New DF-10 series - Gear Rolling Tester [Double Flank]

【Windows 7(Seven), XP Compatible, Data Processing software, Model:NiTM-DF10/TMX-1 Ver.2.1.2 & 3.0.0.】

Under Code of inspection practice - ISO TR 10064–2:1996(E)

Fine pitch & Hi-precision plastic & any material gears From Module 0.1 up to module: 1.6 (DP254 to 16)

Gear diameter : φ1.5mm ～ φ150mm <Option :φ150 - 250mm>

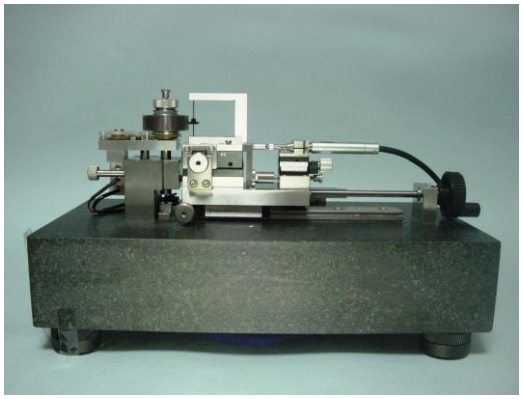
Features of New DF-10 Series : DF-10/SR DF-10/TR & DF-10/AX

For measuring Spur & Helical, and also Worm, Internal, Bevel, rack gears

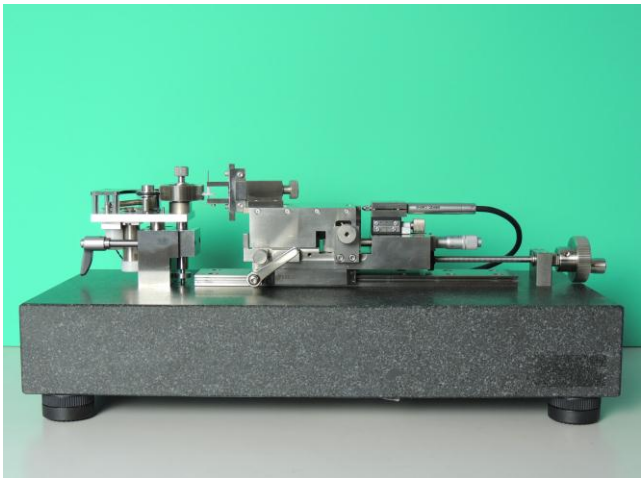
By additional mechanical units and software

'Test radius' measurement is sophisticated features and more comfortable operation also for larger gears

Master gear is rotated with variable speed controlled with DC motor



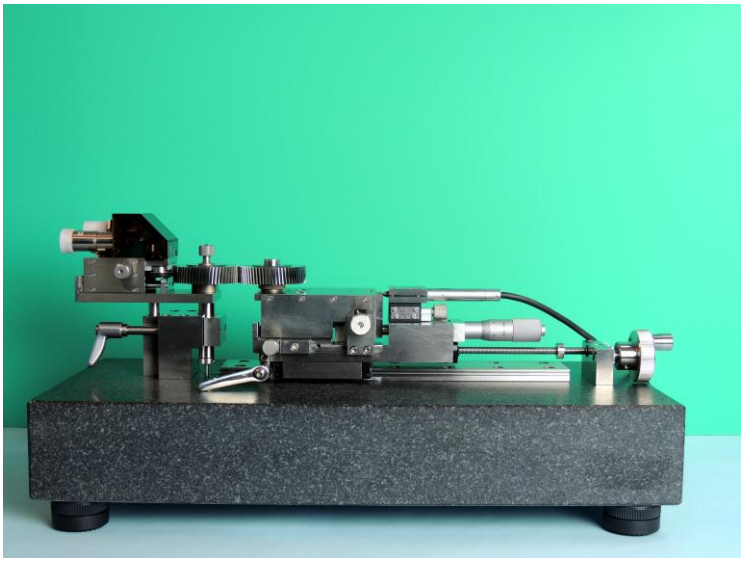
DF-10/ AX < Axial drive > Vertical position of Master gear : (±7 mm)



DF-10/ SR

< Single-Roller drive >

Vertical position of Master gear : (±7 mm)



DF-10/ TR

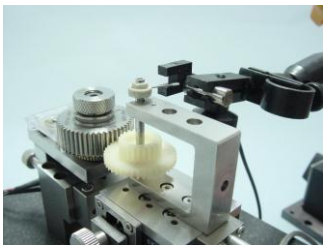
<Twin-Roller drive >

Vertical position of Master gear : (±13 mm)

A variety measurement functions with highest accuracy and

fine adjustable functions !!

Various standard toolings are available for extensive size and shape of
Spur& helical and worm, internal, bevel, rack gears



Auto measuring mode (Photo sensor)

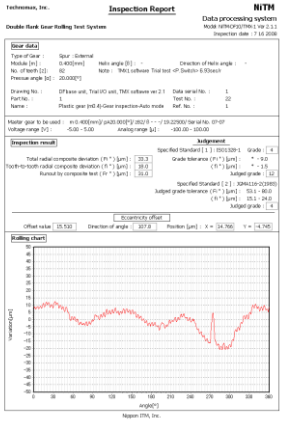
Ultimate inspection data processing system

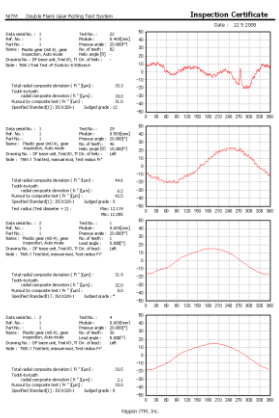
【Windows OS 7, XP Compatible, Data Processing software, Model:NiTM-DF10/TMX-1 Ver.2.1】

Simple operation & Speedy measurement with detailed results

Only data input of Module(DP) and number of teeth makes starting of measurement and quick results.

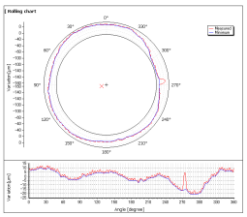
Measuring modes are selected as below



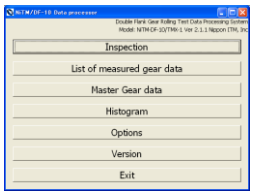


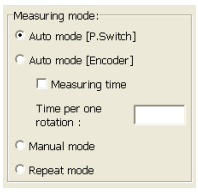
- ○ **Manual measuring mode**
- ○ **Repeat measuring mode**
- ○ **Auto measuring mode (Photo sensor)** - Option

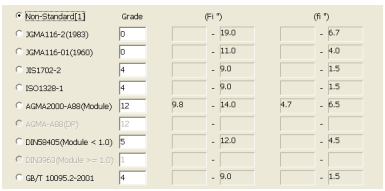
Application to 8 standards of composite deviations

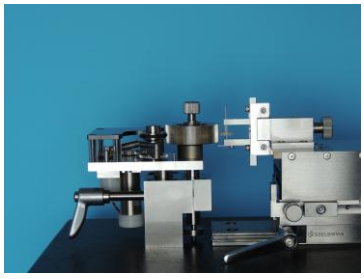


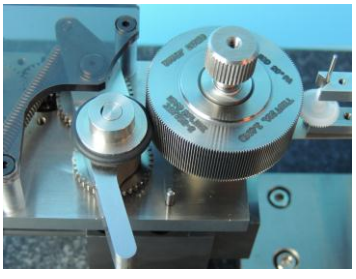
- ○ **ISO 1328 – 2(1997)**
- ○ **GB/T 10095.2-2001**
- ○ **AGMA 2000 – A88(Module)**
- ○ **AGMA 2000 – A88(DP)**
- ○ **DIN 58405 (m<1.0)**
- ○ **DIN 3963 (1.0≦m)**
- ○ **JIS B1702 – 2 (1998)**
- ○ **JGMA 116 – 02(1983)**
- ○ **JGMA 116 – 01(1960)**

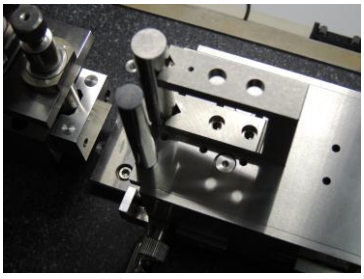


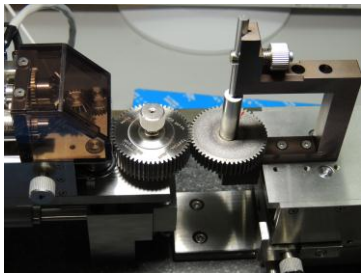


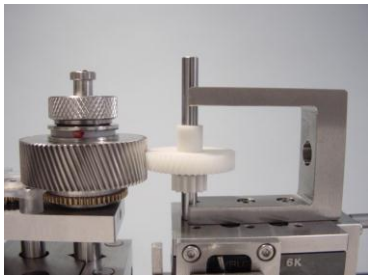












Gear rolling Tester [Double Flank]

DF-10/ SR **DF-10/ TR** **DF-10/ AX**

<Single-Roller Drive> **<Twin-Roller Drive>** **<Axial - Drive>**

	DF-10/ AX <Axial Drive>	DF-10/ SR <Single-Roller Drive>	DF-10/ TR <Twin-Roller Drive>
Measurements	Total radial composite deviation (Fi") Tooth-to-tooth radial composite deviation (fi") Runout by composite test (Fr") Test radius – Option Eccentricity offset value – Option		
Module (DP)	Module 0.1 ~m1.6 (DP254~16)		
Gear Diameter	Min. Φ1.5 ~ Max.Φ150mm (Option: Φ150 – 250mm)		
Gear weight	Max. 50N (5kg)		
Measuring force	0 ~ 40N (0 ~ 400g) option: up-to 9N		
Measuring speed	0 ~ 12 r.p.m（测量齿轮速度）		
Dimension(Base unit)	450(L) x 200(W) x 200(H)	400(L) X 200(W) X 200(H)	400(L) X 200(W) X 230(H)
Weight(Base unit)	24Kg	25Kg	26Kg
Material of Base plate	Granite	Granite	Granite
Master gear rotation	Axial drive	Single-roller drive	Twin-roller drive
Gear types	Spur and helical gear Special measuring units and tooling are equipped as option for worm, internal, bevel, rack gears, etc. as options		
Languages	English、Chinese, Japanese (One of them is standard and the other is option)		

※ Compact and rigid DC motor is used for Master gear rotation and stepless speed is controlled through DC electric supply unit

※ Helical gear is measured with Spur-master gear by using "Angle adjustable support tooling"

※ Optional measuring unit is equipped on each base unit for measuring Worm, internal, bevel, etc.

※ "Test radius" is measured easily at simple operation so accurately with 'micro digital scale and special data processing software

※ Eccentricity of gear is measured and off-set figure is also calculated with angle and X-Y position

※ English, Chinese, and Japanese version is selected and changed as option.

Measuring functions of New DF-10 series – Double flank gear rolling tester

【Windows OS 7(Seven) XP, Data Processing software, Model:NiTM-DF10/TMX-1 Ver.2.1】

Under Code of inspection practice - ISO TR 10064–2:1996(E)

Fine pitch & Hi-precision plastic & any material gears

From Module 0.1 up to module: 1.6 (DP254 to 16) –Option (up to m2.4)

Gear diameter : φ1.5mm ～ φ150mm <Option :φ150 - 250mm>

○ Application to 8 standards of ISO,GB (China), AGMA, DIN, JIS and JGMA

○ Measurements of deviation value and judgment of the accuracy grades in above standards for

Total radial composite deviation (Fi")
Tooth-to-tooth radial composite deviation (fi")
Runout by composite test (Fr")

"Test radius" is measured through data processing system with a digital scale (unit : μ m)
Theoretical (on Design) center distance can be set by a digital scale

○ **Spur gear & Helical gear**, **and also Worm**, **Internal**, **Bevel** & **Rack gears**
can be measured by additional measuring function units (Options)

○ Auto, Repeat, and Manual measurement modes can be selected.
Best suitable measuring speed can be adjustable with DC motor speed control device.

○ Graphical inspection data(Rolling chart) as Oscillogram and plural data with Rolling charts are displayed and printed out. Histogram as statistics of inspection results is also available.

T-MAX

TechnoMax,Inc.

e-mail : t-max@technomax-j.com

Tel : 81(Japan)-6-6762-4106 Fax : 81(Japan)-6-6762-4107

URL: http://www. technomax-j.com

#506, 6-29, Ueshio 2-chome, Chuo-ku, Osaka, 542-0064, Japan