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PAPER ON-

OVERALL PLANT STABILIZER

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PAPER ON-

OVERALL PLANT STABILIZER: "MIRACLE"!!!

One solution, which correct and solves so many problems.

- THE MOST ECONOMICAL UNIT WHICH STABILIZES WHOLE PLANT.
- INCREASES CRUSHING RATE.
- OPTIMIZES BAGASSE SAVING AND POWER EXPORT.
- OPTIMIZES MILLING AND BOILER THERMAL EFFICIENCY.

First time it is newly designed for new location in between leveler and fiberizer and observed tremendous advantages beyond imagination.

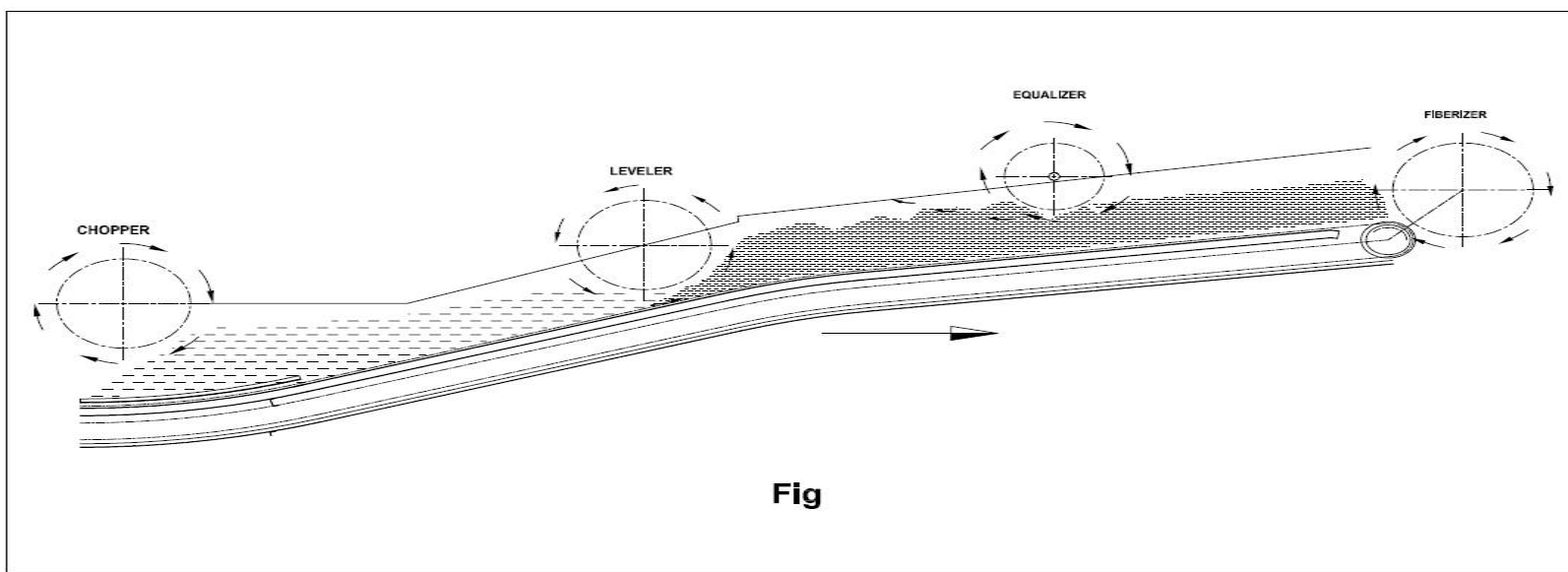
❖ WHY TO INSTALL OVERALL PLANT STABILIZER?

- ❑ Cane bundles dropped from all feeder tables are not equal by width, depth and density.
- ❑ When the same cane passes through chopper and leveler, the cut cane blankets going to fiberizer are always up and down. This results in frequent load variations i.e. up and down load on fiberizer. As fiberizer load is sensed in A.C.F.C. it reduces and Fluctuates cane carrier speed frequently, affecting crushing rate min by 50 ton/shift.
- ❑ Due to this always unequal quantity & quality of prepared cane goes to mill & boiler.
- ❑ AS mill setting and r.p.m of mill are constant, when the less qty. of prepared cane passes through same mill, it results in wet bagasse and also on mill extraction. These variations can be observed in every minute on mill load i.e. current of motor.
- ❑ This more and less quantity & simultaneously wet and dry bagasse going to boilers effects on load, pressure and temp of steam resulting to reduce generation and export minimum 5 to 6 time in one hour.

❖ **IN OTHER WORDS**

[DUE TO OVERALL PLANT STABILIZER]

- ▶ Uniform feeding of semi prepared cane to fiberizer results in uniform load on it. Also it results in minimum variation in Auto Cane Feed control system i.e. cane carrier speed, which increases crushing rate & also cane preparation & Fibre size is uniform & no uncut cane is passed.
- ▶ Uniform feeding of prepared cane to mill has resulted in uniform, equal & dry bagasse generation from mills going to boiler. This has improved boiler operation to optimized level & designed parameters of pressure & temperature are achieved. As fluctuation in steam pressure, temperature & load are very less, bagasse saving is increased.
- ▶ This also has made turbine to operate at designed efficiency parameters & hence export is increased.
- ▶ Juice flow & steam going to process has very minimum fluctuations.



Fig

❖ Working

- The overall plant stabilizer is first time newly located in between leveller & fiberizer & moderately designed as shown in fig.
- The direction of overall plant stabilizer is opposite to flow of incoming cane.
- The uneven height, density of cut cane coming from leveller is thrown back by knives & filled in gaps & voids which make uniform level passing from the overall plant stabilizer. Also it increases prepared cane density due to vertical pressure & force of knives.
- Thus uniform, equal height & densed prepared cane goes to fiberizer.
- Ultimately The overall plant stabilizer achieves the targeted goals of increasing crushing rate, bagasse saving & power export, due to uniform feeding to mill & good quality uniform dry bagasse to boilers.

❖ **ADVANTAGES, FEATURES, BENEFITS OF OVERALL PLANT STABILIZER**

- Reduces cane carrier load & speed fluctuations & increases density of bagasse going to fiberizer
- Gives constant & equal bagasse flow keeping equal load on fiberizer, mill & Boilers.
- Keeps cane preparation uniform due to uniform feeding of cane to fiberizer.
- Throws out foreign material coming through cane & levellers.
- Reduces mill Donnelly chute jamming problem.
- Reduces wear & tear of mill components due to equal, constant feeding and loads on all mills.
- Reduces wet bagasse (during gap & fluctuations) going to boilers which Reduces fluctuations in boiler load, pressure, temperature, efficiency & ultimately reduces fluctuations in export of power.
- Optimizes mill extraction, boiler & turbine efficiency resulting in increasing crushing rate minimum by 100 to 150 M.T, Bagasse saving by 15 to 25 M.T, Export of power by 3000 to 5000 units per day.
- Optimizes/Stabilizes capacity & efficiencies of whole mill, boiler, turbine, co-gen & boiling house i.e. whole sugar plant complex.



**THANK
YOU**