

# Fred V. Fowler Company, Inc.



## QM Soft Quality Management Software

Miscellaneous Gaging  
Software

The QMSOFT (Quality Management Software) system is a completely computer assisted tool that enables the monitoring of a company's complete range of measuring and inspection equipment. To do this, QMSOFT makes use of a number of special modules which allow not only the management, but also the controlled measurement of gages.

Gauge type	Identify number	Nominal size/Range	Gauge status	Next inspection on	First entry on	Last inspection on	Inspection by
Caliber	0013_LW	30.0 mm	not usable (not insped)	4/20/1997	6/20/1996	4/20/1996	1 Year(s)
Caliber (Inch scale)	00123	5.0 Inch	usable	5/1/1999	2/19/1998	5/1/1998	1 Year(s)
Height calber	0012	300 mm	usable	2/16/1990	2/19/1990	2/19/1990	1 Year(s)
Depth calber	0023	300	usable	2/3/1990	2/3/1990	2/3/1990	1 Year(s)
Dial gauge	12348	10.0 mm	usable	2/20/1998	2/20/1996	2/20/1997	1 Year(s)
Dial gauge	12472	10.0 mm	restricted usable	12/9/1997	12/9/1995	12/9/1996	1 Year(s)
Dial indicator	001	0.05	usable	11/30/1998	11/30/1998	11/30/1998	1 Year(s)
Graduated steel rule	0045_LC	1000 mm	usable	2/20/1990	6/10/1994	2/10/1990	1 Year(s)
GO /NO GO Plain Plug Gauge (Inch)	0012_87	1.00000 * / 1.00000	usable	6/23/1999	12/20/1996	12/21/1998	6 Month(s)
GO /NO GO Plug Gauge (Inch)	001_85_XXX	1.25160 * / 1.25315	usable	3/10/1997	2/11/1995	3/4/1995	6 Month(s)
NO GO plain Plug Gauge	0027_F	20/7	usable	10/25/1997	8/25/1994	10/25/1996	1 Year(s)
Master ring	0027_A	20.0000 mm	restricted usable	10/30/1997	10/27/1995	10/30/1996	1 Year(s)
Depth micrometer (mm)	0095	25.0 mm	usable	3/23/2000	5/1/1990	3/24/1999	1 Year(s)
External micrometer (Inch)	0012_88	13 inch	usable	3/24/2000	12/1/1998	3/25/1999	2 Year(s)
External micrometer (mm)	0895	25 mm	usable	5/1/1998	5/1/1998	5/1/1998	1 Year(s)
Int. micrometer with extensions (mm)	08967	200	usable	5/1/1998	5/1/1998	5/1/1998	1 Year(s)
GO/NOGO Plug Gauge I, Min Diam.	0027_Test	M 12x1.75-6/1/31	not available (missing)		3/15/1995	10/21/1996	1 Year(s)
GO /NO GO Screw Plug Gauge (Inch)	1013_278_XXX	R5W 3/8 med R5.3	usable	9/4/1999	1/23/1995	9/10/1996	1 Year(s)
GO /NO GO Screw Plug Gauge (mm)	0012_Test	M 12x1.75-6/1/31	restricted usable	3/16/1998	2/10/1994	3/16/1997	1 Year(s)
GO Screw Plug Gauge (Inch)	002_Test	5/16 - 24 UNF - 2B	usable	5/1/1999	6/1/1999	5/1/1999	1 Year(s)
solid GO Screw Ring (Inch)	001_Test_XXX	1/2 - 13 UNC - 2A	usable	3/4/1999	6/17/1994	3/4/1997	1 Year(s)
solid GO Screw Ring (mm)	001	M 12x1.75-6/6	usable	12/16/1997	4/14/1995	6/14/1996	10 Month(s)
solid GO Screw Ring (mm)	0024	9/16 - 12 UNC - 2A	usable	11/30/1997	10/25/1995	11/30/1996	1 Year(s)
solid NO GO Screw Ring (Inch)	002_Test	9/16 - 12 UNC - 2A	usable	2/23/1998	1/3/1996	2/23/1997	1 Year(s)
solid NO GO Screw Ring (Inch)	003_Test	M 12x1.75-6/6	not available (out of h)	5/4/1990	4/22/1996	5/4/1996	2 Year(s)
Special gauge type	0027_AB	Special gauge ABC	usable	2/26/1990	2/26/1990	2/26/1990	1 Year
Steel square	001_Test	200x130 mm	usable	2/26/1998	2/26/1998	2/26/1998	1 Year
Straight edge	001_Test	300 mm	usable	2/26/1998	2/26/1998	2/26/1998	1 Year

### Special Features:

- Gage management and gage inspection are integrated into the system with equal importance.
- Specially developed modules make possible the calibration of all common gages using any national, international or user defined standard. It is therefore not necessary to define an inspection procedure for each gage type.
- Extensive support for directly connected measuring devices including Trimos & Sylvac calibration instruments.
- All normal sizes and tolerances for gages are calculated by the program.
- Inspection certificates may be customized for individual presentation using the built in word processor.

### QM-MANAG - The gage management system

QM-MANAG provides all the functions to manage the complete inventory of measuring tools and gages. It also allows the creation of identification cards, search and reminder lists, as well as histories of all measuring tools and gages.

Order No.	Description
54-778-500	Complete Set of QM Soft software
54-778-175	QM-Gage Block software
54-778-100	QM-Management software
54-778-101	Additional licenses for QM-Management software (requires one No. 54-778-100)
54-778-150	QM-Dial Gage software
54-778-200	QM-Caliper software
54-778-250	QM-Micrometer software
54-778-300	QM-Pin Gage software
54-778-350	QM-Plain & Thread Gage software



## QM Soft Quality Management Software

The QMSOFT modules all include the facility to check gages against the major international standards. There is also the possibility to enter factory in-house standards for each gage within the database. The modules within QMSOFT are completely independent, therefore allowing users to tailor the system to their own requirements.

### QM-PLAIN - Plain gage inspection

QM-PLAIN supports the inspection of master rings and ring gages, plug gages and snap gages. Using the selected gage type and the normal value provided (e.g. 2H7), the program calculates the gage tolerances. Includes: DIN, ANSI/ASME, BS.

### QM-THREAD - Thread gage inspection

QM-THREAD calculates the expected size over wires or balls and the pitch diameter depending on the measurement method. The program calculates the nominal sizes and tolerances for varied international standards including: ANSI/ASME, DIN, DIN ISO, NF, BS.

### QM-DIAL - Dial gage inspection

QM-DIAL - supports the inspection of dial gages, dial indicators and dial test indicators. Standards supported include: DIN, BS, NF, ANSI/ASME, KS, JIS, AS.

### QM-CALIP - Inspection of calipers

QM-CALIP supports the inspection of calipers, height caliper and depth calipers. Standards supported include: DIN, BS, AS.

### QM-MICRO - Inspection of micrometers

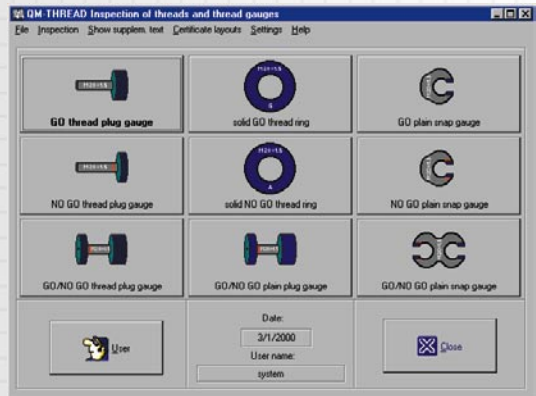
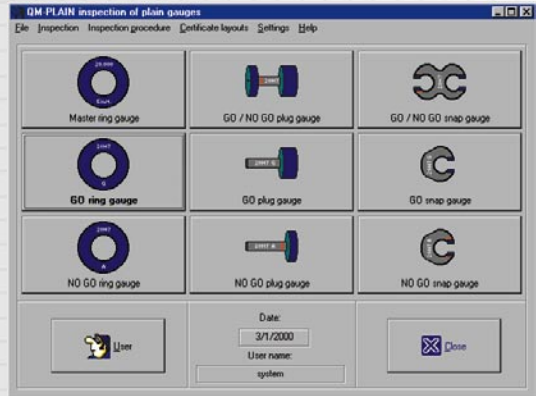
QM-MICRO supports the inspection of external micrometers, micrometer heads, depth micrometers, and thread micrometers. Standards supported include: DIN.

### QM-PIN - Inspection of pin gages

QM-PIN supports the inspections of single and sets pin gages. Standards supported include: DIN.

### QM-Gage Block - Inspection of gage blocks

QM-Gage Block supports the inspections of single and sets of gage blocks. Standards supported include: ASME B89.1.9-2002



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### Examples of other QMSOFT modules.

External micrometer Inch, 0.0012, 98, 112.00 Inch

Date/Time: 3/25/2000 11:07:14 AM  
 Done by: J. Johnson  
 Gauge status: **Under**  
 Calibration No.: ULR 3345-21  
 Inspection device: **2501100**  
 Last inspection on: 3/25/2000  
 Inspection period: 1 Year

Type specific basic data:  
 Meas. r/f Range: 12.00 Inch  
 Meas. r/f Range: 11.00 Inch  
 Graduat. Unit: 0.0010 Inch  
 Type of Measurement: External micrometer  
 Meas. r/f: 88.870  
 Tolerance Unit: 0.0010 Inch  
 Tolerance Step/r: 0.0010 Inch

Actual value trace:  
 Actual value trace: 0.33 hours  
 Actual value trace: 0.33 hours  
 Actual value trace: pieces

Inspection result:  
 In tolerance  
 Result: 1  
 Replace/Fill screw  
 Result: 2  
 Align zero  
 Result: 3

QMSOFT 4W Probes/Access

- Thread wires
- T-shaped ball probes
- Masters for external measurements
- Ball probes
- Single ball probes
- Masters for internal measurements

Calibration Certificate  
 Fred V. Fowler Company, Inc.  
 88 Roma Street  
 Newton, MA 02468

Periodic Inspection of GO ring gauge

Customer: Modern Machine Works  
 Item number: QRG 185-85  
 Standard: ANSISAME 889.1-8M  
 Nominal size: 3.0000"  
 Upper deviation Es: 0.0000 Inch 3.000000 Inch  
 Lower deviation Ei: 0.0000 Inch 3.000000 Inch  
 Tolerance class: XZ  
 Certificate No.: GNG 100.09-8CC

Gauge nominal sizes  
 Upper deviation GO side: 0.0000 Inch 3.000000 Inch  
 Lower deviation GO side: -0.0000 Inch 3.000000 Inch  
 Wear limit GO side: 0.0000 Inch 3.000000 Inch

Actual values GO side

Meas. plane No.	Measures No.	Measure [inch]	Out of tolerance [thou.inch]	Tolerance graphic
1	1	2.99997	--	
2	1	2.99994	--	
3	1	2.99991	--	
3	2	2.99989	--	

Validation: Gauge in tolerance  
 Notes: Item shows pitting on surface. Should replace gauge at next calibration cycle.  
 Inspection device: Measuring device no. F10007/1000 MPD no. 1034  
 Master ring no. 4711 (Calibration report no. 002) NIST 1  
 Inspection date: 3/1/2000  
 Next inspection date: 3/1/2001  
 Operator: (system)

Inspection GO ring gauge QRG 185.85

1. Meas. value	Tolerance field	2. Meas. value	Tolerance field
1. Meas. plane: 2.99997 Inch		2.99995 Inch	
2. Meas. plane: 2.99994 Inch		2.99997 Inch	
3. Meas. plane: 2.99991 Inch		2.99992 Inch	

Inspection of effective diameter

No. of plane	No. of meas.	Meas. value	Effective diameter	Tolerance field
1	1	2.52688 inch	2.41895 inch	
2	1	2.52708 inch	2.41905 inch	

Measuring method: Thread wires method  
 Test thread wire dia.: 0.0720 inch  
 Current wire diameter: 0.0720 inch  
 Measuring force: 1.50 N

Reading limit: 1.52688 inch  
 Gauge limit: 2.41895 inch

GO thread plug gauge

Identify number: AM-221.156 KKL  
 Thread designation: 1 1/2 G UN -3D  
 Automatic thread recognition:   
 Thread standard: Unified threads acc. to ANSI/ASME B1.1a-B1.2

Pitch: 0.12500 inch  
 Thread starts: 1  
 Max. effect. diameter: 2.41330 inch  
 Min. effect. diameter: 2.41880 inch  
 Wear limit of effect. diameter: 2.41860 inch

Test flank angle: 30.000°  
 2nd flank angle: 20.000°  
 Max. major diameter: 2.50070 inch  
 Min. major diameter: 2.50000 inch  
 Max. minor diameter: 2.34675 inch

QMSOFT: Inspection of Ball gauges and indicators

Inspection conditions: Certificate layout: Settings: Refresh: Stop

Intend. value	Reference (thou)	Deviation
0.1300 mm	0.1300 mm	0.0 μm
0.2000 mm	0.2000 mm	0.0 μm
0.3000 mm	0.3000 mm	0.0 μm
0.4700 mm	0.4700 mm	0.1 μm
0.5000 mm	0.5000 mm	0.2 μm
0.5000 mm	0.5002 mm	0.2 μm
0.9000 mm	0.9000 mm	0.0 μm

Gauge reading accuracy:  
 diameter range (thou): 1.2 μm 3.0 μm  
 wire of diameter (thou): 3.0 μm 2.0 μm  
 total deviation range (thou): 1.0 μm 4.0 μm  
 ball deviation range (thou): 1.5 μm 2.5 μm  
 repeatability (thou): 3.0 μm 1.5 μm