3M™ Dynatel™ Locating and Marking
Electronic Marker System

Marker Solutions for the Water Industry

The 3M™ Electronic Marker System (EMS) helps save water utilities time and money by enabling utility field crews to quickly pinpoint the location of buried facilities including valves, bends, clean-outs and road crossings. Using EMS markers during construction, installation and maintenance virtually eliminates the time consuming search for hard-to-locate facilities.

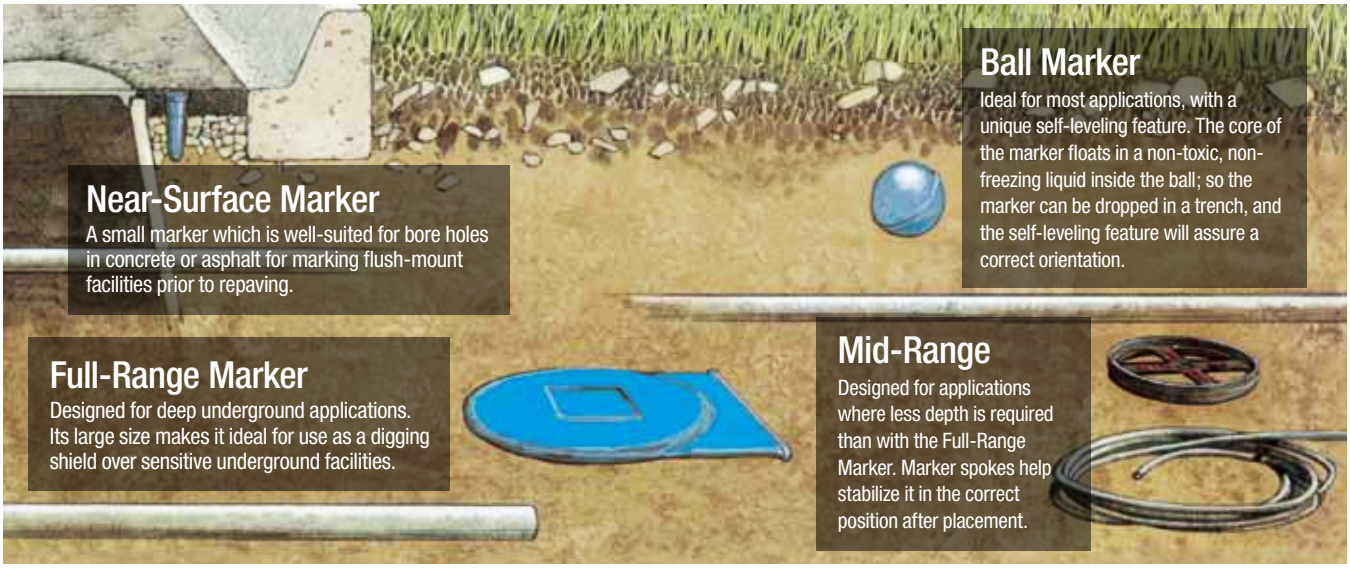
Markers that Last

With our Full-Range, Mid-Range, Ball and Near-Surface Markers, there is a marker to meet almost every need. Markers are passive antennas with no internal power source to run down. Their water-resistant, polyethylene shells are impervious to minerals, chemicals and the temperature extremes normally found underground. A four-inch Disk Marker is also available for marking handholes. These markers easily attach to lids or covers over flush-mounted facilities.

3M™ iD Markers

3M iD markers are designed to provide an accurate, convenient, long-lasting method of marking underground assets. In addition, these markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.

3M™ Electronic Marker System for the Water Industry



The Safe Choice

There is no guesswork with the 3M™ Electronic Marker System. 3M markers operate even in the presence of metal conduit or pipe, metallic conductors, fences, AC power lines and electronic markers of other utilities. All EMS markers are color-coded to APWA standards for visual reference and each utility has its own frequency. EMS signals provide positive identification of each utility, thus helping to reduce the risk of accidentally locating and excavating other buried facilities.

Help Eliminate the Guesswork

3M™ Water Utility Markers

Image	Product	Description	Stock Number
	3M™ EMS Near-Surface Marker **1434**	Near-Surface Marker - designed to provide an accurate, convenient, long-lasting method of marking underground and street-access facilities.	80610230387
	3M™ iD Near-Surface Marker **1434-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611321318
	3M™ Disk Marker **1413-XR**	Extended Range Disk Marker - designed to provide an easy, accurate method of locating flush-mounted facilities which become covered by backfill or other obstructions, such as snow or overgrown vegetation. ***(Do Not Direct Bury)***	80630000265
	3M™ iD Disk Marker **1413-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details. ***(Do Not Direct Bury)***	80611303530
	3M™ EMS 4" Ball Marker **1403-XR**	EMS Ball Marker - provides self-levelling design providing accurate, horizontal position regardless of how it is placed in the ground and making the job of precisely locating easier.	80630000323
	3M™ iD Ball Marker **1423-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611143225
	3M™ EMS Mid-Range Marker **1257**	Mid-Range Marker - designed to provide an accurate, convenient, long-lasting method of marking underground water facilities.	80610221931
	3M™ EMS Full-Range Marker **1252**	Full-Range Marker - designed to provide an accurate, convenient, long-lasting method of marking underground water facilities.	80610221519
	3M™ iD Full-Range Marker **1252-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611321250

	3M iD Markers Read Range		3M Passive Markers Range*
	With a 'U' Model (U.S.) Locator	With an 'E' Model (Export, CE) Locator	
Near-Surface	3 ft (0.9 m)	0.6 m	2 ft (0.6 m)
Ball and Disk	5 ft (1.5 m) 5 ft (1.5 m)	1.2 m (Tel, Gas, WW, Comm) 1.0 m (Pwr, Wtr)	5 ft (1.5 m) 5 ft (1.5 m)
Mid-Range	N/A	N/A	6 ft (1.8 m)
Full-Range	9 ft (2.7 m)	2 m	8 ft (2.4 m)

* Using 3M™ Dynatel™ Marker Locator 2200M-Series or 1420

3M™ Wastewater Utility Markers

Image	Product	Description	Stock Number
	3M™ EMS Near-Surface Marker **1435**	Near-Surface Marker - designed to provide an accurate, convenient, long-lasting method of marking underground and street-access facilities.	80610230395
	3M™ iD Near-Surface Marker **1435-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611321326
	3M™ Disk Marker **1414-XR**	Extended Range Disk Marker - designed to provide an easy, accurate method of locating flush-mounted facilities which become covered by backfill or other obstructions, such as snow or overgrown vegetation. ***(Do Not Direct Bury)***	80630000273
	3M™ iD Disk Marker **1414-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details. ***(Do Not Direct Bury)***	80611303548
	3M™ EMS 4" Ball Marker **1404-XR**	Extended Range Ball Marker - provides self-levelling design providing accurate, horizontal position regardless of how it is placed in the ground and making the job of precisely locating easier.	80630000331
	3M™ iD Ball Marker **1424-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611143233
	3M™ EMS Mid-Range Marker **1258**	Mid-Range Marker - designed to provide an accurate, convenient, long-lasting method of marking underground wastewater facilities.	80610221949
	3M™ EMS Full-Range Marker **1253**	Full-Range Marker - designed to provide an accurate, convenient, long-lasting method of marking underground wastewater facilities.	80610221501
	3M™ iD Full-Range Marker **1253-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611321268

3M™ General Purpose/Reclaimed Water

Image	Product	Description	Stock Number
	3M™ iD Near-Surface Marker **1438-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611321342
	3M™ Disk Marker **1418-XR**	Extended Range Disk Marker - designed to provide an easy, accurate method of locating flush-mounted facilities which become covered by backfill or other obstructions, such as snow or overgrown vegetation. ***(Do Not Direct Bury)***	80611169238
	3M™ iD Disk Marker **1418-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details. ***(Do Not Direct Bury)***	80611303563
	3M™ EMS 4" Ball Marker **1408-XR**	Extended Range Ball Marker - provides self-levelling design providing accurate, horizontal position regardless of how it is placed in the ground and making the job of precisely locating easier.	80611168354
	3M™ iD Ball Marker **1428-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611142227
	3M™ iD Full-Range Marker **1248-XR/iD**	3M iD markers may be programmed to include customer-specific information such as facility data, type of application, material type and size, placement date and other important details.	80611321284

The EMS water series can be used to mark:

- Buried valves
- Clean-outs
- PVC pipeline
- Road crossings
- Pipeline paths
- Service stubs
- Bends
- Trees

3M™ Dynatel™ Electronic Marker Locators

3M™ Dynatel™ offers the following electronic marker and multipurpose locators. Additional information about 3M™ Dynatel™ cable and electronic marker locating products for water applications is available at www.3M.com/dynatel, or contact your local 3M sales professional.

3M™ Dynatel™ Marker Locator 1420 EMS-iD

3M™ Dynatel™ Cable/Pipe and Marker Locator 2250M-iD

3M™ Dynatel™ Cable/Pipe/Fault and Marker Locator 2273M-iD

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Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the products which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.

Conditional Limited Warranty

3M provides the following Conditional Limited Warranty for its iD Electronic Marker Products: When installed in accordance with 3M's installation instructions, 3M warrants iD Electronic Markers for a period of ten (10) years form the date of purchase of the product, to be free from defects in material and manufacture, provided iD Electronic Markers are located with 3M™ Dynatel™ Locators or other brand locators as may be designated by 3M in writing. This warranty does not extend to iD Electronic Markers that have been subjected to misuse or improper application or that have been repaired or altered by others. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.** If the iD Marker is found to be defective within the warranty period, your exclusive remedy shall be, at 3M's options, to repair or replace the iD Markers or refund the purchase price. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

Conditional Lifetime Warranty

3M provides the following Conditional Limited Warranty for its Electronic Marker Products (non-iD versions only): When installed in accordance with 3M's installation instructions, 3M warrants Electronic Markers for the lifetime of the product, to be free from defects in material and manufacture, provided the Electronic Markers are located with 3M™ Dynatel™ Locators or other brand locators as may be designated by 3M in writing. This warranty does not extend to Electronic Markers that have been subjected to misuse or improper application or that have been repaired or altered by others. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR PURPOSE.** If the Electronic Marker is found to be defective during the normal lifetime of the product, your exclusive remedy shall be, at 3M's options, to repair or replace the Electronic Markers or refund the purchase price. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**

3M

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