

PT.YKK ZIPPER INDONESIA

Country:	INDONESIA
Location:	Cimanggis, Bogor
Business area(s):	Manufacture of fasteners, S&B and T&P
Number of employees:	716
Land area:	83,500 m ²
Total built area:	32,700 m ²
ISO 14001 certification date:	May 10, 2001

< 2007 fiscal year environmental impact data >

Amount of electric power used	14,073,000 kWh
Amount of fossil fuel used	75,384 GJ
Amount of CO ₂ emitted	9,212 t
<hr/>	
Total amount of waste products emitted	688 t
Amount of recycled material	516 t
Recycling rate	75.0%
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Amount of copy paper used	2.4 t
Amount of water used	238,800 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	50	50	34.5
COD	mg/l	100	100	86.3
SS	mg/l	200	200	48.2
Oil	mg/l	5	5	1.0
pH	-	6-9	6-9	7.19
Cadmium (Cd)	mg/l	0.05	0.05	<0.01
Cyanide (CN)	mg/l	0.05	0.05	<0.01
Hexavalent chromium (Cr VI)	mg/l	0.1	0.1	<0.01
Copper (Cu)	mg/l	2	2	1.36
Lead (Pb)	mg/l	0.1	0.1	0.02
Zinc (Zn)	mg/l	5	5	0.25
Selenium (Se)	mg/l	0.05	0.05	<0.005
Tin (Sn)	mg/l	2	2	<0.05
Water discharge destination	River			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We have been continuously supporting a private school for the handicapped in the suburbs of Jakarta through scholarship funds.

PT.YKK ZIPPER INDONESIA (PPD Plant)

Country:	INDONESIA
Location:	Cibitung, Bekasi
Business area(s):	Manufacture of fiber materials for fasteners
Number of employees:	521
Land area:	125,200 m ²
Total built area:	90,100 m ²
ISO 14001 certification date:	Mar. 28, 2001

< 2007 fiscal year environmental impact data >

Amount of electric power used	33,405,000 kWh
Amount of fossil fuel used	167,190 GJ
Amount of CO ₂ emitted	22,503 t
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Total amount of waste products emitted	259 t
Amount of recycled material	185 t
Recycling rate	71.6%
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Amount of copy paper used	1.7 t
Amount of water used	205,900 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	50	50	19.6
COD	mg/l	100	100	50.9
SS	mg/l	200	200	23.0
Oil	mg/l	5	5	1.0
pH	-	6-9	6-9	7.11
Cadmium (Cd)	mg/l	0.05	0.05	0.028
Cyanide (CN)	mg/l	0.05	0.05	0.023
Hexavalent chromium (Cr VI)	mg/l	0.1	0.1	0.03
Phosphorus (P)	mg/l	1	1	0.18
Copper (Cu)	mg/l	2	2	0.18
Lead (Pb)	mg/l	0.1	0.1	0.03
Nickel (Ni)	mg/l	0.2	0.2	0.02
Zinc (Zn)	mg/l	5	5	0.1
Selenium (Se)	mg/l	0.05	0.05	0.005
Water discharge destination	River			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We opened a health center for women and children of the region in October 2007. Periodic medical exams are provided once a month.
- We donated community crime patrol uniforms to a community association.

SOUTH ASIA, OCEANIA

PT. YKK ZIPCO INDONESIA

Country:	INDONESIA
Location:	Cibitung, Bekasi
Business area(s):	Manufacture of fasteners and fastener parts
Number of employees:	722
Land area:	159,300 m ²
Total built area:	76,200 m ²
ISO 14001 certification date:	Jun. 20, 2001

< 2007 fiscal year environmental impact data >

Amount of electric power used	33,802,000 kWh
Amount of fossil fuel used	66,136 GJ
Amount of CO ₂ emitted	16,201 t
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Total amount of waste products emitted	1,362 t
Amount of recycled material	1,101 t
Recycling rate	80.8%
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Amount of copy paper used	3.3 t
Amount of water used	354,200 m ³

Dyeing water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	60	60	82
COD	mg/l	150	150	225
Oil	mg/l	3	3	0
pH	-	6.0-9.0	6.0-9.0	7.51
Water discharge destination	River			

Plating water discharge standards	Unit	Legal standards	Voluntary management standards	Measured values
BOD	mg/l	50	50	24
COD	mg/l	100	100	56
SS	mg/l	200	200	15
pH	-	6.0-9.0	6.0-9.0	7.4
Cadmium (Cd)	mg/l	0.05	0.05	0.01
Cyanide (CN)	mg/l	0.05	0.05	0.03
Hexavalent chromium (Cr VI)	mg/l	0.1	0.1	0.02
Copper (Cu)	mg/l	2	2	0.90
Lead (Pb)	mg/l	0.1	0.1	0.02
Nickel (Ni)	mg/l	0.2	0.2	0.02
Zinc (Zn)	mg/l	5	5	0.15
Water discharge destination	River			

● Leaks, discharge accidents, legal violations, etc.

Our discharged dyeing water exceeded the standards for BOD and COD.

● Topics

- We installed an energy-saving system for the air conditioning equipment.
- We acquired OHSAS-18001 certification (Certification No.: ID07/0945).

SOUTH ASIA, OCEANIA

YKK SINGAPORE PTE. LTD.

Country:	SINGAPORE
Location:	Singapore
Business area(s):	Fastener manufacture
Number of employees:	94
Land area:	6,400 m ²
Total built area:	8,600 m ²
ISO 14001 certification date:	Jun. 19, 2001

< 2007 fiscal year environmental impact data >

Amount of electric power used	3,076,000 kWh
Amount of fossil fuel used	10,971 GJ
Amount of CO ₂ emitted	1,715 t
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Total amount of waste products emitted	93 t
Amount of recycled material	51 t
Recycling rate	55.0%
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Amount of copy paper used	1.4 t
Amount of water used	47,300 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	400	400	267
COD	mg/l	600	600	404
SS	mg/l	400	400	18
pH	-	6-9	6-9	7.80
Cadmium (Cd)	mg/l	1	1	<0.05
Cyanide (CN)	mg/l	2	2	<0.05
Hexavalent chromium (Cr VI)	mg/l	5	5	<0.05
Copper (Cu)	mg/l	5	5	0.30
Lead (Pb)	mg/l	5	5	<0.05
Nickel (Ni)	mg/l	10	10	<0.05
Zinc (Zn)	mg/l	10	10	0.10
Water discharge destination	Sewers			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

We began using the treated water (new water) recommended by the government for cooking, cleaning and dyeing.

SOUTH ASIA, OCEANIA

YKK (THAILAND) CO., LTD.

Country:	THAILAND
Location:	Samutprakarn
Business area(s):	Manufacture of fasteners and S&B
Number of employees:	415
Land area:	146,200 m ²
Total built area:	29,900 m ²
ISO 14001 certification date:	Aug. 6, 2002

< 2007 fiscal year environmental impact data >

Amount of electric power used	8,043,000 kWh
Amount of fossil fuel used	17,980 GJ
Amount of CO ₂ emitted	4,013 t
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Total amount of waste products emitted	101 t
Amount of recycled material	88 t
Recycling rate	86.7%
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Amount of copy paper used	7.3 t
Amount of water used	197,600 m ³

Water discharge standards	Unit	Legal standards	Voluntary management standards	Measured values
BOD	mg/l	60	20	6.5
COD	mg/l	400	120	96
SS	mg/l	50	45	11.3
pH	-	5.5-9	5.8-8.6	7.89
Cyanide (CN)	mg/l	0.2	0.18	0.04
Hexavalent chromium (Cr VI)	mg/l	0.25	0.2	0.05
Copper (Cu)	mg/l	2	1.8	0.61
Nickel (Ni)	mg/l	1	0.8	0.18
Zinc (Zn)	mg/l	5	3	0.40
Selenium (Se)	mg/l	0.02	0.018	0.011
Water discharge destination	Ocean			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We donated books for the establishment of a rural library.
- We donated used clothes to poor and exiled children.
- We participated in local tree-planting activities.

YKK PHILIPPINES INC.

Country:	PHILIPPINES
Location:	St.Tomas, Batangas
Business area(s):	Fastener manufacture
Number of employees:	168
Land area:	59,900 m ²
Total built area:	12,400 m ²
ISO 14001 certification date:	Apr. 30, 2002

< 2007 fiscal year environmental impact data >

Amount of electric power used	1,783,000 kWh
Amount of fossil fuel used	13,348 GJ
Amount of CO ₂ emitted	1,621 t
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Total amount of waste products emitted	168 t
Amount of recycled material	160 t
Recycling rate	95.2%
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Amount of copy paper used	1.2 t
Amount of water used	71,000 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	50	50	12
COD	mg/l	100	100	51
SS	mg/l	70	70	16
Oil	mg/l	5	5	1.5
pH	-	6.5-9.0	6.5-9.0	7.46
Copper (Cu)	mg/l	1	1	0.07
Zinc (Zn)	mg/l	5	5	0.24
Selenium (Se)	mg/l	0.2	0.2	0.130
Water discharge destination	River			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We provided lessons on the environment to around 1,000 students at 28 elementary schools in the area and donated bins for separating garbage.
- We sent food and clothing to a region damaged by heavy rain.
- We provided free medical services to local residents.

YKK VIETNAM CO., LTD.

Country:	VIET NAM
Location:	Bien Hoa, Dong Nai
Business area(s):	Manufacture of fasteners, T&P and S&B
Number of employees:	415
Land area:	58,200 m ²
Total built area:	49,400 m ²
ISO 14001 certification date:	Oct. 28, 2003

< 2007 fiscal year environmental impact data >

Amount of electric power used	7,748,000 kWh
Amount of fossil fuel used	25,650 GJ
Amount of CO ₂ emitted	4,698 t
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Total amount of waste products emitted	83 t
Amount of recycled material	75 t
Recycling rate	90.4%
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Amount of copy paper used	4.8 t
Amount of water used	263,500 m ³

Water discharge standards	Unit	Legal standards	Accepted standards	Measured values
BOD	mg/l	20	500	143
COD	mg/l	50	530	221
SS	mg/l	50	200	30
pH	-	6-9	5-9	8.76
Hexavalent chromium (Cr VI)	mg/l	0.1	0.05	0.04
Nitrogen (N)	mg/l	30	30	12.8
Phosphorus (P)	mg/l	5	0.2	3.45
Copper (Cu)	mg/l	1	0.2	0.06
Water discharge destination	Purification tank in the industrial park			

● Leaks, discharge accidents, legal violations, etc.

Our discharged water exceeded the accepted standards for phosphorus in the industrial park.

● Topics

There was an amendment to the laws concerning treatment of discharged water involving the addition of rules related to the color of the water, so we are currently constructing a treatment system within the plant to remove the color from the water.

SOUTH ASIA, OCEANIA

YKK INDIA PVT. LTD.

Country: INDIA
 Location: Haryana
 Business area(s): Fastener manufacture
 Number of employees: 499
 Land area: 105,300 m²
 Total built area: 48,200 m²
 ISO 14001 certification date: Dec. 21, 2001

< 2007 fiscal year environmental impact data >

Amount of electric power used	13,557,000 kWh
Amount of fossil fuel used	160,637 GJ
Amount of CO ₂ emitted	11,114 t
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Total amount of waste products emitted	469 t
Amount of recycled material	405 t
Recycling rate	86.2%
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Amount of copy paper used	2.8 t
Amount of water used	339,200 m ³

Water discharge standards	Unit	Legal standards	Voluntary management standards	Measured values
BOD	mg/l	30	27	16
COD	mg/l	250	225	159
SS	mg/l	100	90	57.8
Oil	mg/l	10	9	4.5
pH	-	5.5-9.0	6.5-8.5	7.6
Cyanide (CN)	mg/l	0.2	0.18	0.07
Copper (Cu)	mg/l	3	2.7	1.81
Nickel (Ni)	mg/l	3	2.7	1.59
Zinc (Zn)	mg/l	5	4.5	2.99
Selenium (Se)	mg/l	0.05	0.045	0.018
Water discharge destination	Sewers			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We provided a report on the water resource management system at our plant to the local residents.
- We opened a Social Development & Vocational Training Center within the plant grounds to assist women in their efforts to participate in society.

SOUTH ASIA, OCEANIA

YKK LANKA (PRIVATE) LTD.

Country: SRI LANKA
 Location: Avissawella
 Business area(s): Fastener manufacture
 Number of employees: 238
 Land area: 30,900 m²
 Total built area: 11,700 m²
 ISO 14001 certification date: Nov. 24, 2003

< 2007 fiscal year environmental impact data >

Amount of electric power used	2,927,000 kWh
Amount of fossil fuel used	8,590 GJ
Amount of CO ₂ emitted	1,699 t
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Total amount of waste products emitted	25 t
Amount of recycled material	16 t
Recycling rate	64.0%
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Amount of copy paper used	2.8 t
Amount of water used	64,400 m ³

Water discharge standards	Unit	Legal standards	Accepted standards	Measured values
BOD	mg/l		200	22
COD	mg/l		600	175
SS	mg/l		500	30
Oil	mg/l		30	2.2
pH	-		6.0-8.5	7.7
Water discharge destination	Communal wastewater treatment plant			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- All our employees participated in a volunteer project to repaint the walls of the local hospital.
- We invited local elementary school students to our plant for a tour and a 5S workshop.

YKK BANGLADESH PTE. LTD.

Country:	BANGLADESH
Location:	Dhaka
Business area(s):	Fastener manufacture
Number of employees:	678
Land area:	50,400 m ²
Total built area:	25,200 m ²
ISO 14001 certification date:	Feb. 14, 2005

< 2007 fiscal year environmental impact data >

Amount of electric power used	7,360,000 kWh
Amount of fossil fuel used	115,636 GJ
Amount of CO ₂ emitted	10,764 t
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Total amount of waste products emitted	132 t
Amount of recycled material	99 t
Recycling rate	75.2%
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Amount of copy paper used	9.7 t
Amount of water used	214,200 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	100	50	8
COD	mg/l	400	200	72
SS	mg/l	200	150	27
Oil	mg/l	10	10	8.1
pH	-	6-9	6-9	7.71
Cadmium (Cd)	mg/l	0.05	0.05	<0.001
Cyanide (CN)	mg/l	0.2	0.1	0.018
Copper (Cu)	mg/l	3	0.5	0.02
Lead (Pb)	mg/l	0.1	0.1	<0.001
Nickel (Ni)	mg/l	1	1	0.00
Zinc (Zn)	mg/l	10	5	1.62
Selenium (Se)	mg/l	0.05	0.05	0.74
Water discharge destination	Sewers			

● Leaks, discharge accidents, legal violations, etc.

Due to a machinery breakdown in September, the level of Selenium in our discharged water exceeded the standard. We reported the incident to BEPZA, the organization that manages the local environmental standards, and submitted an improvement plan.

● Topics

- We provided free medical exams to about 400 residents of the local community.

SOUTH ASIA, OCEANIA

YKK (MALAYSIA) SDN. BHD.

Country:	MALAYSIA
Location:	Johor Bahru
Business area(s):	Manufacture of fasteners and T&P
Number of employees:	108
Land area:	19,800 m ²
Total built area:	10,600 m ²
ISO 14001 certification date:	Dec. 1, 2005

< 2007 fiscal year environmental impact data >

Amount of electric power used	2,300,000 kWh
Amount of fossil fuel used	15,243 GJ
Amount of CO ₂ emitted	1,653 t
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Total amount of waste products emitted	60 t
Amount of recycled material	28 t
Recycling rate	46.6%
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Amount of copy paper used	1.8 t
Amount of water used	60,800 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	50	50	12
COD	mg/l	100	100	83
SS	mg/l	100	100	38
Oil	mg/l	10	10	<2
pH	-	5.5-9.0	5.5-9.0	7.47
Cadmium (Cd)	mg/l	0.02	0.02	<0.01
Cyanide (CN)	mg/l	0.1	0.1	<0.01
Hexavalent chromium (Cr VI)	mg/l	0.05	0.05	<0.01
Copper (Cu)	mg/l	1	1	0.26
Lead (Pb)	mg/l	0.5	0.5	<0.05
Nickel (Ni)	mg/l	1	1	<0.05
Zinc (Zn)	mg/l	2	2	0.43
Tin (Sn)	mg/l	1	1	<0.001
Water discharge destination	River			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We replaced our diesel boilers with natural gas boilers that produce lower CO₂ emissions.

SOUTH ASIA, OCEANIA

PT YKK FASCO INDONESIA

Country:	INDONESIA
Location:	Cibitung, Bekasi
Business area(s):	Manufacture of hook-and-loop fasteners
Number of employees:	118
Land area:	26,300 m ²
Total built area:	10,400 m ²
ISO 14001 certification date:	—

< 2007 fiscal year environmental impact data >

Amount of electric power used	2,784,000 kWh
Amount of fossil fuel used	44,751 GJ
Amount of CO ₂ emitted	3,260 t
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Total amount of waste products emitted	25 t
Amount of recycled material	0 t
Recycling rate	0.0%
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Amount of copy paper used	1.4 t
Amount of water used	139,800 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	150	150	6
COD	mg/l	300	300	16
SS	mg/l	400	400	13
Oil	mg/l	10	10	<1.4
pH	-	6.0-9.0	6.0-9.0	7.1
Water discharge destination	YKK Fasco Indonesia is on the grounds of YKK Zipper Indonesia and uses YKK Zipper Indonesia's wastewater processing equipment			

● Leaks, discharge accidents, legal violations, etc.

None

PT.YKK AP INDONESIA

Country:	INDONESIA
Location:	Tangerang
Business area(s):	Manufacture of aluminum architectural materials and aluminum forms
Number of employees:	739
Land area:	181,500 m ²
Total built area:	106,900 m ²
ISO 14001 certification date:	Jul. 9, 2001

< 2007 fiscal year environmental impact data >

Amount of electric power used	24,991,000 kWh
Amount of fossil fuel used	165,276 GJ
Amount of CO ₂ emitted	17,586 t
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Total amount of waste products emitted	2,979 t
Amount of recycled material	1,815 t
Recycling rate	60.9%
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Amount of copy paper used	5.7 t
Amount of water used	270,000 m ³

Water discharge standards	Unit	Legal standards	Applicable standards	Measured values
BOD	mg/l	150	50	6.4
COD	mg/l	300	100	22.4
SS	mg/l	400	200	24.0
pH	-	6-9	6-9	7.5
Cadmium (Cd)	mg/l	0.1	0.05	<0.003
Cyanide (CN)	mg/l	0.5	0.05	<0.005
Hexavalent chromium (Cr VI)	mg/l	0.5	0.1	<0.01
Copper (Cu)	mg/l	3	2	<0.02
Lead (Pb)	mg/l	1	0.1	<0.01
Nickel (Ni)	mg/l	0.5	0.2	<0.02
Zinc (Zn)	mg/l	10	5	0.08
Water discharge destination	River			

● Leaks, discharge accidents, legal violations, etc.

None

● Topics

- We performed renovations to reduce gas usage by 30% in the casting process and to conserve energy.