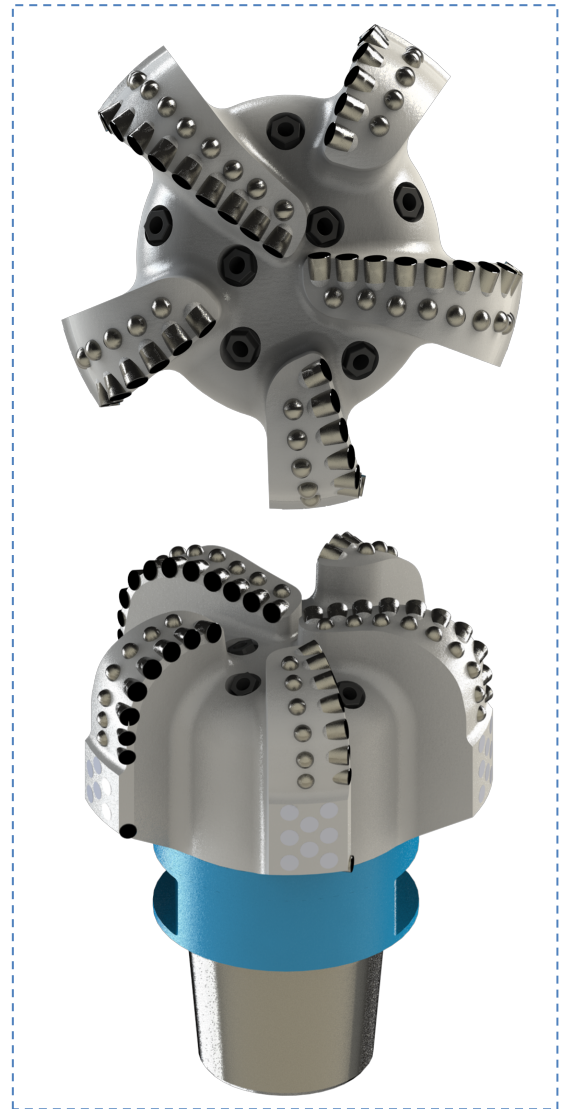




12 1/4 " SP516VHRPX-PDT1

Product Specification

Bit Size	12-1/4"
Body material	Steel
Number of Blade	5
Primary Cutter Size/Qty	Φ 16mm*41 Φ 13mm*2
Back up cutter size/Qty	N/A
Gauge cutter size/Qty	Φ 13mm*18
Total cutters qty	59
Nozzle Quantity/Type	7
Gauge Length (mm)	51mm = 2.0"
Junk Slot (in ²)	42.5
API Pin Connection / Makeup T	6-5/8" API Reg.Pin / 35-38 kft.lb
Total Length	15.60" (395 mm)



Operating Parameters

Rotary Speed (rpm)	50-250
Weight On Bit (k.lb)	10-34
Maxium WOB (k.lb)	45
Hydraulic Flow Rat (GPM)	600-1000

Features and Benefits:

- **XL Forced PDC** cutters (patented of PDT) with **large JSA** are optimised for efficient drilling in build -up and directional drilling.
- **Back-Reaming cutters** on gauge pad on each blades which help during pullout as well as prevents any cutter's unexpected damage.
- **Balanced hydraulics** design through **CFD** (computation fluid dynamics) increase capability of anti-balling and acheives fast effective ROP.
- **PX extra diamond gage** improve bit durability as well as better hole condition.

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8 1/2" SD516VHRPX-PDT2

Product Specification

Bit Size	8 1/2"
Body material	4145H
Number of Blade	5
Primary Cutter Size/Qty	Φ 16*4
Back up cutter size/Qty	Φ 13*8
Gauge cutter size/Qty	Φ 13*10
Total cutters qty	Φ 16*29; Φ 13*21
Nozzle Quantity/Type	8*11/32
Gauge Length (inch)	1.0" NOM + 0.5" STP
Junk Slot (in2)	19.51
API Pin Connection / Makeup T	4 1/2" API Reg.Pin / 16 - 26 kft.lb
Total Length	12.80" (326 mm)



Operating Parameters

Rotary Speed (rpm)	50-260
Weight On Bit (k.lb)	10-30
Maxium WOB (ton)	34
Hydraulic Flow Rat (GPM)	400-550

Applications

Suitable for soft to medium formation applications on PDM as well as RSS BhA.

The Optimised CFD hydraulics will increase the capability of anti-balling and effective ROP in upper soft section.

The use of premium patented cutters XL Forced(TM) cutters improves the capability of drilling layers in bottom section as well.

If any question or query, please contact PDT office 24/7:

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6 1/8" MD516VHRPX-PDT5

Product Specification

Bit Size	6 1/8" MD516
Body material	Matrix + 4145H ST
Number of Blade	5
Primary Cutter Size/Qty	Φ 16mm*15
Back up cutter size/Qty	Φ 13mm*8
Gauge cutter size/Qty	Φ 13mm*8 + Back Reamers
Total cutters qty	31
Nozzle Quantity/Type	5Nx8/32 + 3Px9/32
Gauge Length (mm)	38
Junk Slot (in ²)	8.25
API Pin Connection	3-1/2" API Reg Pin
Make Up Torque (klbs.ft)	13-15.00



Operating Parameters

Rotary Speed (rpm)	100 - 260
Weight On Bit (k.lb)	5 - 20
Maxium WOB (k.lb)	26
Hydraulic Flow Rat (GPM)	275 - 400

Applications

Suitable for soft to medium/hard formation applications. Large JSA plus premium **XL Forced cutters** with **improved depth of cut** have achieved best ROP with lowest cost/m performances vs. offset wells. The new Back-Reaming cutters on gauge pad as well as low-offset spiral gauge pads enhance its hole stability in parallel to preventing any unexpected cutters damage. The **balanced hydraulics design** through latest CFD technology in US has increased this bit capability of anti-balling with fastest effective ROP in soft formations.

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XL Forced(TM) PDC cutters are patented to Premium Drilling Tools, Pty Ltd.





6 1/8" MDX416VPX-PDT3

Product Specification

Bit Size	6 1/8" MDX416
Body material	Matrix + 4145H ST
Number of Blade	4
Primary Cutter Size/Qty	Φ 16mm*9 Φ 13mm*9
Back up cutter size/Qty	Φ 13mm*10
Gauge cutter size/Qty	Φ 13mm*4 + Back Reamers
Total cutters qty	32
Nozzle Quantity/Type	4*10/32
Gauge Length (in)	1.0" + 1.0"
Junk Slot (in ²)	10.65
API Pin Connection	3-1/2" API Reg Pin
Make Up Torque (klbs.ft)	13-15

Operating Parameters

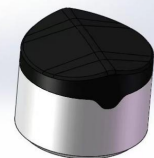
Rotary Speed (rpm)	100 - 250
Weight On Bit (k.lb)	5 - 20
Maxium WOB (k.lb)	24
Hydraulic Flow Rat (GPM)	275 - 400

Applications

Suitable for soft to medium formation applications. Large JSA, high cutters exposure, small bake rake angle, and special shape cutters set in nose and shoulder part, these feature is for more aggressive design to improve ROP. back reaming cutters on gauge pad on each blades and spiral gauge pad, these features enhances its drilling stability and prevents the cutter's unexpected damage. The balanced hydraulics design increases the capability of anti-balling and ROP. The use of high -tech cutters improves the capability of drilling layers and the time on-bottom.



Axe XL Forced



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XL Forced(TM) PDC cutters are patented to Premium Drilling Tools, Pty Ltd.



5.675" FM5675-PDT2

Junk Milling Procedures:

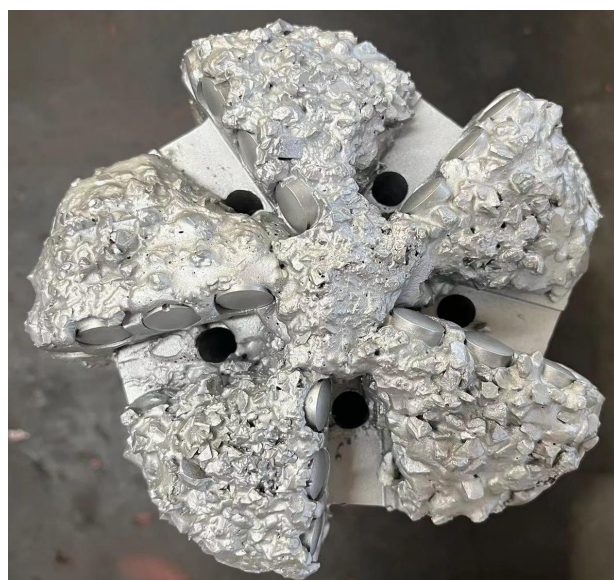
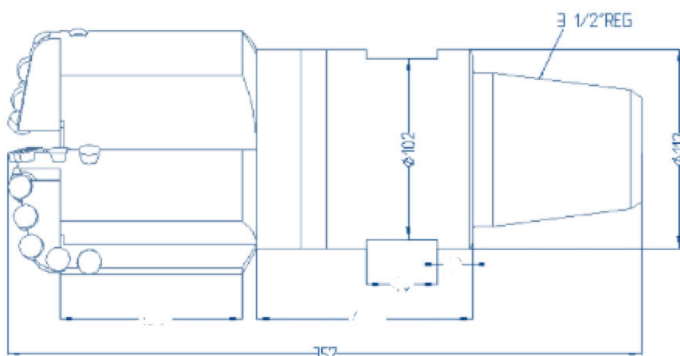
1. Tag bottom and pick up 3 ft. Begin circulating as for normal drilling conditions.
2. Begin rotation at 60 to 80 RPM.
3. Apply weight at 4,000 RPM.
4. If there is an indication junk may be turning, spud two or three times.
5. After milling 1 to 2 ft, pick up the kelly 15 to 20 ft off bottom and reduce pump pressure or shut off pumps (depending on hole conditions). This action will let the loose junk settle to the bottom.
6. Once again feel for the bottom and spud. Begin rotation at 80 to 100 RPM using normal pump pressure. Begin weight at 4,000 to 6,000 lb.
7. Repeat Steps 3 and 4 every few feet. Procedures from here on will be governed by feel.

Note: In hard formation it will take fewer feet of the hole to mill up the junk than in softer formation. This difference is due to the junk's ability to lodge itself into the softer formation.



Specifications

Tool Type	Flat Mill 5.750" size range
Material Type	HF hard-facing flat mill
Connection Type	3 1/2 API Reg



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Premium Drilling Tools

6 1/8 TCI517G-PDT1

(155.58 mm)
IADC:517







Composite seal: The seal is made of wear-resistant and high temperature composite material. The unique sealing structure also provides effective protection for the seals. The overall life of the bit with composite seal is 20%-50% better than ordinary rubber seal bit, and it has a better performance under the conditions of high temperature and high speed.

Specifications

Bearing Type	Sliding bearing
Seal Type	Composite seal
Connection Type	3 1/2 API Reg
Cutter Type	TCI
Operating Parame	
Weight on Bit (Klb)	10 To 30
Rotary Speed (RPM)	199 To 60

Operating parameters are typical ranges. Please contact your PDT Bits representative for recommendations for your individual well.

FEATURES

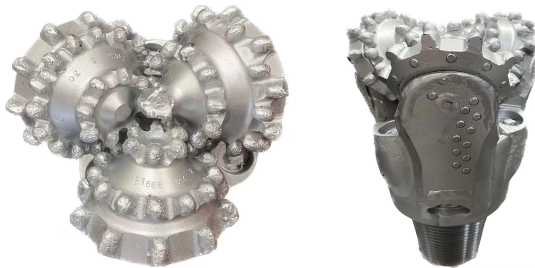
- Composite seal: The seal is made of wear-resistant and high-temperature composite material. The unique sealing structure also provides effective protection for the seals. The overall life of the bit with composite seal is 20%-50% better than ordinary rubber seal bit, and it has a better performance under the conditions of high temperature and high speed. And the composite sealed bits can use together with motor. 
- Sliding bearings: This series adopts sliding bearings. The technology of surfacing wear-resistant alloy on the surface of the tooth palm and silver plating on the inner hole of the cone can effectively improve the bearing capacity and anti-seizure ability of the bearing, and can drill stably in high pressure and medium to high speed. 
- Scoop teeth: improve the stress condition of teeth, effectively improve the rock breaking efficiency of the roller and increase the strength of teeth, suitable for drilling soft to medium soft formation. 
- The gauge protection adopts the arrangement of double rows of teeth to enhance the diameter retaining performance and prolong the service time of the bit. The reinforced alloy tooth arrangement on the palm can effectively protect the shirrtail, seal and oil storage hole, effectively improve the stability of the bit, enhance the anti-shrinkage ability and prolong the service time of the bit, especially for directional wells and horizontal wells. 



6 1/8" MT217G-PDT1

(155.58 mm)

IADC:217



Composite seal: The seal is made of wear-resistant and high temperature composite material. The unique sealing structure also provides effective protection for the seals. The overall life of the bit with composite seal is 20%-50% better than ordinary rubber seal bit, and it has a better performance under the conditions of high temperature and high speed.

Specifications

Bearing Type	Sliding bearing
Seal Type	Composite seal
Connection Type	3 1/2 API Reg
Cutter Type	MT
Operating Parame	
Weight on Bit (Klb)	10 To 30
Rotary Speed (RPM)	199 To 60

Operating parameters are typical ranges. Please contact your PDT Bits representative for recommendations for your individual well.

FEATURES

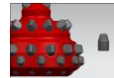
- Composite seal: The seal is made of wear-resistant and high-temperature composite material. The unique sealing structure also provides effective protection for the seals. The overall life of the bit with composite seal is 20%-50% better than ordinary rubber seal bit, and it has a better performance under the conditions of high temperature and high speed. And the composite sealed bits can use together with motor.



- Sliding bearings: This series adopts sliding bearings. The technology of surfacing wear-resistant alloy on the surface of the tooth palm and silver plating on the inner hole of the cone can effectively improve the bearing capacity and anti-seizure ability of the bearing, and can drill stably in high pressure and medium to high speed.



- Chisel tooth: The main teeth are chisel teeth, they have high cutting efficiency and strong crushing resistance, and can effectively improve the ROP of the bit. Suitable for medium soft to medium hard formation.



- The gauge protection adopts the arrangement of double rows of teeth to enhance the diameter retaining performance and prolong the service time of the bit. The reinforced alloy tooth arrangement on the palm can effectively protect the shirrtail, seal and oil storage hole, effectively improve the stability of the bit, enhance the anti-shrinkage ability and prolong the service time of the bit, especially for directional wells and horizontal wells.



Operating parameters are typical ranges. Please contact your PDT Bits representative for recommendations for your individual well.
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