



ULTRAX3

TOOLING BITS APPLICATION GUIDE



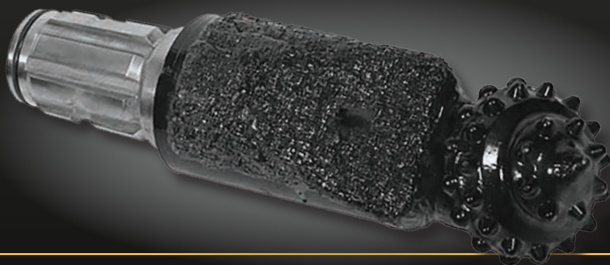
DIRT BIT SUB

The dirt bit sub allows the change from a soft rock or cobble bit to any Vermeer plate bit offering to tackle softer ground conditions such as clay, loam or sand. The .5-in bolt patterns are compatible with Bit Boss™ system features.



2THIRTY™ BIT

This bit is designed for brutal ground conditions such as harder rock up to 10,000 psi (68.9 MPa). The 2Thirty bit features two oversized conical teeth angled at 30 degrees for optimal cutting, as well as strategically placed carbide buttons and carbide grit hardfacing to enhance wear characteristics.



SINGLE ROLLER CONE BIT

Designed to deliver versatility in cobble and broken formations, the cone rotation helps smooth out the entire drill string, reducing torque spikes. The bit is used for extreme cobbles and soft to medium rock.



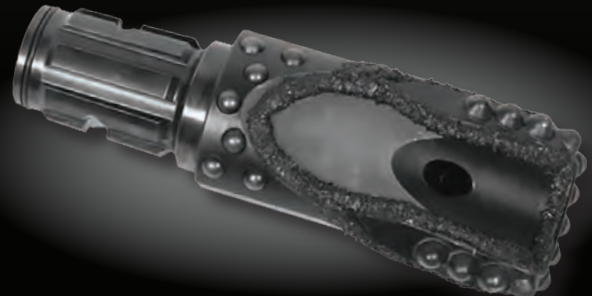
LANCE TRIDENT BIT

Featuring a replaceable three-tooth design and cupped steering design, the Lance Trident bit is designed to be used in clay, caliche, hardpan and soft rock up to 3,000 psi (20.7 MPa) while maintaining excellent steering characteristics.



GAUNTLET BIT

The Gauntlet bit was designed for use in soft to medium rock, shale and caliche ground conditions up to 10,000 psi (68.9 MPa) with exceptional steering capabilities. Carbide buttons are strategically placed on the bit for optimum cutting, while carbide hardfacing helps to enhance wear and performance characteristics. A replaceable three-tooth design delivers a consistent cutting structure for steering corrections to help maximize drilling performance.













































LANCE PRO BIT

Featuring domed, plug-style teeth, the Lance Pro bit offers continuous carbide coverage across the front of the bit to help extend wear life. Carbide buttons help protect the bit mount section from wear so it can be rebuilt. With a tendency to cut on center, the Lance Pro bit helps you execute your bore as planned. Intended for use in hard-packed soils, highly abrasive cobble and cemented cobble.

ULTRA X3



TOOLING BITS APPLICATION GUIDE

		Gauntlet bit	Lance Pro bit	Single roller cone bit	Lance Trident bit	2Thirty™ bit	Dirt bit sub
							
SOIL CONDITION	Sandy						 *
	Clay/loam						 *
	Medium rock						
	Cobble/broken formation						
	Soft rock						
	Hard rock						

*If paired with correct dirt bit

SOIL CONDITION:



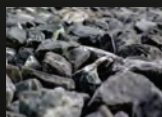
Sandy – Sand, sandy loam, any soil where sand is a major component



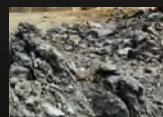
Clay/loam – Clay, loam, silt, soft to medium soils that have some moisture



Dry/compacted – Hardpan, any dry clay, any compacted soil



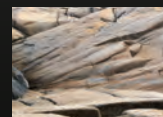
Cobble/broken formation – Cobble, gravel, glacial till, chunk rock, any non-consistent type of rock



Soft rock – Sandstone, shale, soft limestone, caliche, some coral between 1,000 psi and 4,500 psi (6.9 MPa and 31 MPa)



Medium rock – Some limestone, shale, coral between 5,000 psi and 9,500 psi (34.5 MPa and 65.5 MPa)



Hard rock – Hard limestone, granite, skirt, anything above 10,000 psi (68.9 MPa)

AVAILABLE BOLT PATTERNS



AVAILABLE CUTTING SIZES



OWN SOME DITCH WITCH® PATTERN BITS?

Our select Premium housings feature both Vermeer 6-bolt and Ditch Witch 6-bolt configurations on a single housing, helping you maximize usage of your bit fleet.

NOT RECOMMENDED

Not recommended for the listed soil condition.

GOOD

Helps to achieve conducive results within the listed soil condition.

BETTER

Helps to achieve efficient productivity within the listed soil condition.

BEST

Helps to achieve maximum viability within the listed soil condition.

Vermeer Corporation reserves the right to make changes in engineering, design and specifications; add improvements; or discontinue manufacturing at any time without notice or obligation. Equipment shown is for illustrative purposes only and may display optional accessories or components specific to their global region. Please contact your local Vermeer dealer for more information on machine specifications. Vermeer, the Vermeer logo, BORESTORE and Bit Boss are trademarks of Vermeer Manufacturing Company in the U.S. and/or other countries. Ditch Witch is a trademark of The Charles Machine Works, Inc. © 2025 Vermeer Corporation. All Rights Reserved.

BORESTORE
HDD TOOLING AND ACCESSORIES WAREHOUSE