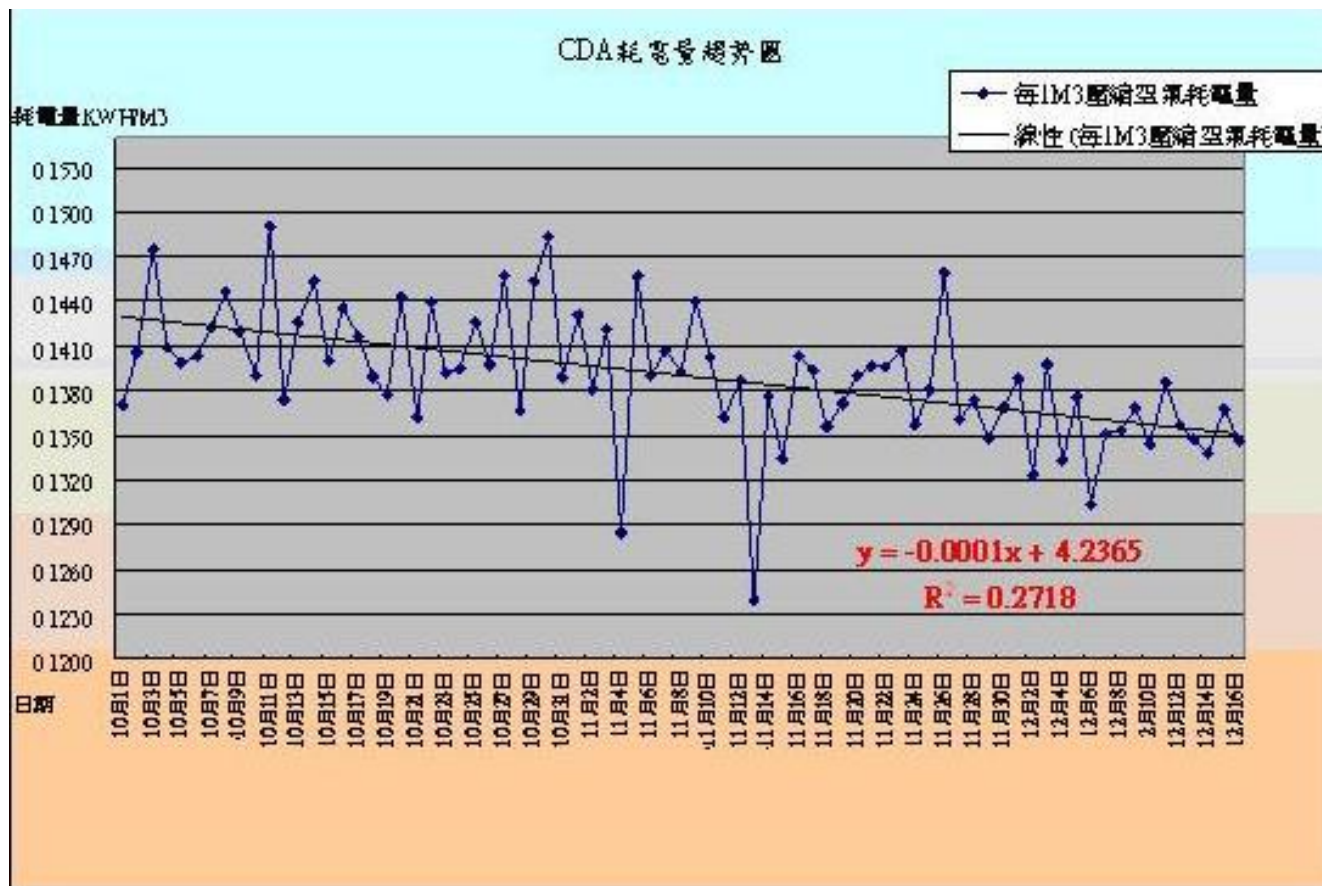


Statistics after improvement since Nov. 27 ~Dec. 15

	consumption M ³	power consumption KWH	Consumption for compressed air per M ³ KWH/M ³
11/27	552940	75224	0.1360
11/28	633520	87069	0.1374
11/29	640010	86261	0.1348
11/30	603110	82577	0.1369
12/1	585450	81243	0.1388
12/2	525380	69550	0.1324
12/3	588530	82226	0.1397
12/4	613800	81818	0.1333
12/5	623180	85772	0.1376
12/6	631890	82379	0.1304
12/7	628110	84848	0.1351
12/8	648250	87777	0.1354
12/9	670260	91769	0.1369
12/10	610640	82094	0.1344
12/11	610120	84528	0.1385
12/12	599310	81302	0.1357
12/13	637240	85854	0.1347
12/14	642420	85994	0.1339
12/15	622050	85121	0.1368
Average	620090	83458	0.1357

The result:

Below is a record about electricity measurement and volume flow for 14 sets of air compressor system in the facility since Oct. 01 to Dec. 16 after installed 24 pcs Super Trap. It's obvious the decrease of electricity consumption.





Item	Desc.	Saving electricity	Saving cost per year
1	Efficiency improvement for air compressor system	1,218,000/ KWH	NT\$ 2,679,600 (about US\$89,320)
Total			NT\$ 2,679,600 (about UD\$89,320)

Items

Screw air compressor (74m³/min total 10 sets) , installed Super Trap ST-500& ST1500 each for 10 pcs.

Screw air compressor (80m³/min total 1 set) , installed Super Trap ST1500 for 1 pc °

Turbo air compressor(120m³/min total 3 sets) , installed Super Trap ST1500 for 3 pcs

Total installed Super Trap ST-500 x 10 pcs & ST1500x 4 pcs °

Calculation:

- Saving electricity:

$$(0.1417 \text{ KWH /M}^3 - 0.1357 \text{ KWH/M}^3) \times 580,000 \text{ M}^3/\text{day} \times 350 \text{ day/year} = 1,218,000 \text{ KWH/year}$$

- Saving cost : 1,218,000 KWH/year × NT\$ 2.2/ KWH = NT\$ 2,679,60/ year (about US\$89,320)

- Investment : NT\$ 930,000 (about US\$31,000)

- Pay off period : US\$31,000/ US\$89,320 /year = 0.35 year

Note : 1. Daily compressed air consumption(average) : 580,000 M³

2. Working day: 350 days/year

3. Electricity cost: US\$0.07/ KWH

Installed in 600HP air compressor



- Installed in 200 HP air compressor



More pictures





