600 kN-2,000 kN (134,000 Lbf - 449,000 Lbf)

**DHFM Series For High Capacity Applications** 





600 kN-2,000 kN (134,000 Lbf - 449,000 Lbf)

United's DHFM series of test frames bring together several components into one complete package for today's high-capacity applications that require sturdy load frames along with PC control and advanced data acquisition capabilities.

United's DHFM series testers include a wide range of support hardware and accessories to immediately begin testing for tensile or compressive strength as well as bend and flex testing.

Model	Capacity (kN)	Capacity (Lbf.)
DHFM-600	600 kN	134,880 (Lbf.)
DHFM-1000	1,000 kN	224,800 (Lbf.)
DHFM-2000	2,000 kN	449,000 (Lbf.)

By incorporating proven hardware along with USB-connectivity for high speed data acquisition and control, the DHFM Series takes full advantage of our extensive library of Windows®-based test methods using United's Datum 5i software package. These test methods generate results that are fully compliant with internationally recognized standards such as ASTM, ISO, EN, JIS, DIN and BS.

# **Standard Accessories Included With Each Test Frame**

- Windows 10 PC
- Datum 5i Software
- Flat Inserts (Flat Samples)
- Vee Inserts (Round Samples)
- Bend/Flex Fixture
- Compression Plates
- Hydraulic Control Unit
- All Necessary Hydraulic Lines



600 kN-2,000 kN (67,000 Lbf - 449,000 Lbf)

### Standard Accessories included with each test frame.

Windows 10 PC, Datum 5i Software, Flat Inserts (Flat Samples), Vee Inserts (Round Samples), Bend/Flex Fixture, Compression Plates, Hydraulic Control Unit, All Necessary Hydraulic Lines

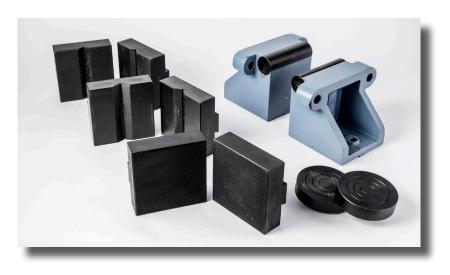








Component	DHFM 600 kN	DHFM 1,000 kN	DHFM 2,000 kN	
Flat Jaw Inserts	0-15 mm 15-30 mm	0-30 mm 10- 40 mm	10-40 mm 40-70 mm	
Round/V-Jaw Inserts	13-26 mm 26-40 mm	20-40 mm 40-60 mm	16-31 mm 31-46 mm 46-61 mm	
Compression Plates	120 mm	150 mm	220 mm	
Bend/Flex Span	30-500 mm	50-500 mm	50-720 mm	
Roller Diameter	30 mm	50 mm	50 mm	
Bending Length	120 mm	160 mm	160 mm	
Bending Depth	100 mm	180 mm	180 mm	



600 kN-2,000 kN (134,000 Lbf - 449,000 Lbf)



**DHFM 2,000 kN** 

DHFM 600/1000 kN

Hydraulic Control Unit

#### **Strain Measurement**

United offers a wide range of strain measurement options for our Universal Test Machines. They include;

- Clip-On Extensometers
- Laser Extensometers
- Optical Non-Contacting Extensometers that use high-resolution camera optics
- Video Extensometers that use Digital Image Correlation (DIC) measurement analysis.





600 kN-2,000 kN (134,000 Lbf - 449,000 Lbf)



#### **DHFM Series Unique Features**

#### **Remote Control Operation**

Upper and lower jaws are opened and closed using the remote control supplied with every system. The Emergency Stop switch is also located on the remote control as well as the system start button and power controls.

#### **Dual Test Areas**

Tension testing is performed in the area above the lower cross-head and compression and bend/flex testing is performed in the area below the lower cross-head.

#### **Additional Specifications**

- Meets or exceeds ASTM E4, ISO7500-1, EN 10002-2, BS1610, DIN 51221
- Strain measurement meets or exceeds ASTM E83, ISO 9513, BS 3846, EN 10002-4
- Conforms to virtually all international Health & Safety directives
- Tensile test at room temperature per DIN EN 10002-1, ISO 6892, ASTM A370, ASTM F8
- Tensile test on reinforced steel per ASTM A615/A615M, ISO 10606, EN 10080
- Compression test per DIN 1048, ISO 6784, ASTM C39, ISO 4506
- Tensile test for bolts per ASTM F606-07
- Tensile test stranded wire per ASTM A416, BS 5896, ASTM A1061, ISO 15630
- Verification of testing frame and specimen alignment per ASTM E1012









600 kN-2,000 kN (134,000 Lbf - 449,000 Lbf)

MODEL	DHFM-600	DHFM-1000	DHFM-2000
Load capacity (kN)	600	1000	2000
Load Capacity (Lbf)	134,000	224,800	449,600
Load accuracy (%)	± 1 %	± 1 %	± 1 %
Max Test speed (mm/min)	50	50	50
Min Test Speed (mm/min)	0.5	0.5	0.5
Deformation accuracy (%)	± 1	± 1	± 1
Max cross-head speed (mm/min)	200	200	200
Piston stroke (mm)	250	250	250
Horizontal columns distance (mm)	480	570	840
Max tension space (mm)	750	750	1000
Dia. of the columns	70	80	110
Max compression space (mm)	620	620	850
Load frame dimensions (mm)			
Height (mm)	2550	2780	3500
Width (mm)	770	900	1340
Depth (mm)	600	650	1000
Frame weight (kg)	2700	2850	9000
Frame Weight (Lbs.)	5,952	6,283	19,841
Power of the load frame motor	0.55 kW	0.55 kW	3.7 kW
Hydraulic Control Unit			
Length (mm)	1220	1220	1220
Depth (mm)	610	610	610
Height (mm)	1016	1016	1016
Weight (kg/Lbs)	265/580	265/580	265/580

