

# LLOYDS Research Foundation. Inc

## LLOYDS Automatic Digital Pigment Muller



**Model 92 N**  
**ASTM D 378 / ISO 787 - 13**

### Instrument For Testing Pigments.

Lloyds digital Pigment Muller used worldwide for accurate and fast evaluation of color strength, color matching, dispersion, particle hardness and particle size, color comparison, tint and tone.

### Application

Pigments, Paint, inks, plastic Masterbatching, Coating, Cosmetic and Electronic chemical industries

### For Accurate and Fast Evaluation of

- Colour Strength
- Tint Tone and Tinting Strength
- Colour matching
- Particle size Evaluation
- Particle hardness / Texture
- Dispersibility
- Test results directly comparable with production mill working and pre-estimation of production mill grinding time and electric power consumption

### Advance Features

- State-of-the-art-design load Cartridge system for grinding load
- Accurate, reproducible and fast test results as energy consumed in every test is absolutely identical since load is applied directly on top mulling plate
- Easy load setting with graduated grinding load and indicator for 50, 100, 150 lbs or 5 to 80 kg.
- Non-contact type programmable micro-processor based revolution digital counter with infra-red sensors for long-life and fail safe working.

- Simple and easy to operate with very easy operating levers for loading and unloading.
- Unique special safety design protects glass plates from breaking even if the top plate falls on it and no other make Mullers in the world can stand this test for safety of glass Mulling plates
- No olden type weight transferring levers and no bulky hanging weight lifting for every operation
- Compact and fully stainless steel body with state-of-the-art-design
- Life time asset to your quality control laboratory with almost nil maintenance

## Worldwide Customers

<b>International Standards</b>	
ASTM D 378-60	Mass and Tint strength of color pigments
ASTM D 332-64	Tint Strength of White Pigments
DIN 53204	Testing of pigments: Determination of relative tinting strength of color pigments (Visual Matching Method)
DIN 53234	Testing of coloring materials: Determination of relative tinting strength in white lightened media (Photometric Method)
ISO 787-13:1973	Part 16: Comparison of relative tinting strength and color on reduction in linseed stand oil using the Automatic Muller
ISO 787-16:1986	Part 16: Determination of tinting strength and color on reduction of colored pigments (Visual Comparison Method)
ISO 787-24:1985	Part 24: Determination of relative tinting strength of colored pigments and relative scattering power of white pigments (Photo Metric Method)

## Technical Data

### Model 92-NM

- Best for testing regular production and R & D laboratory use
- Nil or low maintenance

### Accessories available for 92-NM

- Glass diskettes for different color mulling

### **Model 92-NM-W**

- Water-cooled glass plate head assembly for countering heat generated due to grinding action for temperature sensitive pigments testing for accurate test result
- Best for Research & Development laboratory and for heat sensitive critical pigments

### **Accessories available for 92-NM-W**

- Refrigerated water Circulating bath for maintaining the test temperature
- Glass diskettes for different color mulling
- Electrical
- 230 Volts 50Hz / 110v 60 Hz
- Dimension & Weight Details:
- Physical unit dimension - 15"W X 23"D X 23"H - Net Weight 78 Kgs
- Shipping Dimension - 20"W X 31"D X 28"H - Gross Weight 95 Kgs

Designed, Manufactured & Marketed by -  
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