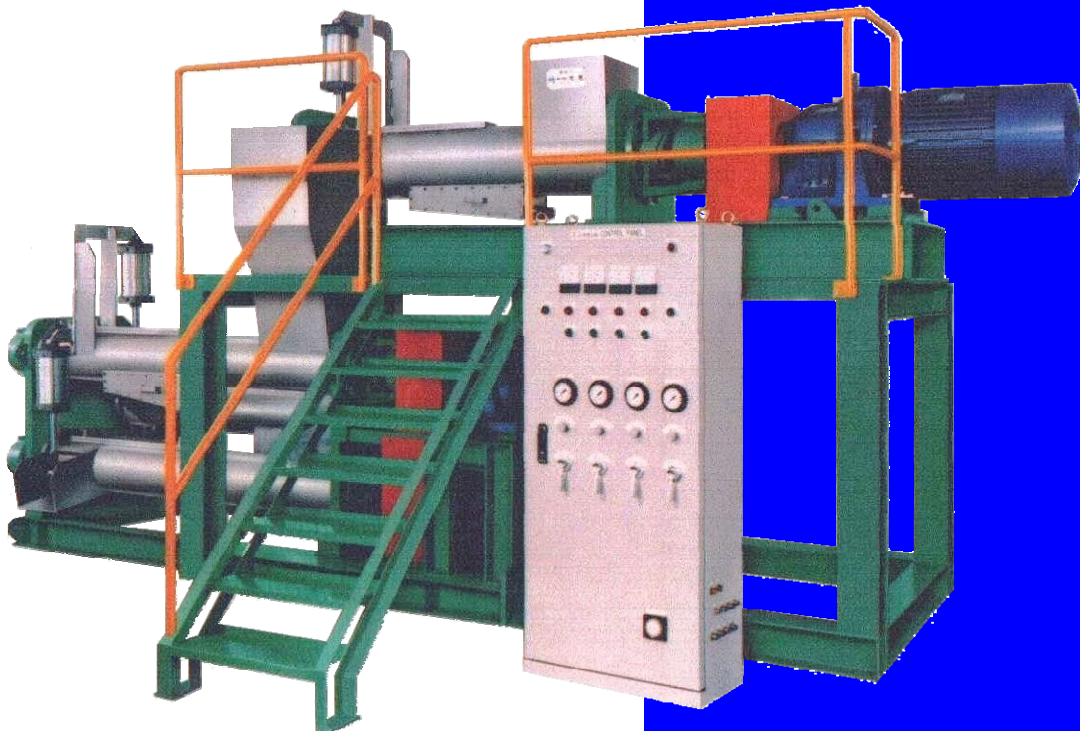


**TAIZEN**

**E.Gimmick**

**PATENTED**

**NEW PULPING  
MACHINERY  
FOR NON-WOOD  
RESOURCES**



**TAIZEN CO., LTD.**  
TAIZEN TECHNICAL R&D LAB INC.

# TAIZEN NON-WOOD PROCESS PLANT

## E. Gimmick

The plant has been incorporated environmentally friendly method. Then it handles yield and seasonal variation problems in pulping non-wood materials.

Utilizing non-wood materials of each locality such as farm residues without counting only on forest resources, we can contribute to diversity of papermaking materials and environmental problems.

### FEATURES

- E.gimmick Method=Chemical Kneading pulp  
『CKnP』 C : Chemical, Kn : Kneading, P : Pulp  
New pulping method where little percentage of alkali is utilized as pulping accelerator, and pulping is conducted by mechanical kneading process.
- A little of chemical volume.  
Chemical volume to be used is one third or below that of traditional chemical pulping method. Alkali is only the chemical to be used.
  - E. Gimmick Method : NaOH 1-5%
  - Kraft Method : NaOH + Na<sub>2</sub>S + etc 15-23%
- High pulp yield. E. Gimmick : 65-75% / Kraft : 45-50%
- Despite of cooking process, on heat sources are needed.  
Since process temperature of about 100 degree C is acquired by friction heat of materials themselves.
- Mechanical treatment which can maintains original fiber strength.  
Main process is to be pulped by kneading action of the Gimmick mechanical system, and so cutting down fibers, which regularly occurs in the traditional mechanic pulping methods, won't occur. As a result, materials can be pulped while maintaining fiber strength.
- No chemical collection facilities are needed.  
Discharged water is mostly neutral.  
Therefore a small factory which can't have costly chemical collection facilities can operate.
- No large-scale drainage processing facilities are needed.  
After going through coagulating sedimentation, and biological treatment, processed water can be discharged to river.
- Compact, space-saving and inexpensive plant.
- Plant is designed to facilitate operations and maintenance.
- Multipurpose machinery  
The equipment handles fluctuation of non-wood material yields by seasons. Various kinds of non-wood materials in different seasons can be pulped with the same equipment.
- In case of handling special relish papers, they are pulped without losing drape of material by adjusting material unique.

## Flowchart Of Pulping With E.Gimmick

### CRUSHER

#### <Crushing Process>

Making the material shape uniform for easy and effective post-process.



### MASHER

#### <Mashing / Washing Process>

Rough crushing the material and the removal of sand, mud, etc. in adding small volume of water.

The preparation of the material for effective processing in next Gimmick system.



### Gimmick

#### <High-concentration Pulping Process>

Pulping by mechanical kneading process and kneading-induced friction heat. A little alkali is added as supplement and accelerator of fibrillation.



### PREPARATION PROCESS

Refining, Beating, Screening etc...



### CKnP

CKnp is introduced as raw material for cardboard (medium) and other special papers.

CknP is also adequate as material for molding products.



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