

# Valmet SP 取代旋轉式濃度傳訊器成功實績 一

**DATE** : 20/10/1999 to 21/10/1999  
**COMPANY** : GENTING SANYEN  
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**DONE BY** : Mr. Arto Leinonen (Neles Automation Bangkok)  
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**VISIT PURPOSE** : Final Calibration the Smart-Pulp Consistency Transmitter with multi point samples or with **SP-Grade**

**RESULT** :

## Job Description

- Before we do new-calibration with multi point samples or with SP-GRADE at recipe No.1, we put it the Smart-Pulp consistency transmitter working at old stage calibration with two-sample point at recipe No.4.
- While in that time we got the few follow-up result from Mr.Lim (Instrument) those Smart-Pulp measurements has different from average Lab analysis it was +/- 0.34 %.
- And from above different value we observed that Smart-Pulp measurement below from Lab analysis and then we changed the zero off-set value (P2) at recipe No.4 from (- 0.645) to (- 0.305).

## Configuration at recipe No. 4

- Lower range : 2.20 %
- Upper range : 4.20 %
- Damping : 10 Second
- Unit : Gram & Celsius
- Mounting : Vertical Upward
- Blade type : RL AISI

## Calibration Parameter

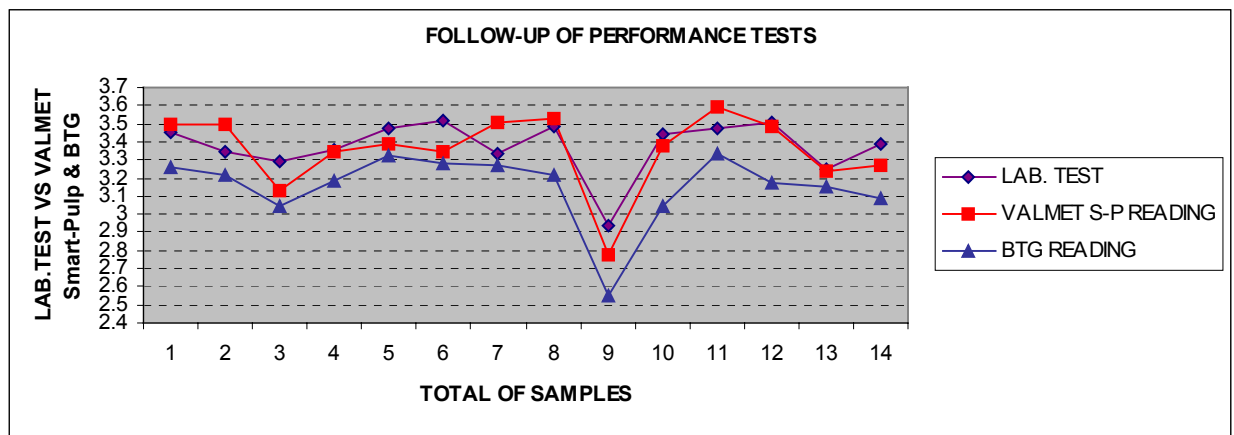
- Recipe No. : 4
  - Pulp type : RCFS
  - Ash : 0.0 %
  - P1 : 1.374
  - P2 : -0.305
- After to change zero off-set value we tried to collect few samples and from average lab analysis compared with Smart-Pulp measurement the different it was +/- 0.08 %.
  - The next we done new calibration with multi point samples or with SP-GRADE at recipe No.1, after we insert the consistency value & off-set value to SP-GRADE sub-menu as follows:

## SP-GRADE

1Cs = 1.98 %	1Off-set = 0.58 %	1LAB = 2.56 %
2Cs = 2.20 %	2Off-set = 0.59 %	2LAB = 2.79 %
3Cs = 2.38 %	3Off-set = 0.61 %	3LAB = 2.99 %
4Cs = 2.54 %	4Off-set = 0.64 %	4LAB = 3.18 %
5Cs = 2.65 %	5Off-set = 0.71 %	5LAB = 3.36 %
6Cs = 2.86 %	6Off-set = 0.80 %	6LAB = 3.66 %

- And then we tried to collect few samples again and from average lab analysis compared with Smart-Pulp measurement the different it was +/- 0.01 to +/- 0.1 %, for clear information please see below result.

No.	DATE	TIME	LAB.TEST	VALMET S-P READING	BTG READING	STOCK FLOW (LPM)	LAB - SP ERROR	LAB - BTG ERROR
1	20/10/99	16:12	3.45	3.5	3.26	10500	-0.05	0.19
2	20/10/99	16:18	3.35	3.5	3.22	10500	-0.15	0.13
3	20/10/99	16:55	3.29	3.13	3.04	11400	0.16	0.25
4	20/10/99	17:20	3.36	3.35	3.18	10500	0.01	0.18
5	20/10/99	17:40	3.47	3.39	3.32	11104	0.08	0.15
6	20/10/99	20:22	3.52	3.35	3.28	11100	0.17	0.24
7	20/10/99	21:00	3.33	3.51	3.27	10501	-0.18	0.06
8	20/10/99	23:00	3.49	3.53	3.22	9750	-0.04	0.27
9	21/10/99	01:23	2.94	2.78	2.55	9750	0.16	0.39
10	21/10/99	3:00:00	3.44	3.38	3.05	9750	0.06	0.39
11	21/10/99	5:00:00	3.47	3.59	3.33	10500	-0.12	0.14
12	21/10/99	07:00	3.51	3.49	3.17	9750	0.02	0.34
13	21/10/99	13:45	3.25	3.24	3.15	9000	0.01	0.1
14	21/10/99	14:05	3.39	3.27	3.09	9000	0.12	0.3



- As above follow-up test result it was clear that Smart-Pulp consistency transmitter performance is stable even the process it has running with flow variation and Smart-Pulp consistency transmitter is available for use as consistency measurement on process line.
- Also we tested flow rate change from 10500 l/min to 11104 l/min. Test points are # 2 and # 5.
  - # First change was made by manually very fast while the level of the chest was 50% and it looks that caused a cavitation in stock flow and consistency signals was drop down on short an time.
  - # Second change was made by automatic control and the level of the chest was 65%. Now, we do not see any big change in Cs measurements between lab test.

**Prepare by:**

(Agus Eko Herisusanto)

**Accepted by customer:**

Mr.B.K.Ong has signed it this report.

(Mr.B.K.Ong)

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