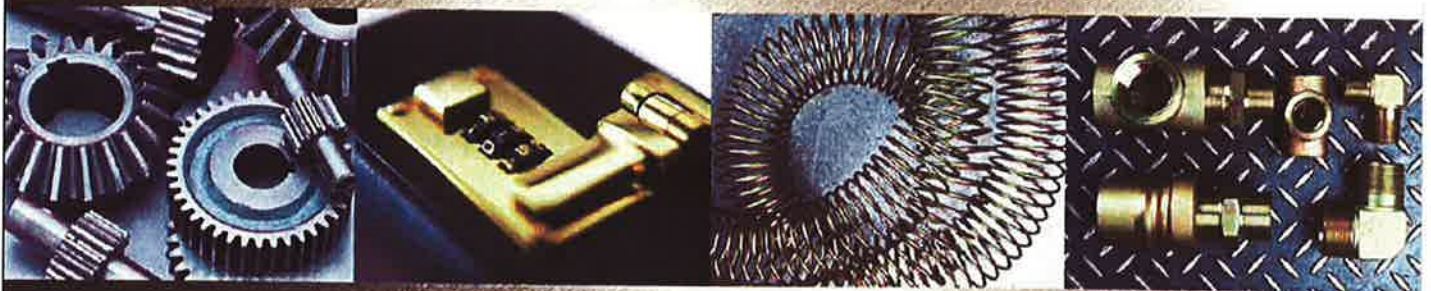
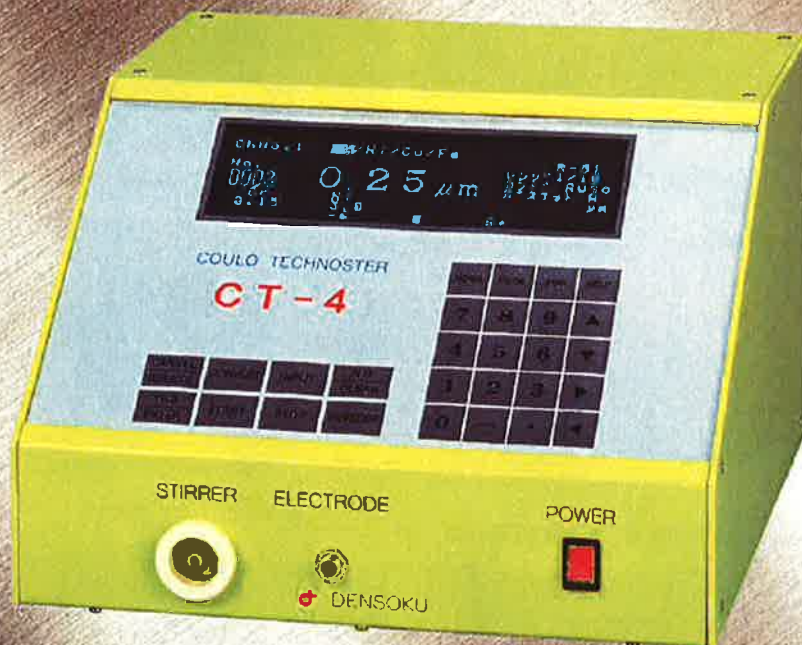


Coulometric Thickness Tester

電解式膜厚計

CT-4

COULO-TECHNOSTER



株式会社 電測

DENSOKU INSTRUMENTS CO.,LTD.



## Display screen



Measurement Screen



Statistics Selection Screen



Statistics Indication Screen

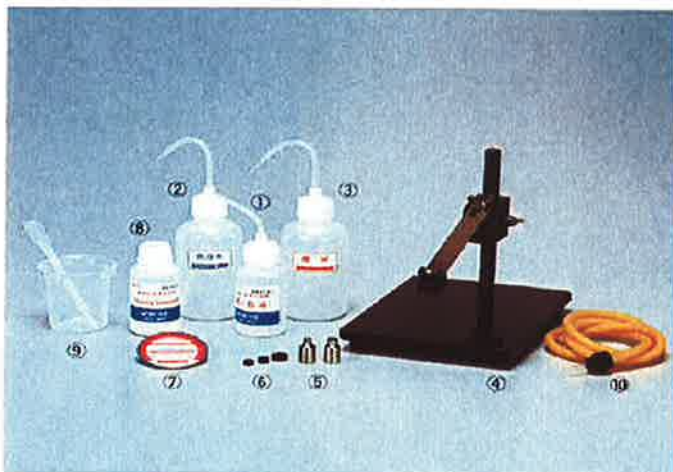


Statistics Indication Screen

1	A	B	C	D	E	F	G	H	I
2	REPLY								
3									
4									
5									
6	1	1.8					皮膜	2005/2/22	100618
7	2	2.4					皮膜	2005/2/22	100654
8	3	1.9					皮膜	2005/2/22	100219
9	4	1.2					皮膜	2005/2/22	100036
10	5	2					皮膜	2005/2/22	110030
11	6	2.1					皮膜	2005/2/22	110020
12	7	2.1					皮膜	2005/2/22	110048
13	8	2					皮膜	2005/2/22	110058
14	9	2					皮膜	2005/2/22	110116
15	10	2					皮膜	2005/2/22	110522
16	11	2					皮膜		
17	12						皮膜		
18	13						皮膜		
19	14						皮膜		
20	15						皮膜		
21	16						皮膜		
22	17						皮膜		
23	18						皮膜		
24	19						皮膜		
25	20						皮膜		
26	21						皮膜		

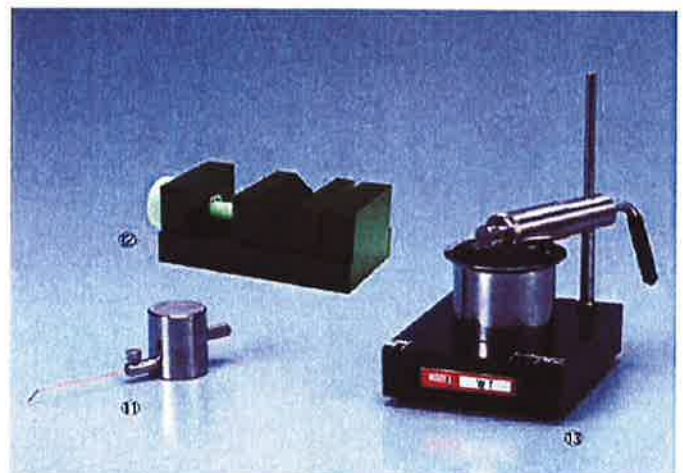
Transferring Excel data to PC

## Standard Accessories



Measurement Table: Easy to set up for round stick  
 (Available for continuous measurement of the same form)  
 Standard Accessories: 1)Test Solution(100ml) 1bottle  
 2)Cleansing bottle 1pc 3)Wasting liquid bottle 1pc  
 4)Measurement Stand 5)Cell A/B 6)Gasket A/B/C  
 7)Thickness Standard(Ni/Fe) 1pc 8)Cleaning liquid 1 bottle  
 9)Beaker,Spoite 10)Stirring Tube 1set Fuse  
 Operation Manual

## Option



W T=Wire Material and test sample under width 1.7mm :  
 necessary for using Wire Tester.  
 Option : 11)Anode & Cathod Jig 12)Plastic Vise  
 13)Wire Tester



## **Managing various platings by high performance.**

### Special Feature

- 1) Screen: bigger, more clearly  
Dialogue method is employed
- 2) Electric current accuracy has been improved.
- 3) Surface process method at m'ment point can be confirmed easily.
- 4) 5 layers measurement conditions can be set up for multi plating layers, at maximum.
- 5) Measurement channels can be saved 50 channels at maximum.
- 6) The tin plating measurement can be measured each pure tin layer or tin alloy layer.
- 7) Depending on combination of plating and base, available test solution can be indicated automatically.
- 8) Excel data can be transferred directly to PC.
- 9) As statistics process function is employed, data can be indicated on the screen.
- 10) 5 kinds of data transactions are adopted.
- 11) Printer is used for thermal paper
- 12) Weight calculation for unit per area can be done
- 13) By using electrode and recorder both, electric potential difference on W-Ni and Tri-Ni can be easily measured. (By option)

### **Purpose**

You can use accurate thickness measurement for single, multi, alloy material plating.

Especially it is efficient for : thin plating, thickness under 1um  
thick plating, thickness over 20um and multi-layers more than triple layers.

### **Principle**

When using suitable test solution for each plating, dissolving fixed area by fixed electric current, and plating thickness can be measured by required time for its disolution.

### **Standard**

Our thickness tester is authorized and adopted by JIS ; ASTM ; MIL ; ISO ; DIN and other industrial standards.

## Coat/Base Combination and Test Solution Application

Plating	Solution	Substrate
Cu	K-44	Steel, Aluminium, Nickel, Molybdenum, Stainless Steel, Non-Metallics
	K-52	Brass, Berylium-copper, Lead, Zinc-Die-Cast, Cadmium, Tin, Nickel-silver
Ni	K-54	Steel, Aluminium, Brass, Copper, Inconel, Molybdenum, Tungsten, Stainless Steel, Non-metallics, Chrom
	K-53	Kovar
Cr	K-47	Brass, Copper, Cobalt, Nickel-silver, Cadmium, Nickel, Stainless Steel
	K-51	Steel, Aluminium, Nickel, Stainless, Non-metallics, Inconel
Electro-less Nickel	K-57	Steel, Aluminium, Kovar, Non-Metallics Magnetic-Stainless
Au	K-56	Brass, copper, Nickel, Electroless Nickel, Nickel-silver, Cobalt
Ag	K-44	Steel, Aluminium, Non-metallics
	K-48	Brass, Copper, Tin, Non-metallics
	K-48G	Nickel, Nickel-silver
Sn	K-47	Steel, Nickel, Nickel-silver, Cadmium, Non-metallics, Permalloy
	K-51	Aluminium
	K-50	Copper, Brass
Zn	K-46	Steel, Aluminium, Brass, Copper, Nickel, Non-metallics, Tin, tungsten
Solder (Tin:Lead=60:40)	K-44	Steel, Aluminium, Brass, copper, Non-metallics
Cobalt	K-54	Steel, Brass, Copper, Non-metallics
Brass	K-44	Steel, Aluminium, Non-metallics
Cadmium	K-45	Steel, Aluminium, Brass, Copper, Nickel, Non-metallics Tungsten
Surface Treatment Solution	N-64	Removing deposit after nickel measurement
	C.S.	Cleaning Suspension-removing stain of test sample and polishing resins

## Type of Thickness Standards

Chromium/Brass	5~7 μm	Tin/Steel	10~14 μm
Chromium/Copper	5~7 μm	Tin/Copper	10~14 μm
Chromium/Steel	3~6 μm	Tin/Brass	10~14 μm
Chromium/Nickel	0.3~0.5 μm	Zinc/Steel	10~14 μm
Copper/Steel	10~14 μm	Zinc/Brass	10~14 μm
Copper/Zinc	5~7 μm	Zinc/Copper	10~14 μm
Nickel/Steel	10~14 μm	Gold/Nickel	0.5~0.7 μm
Nickel/Brass	10~14 μm	Gold/Brass	0.5~0.7 μm
Nickel/Copper	10~14 μm	Gold/Copper	0.5~0.7 μm
Silver/Steel	10~14 μm		
Silver/Brass	10~14 μm		
Silver/Copper	10~14 μm		

## Specification

Measuring Dissolution Speed	0.125u/second or 0.0125u/second, 0.00125/second
Accuracy of Main Unit	±1%
Measurement Unit	um, nm, mg(g/m <sup>2</sup> )
Dimension	H181x W287x D302mm
Weight	5.8kgs(for Main unit)
Power Supply	AC100V(115V,200V,230V), 50/60Hz
Measurement Area	A Gasket : 3.4 φ B Gasket : 2.4 φ C Gasket : 1.7 φ