



## GROEN® PROCESS EQUIPMENT



GROEN Process Equipment manufactures both batch and continuous processing solutions for mixing, heating, concentrating, cooking, holding, chilling, coating and transferring a broad range of confectionery, snack and prepared foods as well as the processing of cosmetic liquids, lotions and creams. GPE vessel configurations include steam, water and hot oil heated vessels which can

be designed for atmospheric, vacuum or pressure operation. In addition to our batch equipment, our thin film evaporators, scraped surface heat exchangers and horizontal screw coaters are sized by through-put for your continuous processing requirements. Call a GPE product applications specialist to discuss your processing solution!

**KETTLES • TANKS • AGITATORS • SANITARY BALL VALVES • SCRAPED SURFACE HEAT EXCHANGERS • SCREW BLENDERS**



## GROEN® PROCESS EQUIPMENT

P.O.Box 549 • Cary, IL 60013  
(847) 462-1865 • Fax (847) 462-1950

**"Batch & Continuous Process Solutions"**

[www.gpeequipment.com](http://www.gpeequipment.com)



# GROEN Agitator Kettles & Tanks

Groen Premier Line hemispheric bottom jacketed kettles are available with a wide choice of agitator configurations, designed to match your specific product mixing need. Groen agitator designs can handle everything from high shear mixing of high viscosity products, to the delicate lifting and folding action required with foods containing soft, whole ingredients; such as fruits and vegetables. Just describe your mixing needs and Groen will recommend an agitator configuration to meet your product and production requirements.

**TA**  
Designed for heavy duty processing, this strong, reliable agitator kettle features twin shaft agitation with a GROEN twin shaft gearbox. This deluxe agitator provides finger-like scraper blades which scrape side walls and swirl the processed material toward the secondary mixer for continuous, all-inclusive agitation. For ultimate sanitation, the TA features exclusive GROEN quick disconnect couplings which permit the entire agitator assembly to be taken apart in a few seconds. Available in 40 to 1,000 gallon capacities. USDA approved design.

**RA**  
Designed for processing light to medium-heavy materials, this agitator configuration features single anchor-type agitator frame with finger-type scrapers which carry processed material from kettle wall into two large "V" shaped baffle plates, providing "Figure 8" type blending action. Also features exclusive GROEN quick disconnect shaft couplings for easy removal and cleaning. Standard unit is available in 40 to 1,000 gallon capacities. USDA approved design.

**DA/1 & DA/2**  
Incorporates the GROEN double motion agitator design with counter rotating blades, which can be rotated singly or concurrently in the same or opposite directions. Agitator drive unit, mounted on channel shaped bridge support, is comprised of dual heavy duty hollow shaft gearhead motors in a piggyback configuration. Standard unit is available in 40 to 1,000 gallon capacities. USDA approved design.

**INA**  
Designed to handle medium to heavy viscous materials containing solid particles that tend to settle or float, the GROEN INA features a patented inclined single motion baffle/scraper mixer to provide a thorough, gentle lifting and folding action for uniform homogeneity of product. Agitator frame is readily removable; baffle is permanently mounted on drive support frame. Available in standard capacities of 60 to 300 gallons. USDA approved design.



TA\*



RA\*



DA/1 & DA/2\*



INA

## Elite Kettles

Model ETA-100 Shown



**Elite Kettle™ Line**  
Elite Kettle™ Line is the ideal hemispheric bottom agitator kettle for budget minded processors looking for "Groen Quality" batch processing capabilities. The Elite Line offers limited model variation, finish preparation and options that are available on our legendary Premier Line of steam jacketed kettles. The Elite Kettle™ Line is ideal for small to medium size food, confectionery, drug, cosmetic or chemical processors; lab or pilot plant applications; new venture start-ups or any processor on a tight budget. For more information, ask for our complete Elite Kettle™ Line Brochure.

## Tilting Models

DN/TA  
(Kettle & Agitator)



**\*Elite Kettles™ are available without agitation (EN) and with a choice of five agitator configurations: ETA, ERA, EDA/3, EINA/2 AND ENEM.**

**DN/TA**  
For use where viscous products must be poured from tilting kettle while the agitator is free of the kettle. Eliminates obstruction of the product flow. Note the powerful, fast, smooth-acting hydraulic cylinder which tilts out the agitator assembly. Permits complete freedom of the tilting kettle and easy cleaning of agitator components. **This option available in most GROEN agitator kettles.** USDA approved design.



Model INA/TA shown



INA/TA & INA/2/TA



INA/2\*



SA(F)



NEM\*

**INA/TA & INA/2/TA**

These models are designed to handle medium to heavy viscous materials containing solid particles that tend to settle or float. The patented GROEN twin shaft inclined agitation features dual heavy duty TA type mixing motion to provide a thorough, lifting and folding action for uniform homogeneity of product. Agitators are readily removable for cleaning. Available in standard capacities of 100, 200, 250, and 300 gallons. USDA approved design.

**INA/2**

The INA/2 kettle, with gentle inclined agitator mixing action, solves problems experienced with other style mixers. This patented agitator's lifting/folding motion thoroughly blends and mixes with positive action. Particles and ingredients are quickly dispersed through the batch, and held in suspension to insure homogeneity. USDA approved design.

**SA (F)**

For applications not requiring robust mixing, the SA (F) is designed for slow speed blending. The fluted frame type agitator provides ideal product movement for holding or cooling applications. Standard sizes from 40 to 1,000 gallons with larger sizes available on application. USDA approved design.

**NEM**

Specifically designed for products requiring high shear mixing in addition to sweep type blending, the NEM has a high speed propeller in the center bottom for fast wetting out and mixing combined with a counter-rotating fluted sweep-type scraper agitator providing thorough blending of finished product. Heavy duty piggyback drive offers long term maintenance free operation. USDA approved design.

***Vacuum/Pressure Models***

DN/TA (V/P)



DN (V/P)



**DN/TA (V/P)**

Incorporating the heavy duty TA type twin agitator, this unit is designed for processing under vacuum or pressure. Unit can be furnished with access manway, sight and light glass, and instrumentation, to meet the needs of your processing application. Also available with other GROEN agitation systems. **Almost any design can be provided with vacuum/pressure capabilities.**

**DN (V/P)**

For applications requiring controlled cooking or cooling under vacuum or pressure, the DN (V/P) is furnished with tilting jacketed kettle, tiltout head with sightglasses, gauges and relief valve and optional vacuum system.

OTHER QUALITY PRODUCTS FROM

## GROEN® PROCESS EQUIPMENT

Self-Contained Kettles...No Boiler Required

*Electric Heated*



*Gas Heated*



## Continuous Processing Equipment



**"CSB" SERIES CONTINUOUS  
SCREW BLENDER**



**"DR" SERIES SCRAPED SURFACE  
HEAT EXCHANGER / EVAPORATOR**



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