



**PT. ABADINUSA USAHASEMESTA**

# Certificate

This is to certify that

*Hanson* - DISSOLUTION CD 14

|                  |                                            |
|------------------|--------------------------------------------|
| Serial No.       | : 1222-1529                                |
| Software Version | : -                                        |
| Firmware Version | : -                                        |
| Customer Name    | : PT. MERSIFARMA TIRMAKU MERCUSANA         |
| Address          | : JL. RAYA BOGOR NO 52 CISALAK, KOTA DEPOK |

Has been tested and calibrated ( the validation / calibration report / print out is attached), in accordance with the manufactures specifications

Test date :

**25 AGUSTUS 2025**

Performed by, **PT. AbadiNusa**  
Engineer

  
**AbadiNusa**  
Aranto Adie

User

  
Juwita Pristani





**TELEDYNE**  
HANSON RESEARCH  
Everywhere you look™

## CALIBRATION REPORT TELEDYNE HANSON - DISSOLUTION TESTER

|        |            |           |
|--------|------------|-----------|
| Hanson | Model No.  | CD14      |
|        | Serial No. | 1222-1529 |

|          |                                           |
|----------|-------------------------------------------|
| Customer | PT. Mersifarma Tirmaku Mercusana          |
| Address  | Jl. Raya Bogor No.52, Cisalak, Kota Depok |

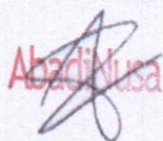
|                      | Target                       | Display | Detected | Status |
|----------------------|------------------------------|---------|----------|--------|
| Levelling            | Level                        | Bench   | 89,95    | Passed |
| Temperature          | $37 \pm 0.4^{\circ}\text{C}$ | #1      | 36,90    | Passed |
|                      |                              | #2      | 36,88    | Passed |
|                      |                              | #3      | 36,92    | Passed |
|                      |                              | #4      | 36,89    | Passed |
|                      |                              | #5      | 36,94    | Passed |
|                      |                              | #6      | 36,88    | Passed |
|                      |                              | #7      | 36,86    | Passed |
|                      |                              | #8      | 36,87    | Passed |
|                      |                              | #9      | 36,88    | Passed |
|                      |                              | #10     | 36,93    | Passed |
|                      |                              | #11     | 36,92    | Passed |
|                      |                              | #12     | 36,80    | Passed |
| RPM                  | 50 RPM $\pm$ 1RPM            | 50      | 49,80    | Passed |
|                      | 75 RPM $\pm$ 1RPM            | 75      | 75,40    | Passed |
|                      | 100 RPM $\pm$ 1RPM           | 100     | 99,90    | Passed |
|                      | 150 RPM $\pm$ 1RPM           | 150     | 150,00   | Passed |
| Spindle Shaft Wooble | < 1 mm                       | #1      | 0,00     | Passed |
|                      |                              | #2      | 0,03     | Passed |
|                      |                              | #3      | 0,05     | Passed |
|                      |                              | #4      | 0,00     | Passed |
|                      |                              | #5      | 0,03     | Passed |
|                      |                              | #6      | 0,20     | Passed |
|                      |                              | #7      | 0,10     | Passed |
|                      |                              | #8      | 0,20     | Passed |
|                      |                              | #9      | 0,15     | Passed |
|                      |                              | #10     | 0,05     | Passed |
|                      |                              | #11     | 0,02     | Passed |
|                      |                              | #12     | 0,10     | Passed |

|                                |                              |     |       |        |
|--------------------------------|------------------------------|-----|-------|--------|
| Spindle Shaft Paddle<br>Wooble | < 1 mm                       | #1  | 0,20  | Passed |
|                                |                              | #2  | 0,85  | Passed |
|                                |                              | #3  | 0,15  | Passed |
|                                |                              | #4  | 0,02  | Passed |
|                                |                              | #5  | 0,35  | Passed |
|                                |                              | #6  | 0,15  | Passed |
|                                |                              | #7  | 0,08  | Passed |
|                                |                              | #8  | 0,60  | Passed |
|                                |                              | #9  | 0,30  | Passed |
|                                |                              | #10 | 0,10  | Passed |
|                                |                              | #11 | 0,40  | Passed |
|                                |                              | #12 | 0,20  | Passed |
| Spindle Shaft Basket<br>Wooble | < 1 mm                       | #1  | 0,03  | Passed |
|                                |                              | #2  | 0,35  | Passed |
|                                |                              | #3  | 0,29  | Passed |
|                                |                              | #4  | 0,01  | Passed |
|                                |                              | #5  | 0,10  | Passed |
|                                |                              | #6  | 0,09  | Passed |
|                                |                              | #7  | 0,04  | Passed |
|                                |                              | #8  | 0,95  | Passed |
|                                |                              | #9  | 0,15  | Passed |
|                                |                              | #10 | 0,08  | Passed |
|                                |                              | #11 | 0,01  | Passed |
|                                |                              | #12 | 0,05  | Passed |
| Paddle Verticality             | $90 \pm 0.5^{\circ}\text{C}$ | #1  | 89,60 | Passed |
|                                |                              | #2  | 89,55 | Passed |
|                                |                              | #3  | 89,70 | Passed |
|                                |                              | #4  | 89,65 | Passed |
|                                |                              | #5  | 89,80 | Passed |
|                                |                              | #6  | 89,85 | Passed |
|                                |                              | #7  | 89,80 | Passed |
|                                |                              | #8  | 89,75 | Passed |
|                                |                              | #9  | 89,80 | Passed |
|                                |                              | #10 | 89,60 | Passed |
|                                |                              | #11 | 89,70 | Passed |
|                                |                              | #12 | 89,70 | Passed |
| Basket Verticality             | $90 \pm 0.5^{\circ}\text{C}$ | #1  | 89,65 | Passed |
|                                |                              | #2  | 89,75 | Passed |
|                                |                              | #3  | 89,80 | Passed |
|                                |                              | #4  | 89,65 | Passed |
|                                |                              | #5  | 89,90 | Passed |
|                                |                              | #6  | 89,75 | Passed |
|                                |                              | #7  | 89,85 | Passed |
|                                |                              | #8  | 89,80 | Passed |
|                                |                              | #9  | 89,70 | Passed |
|                                |                              | #10 | 89,65 | Passed |
|                                |                              | #11 | 89,60 | Passed |
|                                |                              | #12 | 89,65 | Passed |

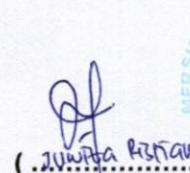
|                        |                |     |       |        |
|------------------------|----------------|-----|-------|--------|
| Vessel Centering Upper | < 2 mm         | #1  | 0,500 | Passed |
|                        |                | #2  | 0,500 | Passed |
|                        |                | #3  | 0,450 | Passed |
|                        |                | #4  | 0,500 | Passed |
|                        |                | #5  | 0,625 | Passed |
|                        |                | #6  | 0,500 | Passed |
|                        |                | #7  | 0,900 | Passed |
|                        |                | #8  | 0,375 | Passed |
|                        |                | #9  | 0,400 | Passed |
|                        |                | #10 | 0,650 | Passed |
|                        |                | #11 | 0,520 | Passed |
|                        |                | #12 | 0,425 | Passed |
| Vessel Centering Lower | < 2 mm         | #1  | 0,400 | Passed |
|                        |                | #2  | 0,500 | Passed |
|                        |                | #3  | 0,150 | Passed |
|                        |                | #4  | 0,375 | Passed |
|                        |                | #5  | 0,475 | Passed |
|                        |                | #6  | 0,250 | Passed |
|                        |                | #7  | 1,000 | Passed |
|                        |                | #8  | 0,300 | Passed |
|                        |                | #9  | 0,200 | Passed |
|                        |                | #10 | 0,650 | Passed |
|                        |                | #11 | 0,375 | Passed |
|                        |                | #12 | 0,400 | Passed |
| Paddle Height          | 25 mm $\pm$ 8% | #1  | 24,22 | Passed |
|                        |                | #2  | 24,34 | Passed |
|                        |                | #3  | 24,51 | Passed |
|                        |                | #4  | 23,45 | Passed |
|                        |                | #5  | 24,78 | Passed |
|                        |                | #6  | 24,76 | Passed |
|                        |                | #7  | 24,06 | Passed |
|                        |                | #8  | 25,26 | Passed |
|                        |                | #9  | 26,09 | Passed |
|                        |                | #10 | 24,72 | Passed |
|                        |                | #11 | 25,17 | Passed |
|                        |                | #12 | 26,05 | Passed |
| Basket Height          | 25 mm $\pm$ 8% | #1  | 24,02 | Passed |
|                        |                | #2  | 24,73 | Passed |
|                        |                | #3  | 23,60 | Passed |
|                        |                | #4  | 23,53 | Passed |
|                        |                | #5  | 25,15 | Passed |
|                        |                | #6  | 24,20 | Passed |
|                        |                | #7  | 24,93 | Passed |
|                        |                | #8  | 25,01 | Passed |
|                        |                | #9  | 25,43 | Passed |
|                        |                | #10 | 24,91 | Passed |
|                        |                | #11 | 24,56 | Passed |
|                        |                | #12 | 25,51 | Passed |

Tested by :  
PT. AbadiNusa UsahaSemesta

End User  
PT. Mersifarma Tirmaku Mercusana

  
AbadiNusa

( Ananto Adie )  
Date : 25 Agustus 2025

  
( Juwita Pratiwi )  
MERSIFARMA TM  
BP JAKARTA