

### **Labconcept and Labconcept Premium**

Universal Length Measuring Instrument

TRIMOS

Labconcept

The Fowler/Trimos LABCONCEPT Universal Length Measurement System combines the ultimate in accuracy, performance, range and simplicity in an easy to use, robust instrument.

It can calibrate all types of standards including plug gages, ring gages, thread plug gages, thread ring gages, snap gages, depth gages, dial indicators and more.

A large variety of accessory supports and probes allow unmatched versatility in checking both internal and external dimensions.

Measuring force is assured by means of an adjustable air system which can be regulated to different pressures. This system eliminates errors which could be caused by varying operator feel.

- Large measuring range 0-20" (0-500mm) and 0-39.4" (0-1000mm)
- Developed for ISO 9000/2000 standards
- Switchable Resolution; .0001", .00001", .000001", or .001mm, .0001", .00001mm
- Wide range of easily interchangeable accessories
- Adjustable measuring force 0—12N
- Displacement speed of measuring carriage = 60"/sec(1.5m/sec)
- Fine adjustment range = .394"/10mm
- Operational temperature limit 10°-40°C
- Operational humidity limit 30 80%

# QMSOFT software (page **126**) is the perfect calibration and management tool for use with the Fowler/Lab Concept!

#### Specifications

Model	54-197-777	54-197-877	54-197-300
Measuring range	0—20"(500mm)	0—40"(1000mm)	0-12"(300mm)
Accuracy	<0.3µm+(L(mm)/1500)µm	<0.3µm+(L(mm)/1500)µm	0.15µm+(L(mm)/2000)µm
Repeatability (±2S)	.000004"/.0001mm	.000004"/.0001mm	.000002"
Display	Computer added screen display: industrial computer with TFT touch		
	screen, DDE server and Trin	nos WIN DHI software for disp	lay of
	functions and measuring res	ults	
Resolution, switchable	.0001", .00001", .000001" or	.001mm, .0001mm, .00001m	m
Weight	176 lbs (80kg)	264 lbs (120kg)	
Order Number	Description		
54-197-777	•	LABCONCEPT Length Measu	ring System

- 54-197-877 0-39.4"(1000mm) LABCONCEPT Length Measuring System
- 54-197-300 0-12"(300mm) LABCONCEPT Premium

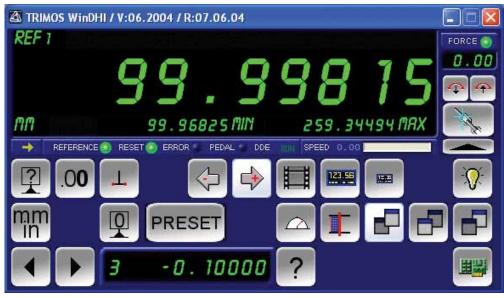
60"/1500mm and 80"/2000mm lengths available. Contact the Fowler Tech Department for pricing info.



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### **Trimos Labconcept Software and Specifications**

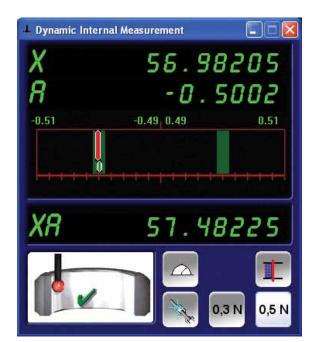


▲ Computer assisted display using Trimos Win DHI XP software

#### Trimos-Win DHI XP software for all required measuring functions and connection of a gage inspection and management system

#### Functions:

- · Industrial computer with TFT touch screen.
- DDE server (for Excel, Word, etc.)
- Multi-windows mode on screen.
- · Graphic help for measuring functions.
- Linear type analog display or with pointer, selectable scale resolution.
- Digital display of the selected measuring force in Newton (N).
- Direct display of all length measurement values and minimum/maximum hold values.
- · Selection of measuring unit mm/inch
- Selection of resolution: .0001", .00001", .000001" or .001mm, .0001mm, .0001mm.
- Measuring using two references.
- · Input of 9 preset values.
- Inversion of measuring direction (+/-)
- · Data transfer using a foot pedal.
- The screen is positioned on an adjustable support and fixed to the base of the instrument.



▲ Internal thread measuring display



### **Trimos Labconcept Applications**



▲ Checking of ring gages from dia. .473"(12mm) to 10"(250mm) using 54-197-011, 54-197-142 & 54-197-162



▲ Checking of plug gages and threaded plug gages from dia. 1.18" to 10"/30 to 250mm using 54-197-011, 54-197-142, 54-190-806 & 54-197-007



▲ Checking of threaded ring gages from pitch 0.7 to 6mm/48 to 4 threads per inch (max. internal dia. 7.08"/180mm) using 54-197-011, 54-197-142, 54-197-074 & 54-197-075



▲ Checking of dial indicators and dial comparators up to 2"/50mm range using 54-197-015





Checking of plug gages and threaded plug gages between centers up to max. dia. 1.18"/30mm, max. length 6"/150mm using 54-197-011, 54-197-806 & 54-197-007



### **Trimos Labconcept Applications**



▲ Checking of snap gages with range from .473 to 6"/12 to 150mm using 54-197-011, 54-197-014 & 54-197-162



▲ Trimos temperature compensation package 54-197-001

▲ Checking of lever (test) dial indicators using 54-197-115



▲ Checking of plugs 4" diameter (100mm), 11" length (280mm) part number 54-197-107



▲ Trimos Heavy Duty Table 54-197-019



▲ Checking and setting of internal micrometers using 54-196-107 & 54-196-021

Specifications subject to change without notice.

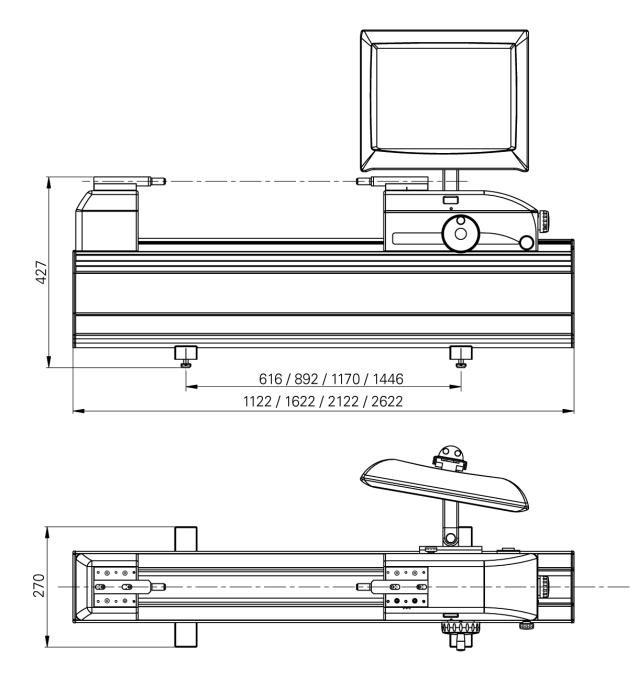


## **Trimos Labconcept Software and Specifications**

Order No.	Description		
54-197-777	0-20"(500mm) LABCONCEPT Length Measuring System		
54-197-877	0-39.4"(1000mm) LABCONCEPT Length Measuring System		
54-197-001	Premium temperature compensation package for Lab Concept		
54-197-003	Standard temperature compensation package for Lab Concept		
Measuring tables and supports			
54-197-011	Universal measuring table		
54-197-019	Heavy duty universal measuring table		
54-197-132	Holding device for indicator, fits on 54-197-011 for displacement		
54-520-792	2"(50mm) digital indicator for use with 54-197-132		
54-196-107	Set of vertically adjustable supports		
54-196-108	Vertically adjustable support (one only)		
54-196-022	Set of L-shaped supports, fits on 54-196-107		
54-196-021	Set of V-shaped supports, fits on 54-196-107		
Accessories for setting and checking of comparative measuring instruments and indicators			
54-190-805	Set of carbide Gage blocks attachments 1"(2" total)		
54-196-006	Set of carbide Gage blocks attachments min8"		
54-190-823	Dial indicator holder (for 3/8" and 8mm stems minimum)		
54-197-015	Dial indicator holder for max range of 2"/50mm (for 3/8" and 8mm stems)		
54-197-115	Adjustable holding device for lever dial indicator		
54-190-825	Set of V-shaped blocks for checking external micrometers over 2.36"/60mm fits on		
	No. 54-190-805		
54-197-114	Holding device for checking external micrometers from .48"-4"/12-100mm fits on		
	No. 54-197-011		
Accessories for external measurements			
54-190-806	Set of anvils with tungsten carbide tipped measuring surface diameter 0.256"/6.50mm		
54-197-806	Set of anvils with tungsten carbide tipped measuring surface diameter 0.315"/8mm		
54-190-865	Set of knife shaped anvils with tungsten carbide measuring surfaces		
54-190-807	Set of anvils with tungsten carbide balls for flat measuring surfaces		
54-197-007	Set of wires on holders for checking pitch diameters of external threads, pitch of 72-5		
	threads per inch/0.25-5mm - requires 54-190-806		
54-197-107	High accuracy plug measuring fixture for plugs up to 4" diameter, 11" length		
Accessories for internal measurements			
54-197-162	Set of L-shaped probes (minimum internal measurement: .475"/12mm) for height of 1.57"/40mm		
54-197-142	Set of clamping attachments for height of 2.36"/60mm		
54-197-143	Set of quick clamping attachments		
54-197-074	Measuring device for checking of internal diameters from .04"/1mm upwards and pitch		
	diameters of internal threads from M4/32UNC-NC upwards for		
54-197-075	Set of T-shaped measuring inserts with ruby balls for pitch from 56 threads per inch/		
	0.7mm upwards - requires No. 54-197-074		
54-197-913	T-shaped measuring insert with ruby balls, dia. 0.01319"/.335mm requires No. 54-197-		
	074		
54-197-076	Set of ruby ball measuring inserts for checking internal diameters from .04"/1mm		
	upwards - requires No. 54-197-074		

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