

HDD TOOLING | BITS APPLICATIONS GUIDE



Standard Ace™ 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.**



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.**



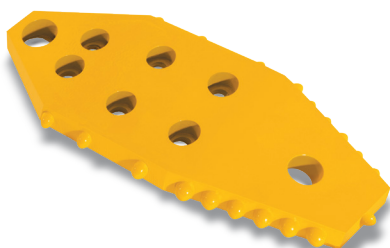
Standard/Standard Hardfaced Bit

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.**



Shark Bit

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.**



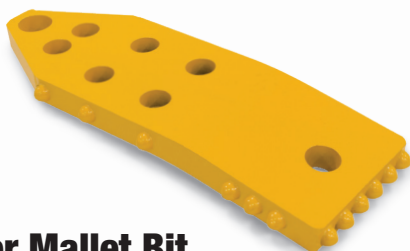
Gladiator™ Saber Bit

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 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.**



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.**

























































Gladiator Club Bit

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 |
| | |  |  |  |  |  |  |  |  |  |
| SOIL CONDITION | Sandy |  |  |  |  |  |  |  |  |  |
| | Clay/Loam |  |  |  |  |  |  |  |  |  |
| | Dry/Compacted |  |  |  |  |  |  |  |  |  |
| | Cobble/Broken Formation |  |  |  |  |  |  |  |  |  |
| | Soft Rock |  |  |  |  |  |  |  |  |  |

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 – 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) – Sand stone, shale, soft limestone, caliche, some coral between 1000 psi-4500 psi (6.9 MPa-31 MPa)



Medium Rock – Some limestone, shale, coral between 5000 psi-9500 psi (34.5 MPa-65.5 MPa)



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.



NOT RECOMMENDED

Not recommended for the listed soil condition.



GOOD

Helps to achieve conducive results within listed soil condition.



BETTER

Helps to achieve efficient productivity within listed soil condition.



BEST

Helps to achieve maximum viability within listed soil condition.