

## HDD TOOLING | BITS APPLICATIONS GUIDE



#### Standard Ace<sup>™</sup> Bit

The standard bit features a rounded bit face to assist steering performance and offers durability, longevity and wearability for **softer ground conditions that are more abrasive, medium-packed soils and light gravel.** 



#### **Pro Ace Bit**

Our most popular Ace bit, it features a semi-aggressive tapered front design for penetration in hard ground conditions — offering even great, longevity and wearability to tackle loam to moderately aggressive cobble, sand and hard pan.



Vermeer

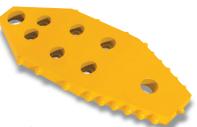
#### **Premium Ace Bit**

The premium Ace bit features an aggressive tapered bit front to help penetration rates and offers superior durability, longevity and wearability for high risk, aggressive ground conditions such as **heavy cemented cobble**, **hard-packed soils and softer shale**.



#### **Standard/Standard Hardfaced Bit**

Performance is standard with this bit. It includes a quick-shot hole and is an economical option for softer soil conditions such as **loam, black dirt and sandy loam.** 



#### Gladiator<sup>™</sup> Saber Bit

The Gladiator saber bit features an aggressive tapered design for penetrating hard-packed soil conditions. Includes the Gladiator standard of carbide buttons to help extend wear life, making it ready for **highly abrasive ground conditions**.



#### **Gladiator Mallet Bit**

Steer into the clear with the Gladiator mallet bit. It features the Gladiator-exclusive bit design with oversized carbide buttons for wear resistance as its flat face helps maximize steering control. It's ideal for **cobble and highly abrasive ground conditions.** 



The Vermeer shark bit is one of our original designs. It's proudly built with shark teeth cutting tools that supply an aggressive cutting action to work through **hard-packed ground conditions**, caliche and soft rock.



### **Gladiator Spear Bit**

The Gladiator spear bit is exclusively designed with oversized carbide buttons to help reduce premature wear — with a rugged, pointed design. The Gladiator spear bit lets you battle compatible ground conditions from **loam to cobble and other highly abrasive soil**.



The Vermeer Gladiator club bit brings you the power of our exclusively designed oversized carbide buttons for wear resistance. This versatile series is ideal for **cobble and highly abrasive ground conditions.** 

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		VERMEER BITS								
		Standard Ace Bit	Pro Ace Bit	Premium Ace Bit	Standard Hardfaced Bit	Shark Bit	Gladiator Saber Bit	Gladiator Spear Bit	Gladiator Mallet Bit	Gladiator Club Bit
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SOIL CONDITION	Sandy		V	V		V	V	V		V
	Clay/ Loam	▼	▼	▼	▼	▼	▼	▼	▼	
	Dry/ Compacted	▼	▼		▼		▼	▼	▼	$\overline{}$
	Cobble/Broken Formation	▼	▼		▼	▼			▼	$\overline{}$
	Soft Rock	▼	▼	▼	▼	▼	▼	▼	▼	▼



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. HDD TOOLING

> SOIL **CONDITION:**

Sandy - Sand, sandy Clay/Loam - Clay, loam, any soil where loam, silt, soft to medium soils that have sand is a major some moisture component



Dry/Compacted -Hard pan, any dry clay, any compacted soil



Cobble/Broken Formation - Cobble, gravel, glacial till, chunk rock, any non-consistent type of rock



Soft Rock up to 4500 psi (31 MPa) -Some limestone, shale, Sand stone, shale, soft limestone, caliche, some coral between (34.5 MPa-65.5 MPa) 1000 psi-4500 psi (6.9 MPa-31 MPa)



Medium Rock -

coral between

5000 psi-9500 psi

Vermeer

Hard Rock - Hard limestone, granite, skirt, anything above 10,000 psi (68.9 MPa)



#### **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.





BETTER Helps to achieve efficient productivity within listed soil condition



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, Ace and Gladiator are trademarks