

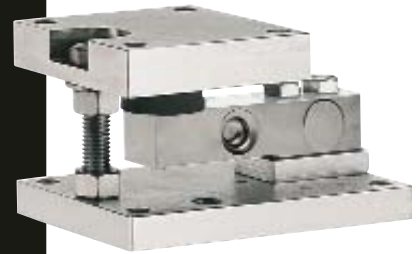
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**FLEXMOUNT®**

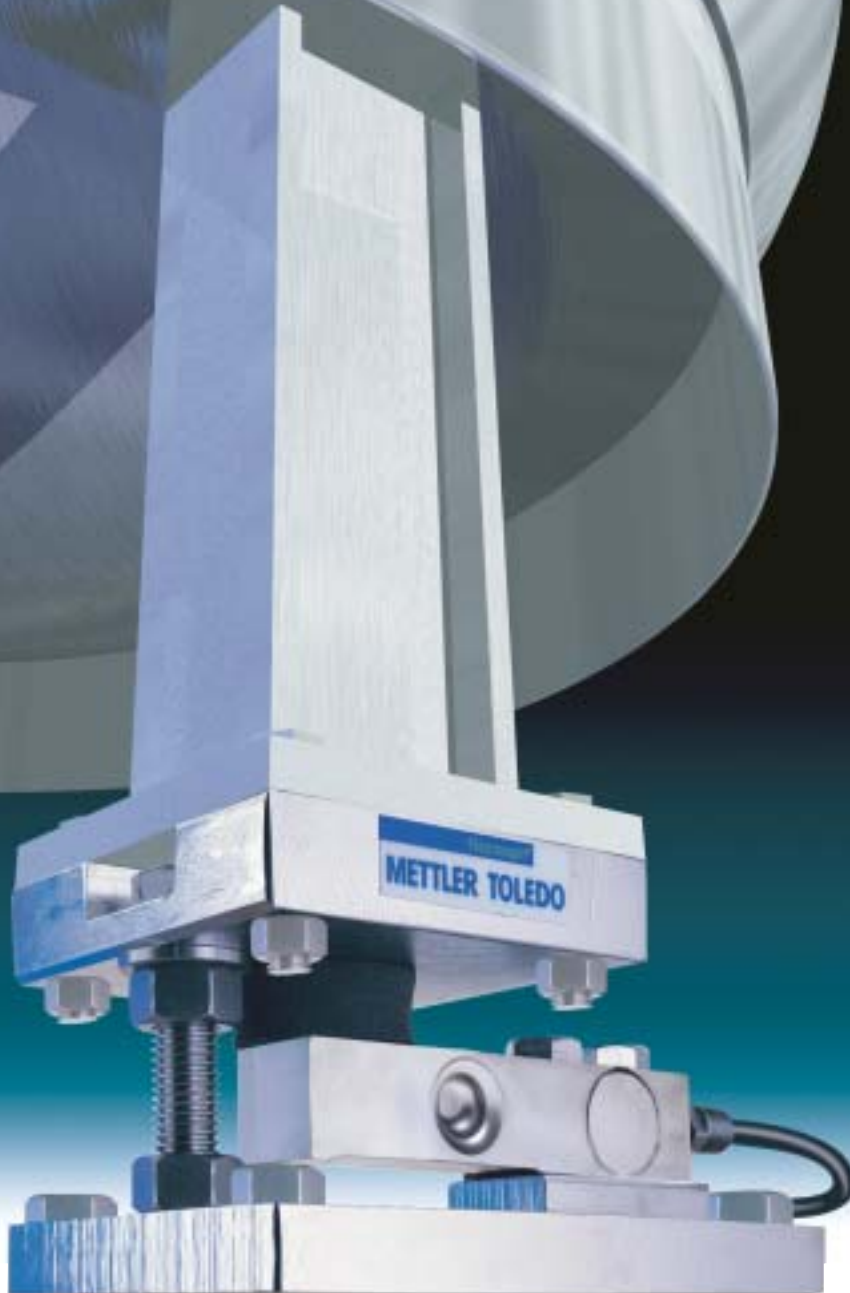
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Weigh Modules

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- ✓ Support
- ✓ Accuracy
- ✓ Reliability
- ✓ Reduced Risk
- ✓ Self Contained
- ✓ Serviceability
- ✓ International Approvals



**Convert Any Tank, Hopper  
or Vessel Into a Scale**

**METTLER TOLEDO**

# When Your Container Needs to Be a Scale

- ❑ Self contained...no check rods or flexures
- ❑ NTEP/OIML/Hazardous area approvals meet global requirements
- ❑ Fixed, semi- and full-floating pin modules allow for thermal expansion
- ❑ Anti-lift device restrains tank from tipping
- ❑ Jacking bolt ensures easy load cell replacement/less downtime



Our FLEXMOUNT Weigh Modules give you a way of putting weight measurements into your process line. Exact weight measurement is a very active and crucial component of your total line process. FLEXMOUNT Weigh Modules easily adapt to all kinds of vessels or containers.

Moreover, the completely self-contained weigh module is ideal for most weighing applications that use tanks, blenders, bins and hoppers to fill, batch or mix.

A load cell is not a weigh module. Weigh modules operate as the mechanical suspension system for load cells, directing the tank weight onto the load cell. Our FLEXMOUNT Weigh Modules comprise the entire suspension system for a tank scale.

### Reduce Your Risk

We reduce the risk of problems occurring by giving you an anti-lift/jacking bolt, which protects your vessel from tipping plus allows for easy serviceability.

### UNIQUE TOP PLATE

Floating, semi-floating and fixed top plate design provides system checking while allowing the structure to expand and contract.

### ANTI-LIFT/JACKING BOLT

Prevents vessel from tipping over, also provides convenient method of lifting empty vessel for servicing.

### BLIND HOLE DESIGN

Controls weight application by concentrating all the vertical load at one point on the load cell.

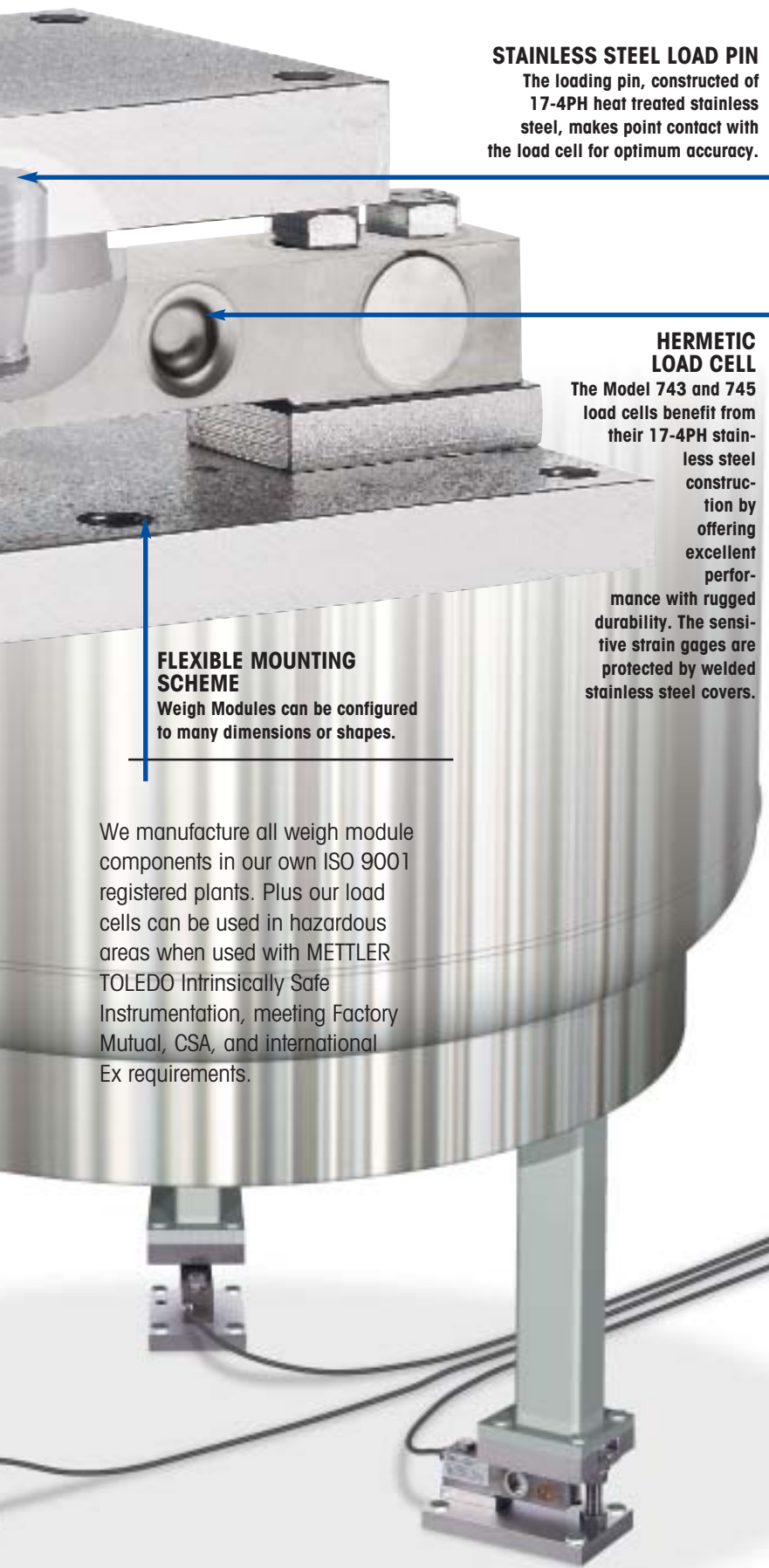
There is no need for additional hardware with FLEXMOUNT Weigh Modules...each one is fully self-checking and always provides dependable accuracy and reliability.

### Performs Beyond Accuracy Requirements

Why take the risk of letting weight measurement, which is a fraction of the total process cost, jeopardize your entire line? Our METTLER TOLEDO load cells, contained within our weigh modules, meet or exceed accuracy requirements of U.S., Canadian, and international regulatory agencies. A blind hole design increases accuracy by concentrating the vertical load at one point on the load cell.



Photo Courtesy of Lockheed Greene Engineers, Inc.



**STAINLESS STEEL LOAD PIN**

The loading pin, constructed of 17-4PH heat treated stainless steel, makes point contact with the load cell for optimum accuracy.

**HERMETIC LOAD CELL**

The Model 743 and 745 load cells benefit from their 17-4PH stainless steel construction by offering excellent performance with rugged durability. The sensitive strain gages are protected by welded stainless steel covers.

**FLEXIBLE MOUNTING SCHEME**

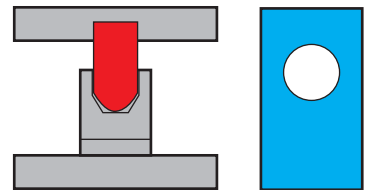
Weigh Modules can be configured to many dimensions or shapes.

We manufacture all weigh module components in our own ISO 9001 registered plants. Plus our load cells can be used in hazardous areas when used with METTLER TOLEDO Intrinsically Safe Instrumentation, meeting Factory Mutual, CSA, and international Ex requirements.

**FLEXMOUNT Mounting System**

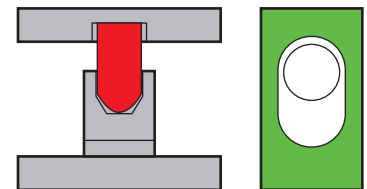
Each FLEXMOUNT System consists of three different module types...a Fixed-Pin Module, a Semi-Floating Module and a Full-Floating Module. The combination of these three top plate configurations delivers a weighing system which is fully self-checked and controls the load application point while allowing thermal expansion and contraction.

**Fixed-Pin Module**



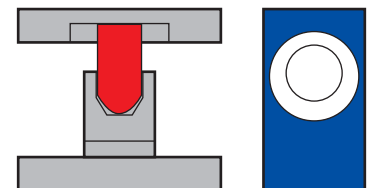
Anchors the system by providing a fixed point with no horizontal movement. For best accuracy, attach piping and electrical connections to the scale at this point.

**Semi-Floating Module**



Keeps the scale from rotating around the fixed pin. Scale floats enough to allow vessel to expand and contract without introducing an error-causing bind in the weigh system.

**Full-Floating Module(s)**



Supports load only. Suspension unaffected by expansion/contraction.



## Approvals

<b>NTEP</b>	<b>500 lb through 45,000 lb load cells meet or exceed NIST Handbook 44 accuracy requirements for legal-for-trade application and have been issued an NTEP Certificate of Conformance</b>
<b>OIML</b>	<b>220 kg through 20,412 kg load cells meet or exceed OIML C3 R60 requirements</b>
<b>CE</b>	<b>FLEXMOUNT load cells meet European Standards and have been issued a CE Declaration of Conformance.</b>
<b>FM</b>	<b>FLEXMOUNT load cells are Factory Mutual Approved when used with METTLER TOLEDO Intrinsically safe instrumentation in hazardous areas.</b>
<b>EX</b>	<b>Model 743, 744 and 745 FLEXMOUNT load cells (through 45,000 lb/20,412 kg) have European Approval for use in Hazardous Areas when used with METTLER TOLEDO Intrinsically safe instrumentation.</b>



STATIC

**FLEXMOUNT**



DYNAMIC

**CENTERLIGN**



TENSION

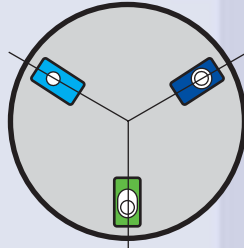
**TENSION**

### **METTLER TOLEDO Weigh Modules**

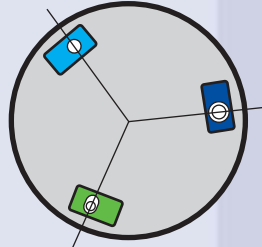
Call or write your authorized METTLER TOLEDO distributor for a copy of the "Do-It-Yourself Guide to Building Tank Scales" and the "Weigh Module Systems Handbook." You'll become acquainted with the full line of METTLER TOLEDO Weigh Modules for all your static, dynamic and tension weighing applications.



## FLEXMOUNT Mounting Options



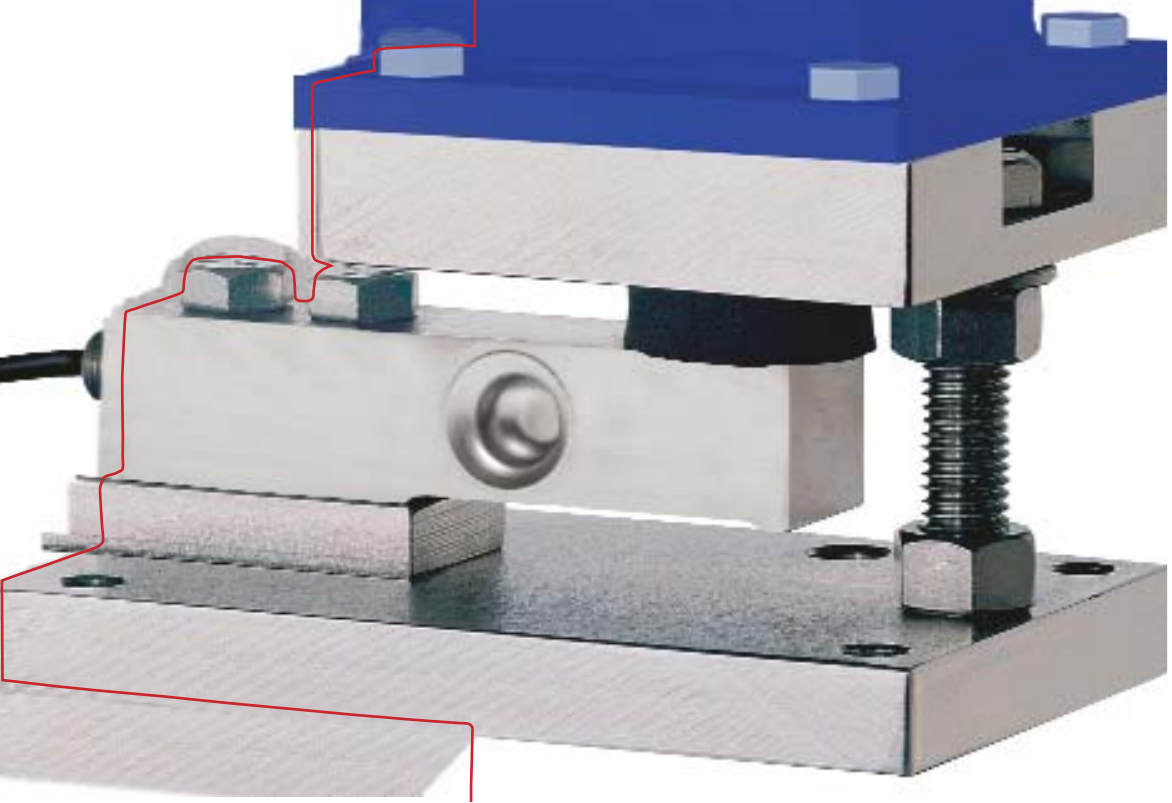
RADIAL MOUNTING



TANGENTIAL MOUNTING



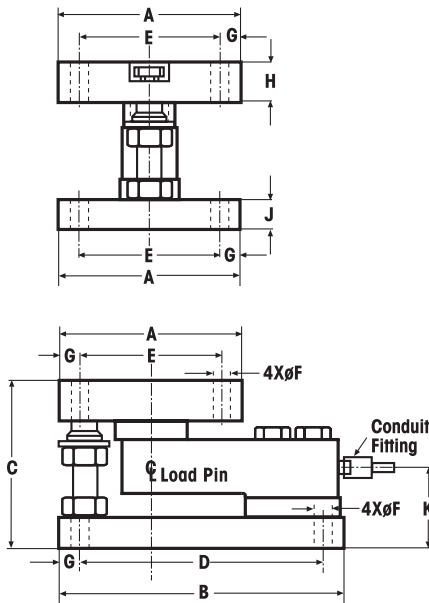
RECTANGULAR MOUNTING



Load cell capacity	NIST H44 U.S. STANDARD MODULES (lb)									OIML STANDARD MODULES (kg)							
	250	500	1250	2500	5000	10,000	20,000	30,000	45,000	220	550	1100	2200	4400	9072	13,608	20,412
Model number	744	745			743		743		745			743		743			
Excit. volt. (VDC or VAC rms)	15	15			15		15		15			15		15			
Rated output (mV/V)	2.0 ±0.002	2.0 ±0.002			2.0 ±0.005		2.0 ±0.005		1.94 ±0.002			2.0 ±0.005		2.0 ±0.005			
Input resistance (Ohms)	385 min	385 min			380 ±20		2200 ±100		385 min			380 ±20		2200 ±100			
Output resistance (Ohms)	350 ±2	350 ±2			350 ±2		2000 ±20		350 ±2			350 ±2		2200 ± 20			
Zero balance (mV/V)	±0.02	±0.02			±0.02		±0.02		±0.02			±0.02		±0.02			
Combined error (% FSO)	<0.03	<0.03			<0.02		<0.02		<0.017			<0.02		<0.02			
Non-repeatability (% FSO)	<0.01	<0.01			<0.01		<0.01		<0.01			<0.01		<0.01			
Creep in 20 min. (% FSO)	<0.03	<0.03			<0.02		<0.02		<0.025			<0.02		<0.02			
Temp. comp. range	-10 to +40°C	-10 to +40°C			-10 to +40°C		-10 to +40°C		-10 to +40°C			-10 to +40°C		-10 to +40°C			
Safe operating range	-15 to +85°C	-15 to +85°C			-15 to +85°C		-15 to +85°C		-15 to +85°C			-15 to +85°C		-15 to +85°C			
Temp. effect – zero balance	0.10%/100°F	0.10%/100°F			0.11%/100°F		0.16%/100°F		0.057%/40°C			0.093%/40°C		0.093%/40°C			
Deflection @rated capacity	0.01"	0.01"	0.01"	0.01"	0.012"	0.012"	0.036"	0.065"	0.254 mm			0.91 mm		1.65 mm			
Standard cable length	15'	15'			30'		30'		4.57 m			9.14 m		9.14 m			
Material	17-4 PH SS	17-4 PH SS			17-4 PH SS		17-4 PH SS		17-4 PH SS			17-4 PH SS		17-4 PH SS			
Wiring & gage cavity seal type	Environmentally protected	Hermetically sealed			Hermetically sealed		Hermetically sealed		Hermetically sealed			Hermetically sealed		Hermetically sealed			
Integral conduit fitting	1/4-18NPT	1/4-18NPT			1/4-18NPT		1/4-18NPT		1/4-18NPT			1/4-18NPT		1/4-18NPT			
Certificate number	Pending	92-108			88-008		88-008		TC2154			TC2977		TC2977			
Accuracy class	NA	III			III		III OR IIII		C3 R60			C3 R60		C3 R60			
Nmax single load cell	NA	3000d							3000d			3000d		3000d			
Nmax multiple load cell	NA	5000d			5000		5000d III 10000d IIII										
Vmin	NA	0.07	0.175	0.35	0.70	1.40	2.80	4.20	6.40	0.022	0.056	0.113	0.226	0.440	1.5	2.27	3.4
Min. dead load	0	0			200		200		0			50		75		100	
Safe overload (% FSO)	150	150			150		150		150			150		150		150	
Ultimate overload (% FSO)	300	300			300		300		300			300		300		300	
Safe side load (% FSO)	100	100			100		100		100			100		100		100	


Specifications subject to change without notice.

**FLEXMOUNT Dimensions**



Capacity	NIST H44 U.S. STANDARD MODULES (lb)					OIML STANDARD MODULES (kg)				
	250-5000	10,000	20,000	30,000	45,000	550-2200	4400	9072	13,608	20,412
Unit of Measure	in	in	in	in	in	mm	mm	mm	mm	mm
A	4.5	6	8	9	9	114	152	203	203	229
B	7	9.25	14	16	16	178	235	356	356	406
C	4.125	5.375	7.5	9	9	105	137	191	191	229
D	6	7.25	12	13.5	13.5	152	184	305	305	343
E	3.5	4	6	6.5	6.5	88.9	102	152	152	165
F	0.4375	0.6875	0.8125	1.125	1.125	11.1	17.5	20.6	20.6	28.6
G	0.5	1	1	1.25	1.25	12.7	25.4	25.4	25.4	31.7
H	1	1.25	1.75	2	2	25.4	31.8	44.5	44.5	50.8
J	0.75	1	1.75	2	2	19.1	25.4	44.5	44.5	50.8
K	2	2.5625	3.8125	4.5	4.5	50.8	65.1	96.8	96.8	114

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<p><b>METTLER TOLEDO</b></p> <p>1900 Polaris Parkway Columbus, Ohio 43240 TEL. (800) 523-5123 (614) 438-4511 FAX (614) 438-4900</p> <p><b>USA</b></p> <p><b>Latin America</b> TEL. (01) 305-351-2424 FAX (01) 305-351-2425</p> <p><b>Headquarters</b> 8606 Greifensee Switzerland TEL. (41-1) 944 22 11 FAX (41-1) 944 30 60</p>	<p><b>TEL</b></p> <p>Australia (61-3) 9644 5700 Austria (43-1) 604 1980 Belgium (32-2) 334 0211 Brazil (55-11) 4166-7400 Canada (800) 638-8537 China (86-519) 6642040 Croatia (385-1) 29 58 130 Czech Republic (420-2) 721-23150 Denmark (45-43) 27 08 00 France (33-1) 30 97 17 17 Germany (49-641) 50 70 Hungary (36-1) 288-4040 India (91-22) 2857-0808 Italy (39-02) 333321 Japan (81-3) 5762-0606 Kazakhstan (7-3272) 50 63 69</p> <p><b>FAX</b></p> <p>(61-3) 9645 3935 (43-1) 604 2880 (32-2) 334 0334 (55-11) 4166-7401 (905) 681-8036 (86-519) 6641991 (385-1) 29 58 140 (420-2) 721-23170 (45-43) 27 08 28 (33-1) 30 97 16 16 (49-641) 52951 (36-1) 288-4050 (91-22) 2857-5071 (39-02) 356-2973 (81-3) 5762-0756 (7-3272) 98 08 35</p>	<p><b>TEL</b></p> <p>Korea (82-2) 3498-3500 Malaysia (60-3) 7845 5773 Mexico (52-5) 547 5700 Netherlands (31-344) 638363 Norway (47) 22 30 44 90 Poland (48-22) 651-9232 Russia (7-095) 921 9211 Singapore (65) 6890 0011 Slovak Republic (421-2) 4342-7496 Slovenia (386-1) 562-1801 Spain (34-93) 223-7600 Sweden (46-8) 702 50 00 Switzerland (41-1) 944 45 45 Taiwan (886-2) 2579-5955 Thailand (66-2) 723-0300 United Kingdom (44-116) 235 7070</p> <p><b>FAX</b></p> <p>(82-2) 3498-3555 (60-3) 7845-8773 (52-5) 541 2228 (31-344) 638390 (47) 22 32 70 02 (48-22) 651-7172 (7-095) 921 6353 (65) 6890 0012 (421-2) 4333-7190 (386-1) 562-1789 (34-93) 223-0271 (46-8) 642 45 62 (41-1) 944 45 10 (886-2) 2579-5977 (66-2) 719-6479 (44-116) 236 6399</p>	<p><b>Internet</b> www.mt.com</p> <p>Specifications subject to change without notice. © 1999 Mettler-Toledo, Inc. METTLER TOLEDO®, FLEXMOUNT® and CENTERLIGN® are trademarks of Mettler-Toledo, Inc. Printed on recycled paper and is recyclable. Printed in USA.</p> <p>5M0303 TANK/HOPPER TH1006.3E</p> 
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