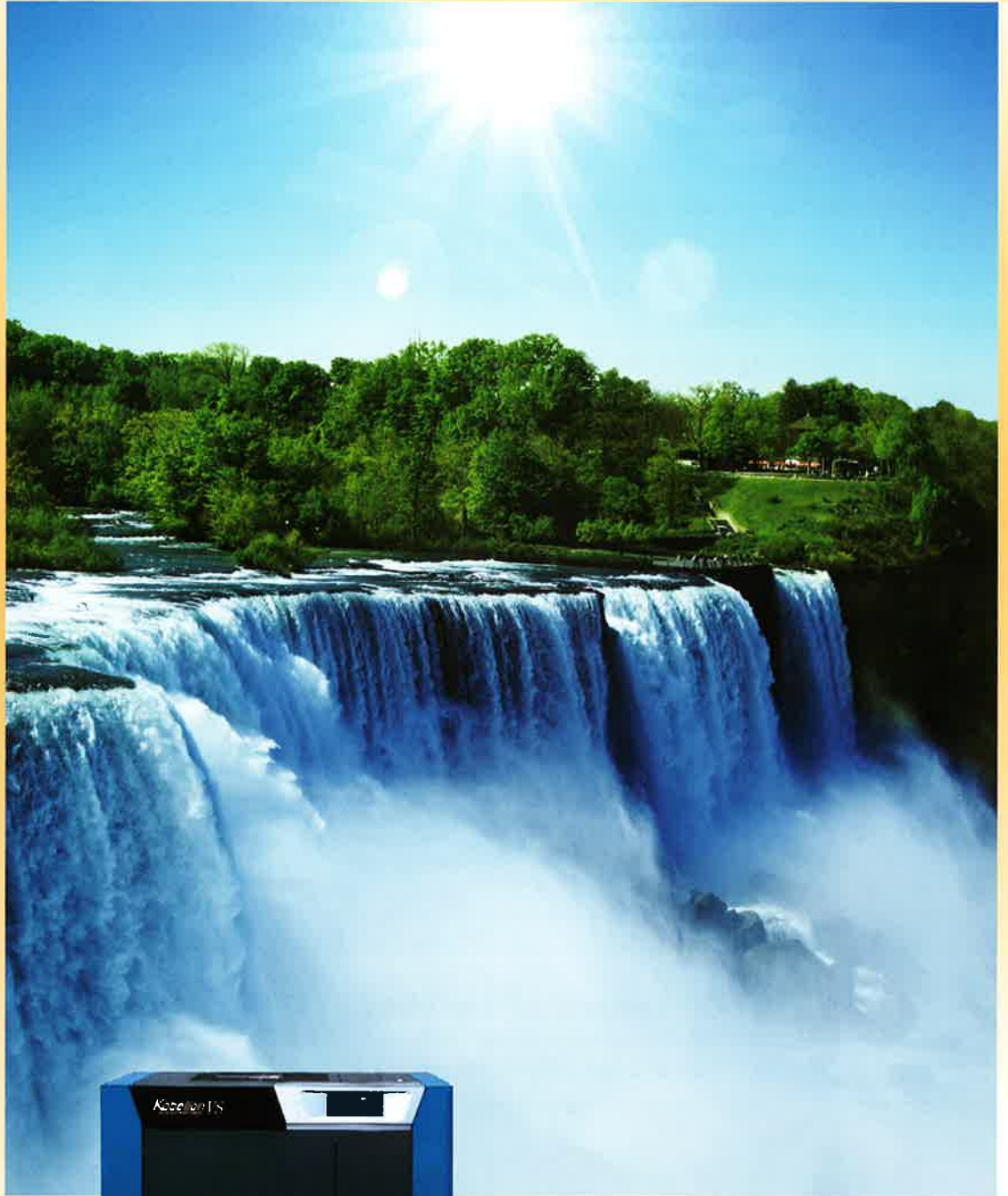


KOBELCO

Energy Saving Recommendation
Through Maintenance



**Let's Save Electricity and
Maximize Compressor Lifetime**

Let's cut running cost and reduce paying unnecessary electric bill If you are experiencing the following, there is high possibility of wasting electricity

- Production decreases but electric bill amount does not really change
- Compressor maintenance lamp is always lit
- Discharge line air pressure decreases
- Compressor running current increases
- Recent (half year) maintenance has not been carried out
- Compressor oil temperature (discharge temperature) increases

If proper compressor maintenance is not carried out, the electric bill wastage will be higher than the maintenance cost!

Let's do proper maintenance, maximize compressor lifetime and save electric cost

Save electricity total up to 3900kW per month!

*In the case of 37kW compressor running 500 hours a month



Suction filter

Recommended replacement cycle: Every 3000 hours

*Depends on environment condition

Save electricity up to 1100kW per month!

Function

Removes dust from intake air and keeps compressor interior clean

Without proper maintenance

Discharge air volume decreases 7% due to clogging, however power consumption almost unchanged



When new

Discharge air volume
7.2 m³/min



After
3000
hours



When need replacement

Discharge air volume
6.7 m³/min



Oil separator element

Recommended replacement cycle: Every 6000 hours

Save electricity up to 1400kW per month!

Function

Separates compressed air and lubricant oil during compression

Without proper maintenance

Due to clogging, compressor internal pressure increases (about 1 bar), power consumption increases 7%, volume of oil spill into the line increases (oil consumption increases)



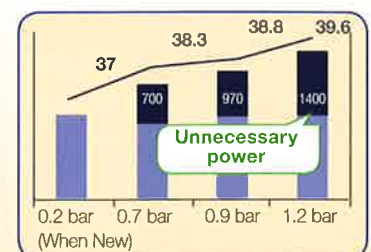
When new



After
6000
hours



When need replacement





Line filter

Recommended replacement cycle: Every 6000 hours

Save electricity up to 1400kW per month!

Function

Removes dust and oil mist from compressed air

Without proper maintenance

Line pressure drops due to clogging
(compressor pressure setting value increases)
Power consumption increases 7%

Lubricant oil & Oil filter

Recommended replacement cycle: Every 3000 hours

Avoid sudden major troubles!

Function of lubricant oil

Compressed air cooling, lubricant and seal (similar as human blood)

Function of oil filter

Removes foreign materials from lubricant oil, keeps the compressor interior clean and protects bearings from damage

Let's use genuine parts, avoid major problems and reduce wastage

Major problems and wastage caused by imitation parts:

Imitation lubricant oil

- Bearings failure (air end lock) due to fast oil degradation
- Bearings abnormal wear (damage) due to inferior lubrication performance
- Hazardous materials (imitation lubricant oil contents) spread throughout the plant (hazardous to health)

Imitation suction filter

- Bearings damage due to infiltration of dust which is not removed effectively by inferior imitation part
- Oil filter and oil separator element abnormal clog due to large amount of dust infiltration
- Air end damage due to infiltration of imitation suction filter debris into compressor
- Extremely short life span of suction filter

Imitation oil separator element

- Poor oil separation performance, high oil consumption (more than 20 liters oil wastage per month)
*In the case of 37kW compressor running 500 hours a month
- Large differential pressure increases power consumption (electric bill increases)
- Line filter clogs faster due to high oil consumption

Imitation oil filter

- Faster bearings damage due to poor filter performance which increases foreign materials in the oil
- Air end damage due to clogging and compressor running with reduced oil
- Air end damage due to high oil filter differential pressure and shortage of oil volume to the air end
- Air end damage due to oil filter failure

Trouble cases caused by imitation parts which incur very high repair cost:



Oil filter clog



Speed-up gear abnormal wear



Bearing damage



Bearing damage due to oil degradation



Oil separator abnormal clog



Rotor damage

Let's use genuine parts, avoid major troubles, maximize compressor lifetime, save unnecessary repair cost and save electric cost!



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