



Paper Recycling Factory



What is Paper Recycling?

It is the process by which waste paper is turned into new paper products. This is done in a series of steps, to produce usable paper from consumed papers.

Introduction

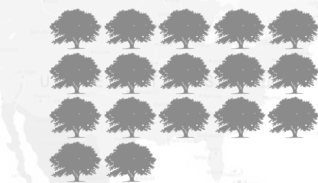
The pulp and paper manufacturing industry is one of the largest consumers of wood today. Along with increasing world economic growth, a substantial increase in paper consumption is expected. As a result, due to more harvesting of trees, the paper industry could well experience a limited raw material resource, with concurrent reduction of industry growth. Therefore, "recycling of paper", as a solution to this problem, is attracting more attention. It offers an effective way to preserve forest resources and save energy and landfill space.

The process of Paper Recycling?



The Importance of Paper Recycling?

• 4,000 KW of Energy- Enough to power the average home for 6 months



• Around 17 trees



• 7,000 gallons of water



• 2.5m³ of landfill



• 380 gallons of oil

**For every
1 ton of paper a
business recycles,
it can save:**

This represents a **64%** energy savings, a **58%** water savings, and **60 pounds** less air pollution!

Economic Benefits of Paper Recycling in the USA:

- ▶ During the 1990s alone, U.S. papermakers invested an estimated **\$10 billion** in new recycling capacity.
- ▶ Recycled paper, paperboard, and deinked market pulp mills employ nearly **140,000** people directly and influence another 615,000 jobs, for a total of nearly **755,000** jobs nationwide.
- ▶ The annual payroll of recycled paper, paperboard, and deinked market pulp mills is **\$6.9 billion**.
- ▶ Through taxes and other receipts, recycled paper, paperboard, and deinked market pulp mills contribute **\$9.6 billion** to federal, state, and local government revenues.
- ▶ Members of the Paper Recycling Coalition have approximately **500 plants** in almost 300 different cities, spread throughout 42 states in the USA.

Machines Needed for Paper Recycling:

1. Garbage Truck:

Cost: USD 25,600

- Length: 7.6-12 m
- Width: 2.4-3 m
- Height: 3-3.7 m



2. Paper Shredder Machine:

Cost: USD 15,000

- Height: 1.7 m
- Width: 1 m
- Depth: 1 m



3. Paper Screening Machine:

Cost: USD 22,000

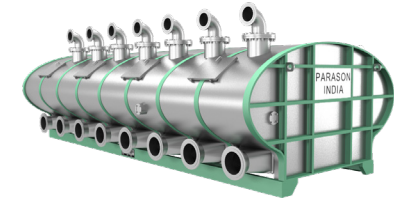
- Height: 4 m
- Width: 3 m
- Depth: 2.1 m



4. De-inking Machine:

Cost: USD 30,000

- Height: 4.6-6 m
- Width: 3.6-5 m
- Depth: 2.4-3 m



5. Thickener Machine:

Cost: USD 35,000

- Height: 3-4.6 m
- Width: 2.4-3.7 m
- Depth: 1.8-2.4 m



6. Dryer Machine:

Cost: USD 30,000

- Height: 3-6 m
- Width: 3-4.6 m
- Depth: 2.4-3 m



7. Pressing Machine:

Cost: USD 350,000

- Height: 3-4.6 m
- Width: 2.4-3.7 m
- Depth: 1.8-2.4 m



8. Paper Cutter Machine:

Cost: USD 150,000

- Height: 1.5-2.4 m
- Width: 1.2-1.8 m
- Depth: 1.2-1.8 m



Price of Virgin Paper and Recycled Paper



Price of Virgin Paper/1 ton:

USD 600-700



Price of Recycled Paper/1 ton:

USD 400

Why Recycled Paper is Cheaper than Virgin Paper?

- Cost of raw materials
- Cost of processing
- Cost of transportation
- Cost of marketing