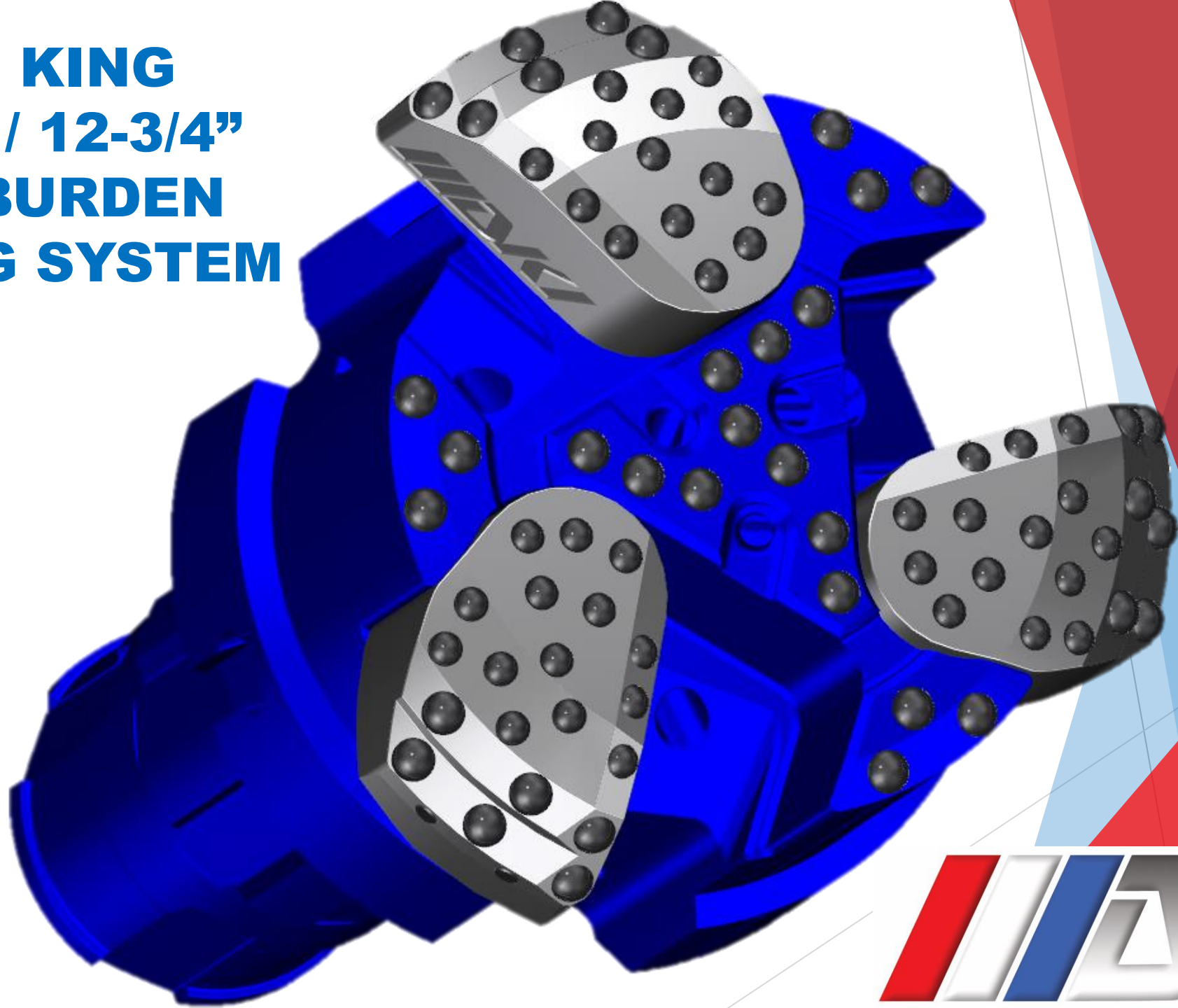
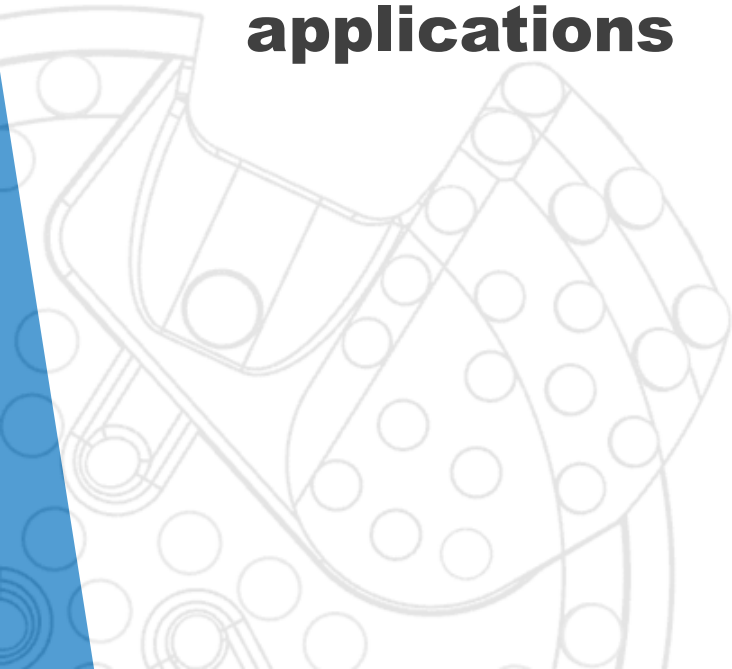


**WING KING**  
**324mm / 12-3/4"**  
**OVERBURDEN**  
**DRILLING SYSTEM**



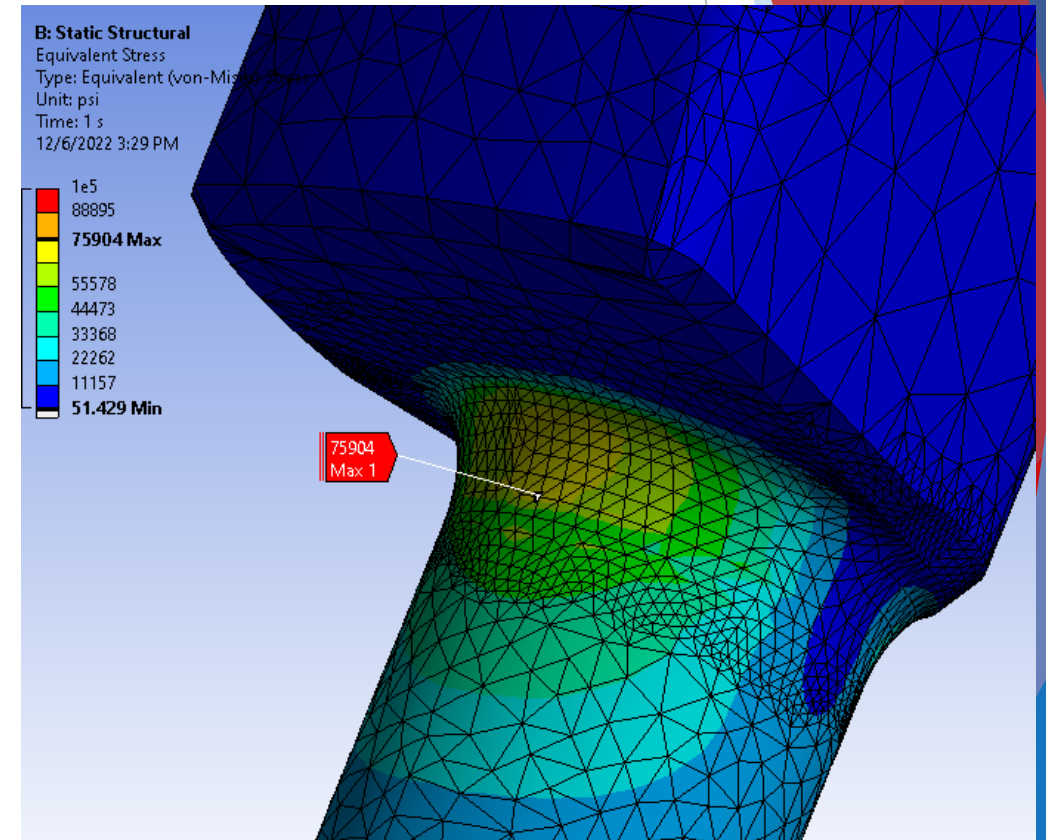
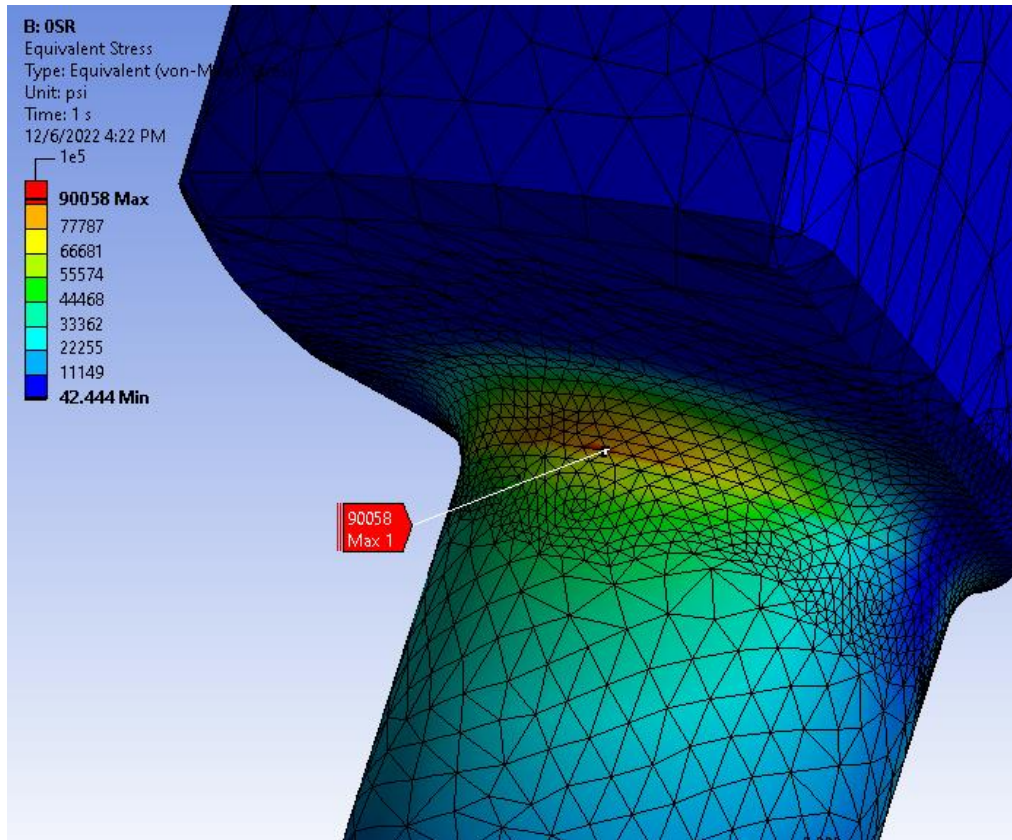
# OVERVIEW

- ▶ **New wing design with stepped gauge and leading edge**
- ▶ **Button layout optimized for reducing torque on wings and increasing longevity of pilot**
- ▶ **Improved flushing layout**
- ▶ **Multiple wing sizes to accommodate wide range of applications**



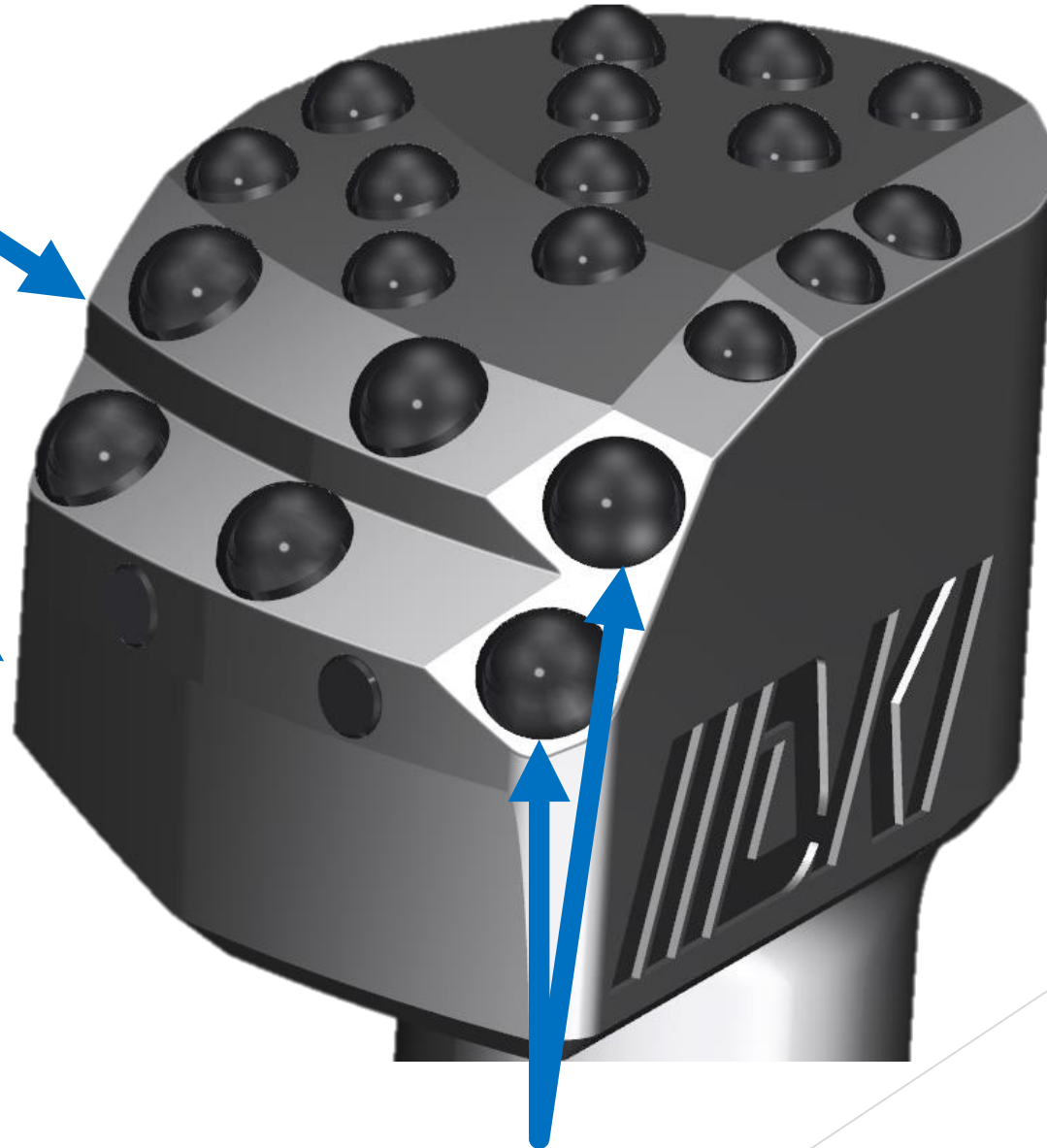
# WING STRENGTH

- ▶ **Optimized geometry reduces stress by 16%**
- ▶ **High strength steel**



# WING DESIGN

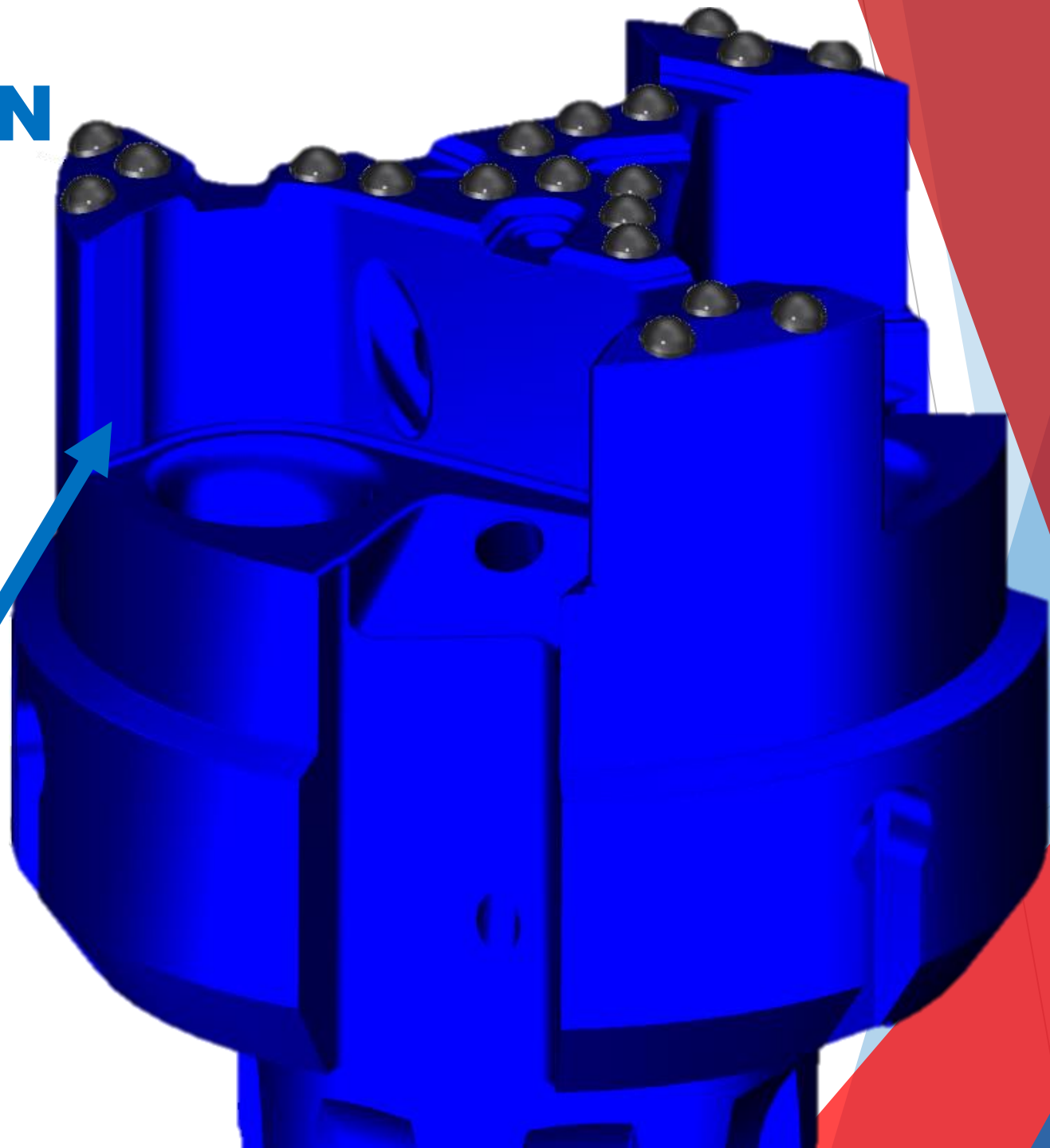
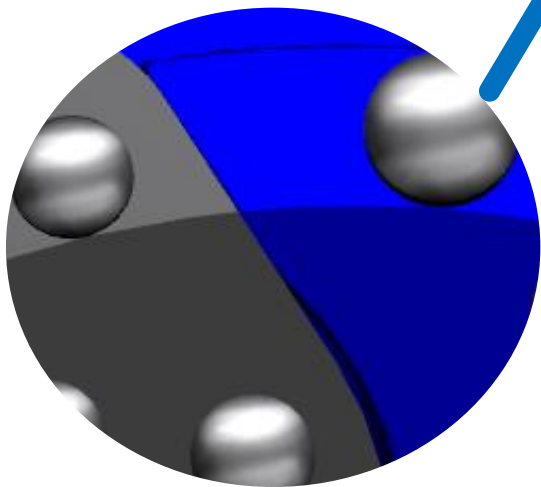
- ▶ **Stepped gauge design allows more carbide near gauge with limited space**
- ▶ **Tapered skirt with no wearpads to reduce binding and torque response**
- ▶ **5/8" gauge and 1/2" face buttons to minimize torque response**



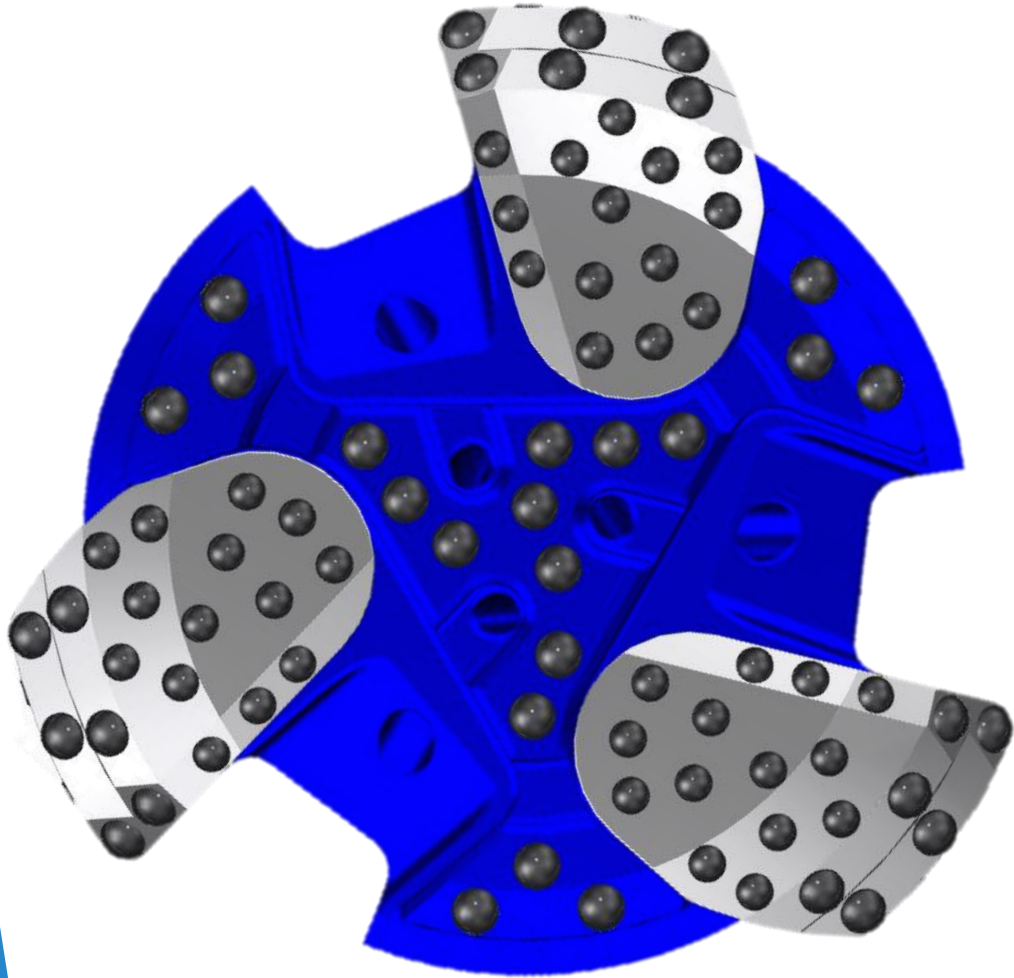
- ▶ **Leading edge geometry increases durability in heterogenous formations**

# PILOT DESIGN

- ▶ Improved blowhole layout improves flushing and ensures wing mobility
- ▶ Accepts multiple wing sizes for variety of applications
- ▶ Improved wing backstop geometry

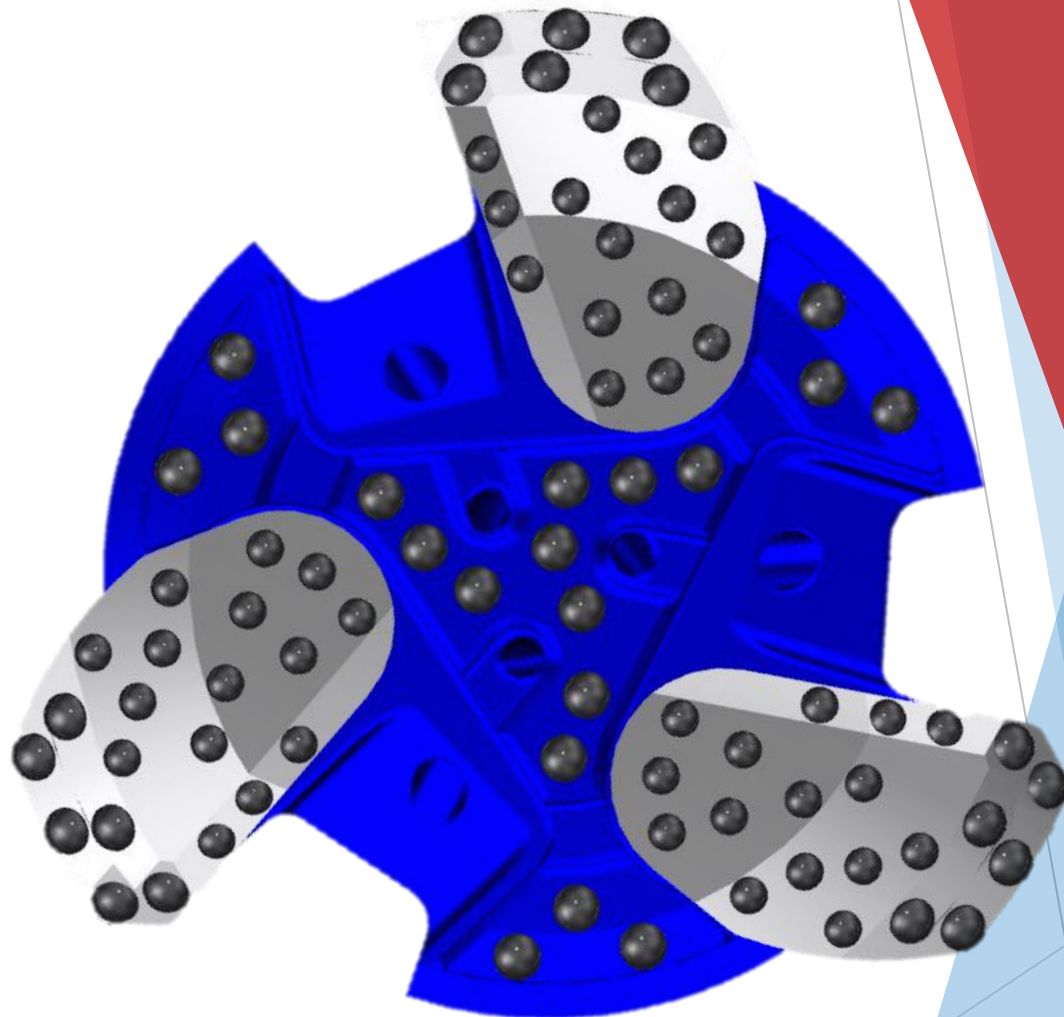


# WING VARIANTS



## WK324W-350

- ▶ 350mm / 13.78" cutting dia
- ▶ Most durable and cost-effective
- ▶ SSAB RDT320 threaded piles

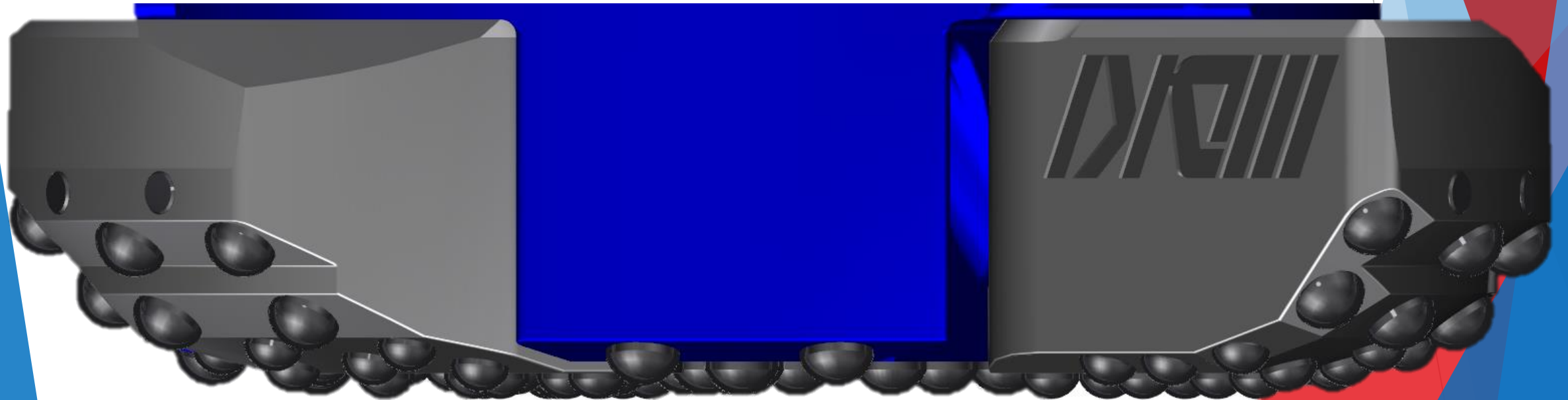


## WK324W-374

- ▶ 374mm / 14.72" cutting dia
- ▶ Larger underreaming diameter for interlocking piles, larger OD casing, etc.

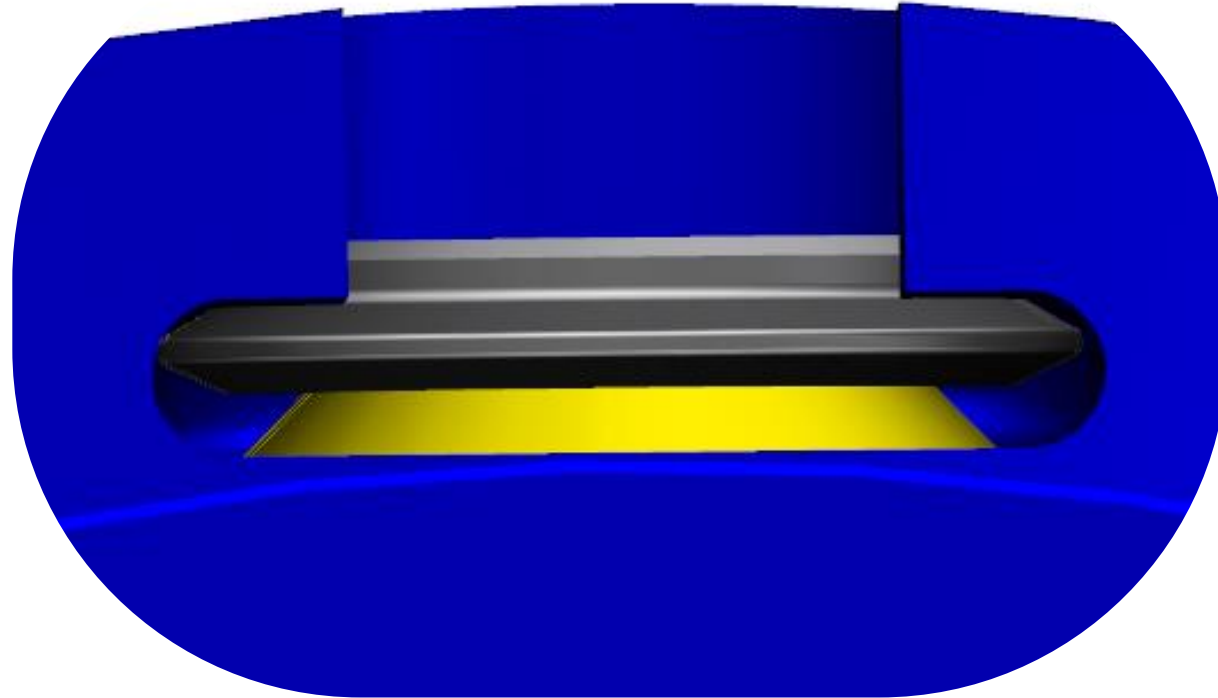
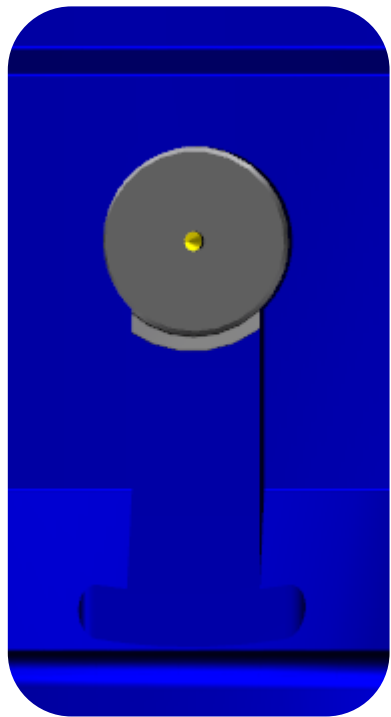
# BUTTON LAYOUT

- ▶ **Larger buttons on pilot enable extended service life with regrinding**
- ▶ **Smaller buttons on wings increase ROP and reduce torque response that can damage wings**
- ▶ **Leading edge geometry compensates for large angular gaps between wings (inherent to all wing system)**



# Lock Mechanism

- ▶ **Simple and robust locking mechanism**





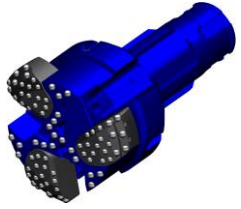
# PRODUCT SPECIFICATIONS

Attribute	Value (US)	Value (Metric)
MAX CASING DIA.*	12.75 in	323.9 mm
BIT DIA (WINGS OPEN)**	13.78 in	350.0 mm
BIT DIA (WINGS CLOSED)*	11.57 in	292.6 mm
CASING SHOE INNER DIA*	10.74 in	272.8 mm
MAX CASING WALL THICKNESS*	.500 in	12.7 mm
TFA	2.65 in <sup>2</sup>	1710 mm <sup>2</sup>
BUTTON TYPE (WING GAUGE)	5/8 in DOME	15.9 mm DOME
BUTTON TYPE (WING FACE)	1/2 in DOME	12.7 mm DOME
BUTTON TYPE (PILOT FACE)	5/8 in DOME	15.9 mm DOME
CARBIDE COVERAGE	13.1%	
HAMMER SIZE	10"	
AVAILABLE SHANKS	SD10, QL100, N100	
OPERATING PRESSURE	150 – 225 psi	10.3 – 15.5 Bar

\*Ask DK1 sales about potential modifications to fit your application

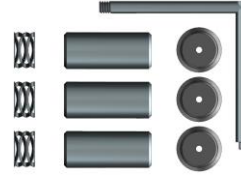
\*\*Bit cutting diameter using WK324W-350. See WK324W-374 for larger diameter.

# WK324 PART NUMBER GUIDE



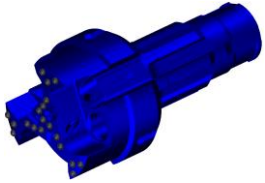
## ▶ WK324ASSY

- ▶ **Complete Wing King 324mm / 12.75" assembly**
- ▶ **(Casing shoe sold separately)**



## ▶ WK324RET-ASSY

- ▶ **RET-ASSY: Wing retainer assembly**



## ▶ WK324P-S10-0000

- ▶ **P: Pilot**
- ▶ **S10: Stem type (SD10)**
- ▶ **0000: DKI part code (dyanite buttons)**



## ▶ WK324CS-12.7

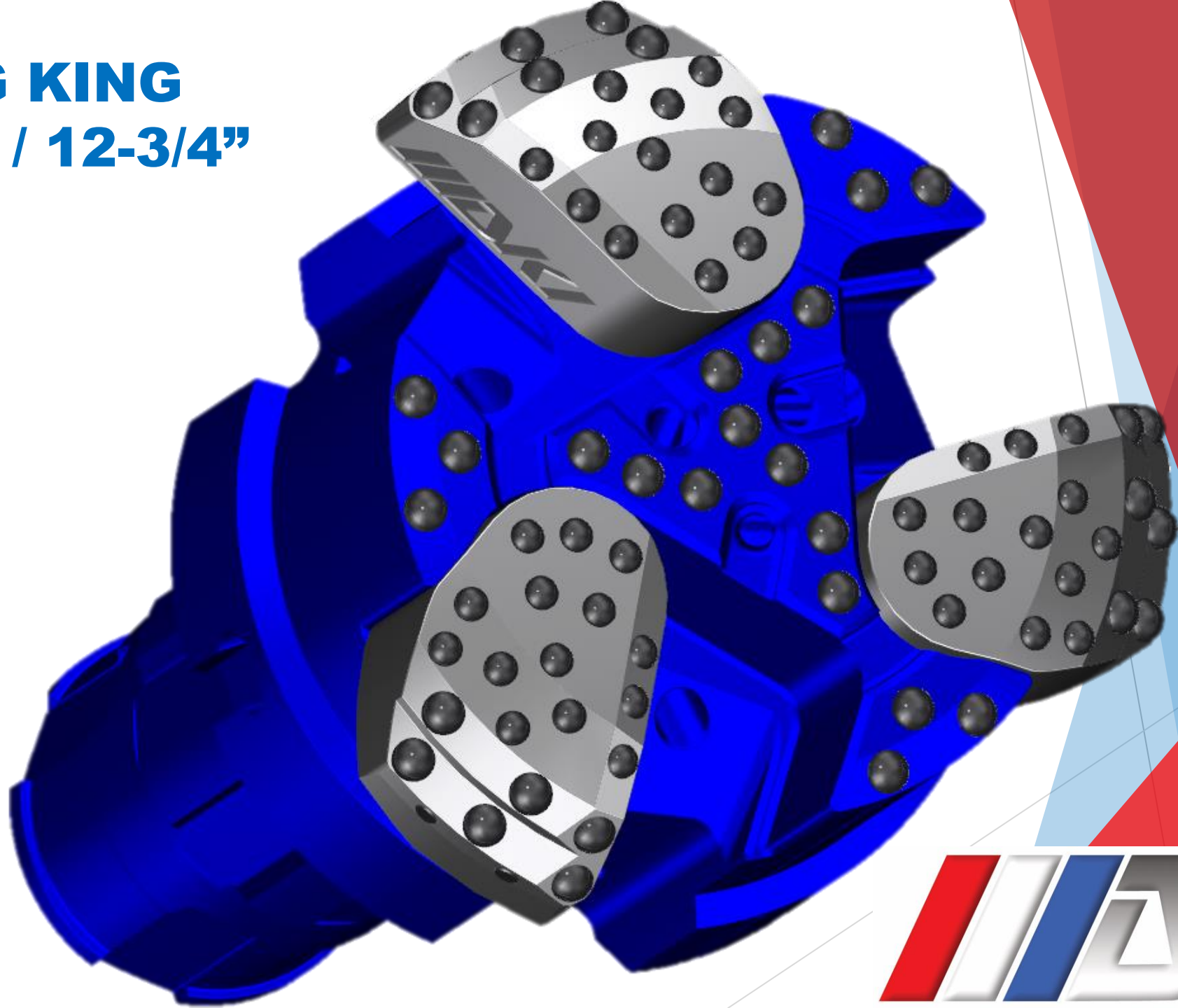
- ▶ **CS: Casing Shoe**
- ▶ **12.7: Casing wall thickness in mm**



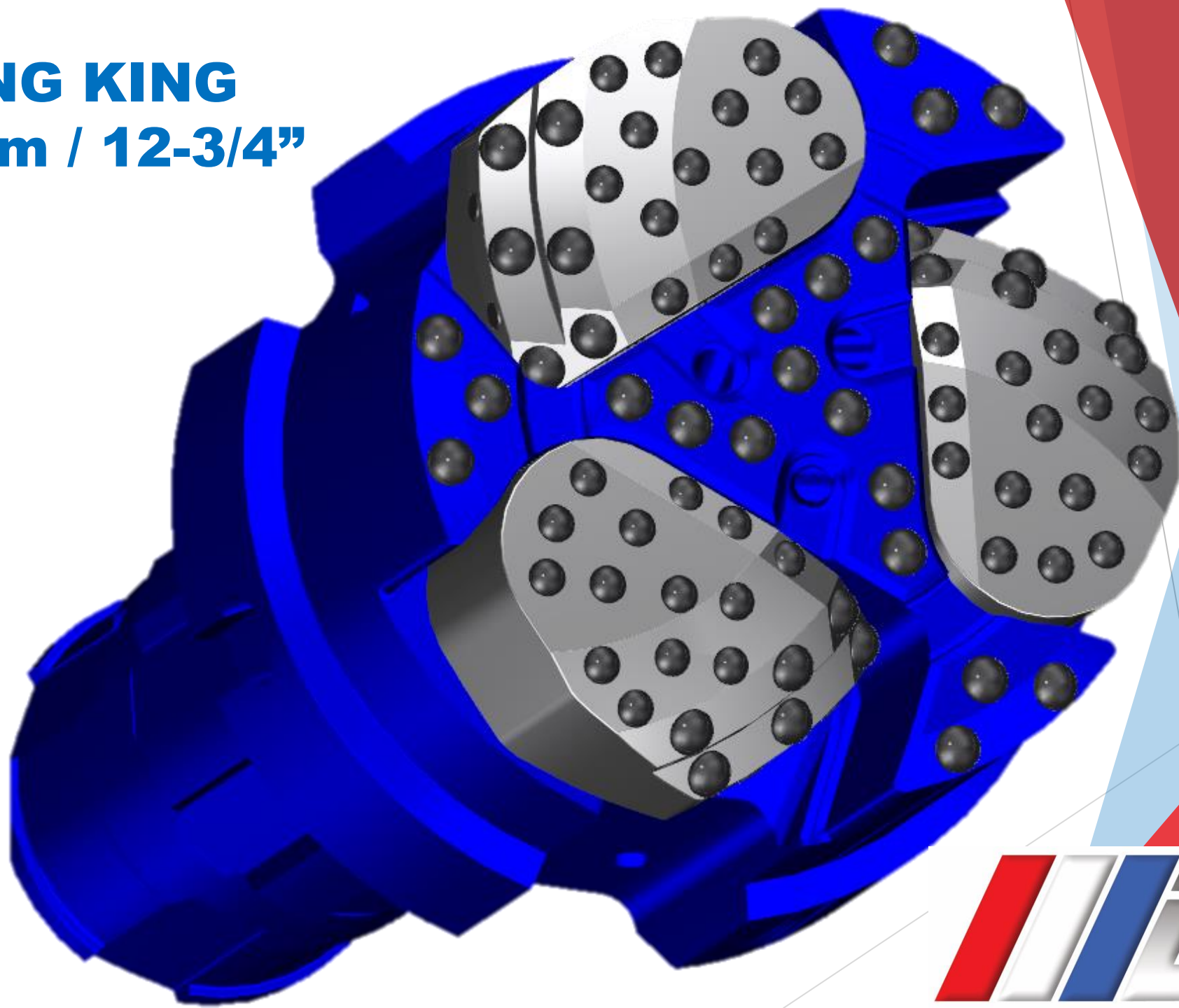
## ▶ WK324W-350-5501

- ▶ **W: Wing**
- ▶ **350: Cutting diameter in mm**
- ▶ **5501: DKI part code (standard buttons, wearpads)**

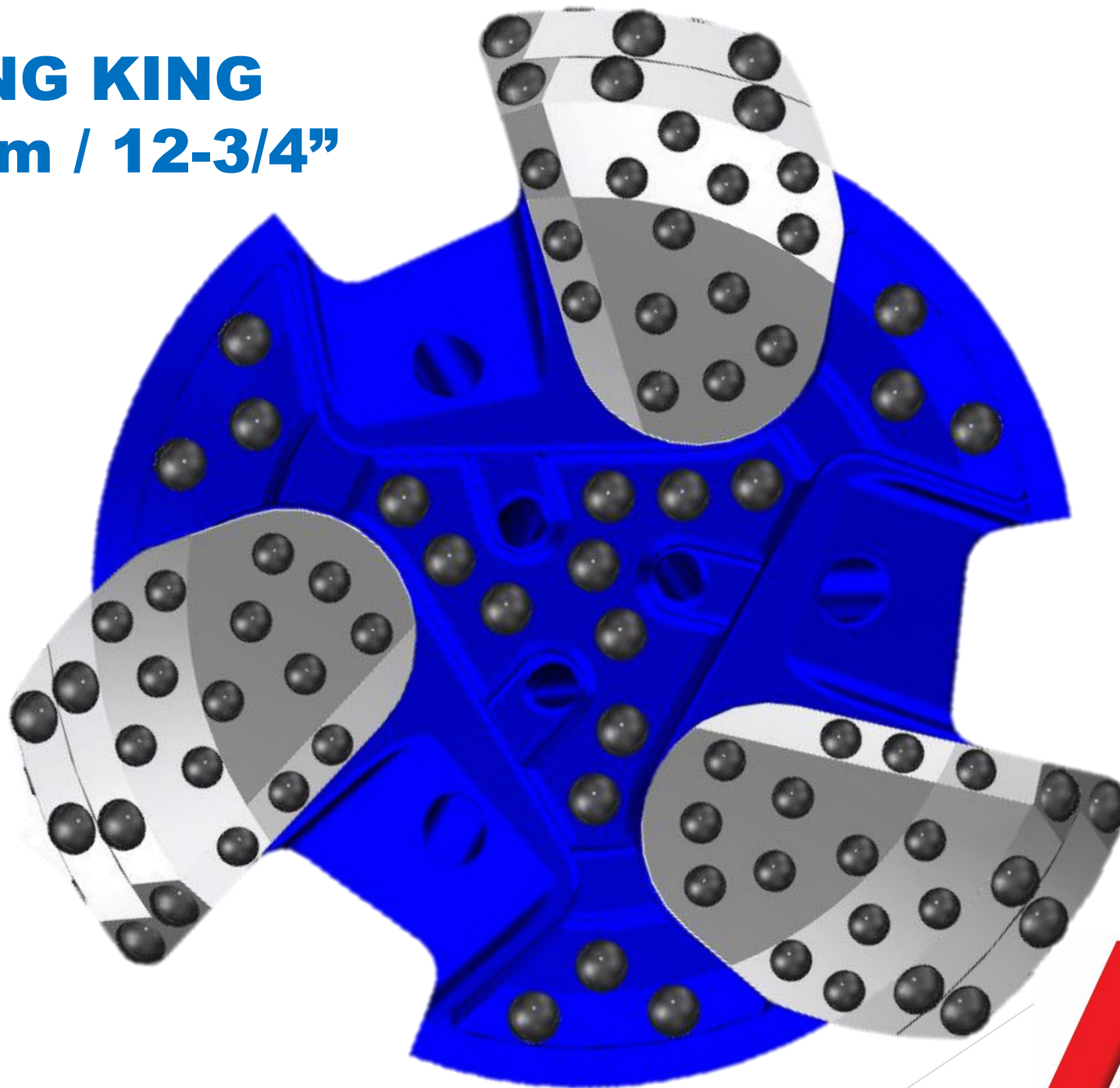
**WING KING**  
**324mm / 12-3/4"**



**WING KING**  
**324mm / 12-3/4"**

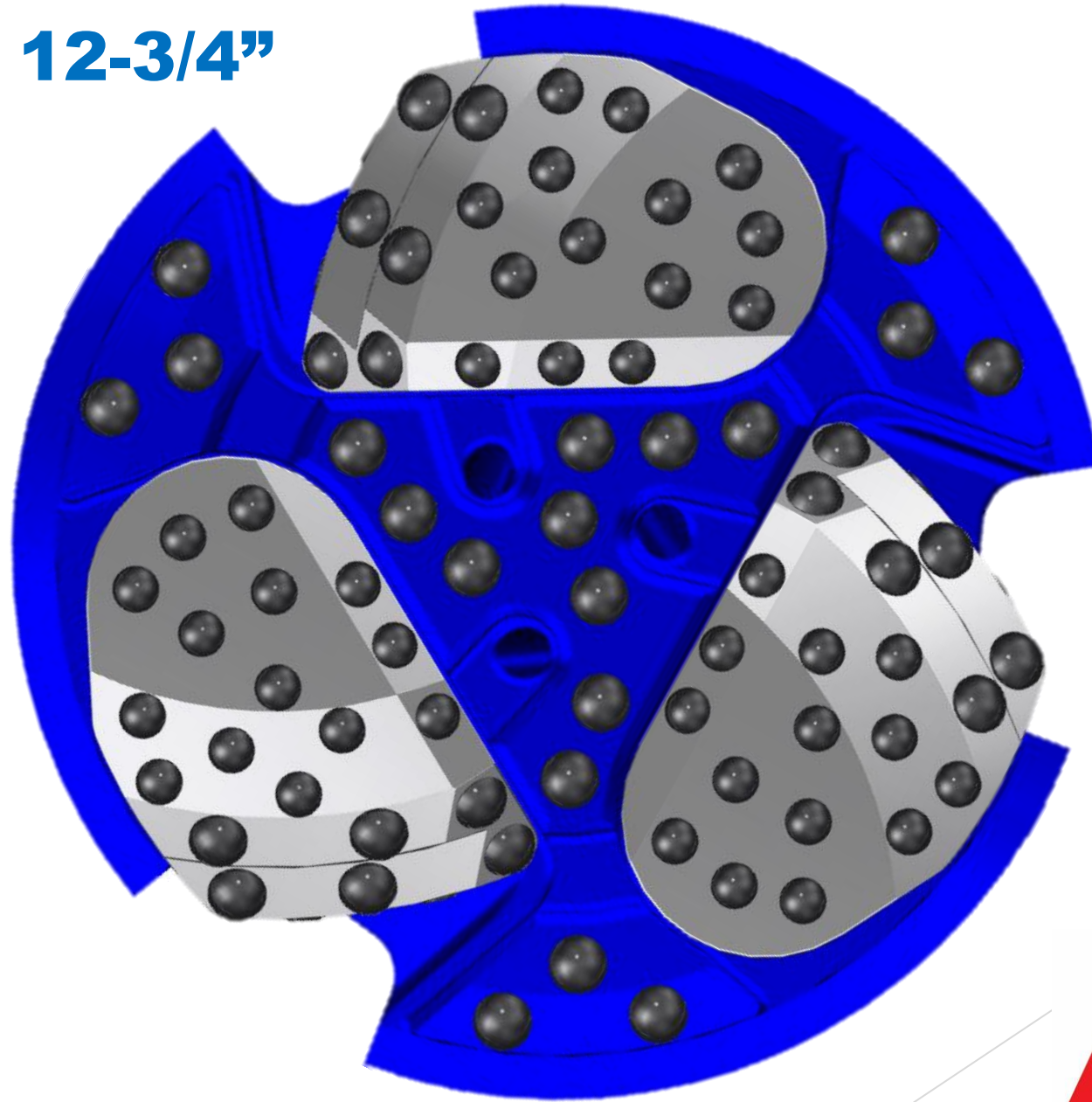


**WING KING**  
**324mm / 12-3/4"**



# WING KING

324mm / 12-3/4"



**WING KING**  
**324mm / 12-3/4"**



**WING KING**  
**324mm / 12-3/4"**

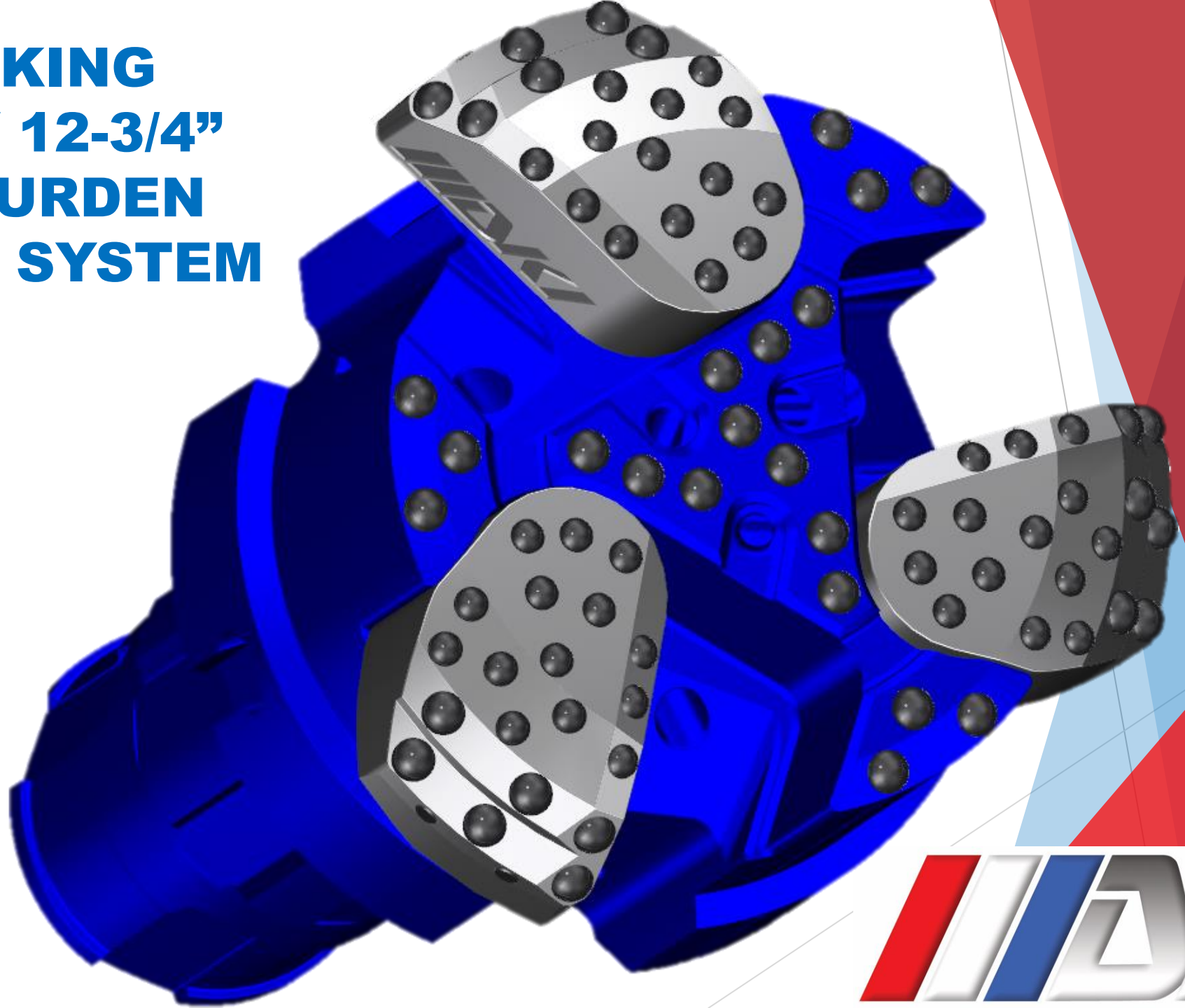




**WING KING**  
**324mm / 12-3/4"**



# WING KING 324mm / 12-3/4" OVERBURDEN DRILLING SYSTEM



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