

TESTIMONIALS AND PHOTO PROOF OF THE SUCCESS OF GMX FLUID CONDITIONERS ON SUGAR MILL EVAPORATORS.

Year: 2005

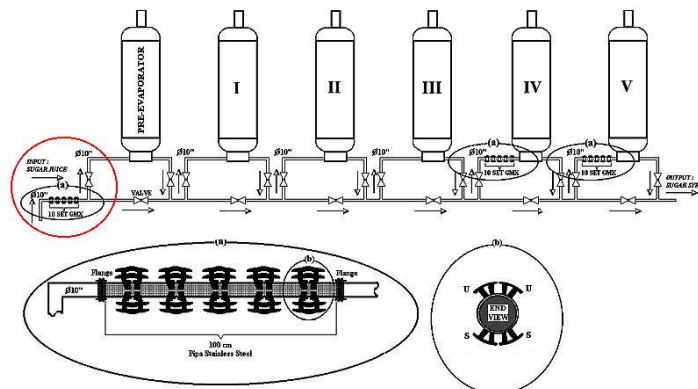
Location: Indonesia

Sugar Mill: P G Semboro



Introduction:

August 2005 PG SEMBORO invited our Agent in Indonesia PT IMASS in Surabaya to conduct a trial installation on three of their evaporators, installing 10 nos GMX 8000s on each juice inlet to evaporator Nos 4 & 5 and a 3rd on the main juice inlet prior to pre-evaporator as illustrated below.



PRE INSTALLATION - PHOTO PAGE



External view of the evaporators



Location for GMX 8000 installation on main juice inlet for all evaporators

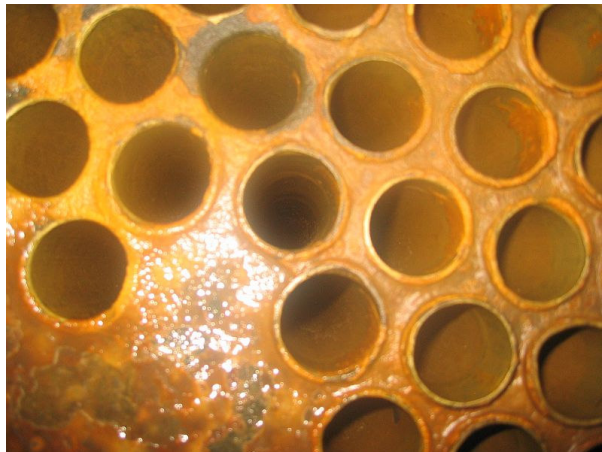


Photo 1



Photo 2

Photo 1 & 2 view of internal tubes prior to cleaning with caustic soda (NaOH 96% Min.)



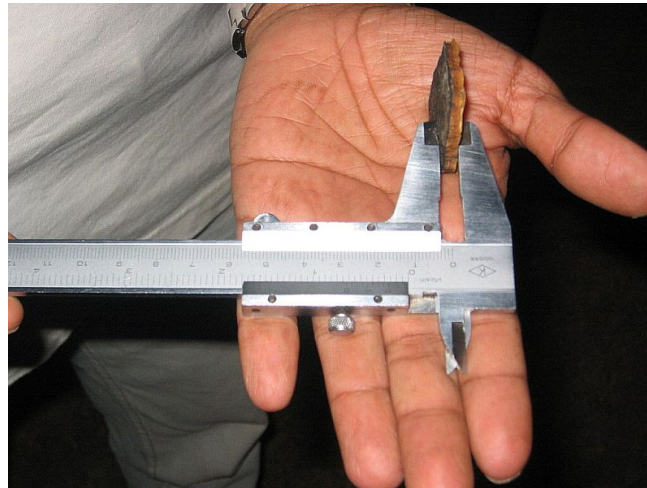
Scaled internal tubes that cannot be removed by hand



(Scale weighed 185-200g & thickness 0.355mm/ tube)



Inside view of the scaled main inlet to evaporator 4



(Sample of scale from juice input pipe thickness 4.3mm)



A new section of SS Pipe installed with flanges at the main inlet of Evaporator 4 for installation of 10 nos GMX 8000s

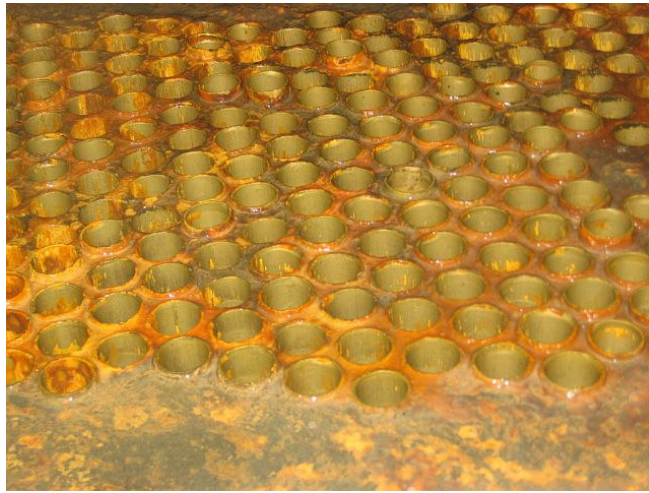
GMX INSTALLATION - PHOTO PAGE



GMX 8000s installed on sight to configured specifications

STAGES OF PHYSICAL CHANGES OF SCALE TURNING SLURRY FORM





OBSERVATION DATA'S
GMX 8000 MAGNETIC FLUID CONDITIONER ON EVAPORATOR
SEMBORO SUGAR MILL PLANTATION 2005

A. BEFORE INSTALLATION (AUGUST 04 – 26, 2005) / AVERAGE

Items	Scale Weight Per Tube (Gms)	Scrap Time (Hour)	Scale Appearance	Chemical Type (Kgs)	Cycle
Pre-E	135	3.5	Thick, soft	200 / C.Soda	17-18
E-1	35	3	Thin, soft	200 / C.Soda	8 – 9
E-2	17	4	Thin, soft	200 / C.Soda	8 – 9
E-3	108	4	Thick, hard	400 / C.Soda	4 – 5
E-4	110	4	Thick, hard	400 / C.Soda	4 – 5
E-5	98	4.5	Thick, hard	400 / C.Soda	4 – 5

B. AFTER INSTALLATION (SEPTEMBER 01 – 30, 2005) / AVERAGE

Items	Scale Weight Per Tube (Gms)	Scrap Time (Hour)	Scale Appearance	Chemical Type (Kgs)	Cycle
Pre-E	100	3	Thick, soft	150 / Ichem's	17-18
E-1	32	4.5	Thin, soft	200 / Ichem's	8 – 9
E-2	106	5	Thick, soft	200 / Ichem's	8 – 9
E-3	106	5.5	Thick, bit hard	400 / Ichem's	4 – 5
E-4	71	5.5	Thin, soft	300-400 / Ichem's	4 – 5
E-5	86	5	Bit thick, soft	350 / Ichem's	4 – 5

C. OBSERVATION DATA'S (OCTOBER 01 – 18, 2005) / AVERAGE

Items	Scale Weight Per Tube (Gms)	Scrap Time (Hour)	Scale Appearance	Chemical Type (Kgs)	Cycle
Pre-E	95	4	Thick, soft	150 / MG 303	20-21
E-1	*	4	Thin, soft	150 / MG 303	8 – 9
E-2	*	3.5	Thin, soft	200 / MG 303	8 – 9
E-3	*	4.5	Thick, bit hard	250 / MG 303	4 – 5
E-4	18	4	Thin, soft	300 / MG 303	4 – 5
E-5	15	4	Thin, powdery Scale, soft	300 / MG 303	4 – 5

Note : * = no scale weighing.

PT. PERKEBUNAN NUSANTARA XI (PERSERO)
PABRIK GULA “SEMBORO”

OFFICIAL REPORT
No. : DD-BA / 05.053

OFFICIAL ACCEPTANCE OF THE INSTALLATION

Installation of 3 Units Magnetic Flow Cleaner GMX 8000 on Evaporator

We the undersign parties:

1. **PT. Perkebunan Nusantara XI (Persero)**
Pabrik Gula “Semboro”

Represent by :

N a m e : Toekidjo, B.Sc

Occupation : General Manager

To be mentioned as FIRST PARTY

2. **PT. Rajawali Nusindo**
Jl. Undaan Kulon No.57 – 59, Surabaya

Represent by:

N a m e : M. Nazar Fagi

Occupation : Branch Manager

To be mentioned as SECOND PARTY

Today on Tuesday, dated November 29, 2005 to be performed the Surrender by the SECOND PARTY and the Acceptance by the FIRST PARTY of well and satisfy performance according to :

- A. Kontrak No.XX-KONTR/05.053 A, dated August 3, 2005
Amendment dated November 25, 2005

- B. Result of Performance :
Name of good : Magnetic Flow Cleaner GMX 8000
Quantity : 3 Units

Dated of Installation :

1. Evaporator No.4, August 12, 2005
2. Evaporator No.5, August 13, 2005
3. Pre-Evaporator , August 27, 2005

Evaluation Result : Satisfy (attached details).

Guarantee Performance :

- | | |
|-----------------------------------|-------------------|
| a. Scale on Tube Thinner and Soft | (Achieved) |
| b. Less Chemical Consumption | (Achieved) |
| c. Shorter/Faster Scrap Time | (Achieved) |

This Official Report to be made and used as necessary.

FIRST PARTY
PT. Perkebunan Nusantara XI (Persero)
Pabrik Gula “ Semboro”

Semboro, November 29, 2005
SECOND PARTY
PT. Rajawali Nusindo

T O E K I D J O
General Manager

M. Nazar Fagi
Branch Manager

No.	DESCRIPTION	BEFORE 1/6 - 26/8/2005	AFTER 28/8 - 21/9/2005
1.	Scale on Tube Thinner and Soft * Pre-Evaporator * Evaporator No.4 * Evaporator No.5	Scale Weight / Tube (Grams) 135 110 98	Scale Eeight / Tube (Grams) 125 76 79
2.	Chemical Consumption and Scrap Time * Pre-Evaporator * Evaporator No.4 * Evaporator No.5	200 Kgs / 3.5 Hours 400 Kgs / 4.0 Hours 400 Kgs / 4.5 Hours	175 Kgs / 3.0 Hours 365 Kgs / 3.5 Hours 357 Kgs / 4.0 Hours



PT. PERKEBUNAN NUSANTARA XI (PERSERO)
Pabrik Gula “SEMBORO”

Lampiran Berita Acara Nomor DD – BA / 05.053 tanggal 29 November 2005

No	URAIAN	Sebelum 1/6 – 26/8 2005	Sesudah 28/8 – 21/9 2005
1	Kerak dalam pipa menjadi tipis dan lunak : ⊖ Pre-Evaporator ⊖ Evaporator no 4 ⊖ Evaporator no 5	Berat kerak/pipa (gram) 135 110 98	Berat kerak/pipa (gram) 125 76 79
2	Pemakaian Bahan Kimia dan Waktu pembersihan ⊖ Pre-Evaporator ⊖ Evaporator no 4 ⊖ Evaporator no 5	200 kg / 3,5 jam 400 kg / 4,0 jam 400 kg / 4,5 jam	175 kg / 3,0 jam 365 kg / 3,5 jam 357 kg / 4,0 jam