

## HDD PILOT BIT PART NUMBERS

COMPATIBLE DRILL	PART #	HOLE PATTERN	WIDTH
<b>DUCKBILL</b>			
Ditch Witch®	D65DH40	5	4"
Ditch Witch®	D65DH50	5	5"
Ditch Witch®	D66DH40	6	4"
Ditch Witch®	D66DH45	6	4.5"
Ditch Witch®	D66DH50	6	5"
Ditch Witch®	D66DH60	6	6"
TT Technologies®	TT45DH45	5	4.5"
Vermeer®	V67DH35	7	3.5"
Vermeer®	V67DH40	7	4"
Vermeer®	V67DH45	7	4.5"
Vermeer®	V67DH50	7	5"
Vermeer®	V67DH60	7	6"
<b>BALLANTINE BULLDOG</b>			
Ditch Witch®	D65BB40	5	4"
Ditch Witch®	D65BB45	5	4.5"
Ditch Witch®	D66BB40	6	4"
Ditch Witch®	D66BB45	6	4.5"
Ditch Witch®	D66BB50	6	5"
Vermeer®	V67BB40	7	4"
Vermeer®	V67BB45	7	4.5"
Vermeer®	V67BB50	7	5"
<b>TOUGH BIT</b>			
Ditch Witch®	D65TB40	5	4"
Ditch Witch®	D65TB45	5	4.5"
Ditch Witch®	D65TB50	5	5"
Ditch Witch®	D66TB40	6	4"
Ditch Witch®	D66TB45	6	4.5"
Ditch Witch®	D66TB50	6	5"
TT Technologies®	TT45TB35	5	3.5"
Vermeer®	V67TB40	7	4"
Vermeer®	V67TB45	7	4.5"
Vermeer®	V67TB50	7	5"
<b>POWER TIP</b>			
Ditch Witch®	D65PT40	5	4"
Ditch Witch®	D65PT45	5	4.5"
Ditch Witch®	D65PT50	5	5"
Ditch Witch®	D66PT40	6	4"
Ditch Witch®	D66PT45	6	4.5"
Ditch Witch®	D66PT50	6	5"
Vermeer®	V67PT35	7	3.5"
Vermeer®	V67PT40	7	4"
Vermeer®	V67PT45	7	4.5"
Vermeer®	V67PT50	7	5"

COMPATIBLE DRILL	PART #	HOLE PATTERN	WIDTH
<b>STEEP TAPER</b>			
Ditch Witch®	D65ST40	5	4"
Ditch Witch®	D65ST50	5	5"
Ditch Witch®	D66ST40	6	4"
Ditch Witch®	D66ST50	6	5"
Vermeer®	V67ST40	7	4"
Vermeer®	V67ST50	7	5"
<b>BULLDOG TAPER</b>			
Ditch Witch®	D65BT40	5	4"
Ditch Witch®	D65BT45	5	4.5"
Ditch Witch®	D66BT40	6	4"
Ditch Witch®	D66BT45	6	4.5"
Ditch Witch®	D66BT50	6	5"
Vermeer®	V67BT40	7	4"
Vermeer®	V67BT45	7	4.5"
Vermeer®	V67BT50	7	5"
<b>HURRICANE TAPER</b>			
Ditch Witch®	D65HT40	5	4"
Ditch Witch®	D65HT45	5	4.5"
Ditch Witch®	D65HT50	5	5"
Ditch Witch®	D66HT40	6	4"
Ditch Witch®	D66HT45	6	4.5"
Ditch Witch®	D66HT50	6	5"
Ditch Witch®	D66HT60	6	6"
Vermeer®	V67HT40	7	4"
Vermeer®	V67HT45	7	4.5"
Vermeer®	V67HT50	7	5"
<b>RAZORBACK BIT</b>			
Ditch Witch®	D65RB45	5	4.5"
Ditch Witch®	D66RB45	6	4.5"
Ditch Witch®	D66RB55	6	5.5"
Vermeer®	V67RB45	7	4.5"
Vermeer®	V67RB55	7	5.5"



\*Hurricane Bit

**American Made. American Strong.™**



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**BALLANTINE®**  
HDD PILOT BIT SERIES



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# DEMANDING OPERATIONS DEMAND THE BEST - HDD PILOT BIT SERIES OPTIONS FROM BALLANTINE

## DUCK BILL



- Economical solution ideal for soft and sandy soil conditions.
- The broad square nose allows for ultimate steerability and hard facing provides added protection in abrasive environments.

## BALLANTINE BULLDOG



- The Ballantine Bulldog bit is built to perform well in hardpan, caliche, and sandstone.
- The broad tip provides great steerability while the conical carbide cutters are positioned to break apart rock and hard compacted soils.
- Hardfacing provides added durability in abrasive conditions.

## TOUGH BIT



- The tough bit features a slight taper full of carbide cutters making it ideal in a wide variety of ground conditions.
- This bit's design provides optimum impact resistance and durability when drilling in hard and rocky conditions.

## POWER TIP



- The jack of all trades bit.
- The carbide buttons provide durability while the rounded tip allows this bit to power through hard packed soils and clay with smooth steering and cutting.

	Soil Type							
	Sandy	Light	Medium	Hard	Rocky	Soft Rock	Medium Rock	Hard Rock
Duck Bill	1	1	2	3	4	5	5	5
Steep Taper	5	3	2	1	1	3	5	5
Ballantine Bulldog	3	4	2	1	2	2	3	5
Bulldog Taper	4	3	2	1	1	2	3	5
Tough Bit	4	2	1	1	2	2	4	5
Hurricane Taper	5	4	2	1	1	2	2	5
Power Tip	3	2	2	1	3	2	4	5
Razorback	5	5	3	2	1	1	2	5

1=Best 2=Good 3=Fair 4=Less Recommended 5=Not Recommended

<b>Sandy</b>	Loose Sand, Sandy Loams or any soil that is predominantly comprised of sand
<b>Light</b>	Loams, Clay, Silt, Soft to medium soils that contain moisture
<b>Medium</b>	Consolidated Loams & Clays, Semi-compacted soils
<b>Hard</b>	Hardpan, Gumbo, Compacted soils
<b>Rocky</b>	Cobble, Chunk Rock, Gravel, Glacial Till (any non-consistent type of rock)
<b>Soft Rock</b>	Caliche, Slate, Soft Limestone, Sandstone, Shales, Certain Corral (0-9,000 psi)
<b>Medium Rock</b>	Certain Limestone, Sandstone, Some Dolomite, Shales, Coral (9,000 - 16,000 psi)
<b>Hard Rock</b>	Hard Limestone, Granite, Schist, Trap Rock, Quartzite (Above 16,000 psi)

## HDD PILOT BIT IDENTIFICATION CHART

Part Number Example: **D 6 5 DH 40**

1st position Drill Mfg.	2nd position Bit Thickness	3rd position Hole Pattern	4th position Type of Bit	5th position Width of Cut
V = Vermeer®	4 = 1/2"	5 = 5 Hole	DH = Duckbill Hardfaced	30 = 3"
D = Ditch Witch®	6 = 3/4"	6 = 6 Hole	ST = Steep Taper	35 = 3.5"
TT = TT Technologies®	8 = 1"	7 = 7 Hole	BB = Ballantine Bulldog	40 = 4"
			BT = Ballantine Taper	45 = 4.5"
			TB = Tough Bit	50 = 5"
			HT = Hurricane Taper	55 = 5.5"
			PT = Power Tip	60 - 6"
			RB - Razorback Bit	

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## STEEP TAPER

- Economical taper bit ideal for compacted soils.
- Tapered tip allows the bit to penetrate highly compacted soils.



## BULLDOG TAPER

- Semi aggressive taper tip to promote better penetration in soft rock and hard compacted soils without sacrificing the ability to steer.
- Conical carbide cutters are positioned to allow this bit to bully its way through ground conditions it's faced with.



## HURRICANE TAPER

- Aggressive taper to provide improved penetration in hard and rocky conditions.
- Carbides are placed strategically along the taper to bust rocks and provide ultimate wear resistance during drilling.



## RAZORBACK BIT

- Ballantine's most aggressive bit features an extreme taper providing ultimate penetration and reduced drag when drilling through soft rock and rocky conditions.
- The cutting edges are loaded with carbide from tip to heel to provide efficient cutting and premium wear resistance.

