

Introduction 2018

Moorim P&P





Moorim adds value to our everyday life by constantly developing eco-friendly products with the finest technology in pulp and paper manufacturing

Corporate
philosophy

Pulp & Paper
Manufacturing Technology
that Adds Value to Life

Infinite Possibilities of Pulp,
and the Future of Paper
with Moorim

Righteous Ambition

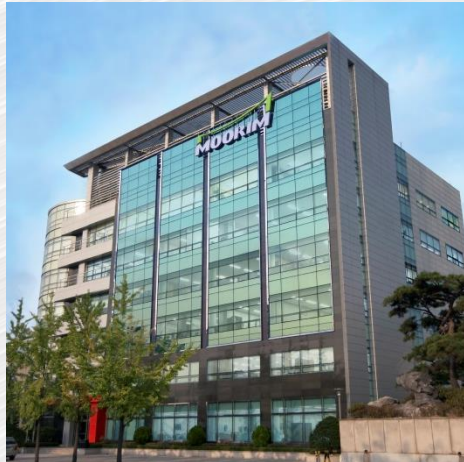
MISSION

VISION

CORE VALUE

Moorim is taking a great step forward as a Global Pulp & Paper Company

Moorim Headquarters in Seoul



Moorim Paper Jinju mill

The leading paper company
for industrial use



Main Products

Printing paper for industrial use,
Board, Digital paper

Moorim SP Daegu mill

High value-added
specialty paper company



Main Products

Various type of specialty paper
(Industry / Fancy / Information / Commodity)

Moorim P&P Ulsan mill

The one and only
integrated pulp & paper mill in Korea

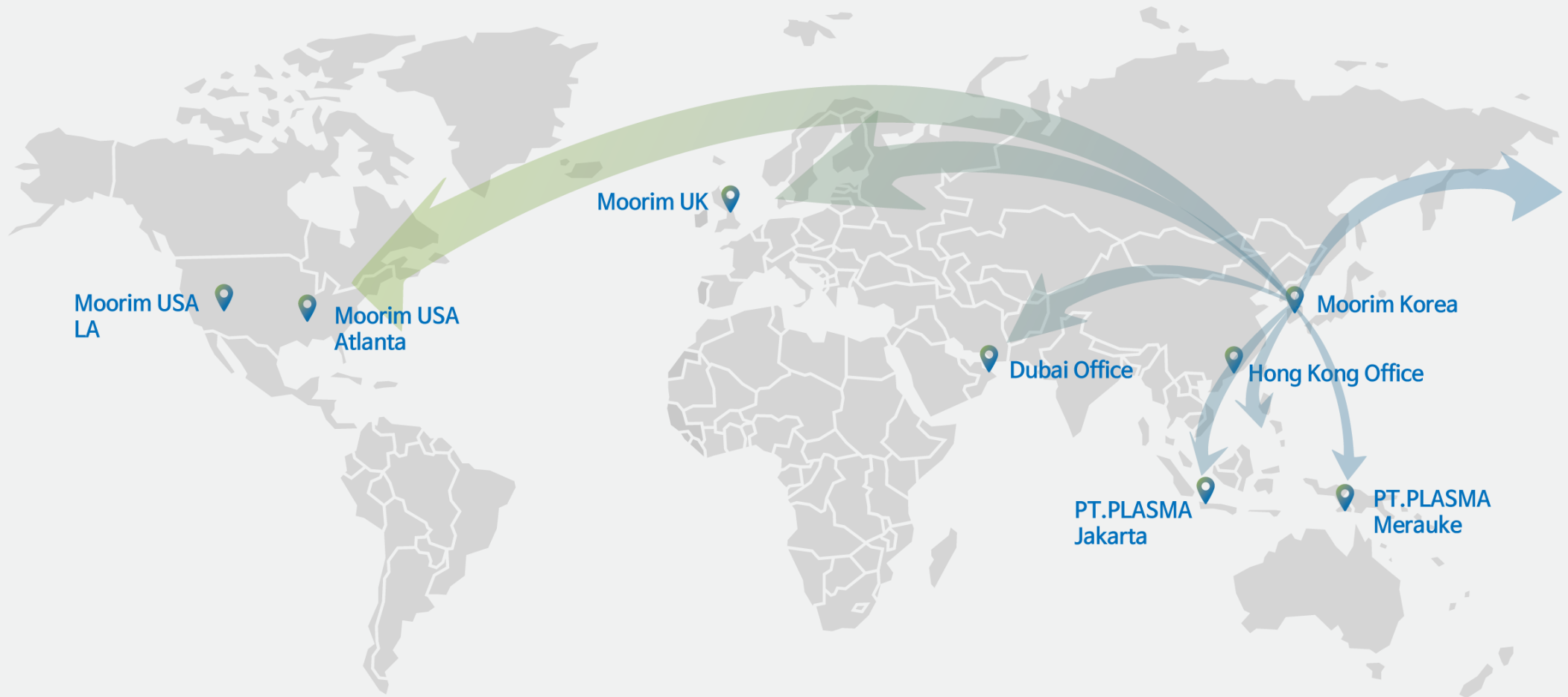


Main Products

Bleached Kraft Pulp,
Printing paper

As the center of the Korean paper industry and the paper-driven Korean wave,

Moorim sells to 105 countries in the world





Paper Sales

Moorim USA

- **Atlanta** 3700 Crestwood Pkwy, Suite 200, Duluth, GA 30096, USA
+1.770.680.5190
- **LA** 17890 Castleton St. Suite 302, City of Industry, CA 91748, USA
+1.626.363.4698

Moorim UK

98 Maybury Road, Woking, Surrey, GU21 5HX, UK
+44.(0) 1483.215160

Hong Kong Office

11F, Unit D, Guangdong Tours Centre, 18 Pennington Street, Causeway Bay, Hong Kong
+852.2121.0071/2

Dubai Office

West Wing 6A-114, Dubai Airport Freezone, Dubai, UAE
+971.(0)4.214.6175



Plantation

PT.PLASMA

- **Surabaya** Spazio Condominium Office Lt.3 unit.326 Jl.Mayjen Yono Suwoyo Kav.3,
Surabaya Jawa Timur 60226, Indonesia
+62.21.720.7506
- **Merauke** Jl.Raya Mandala No. 195 Merauke, Papua 99616, Indonesia
+62.971.324.355

Profile

Korea's only
pulp & paper total company



Moorim P&P

Moorim P&P completed Korea's first integrated pulp and paper mill. With this, Moorim poised to emerge as a Global Pulp & Paper Company through quality and cost competitiveness, and our eco-friendly printing paper technology.

- **Date of Establishment** : January in 1974
- **Location** : 3-36 Ubonggil Onsan-eup, Ulju-gun, Ulsan
- **Area** : 589,505m²
- **Capital** : 155,900 million won
- **Employees** : Around 600
- **Main Products** : Bleached Kraft Pulp, Printing Paper
- **Product Capacity** : [paper] 520,000 MT
[pulp] 450,000 MT
- **Sales Revenue** : 605,700 million won (2017)



History

- 
- 
- '74 01 - Established Daehan Chemical Pulp
(Present Moorim P&P)
 - '80 09 - Started operation of Pulp Mill #1
 - '85 05 - Production Capacity was improved
 - '87 12 - Privatization
 - '93 03 - Started operation of Pulp Mill #2
 - '95 09 - Production Capacity was improved

History

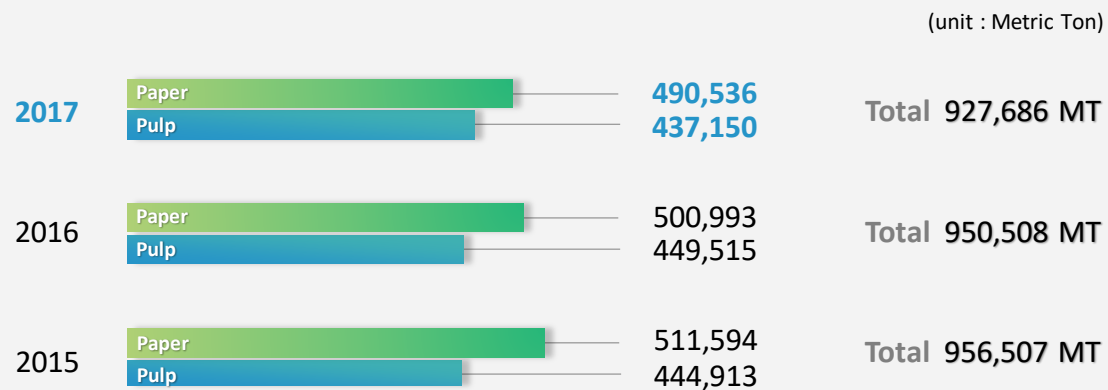
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- 
- '08 04 - Moorim Paper Succeeded Donghae Pulp's M&A
 - 06 - Acquired FSC certification
 - '09 11 - Held a Found-breaking Ceremony for Pulp-Paper integrated Mill
 - '10 01 - Changed company name to 'Moorim P&P'
 - '11 05 - Completed Construction of Pulp-Paper Integrated Mill
 - '13 05 - Acquired 'Carbon Footprint Labeling' Certification for the first time in Korean Paper Industry
 - '16 07- Celebrated 60th Anniversary
 - '18 01- Moorim obtained Korea's first certified by KFCC (Korea Forest Certification Council)

Production Volume

Production Volume

(2015 – 2017)

 Paper
 Pulp

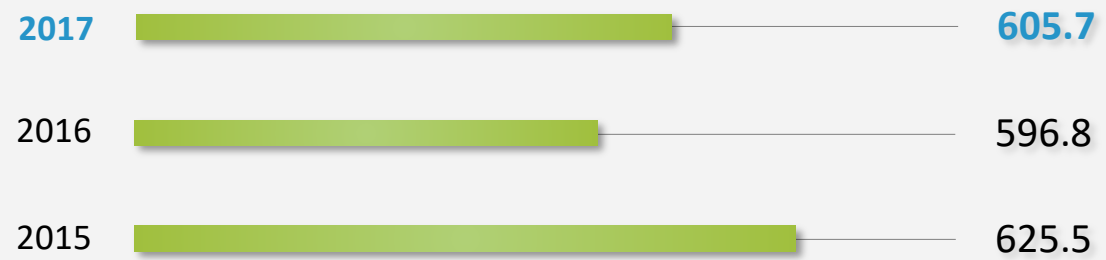


Sales Amount

Sales Amount

(2015 – 2017)

(unit: billion won)



Product

Bleached Kraft Pulp

The only low-carbon
bleached hardwood kraft pulp
in Korea

Wood Species	Mixed H.W(Oak, Acacia, Others)
Bale Weight(kg)	250
Bale Size(W×L×H, mm)	860×686×440
Dirt(mm ² /m ²)	2.0 Under
Brightness(%)	89.0 Over
Capacity	450,000 MT





Moorim's Printing & Writing Paper brand, Neo Star

- Excellent printing job with superb runnability
- Eco-friendly paper with low carbon emission
- FSC-CoC certified



Coated(2 side)

Gloss
Matt
Leaflet
Coat

Coated(1 side)

Label

MFC

Pop Plus
S Plus

Uncoated

Uncoated Paper
Uncoated SB
Uncoated Ivory



Main Product

C2S

NEO STAR GLOSS

Usage	Luxury Printing, Brochure, Catalog, Leaflet
Basis weight	80 ~ 200 gsm
Features	Excellent printing job with superb runnability, High gloss
Certificate	FSC, Carbon Footprint of Products

C2S

NEO STAR MATT

Usage	Luxury Printing, Brochure, Catalog, Leaflet
Basis weight	80 ~ 180 gsm
Features	Excellent printing job with superb runnability, Non-glossy paper
Certificate	FSC, Carbon Footprint of Products



Main Product

C2S

NEO STAR LEAFLET

Usage	Flyers for advertising, Leaflet
Basis weight	90, 95 gsm
Features	Excellent printing job with superb runnability, Fast drying on all printing jobs
Certificate	FSC

C2S

NEO STAR COAT

Usage	High value flyers for advertising, Luxury leaflet
Basis weight	70, 75, 80 gsm
Features	Excellent printing job with superb runnability, Fast drying on all printing jobs
Certificate	FSC



Main Product

C1S

NEO STAR LABEL

Usage	Self-adhesive label face stock, Can and wine label, Sticker, Wrapper
Basis weight	80~120 gsm
Features	High gloss surface, No two-sidedness defect(Curling, Humidity problem) All types of sheets and rolls are available upon request
Certificate	FSC

MFC

NEO STAR POP PLUS

Usage	Book publication. Premium magazine, Textbook, Study book, Writing paper
Basis weight	90~120 gsm
Features	High bulky and comfortable color for reading, Excellent printability and Smoothness
Certificate	FSC



Main Product

UNCOATED

NEO STAR UNCOATED PAPER

Usage	Printing and Writing paper
Basis weight	70~120 gsm
Features	Suitable for book printing with outstanding smoothness
Certificate	FSC, Carbon Footprint of Products, Korea Eco-label

UNCOATED

NEO STAR UNCOATED IVORY

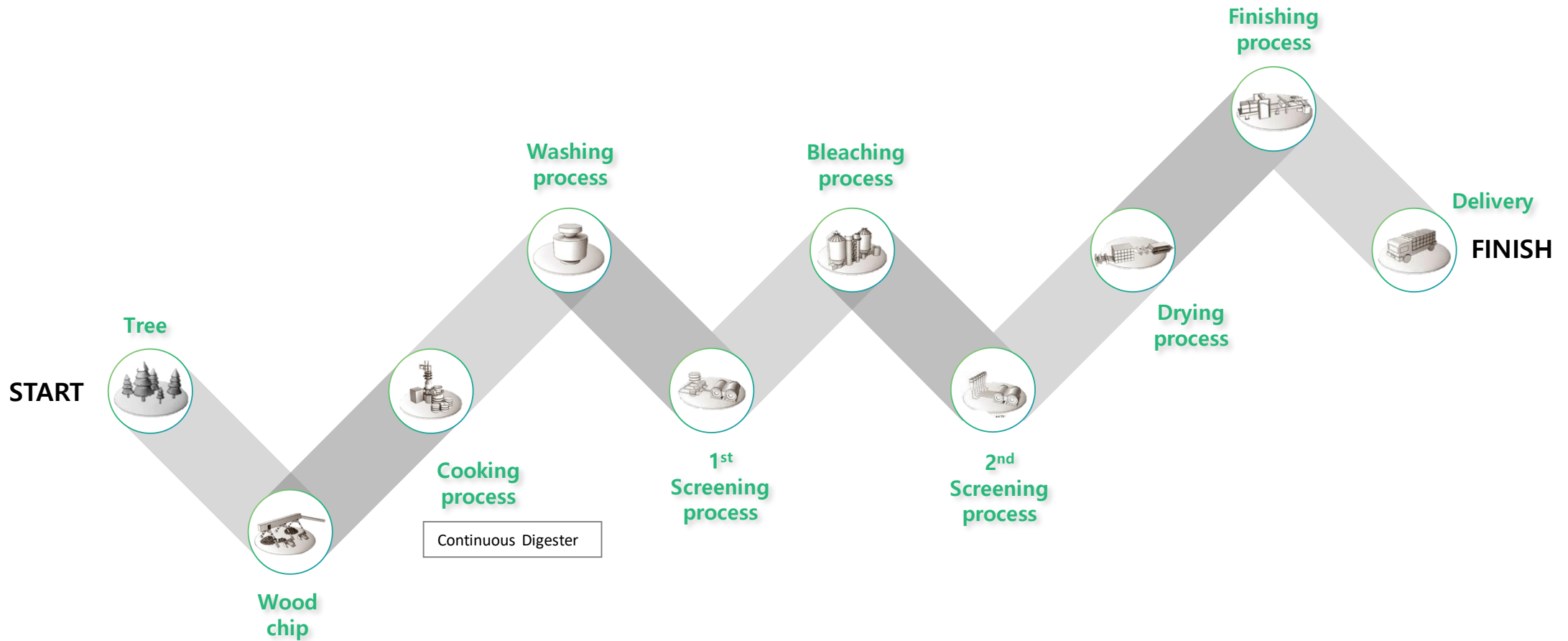
Usage	Book publication. Diary, Notebook, Writing paper
Basis weight	70~120 gsm
Features	High opacity and comfortable color for reading, High quality book publication text paper
Certificate	FSC



Facilities

Process

- Pulp Production

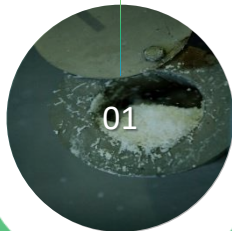


Process

- Paper Production

Mix water with pulp until adequate state
and mix various chemicals at a certain ratio

Stock Preparation



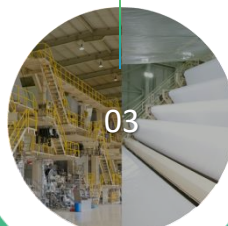
Paper Making

Make vase paper or uncoated paper
by paper machine



Coat base paper, covering coating pigment by
coater and improve gloss and smoothness of
coated paper by supercalendar

Coating



Finishing

Cut paper with suitable size and package
paper



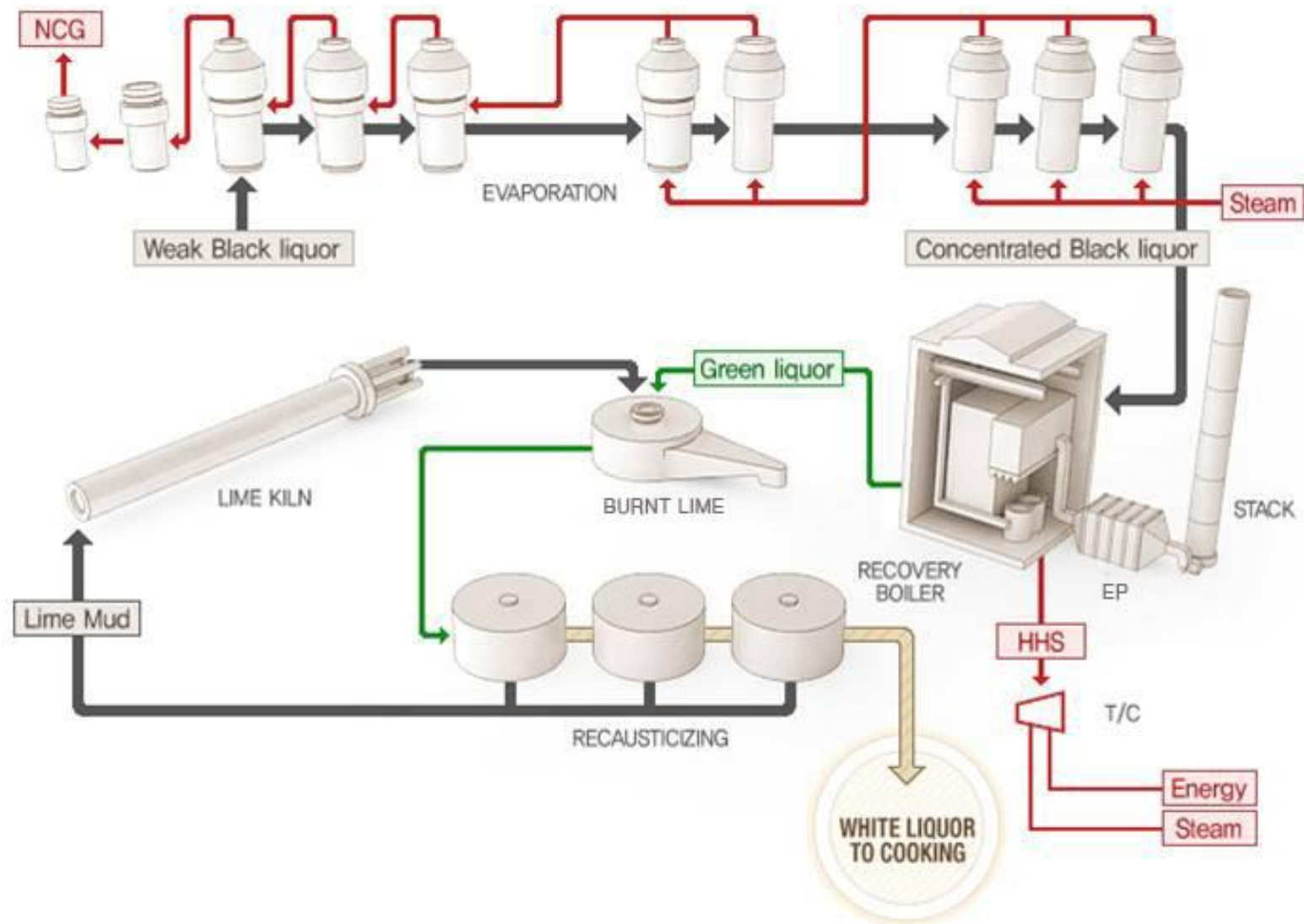
Store finished products, set up
optimal logistics system for
punctual delivery

Logistics



Process

- Power Equipment



Facilities

- Paper Mill

Korea's only pulp and paper company, Moorim P&P, is poised to emerge as a global company through quality and cost competitiveness, and its eco-friendly technology

	PM	CM
Paper Weight (mm)	8,700	8,650
Speed (mim)	1,450	1,600
Basis Weight (gsm)	49~156	65~200
Manufacturer	VOITH	IHI

Facilities

- Pulp Mill

The production of the best quality bleached kraft pulp,
The supply of Elemental Chlorine Free (ECF) pulp

	#1 Mill	#2 Mill
Wood handling	Dual Circular Pile + Single Longitudinal Pile	
Cooking	Compact cooking G2 (ImpBin)	
Washing	Pressure Washer	Diffuser Washer
1st Screening	Slot Type	Slot Type
Bleaching	Dual O2 - D1 - EOP - D2	O2 - D* – P/O – D
2nd Screening	LC Centricleaner (Cyclotech)	LC Centricleaner (Albia)
Pulp Machine	Fourdrinier Wire	Double Wire Press
Drying	Cylinder 80EA (5Group)	Flakt Dryer (Air - Float Dryer)
Width	3.6m (5Bales)	4.8m (7Bales)

Facilities

- Power Equipment

Two recovery boilers and turbines supply 100% of the required power and steam.
And the recovered chemicals are recycled to the cooking process.

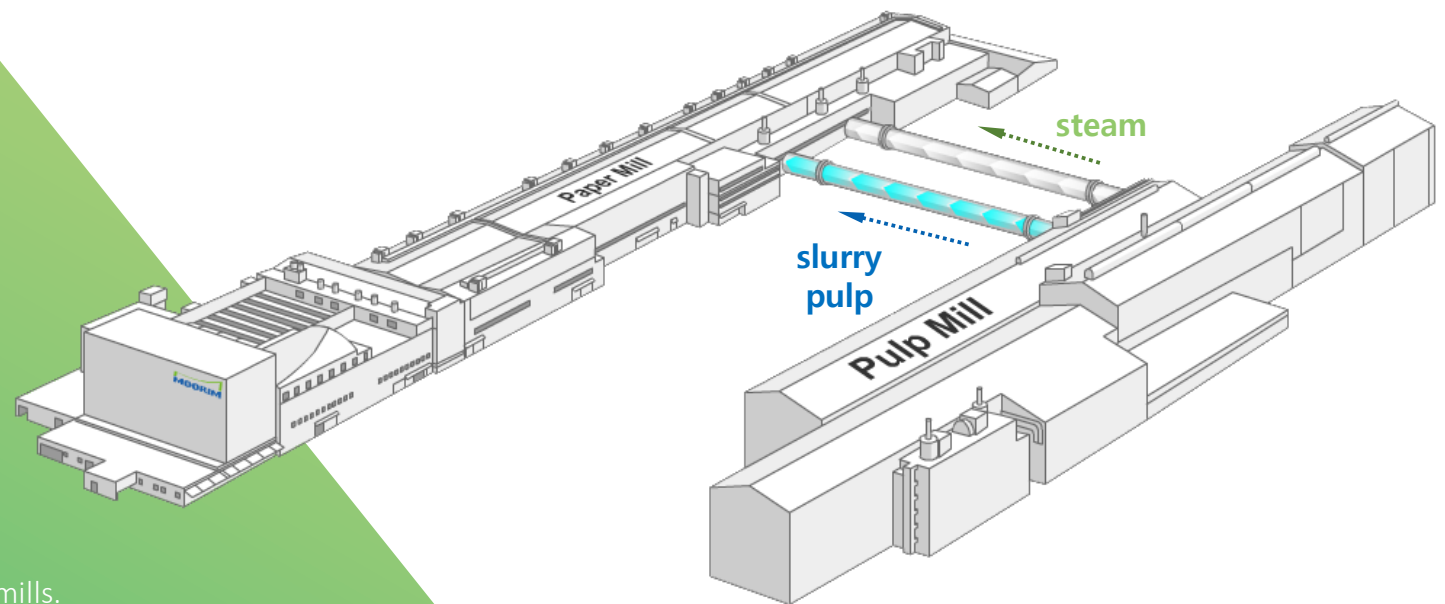
	#1 Mill	#2 Mill
Evaporation	187 Ton/hr	271 Ton/hr
Causticization	1,750 m ³ /D	2,750 m ³ /D
Lime reburning	170 T CaO/D	270 T CaO/D
Recovery boiler	135 Ton/hr	180 Ton/hr
Turbine	14.4 MW	22.7 MW

Strong Point

01

Brimming with potential thanks to fresh pulp content

Integrated paper retains pulp strength without dry and dissociation process due to the direct supply of slurry pulp from pulp mills. It has excellent quality and solid texture since its cellulose fibers are alive.



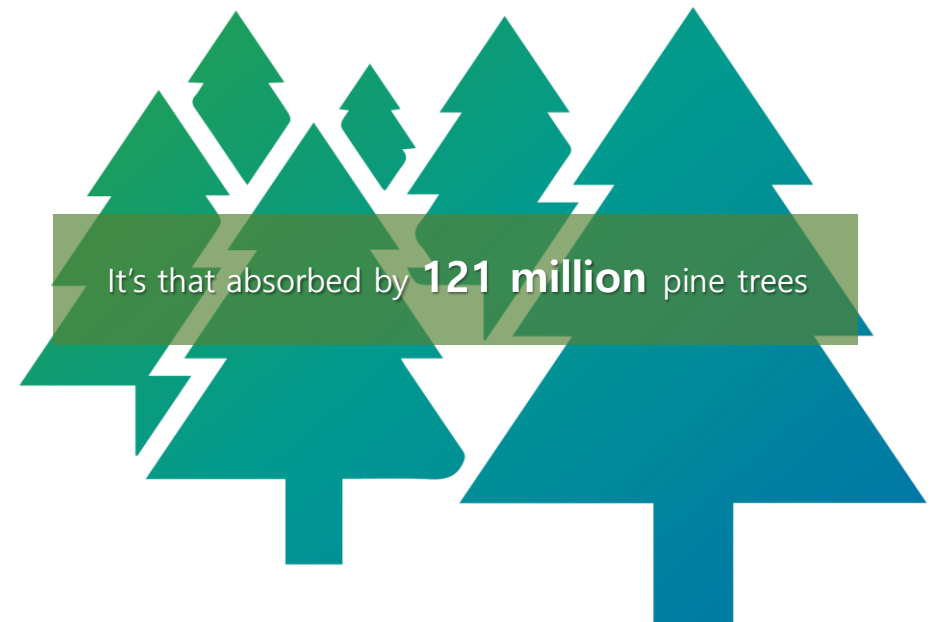
02

Energy efficient thanks to Oil-Free production

During the cooking stage of pulping, a massive quantity of steam is generated from the burning of black liquor produced in lignin condensation, which is then re-used in the drying stage making for an eco-friendly process requiring no additional fossil-fuel consumption.

The amount of greenhouse gases saved through Moorim's integrated mill is

800,000 ton



It's that absorbed by **121 million** pine trees

And it also has cost savings
around **\$153,000,000** per year

03

Low carbon generating through clean fuel use in production

Moorim acquired many green certificates such as FSC certification and Low-Carbon Product certification for the first time in Korea.

Moorim's corporate name means a 'thick, dense forest,' as it prioritizes sustainable growth while producing quality paper.



04

Vertically integrated system, from Plantation to Pulp and Paper Manufacturing

Moorim has grown in both operation scale
and vertical integration system,
emerging as a globally competitive Pulp & Paper Company.

PLANTATION



PULP MILL



PAPER MILL



Plantation



Woodchip
In Moorim P&P



Technical Management

Exceeding customer satisfaction

Moorim's paper specialists strive to make technology-intensive modern paper

From technologies to produce cutting-edge paper products to processes to make paper in a more effective manner, it is difficult to overestimate the importance of research and development in paper production.



Infinite Possibilities of Pulp

**Moorim adds value to our life
with finest technology
in pulp and paper manufacturing**

Our vision serves as exploring new value-added uses for pulp
and developing them into market-oriented products.

Driven by keen enthusiasm for paper

The largest Pulp and Paper R&D center in Korea

Holding myriad patents for security paper, ballot paper, and more, with specialists working to revolutionize modern living, Moorim's R&D Center is dedicated to developing cutting-edge technology for the paper industry.



Date of Establishment

December 1986

Field of Study

Product development, Process improvement,
Research in union with scholarship project,
Infinite Possibilities of Pulp, etc

Institute

- Paper Research Center in Jinju Mill
- Pulp & New Material Research Center in Ulsan Mill

Sustainability

Moorim's paper production makes for a greener world

Moorim's environmental management is implemented from the planning stage.

We practice low-carbon ecologically sound business based on three major strategies addressing climate change, eco-friendly product development and management, and eco-friendly system operations.

These core values are the foundations of Moorim as a Global Pulp & Paper Company.

**address
climate change**

**eco-friendly
product**

**environmental
system operations**

Moorim does not harvest
natural forests

**Moorim plants and nurtures
farm forests**

Moorim endeavors to produce quality paper in an environmentally-friendly way.

The wood chips used for pulp are generated from
road building and tree thinning in cultivation.

And the wood chips imported from abroad are likewise generated from
exclusive farm forests cultivated for pulp.

Korea's largest Birch farm forest

We have planted
Korea's largest Birch farm forest
of 2,000ha.

64,000ha plantation in Indonesia

In January of 2014,
PT. PLASMA was officially launched to promote
a 64,000ha plantation program in Indonesia,
as it invests in overseas plantations.

Moorim strives for Everyone's happiness

Moorim's social contribution follows a resolute principle
: that actions should not be one time only, but serve instead as opportunities
to provide extended assistance.



The story of good paper
: Big Issue Korea

Moorim supports better living through paper. We support financial independence for homeless to live better life.



Helping hands for the needy
'Moorim Volunteers'

'Moorim Volunteers' have visited local welfare facilities monthly and provide community services for those in need.



Paper-plane Festival

We encourage children to develop their creativity and imagination through paper, giving families a great day out and a chance to have quality time



For cultural and art development
'Moorim Mecenat'

We support cultural and arts groups in pursuit of real partnership, rather than simple sponsorship.