



Decanter Centrifuge Separator
For Waste Water Treatment Plant

~TA SERIES~

-TOMOE Engineering Co., Ltd.-

Company Data

Establishment

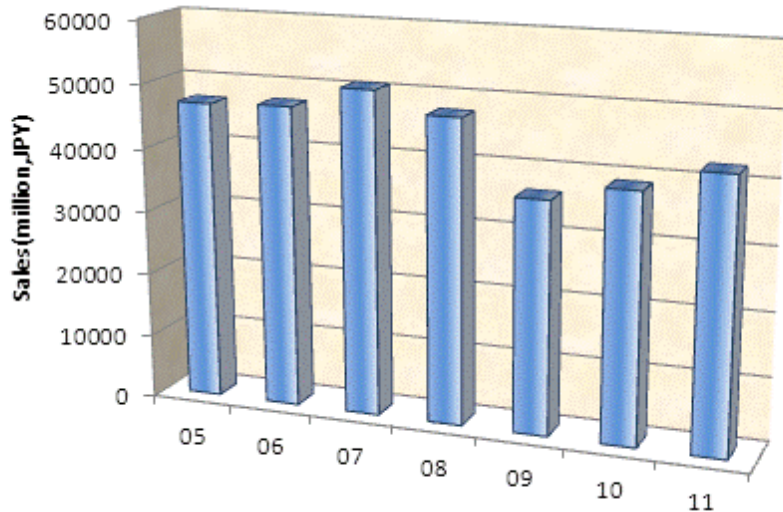
May 29 ,1941

Capital

¥1,061,210,000

Number of Employees

743



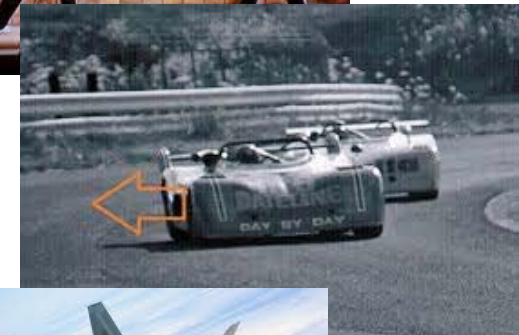
Head office In Tokyo

TOMOE PRODUCT LINEUP (Machinery & Equipment Division)

- CENTRIFUGES** : Separate feed materials into liquid and solids by use of centrifugal force.
- FILTER-TYPE DEWATERING MACHINE** : Separate and dewater feed materials into liquid and solid by use of perforated screens.
- SIFTERS** : Classify solid particles by size or separate feed materials into solids and liquid by use of screens.
- STRAINERS** : Perform solid-liquid separation at the preliminary treatment stage by use of wedge wires or screens.
- FILTER SCREENS**: Catch screenings in rainwater.
- GRINDERS** : Grind cloth pieces, rubber, wood chips, cans and plastics in water.
- CONVEYORS** : Shaftless spiral conveyors, convey sludge and other materials.
- PIPES** : Are highly resistive against abrasion.
- AUTOMATED MOISTURE METERS** : Measure moisture contents of cakes produced by the dewatering machine automatically and continuously.
- TURBIDITY METERS**: Measure liquid turbidity by use of laser beams.
- ODOR METERS** : Display odor concentrations by figuring them.
- DEODORIZERS** : Absorb malodors and decompose them into carbon dioxide, nitrogen and moisture.
- LIQUID CRYSTAL GRINDERS** : Grind and smooth fine roughness of liquid crystal panels with tapes.
- NYLON NUTS** : Are equipped with nylon devices which prevent them from loosening.
- WATER LEAKAGE PROTECTION SHEETS** : Prevent wastewater from spreading out of landfilled mud and garbage.

Comparison with centrifugal force

Item	Force
Spontaneous sedimentation	1 G
Manual swing of bucketful of water	2 - 3 G
Automobile racing of F1	4 G
Fighter pilot	9 G
Dewatering of washing machine	30 - 50 G
Decanter	3000 G



SEPARATION BY TOMO-e DECANTER

Feed



Before



After

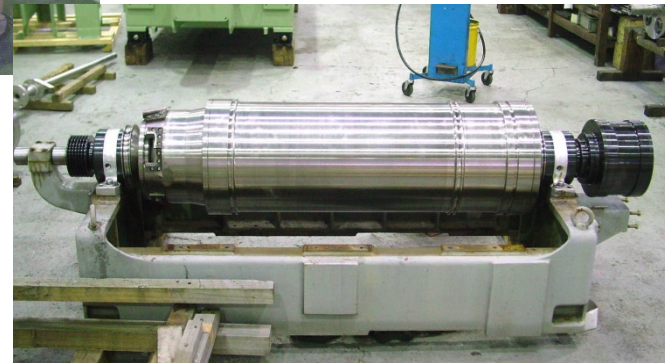
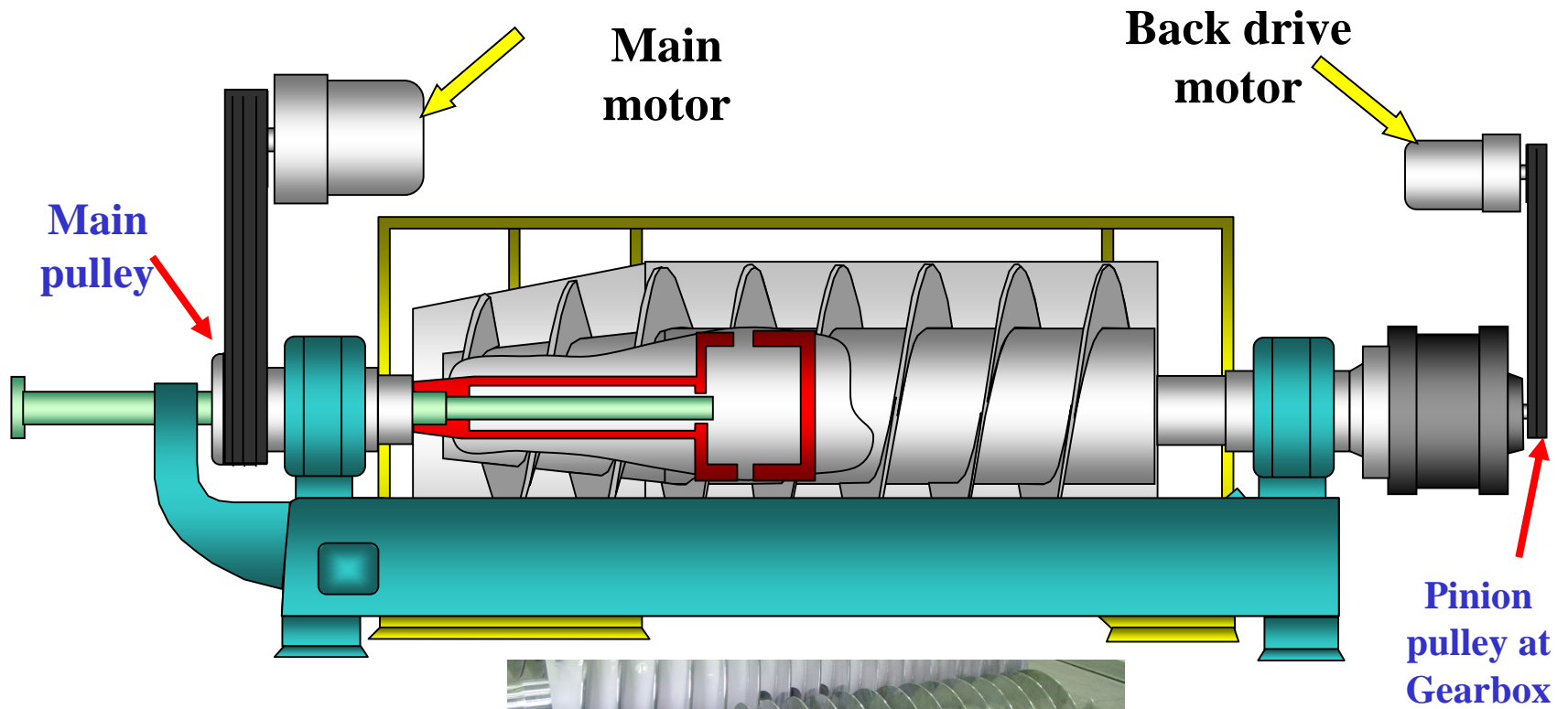
Solids



Effluent

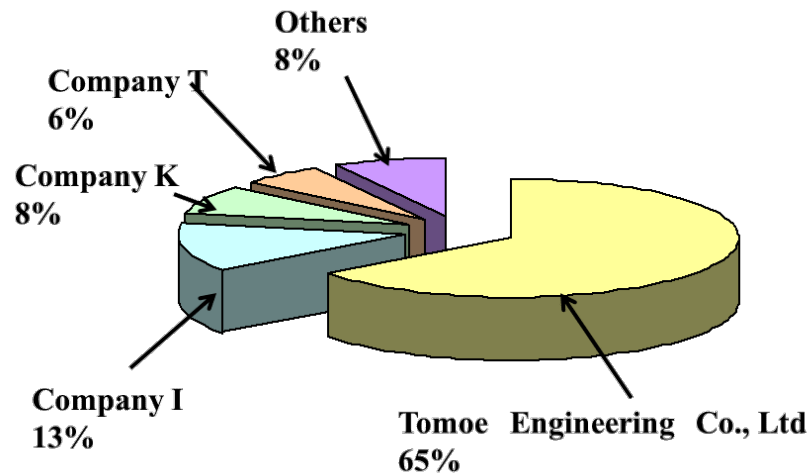
- ① The rotor rotates
- ② Material is fed
- ③ Solids settle
- ④ Effluent is discharged
- ⑤ Solids are conveyed
- ⑥ Solids are discharged

Structure of decanter



1. Market Share In Japan

- Decanter Centrifuge Domestic Market Share : **65%**



2. Number of Installation of Centrifuges

- Since 1941, Overall : **15,500Units**

Application for Tomoe's Decanter Centrifuges

decanter Environmental Protection

Petro Chemical

Food industry

Pharmaceutical

Inorganic Chemistry

Waste Water

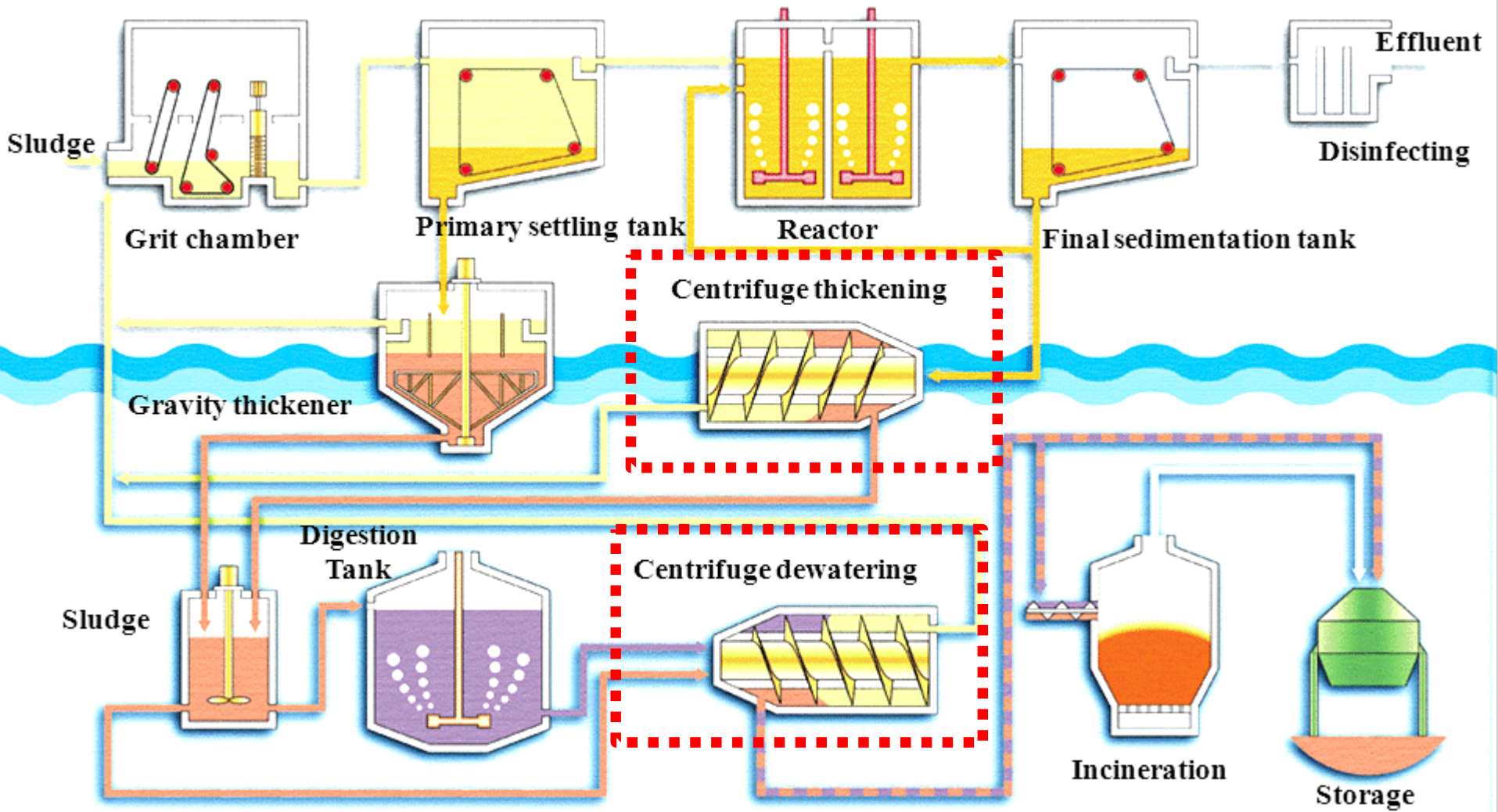
Others

Installation Records

- **India** : **55 units**
- Japan : 12,000units (not only WWTP)
- Korea : 750 units
- Taiwan : 500 units
- China : 600 units
- Indonesia : 250 units
- Thailand : 250 units
- USA : 550 units
- Others : 600 units

We have delivered decanters to large-scale WWTPs abroad such as Korea, Taiwan, China, Canada, U.S.A. and Malaysia.

WWTP



Example of treatment capacity of each sludge

	Mixed raw Sludge	Digested Sludge	OD process Excess sludge
G Force	2,100G	2,100G	2,100G
Polymer Dosage Rate	0.2~0.3%	0.3~0.4%	0.3~0.4%
Cake moisture Content	65~70%	70~75%	70~75%
SS recovery	95% or over	95% or over	95% or over

Low G force (low power consumption)

Low Polymer dosage rate

Low cake moisture content

High SS recovery

Standard Specification

Model	Capacity (m ³ /h)	Main Motor (kW)	Back Motor (kW)
TA 018	10	15	7.5
TA 300	15	18.5	7.5
TA 430	20	30	7.5
TA 450	35	37	11
TA 550	50	55	15
TA 650	60	75	18.5

This Specification might be changed



enshin.wmv

THANK YOU!!

Adopted in many large-scale WWTPs

(e.g.) More than 10 units of 200m³/h throughput decanter in one plant

High reliability for small-sized through large-sized decanter