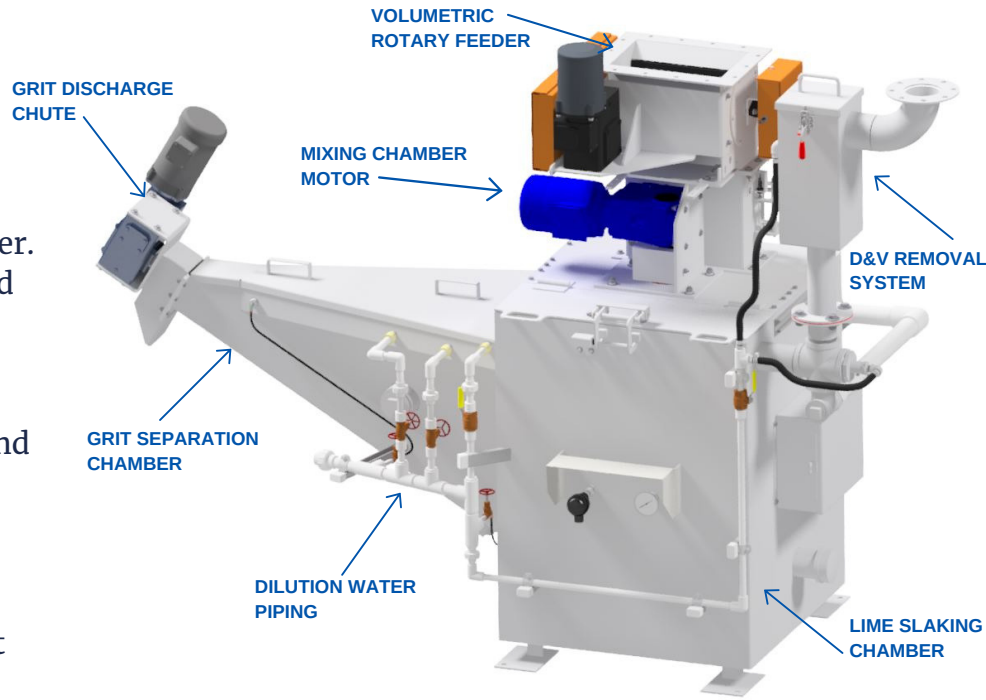


QUALITY HYDRATED LIME FROM
COMMERCIAL GRADE PEBBLE LIME



THE SLAKING PROCESS

Pebble lime is typically delivered to the slaker reaction chamber in continuous, volumetric quantities by the volumetric rotary feeder, although the slaker can be supplied with a non-flood weigh belt feeder. The required amount of water is controlled by the system's programmable logic controller (PLC) and is preheated prior to entering the reaction chamber. A custom agitator vigorously mixes the quicklime and slurry, which catalyzes the reaction to produce the desired, small hydrated lime particles. As lime slurry is continuously produced, the reacted slurry will overflow across a weir plate into the integrated grit separation chamber, where the inert grit falls out of suspension from the lime slurry.



The dense grit settles to the bottom of the chamber where an inclined screw, in continuous operation, captures the non-reactive material. The inert grit is then carried upward on the screw and disposed of at the grit discharge. The clean slurry is then transferred by gravity to a slurry feed tank or a slurry storage tank where it is gravity fed to process, direct pumped to process, or pumped on a re-circulation loop for precision dosing.

250 to 50,000 PPH Capacity						
Model No.	Capacity (lb/hr)	Maximum Water Consumption (GPM) @ 10% Final Concentration	Agitator HP	Grit Remover HP	Chemco Rotary Feeder Drive HP	Estimated Full Weight (lbs.)
DSS250	250	5.5	1.5	1/3	1/2	1,200
DSS500	500	11.0	1.5	1/3	1/2	2,300
DSS1000	1,000	22.0	1.5	1/3	1/2	3,200
DSS1500	1,500	33.0	1.5	1/3	1/2	4,700
DSS2000	2,000	44.0	3.0	1/3	1/2	5,500
DSS3000	3,000	56.0	3.0	1/3	1/2	7,100
DSS4000	4,000	88.0	5.0	1/3	1/2	9,100
DSS5000	5,000	110.0	5.0	1/3	1/2	10,900
DSS6000	6,000	132.0	5.0	1/3	1/2	12,100
DSS8000	8,000	176.0	7.5	1/2	1/2	14,200
DSS12000	12,000	220.0	10	-	1 1/2	23,000
DSS16000	16,000	290.0	12.5	-	1 1/2	32,000
DSS24000	24,000	430.0	20	-	2.0	54,500
DSS30000	30,000	540.0	20	-	2.0	77,000
DSS50000	50,000	900.0	20	-	4.0	112,700



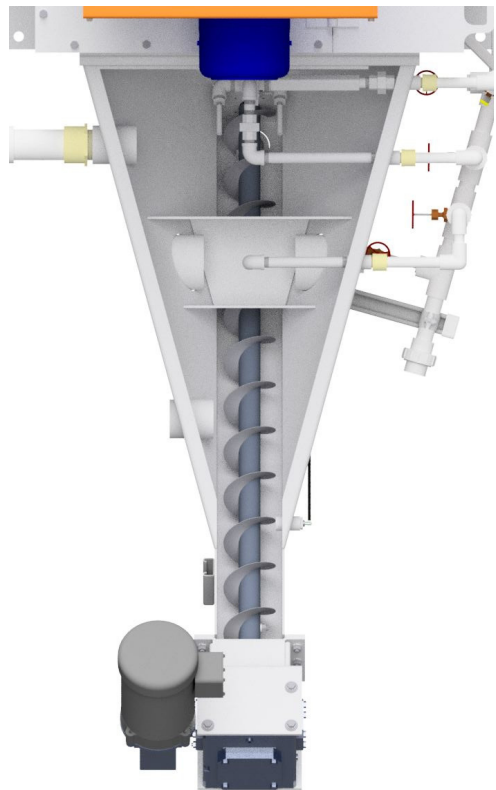
SPECIAL SLAKER FEATURES

Slaking Water - The slaking water flow rate at start-up (when slaker temperature is low) is 3.3 parts water to 1 part lime. Once the slaking temperature reaches a pre-set point, the water feed is controlled by temperature, which assures a constant slaking temperature and a consistent hydrated lime particle size.

Torque or Consistency Water - The viscosity of the slurry in the slaker varies based on slaking temperature and quality of lime. To maintain a thick but flowable slurry, water is added when the slurry viscosity begins to impede mixing and outflow from the slaker. This is done automatically by monitoring the power draw of the slaker mixer. The Torque Water Valve is also used for adding emergency cooling water, if temperature rises above a set point to the slaker.

Dilution Water - Dilution water is added to the slaker for steam removal, weir sprays, and grit separator dilution water.

INTEGRAL STANDARD GRIT



This standard Grit Separator is used on slaker models DSS250 to DSS8000.

INTEGRAL AUXILIARY WATER HEATERS

The bottom of the slaker incorporates integral auxiliary electric heaters. Any time the slaking temperature is below the desired set point, these heaters automatically heat the incoming slaking water, accelerating the cold start-up.

ROTARY FEEDERS

Chemco rotary feeders are positive displacement feeders specially designed to be used with Chemco slakers to prevent flooding of lime into the slaking chamber. The flexible rotor tips prevent rotor lock due to impurities in the quick-lime. The feeder can deliver chemical at operator specified rates with an accuracy of $\pm 2\%$ of the overall feed range.

ACCESS DOOR SAFETY LATCHES

Self locking access door latches will initiate an alarm and shut down the feeder and slaker agitator if any access door is opened during the operation.

DUAL WALL CONSTRUCTION

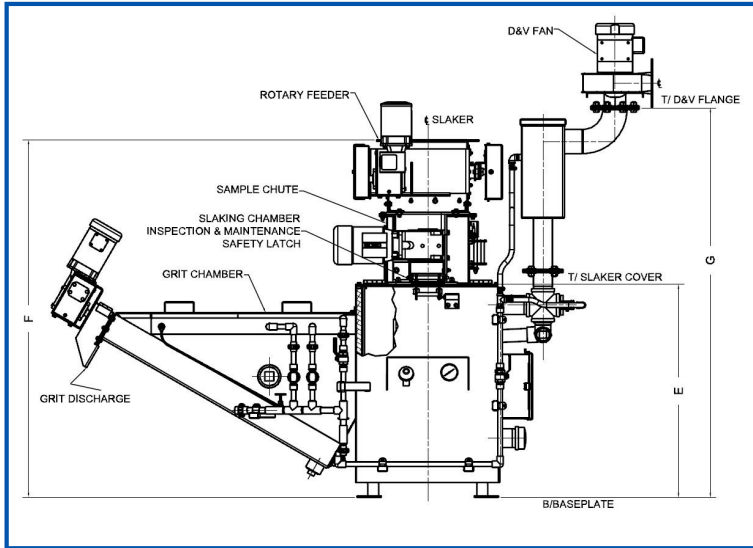
To conserve the heat of reaction, Chemco slakers have dual walls with insulation packed between the walls.

OTHER FEATURES

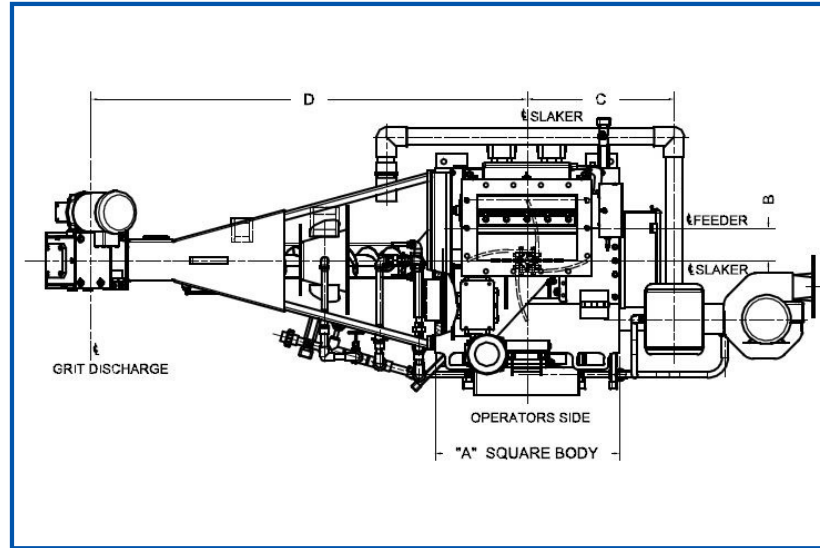
- Min. retention time 10 mins.
- Fully automated control panel with PLC control.
- Water supply rotameter panel with modulating valves and/or solenoid valves, shut-off valves.
- Minimum water pressure 40 PSIG.



SLAKER SIZES & DIMENSIONS



**SIDE ELEVATION OF SLAKER
DSS250-DSS8000**



**PLAN VIEW OF SLAKER
DSS250-DSS8000**

Slaker Model No.	SLAKER DIMENSIONS (Inches)					
	A	B	C	D	E	F
DSS250	26.75	4.50	18.75	64.00	39.75	66.50
DSS500	26.75	4.50	18.75	64.00	39.75	66.50
DSS1000	32.75	4.00	22.00	67.00	45.50	72.25
DSS1500	38.75	4.00	25.00	70.00	47.01	73.00
DSS2000	40.75	10.25	27.00	91.00	55.75	90.25
DSS3000	40.75	10.25	29.00	93.00	60.00	94.50
DSS4000	50.75	10.25	33.00	108.00	59.50	94.50
DSS5000	50.75	10.25	40.50	108.00	74.00	108.50
DSS6000	56.75	10.25	45.00	114.00	69.00	96.50
DSS8000	62.75	12.00	45.00	-	73.50	112.00

Slaker Model No.	SLAKER DIMENSIONS (Inches)		
	Width	Length	Overall Height
DSS12000	5'-11"	5'-11"	10'-11"
DSS16000	6'-5"	9'-3"	11'-4"
DSS24000	6'-5"	12'-8"	11'-5"
DSS30000	7'-3"	14'-5"	12'-1"
DSS50000	8'-0"	16'-0"	13'-6"

NOTE: Information in the above tables is subject to change without notice. Consult a Chemco representative regarding specific applications.

SLAKER CONTROL PANEL

The slaker control panel provides all controls and PLC programming required for proper operation of the lime slaking system and requires a 480-volt, 3-phase, 60 Hz power supply. The panel is equipped with a graphical operator interface screen that provides all selectors and displays required for normal operation. The graphical operator interface screen incorporates several layers of graphical interface where the operator can adjust set points, observe operating parameters, determine alarm conditions, etc.