

SHAREATE

QUALITY WINS RESPECT

ROCK DRILL TOOLS
TRI-CONE DRILL BIT



SHAREATE TOOLS LTD.

6 1/4 SG412

CUTTING STRUCTURE

Chisel on gage, conical on inner rows.
Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.
Compressive strength: 4,000–7,000 psi/27–48 MPa

SHIRTTAIL PROTECTION

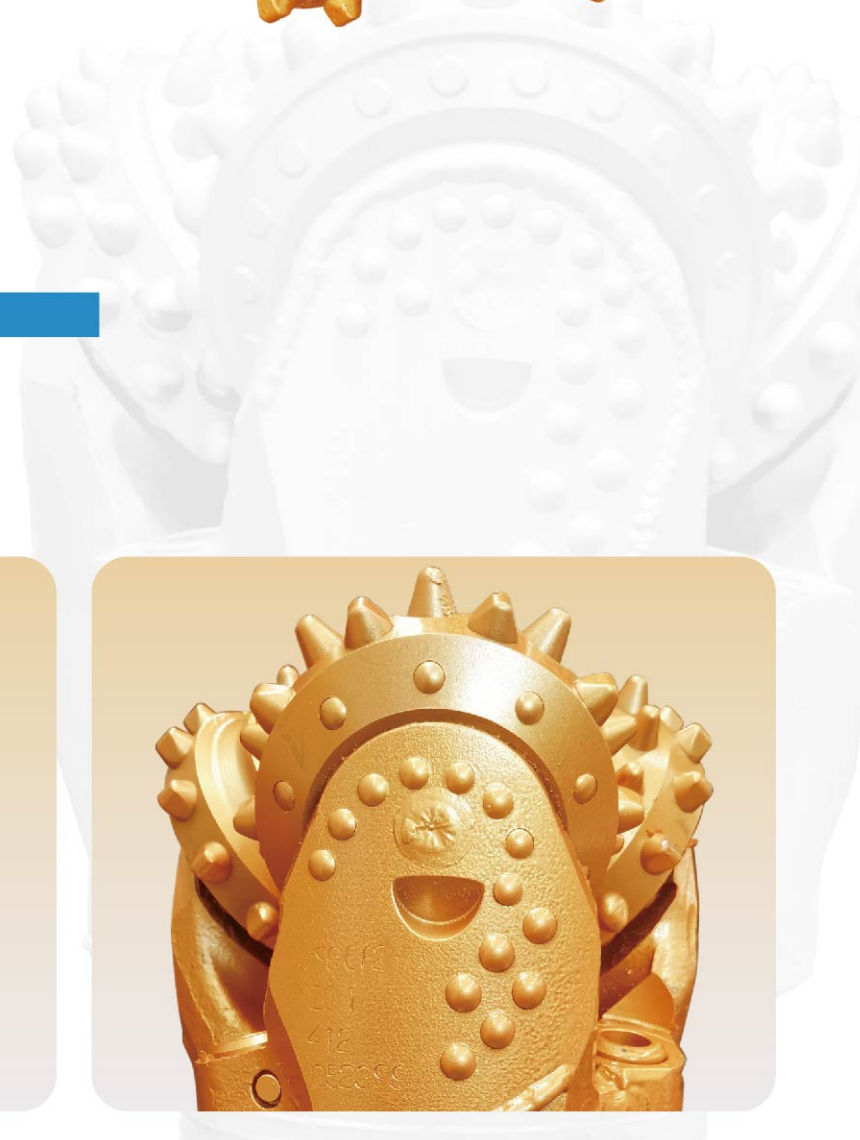
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 412
Bearing Type: Roller–Ball–Roller–Thrust Button/Open Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Conical
Gage Rows: Chisel
Auxiliary Carbide: Spherical
Pin Connection: 3 1/2" API REG
Metric Bit Diameter: 159 mm
Product Weight: 44 lbs/20 kg

OPERATING SUGGESTIONS

Weight on Bit: 6,250–12,500 lbs/ 2.8–5.7 T
Rotational Speed: 90–120 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



6 1/4 SG632

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

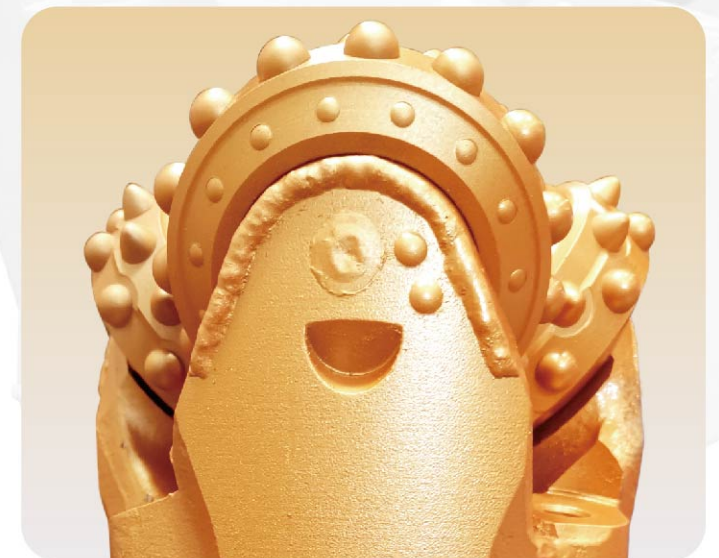
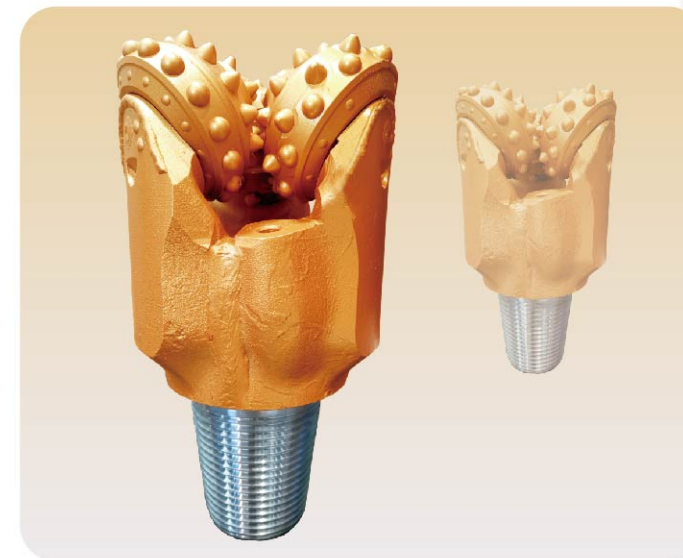
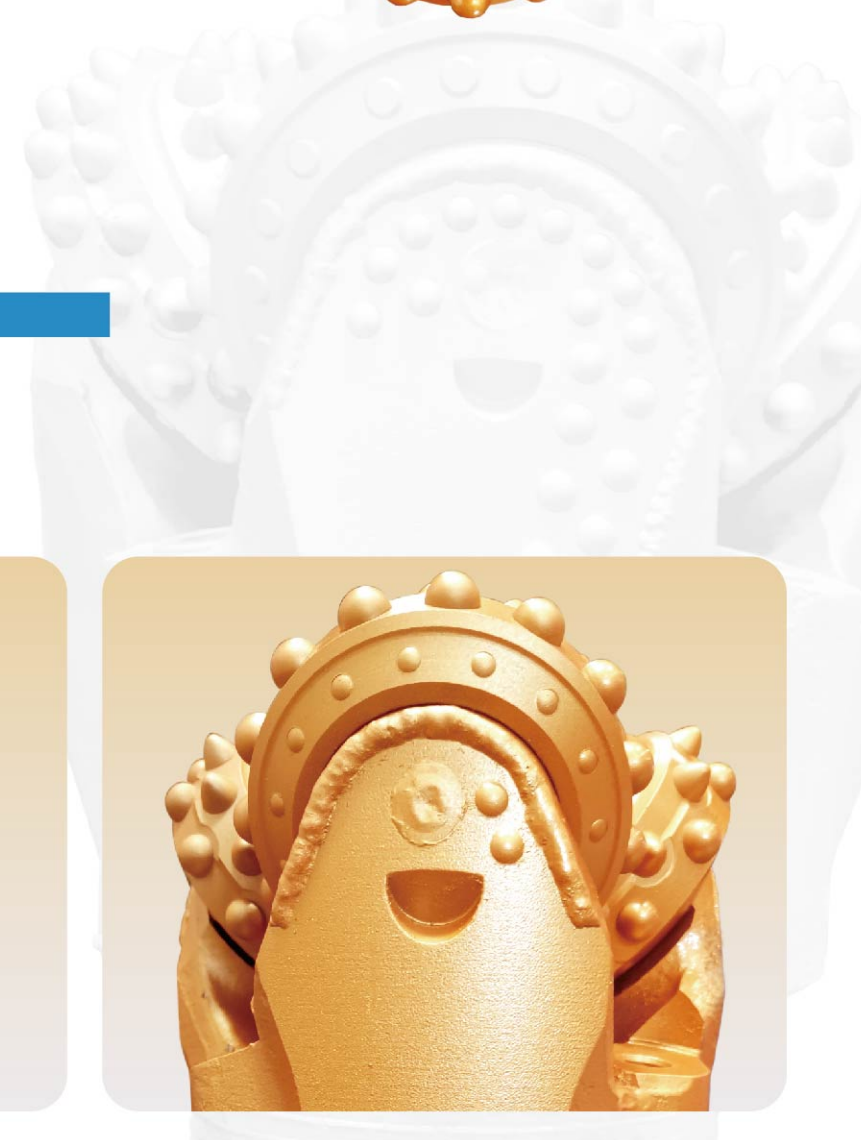
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 632
Bearing Type: Roller–Ball–Roller–Thrust Button/Open air Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 3 1/2" API REG
Metric Bit Diameter: 159 mm
Product Weight: 44 lbs/20 kg

OPERATING SUGGESTIONS

Weight on Bit: 18,750–37,500 lbs/8.5–17 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



6 3/4 SG532

CUTTING STRUCTURE

Conical on gage & inner rows
 Designed for medium soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.
 Compressive strength: 15,000–23,000 psi/103–158 MPa

SHIRTTAIL PROTECTION

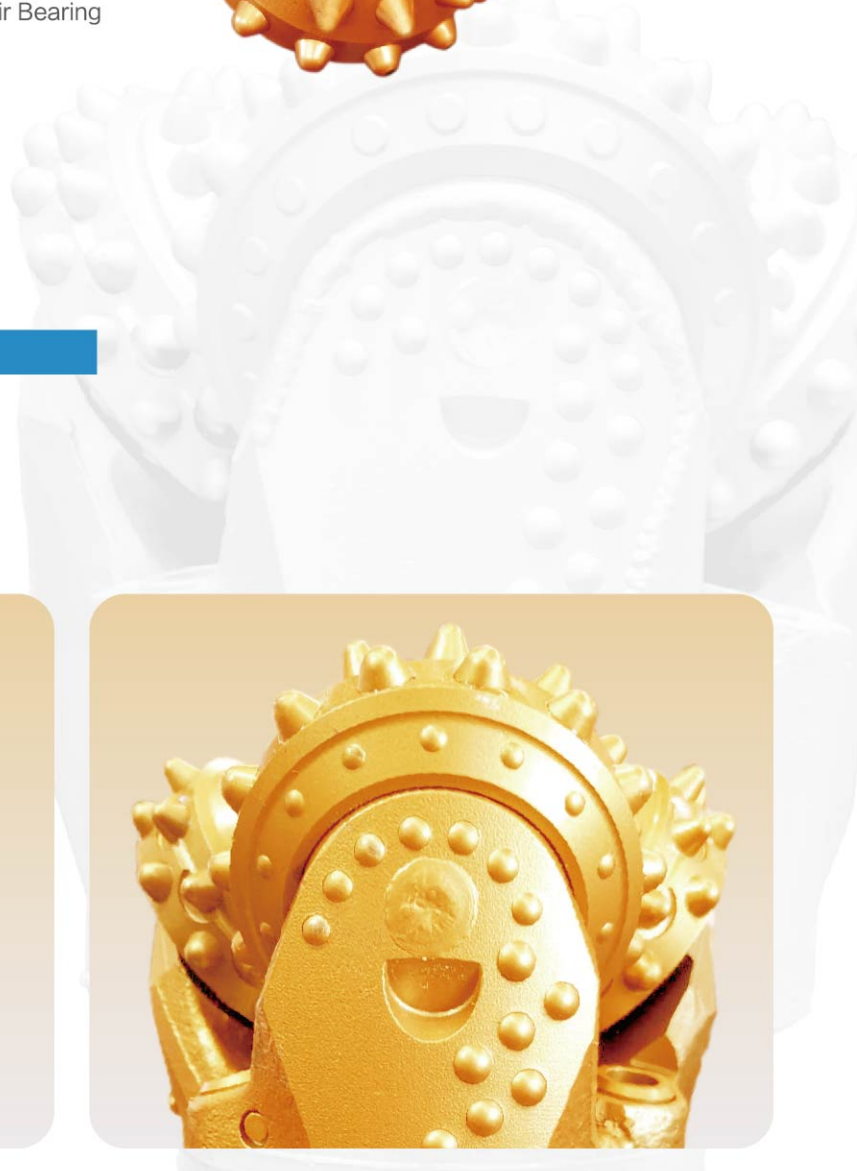
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 532
 Bearing Type: Roller–Ball–Roller–Thrust Button/Open air Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Conical
 Gage Rows: Conical
 Gage Bevel Protection: Ovoid
 Pin Connection: 3 1/2" API REG
 Metric Bit Diameter: 172 mm
 Product Weight: 48 lbs/22 kg

OPERATING SUGGESTIONS

Weight on Bit: 13,500–33,750 lbs/ 6.1–15.3 T
 Rotational Speed: 80–110 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SG412GS

CUTTING STRUCTURE

Chisel on gage, spoon on inner rows, with auxiliary carbide protection.
 Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.
 Compressive strength: 4,000–7,000 psi/27–48 MPa

SHIRTTAIL PROTECTION

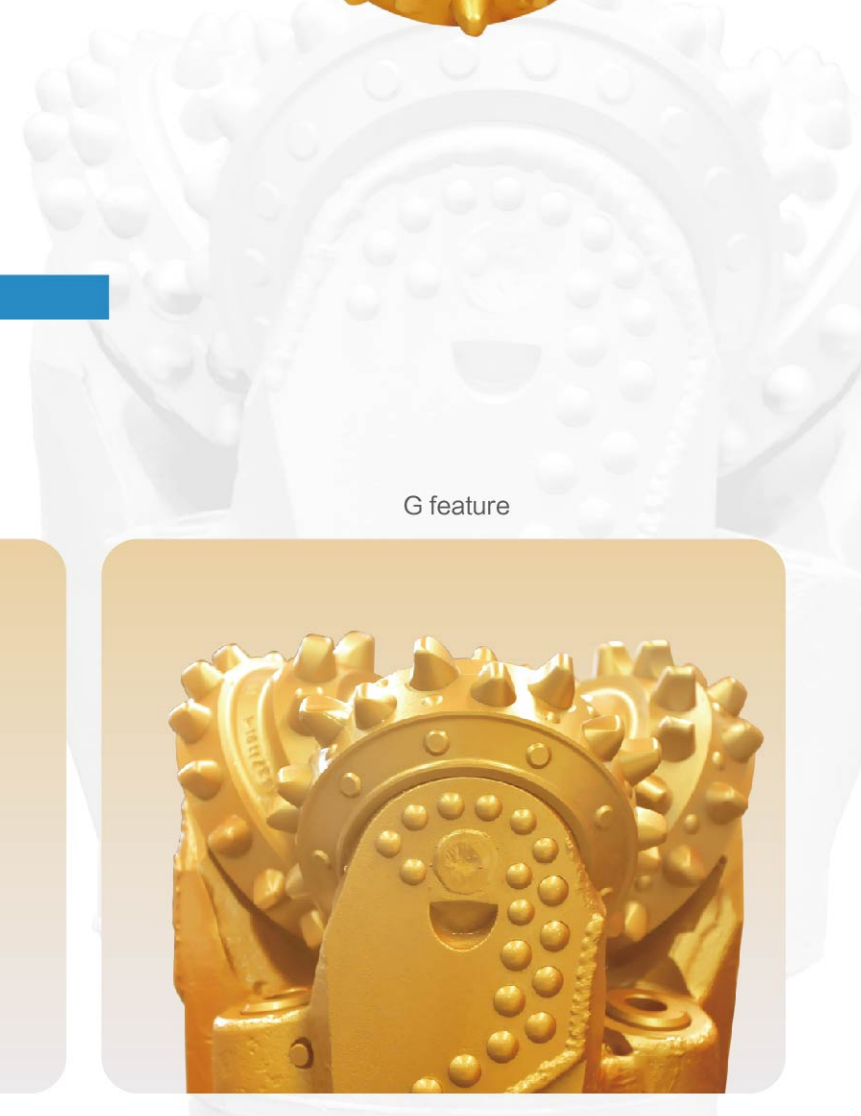
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

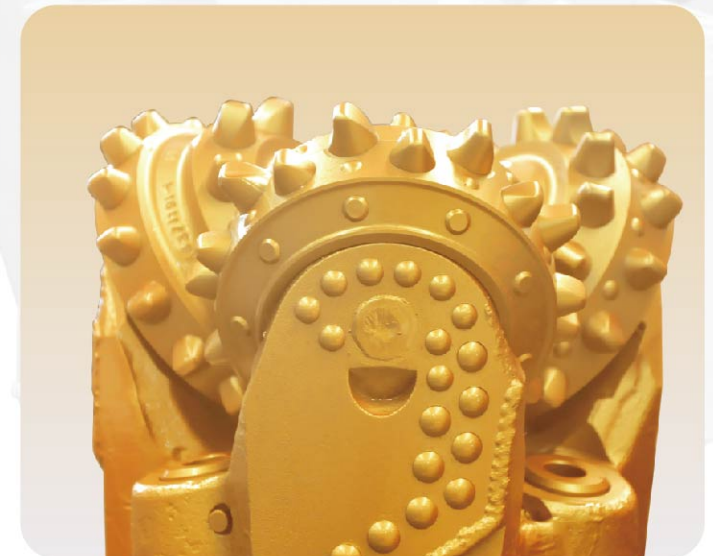
IADC Code: 412
 Bearing Type: Roller–Ball–Roller–Thrust Button/Open Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Spoon
 Gage Rows: Chisel
 Auxiliary Carbide: Spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 4 1/2" API REG
 Metric Bit Diameter: 200 mm
 Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 12.4T / 27,337 lbs MAX
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



G feature



7 7/8 SG632

CUTTING STRUCTURE

Conical on gage, double spherical and conical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

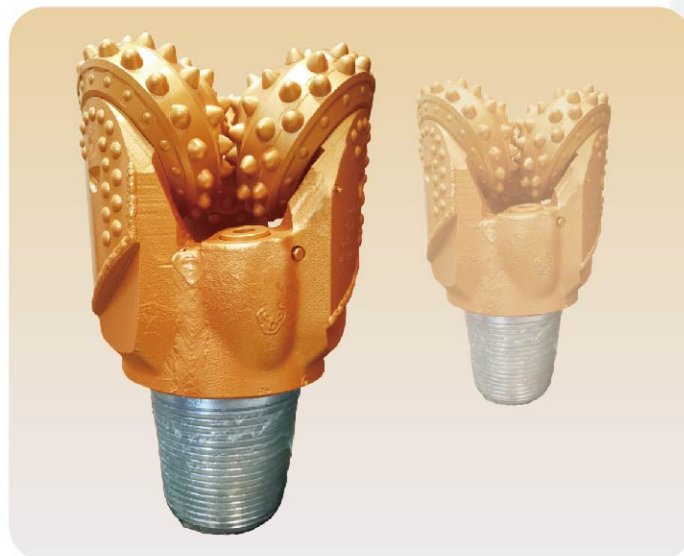
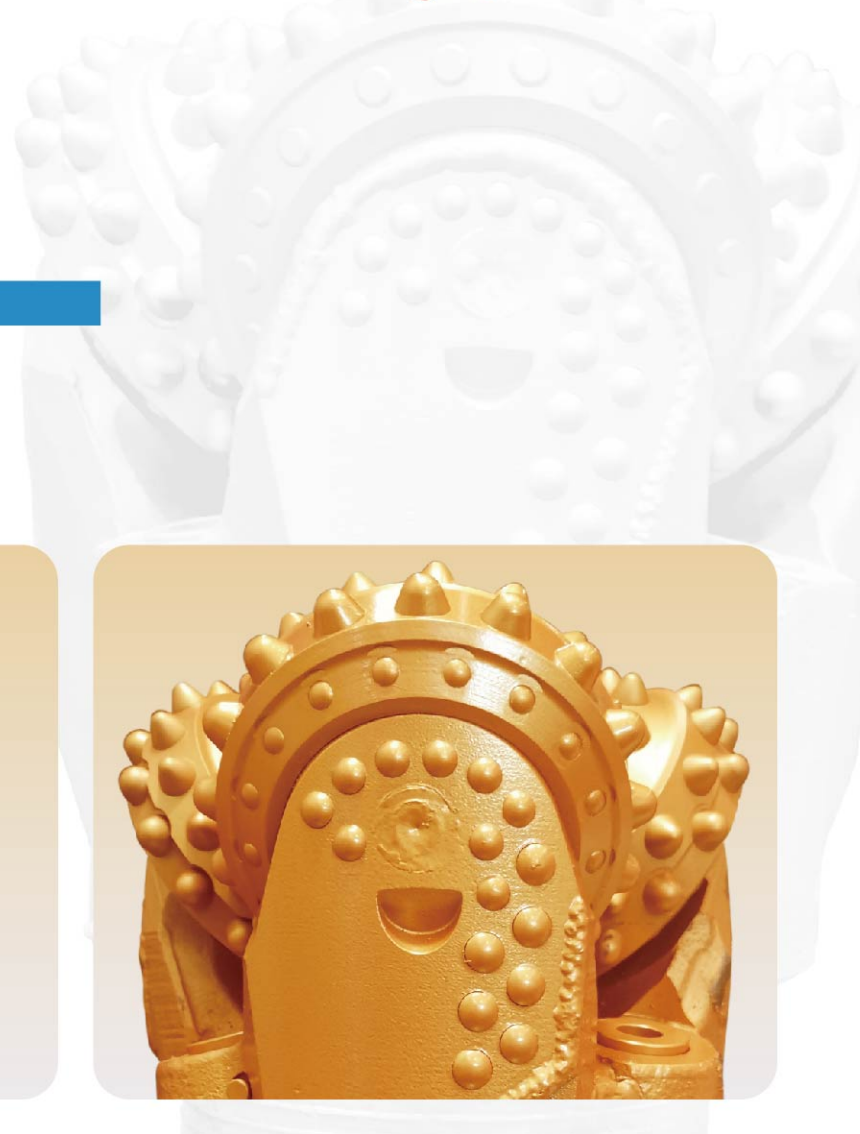
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 632
Bearing Type: Roller–Ball–Roller–Thrust Button/Open air Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical and conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 23,630–47,250 lbs/10.7–21.4 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SGV525

CUTTING STRUCTURE

Chisel on gage, conical on inner rows.
Designed for medium soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.
Compressive strength: 15,000–23,000 psi/103–158 MPa

SHIRTTAIL PROTECTION

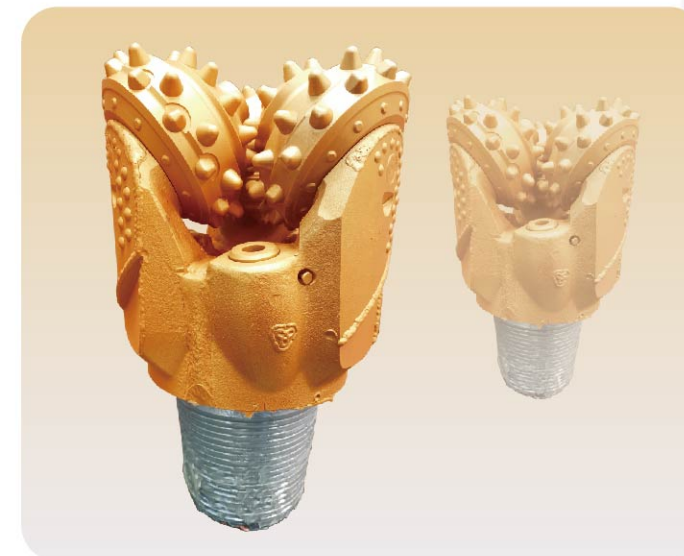
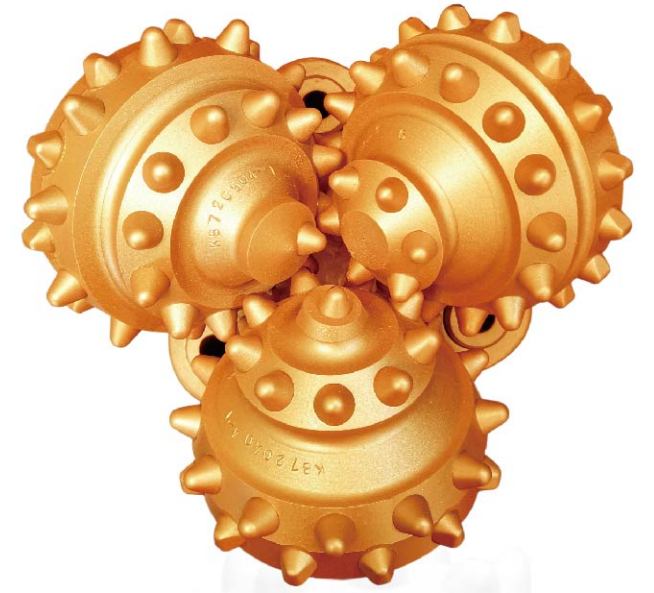
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 525
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Conical
Gage Rows: Chisel
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 15,750–39,380 lbs/ 7.2–17.9 T
Rotational Speed: 80–110 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SGV635

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

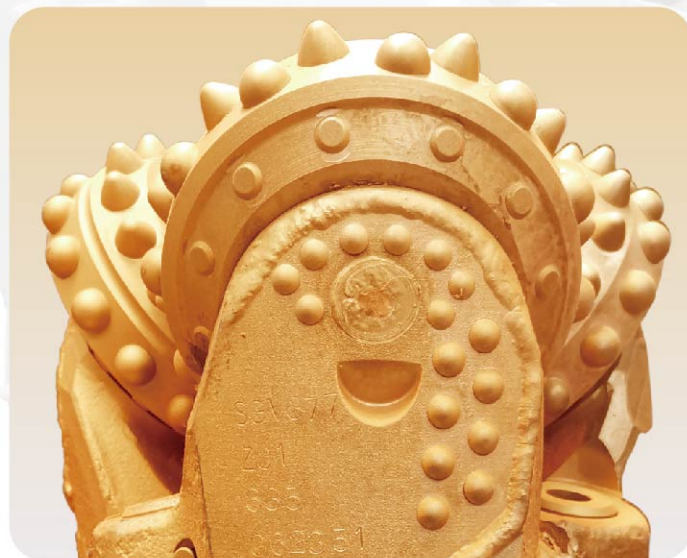
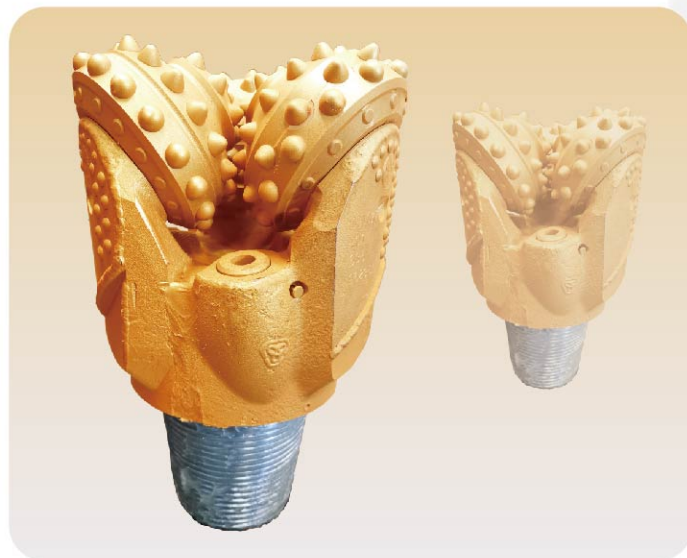
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 23,630–47,250 lbs/10.7–21.4 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SGV735

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 43,000–52,000 psi/296–358 MPa

SHIRTTAIL PROTECTION

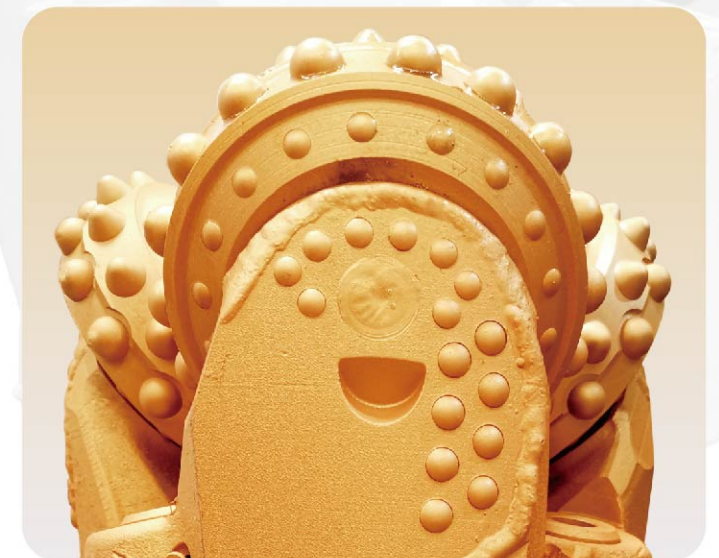
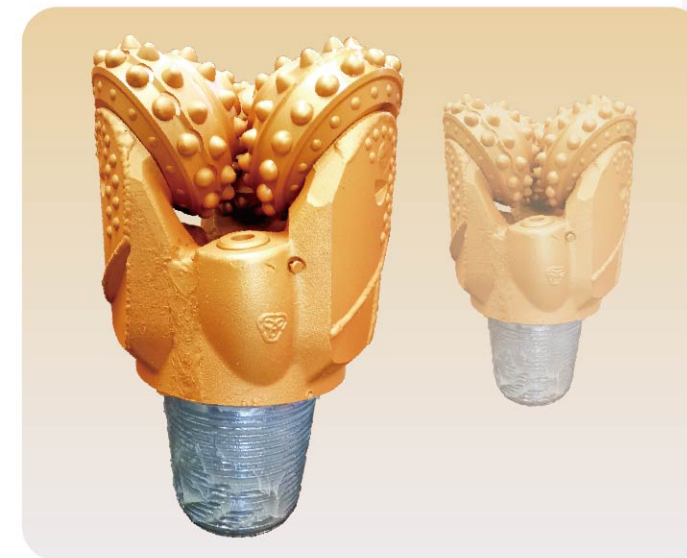
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 735
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical and conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 31,500–55,130 lbs/14.3–25 T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SGA545R

CUTTING STRUCTURE

Conical on gage and inner rows
Designed for soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.
Compressive strength: 18,000–27,000 psi/124–186 MPa

SHIRTTAIL PROTECTION

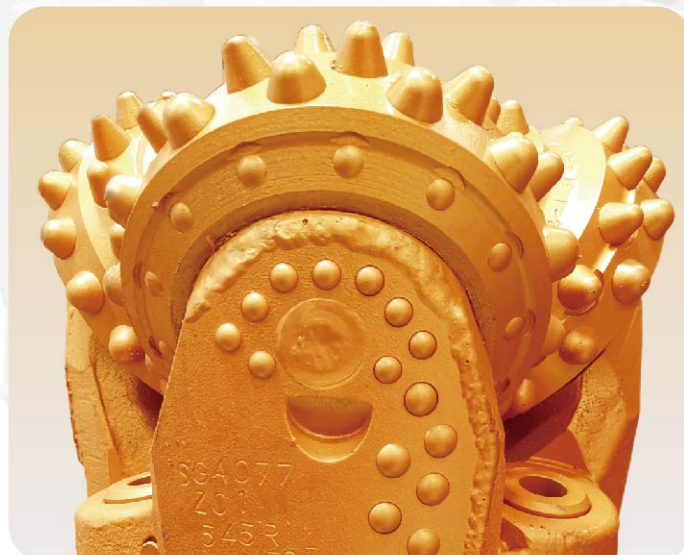
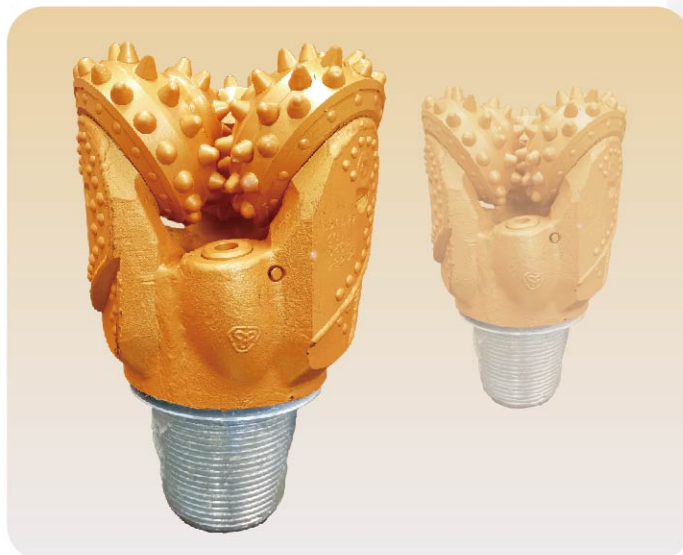
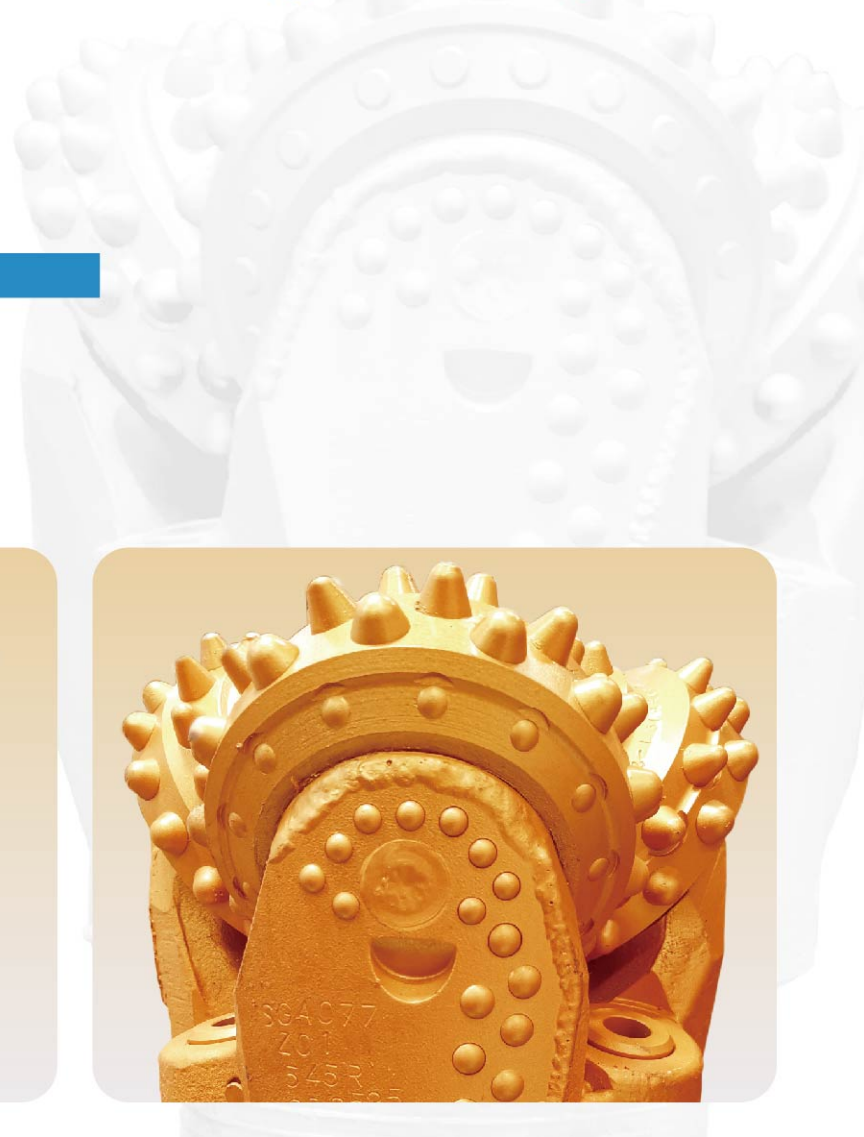
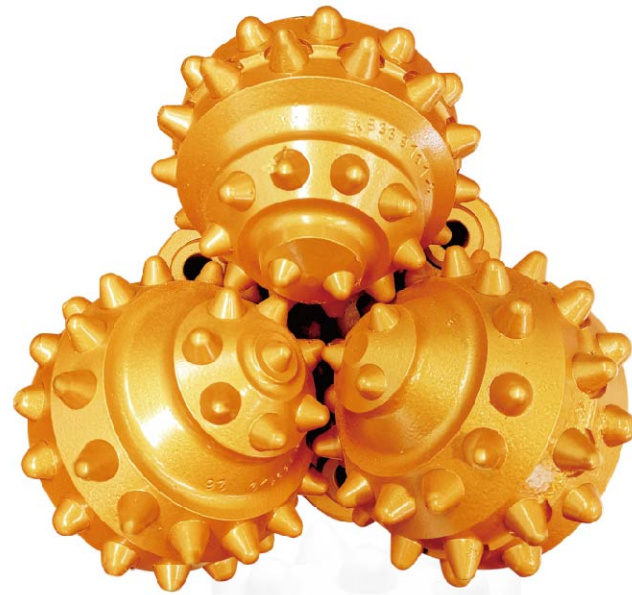
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 545
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 15,750–39,380 lbs/ 7.2–17.9 T
Rotational Speed: 80–110 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SGA635

CUTTING STRUCTURE

Conical on gage, double spherical and conical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

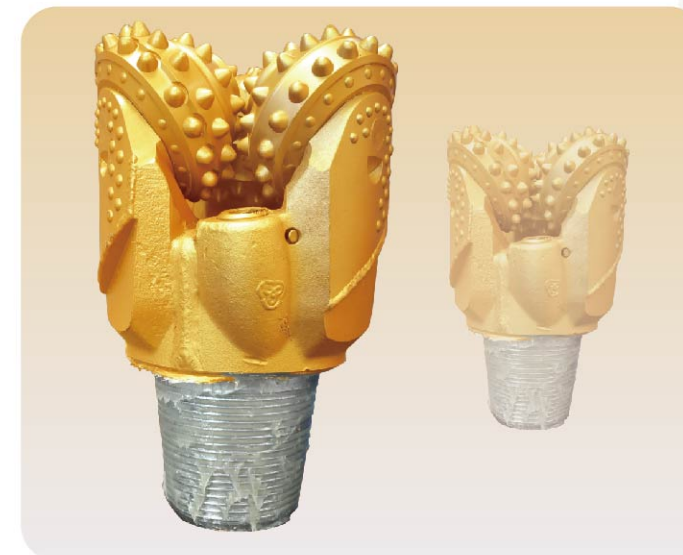
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical and conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 12.4T / 27,337 lbs MAX
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



7 7/8 SGA635RC

CUTTING STRUCTURE

Conical on gage, double spherical and conical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

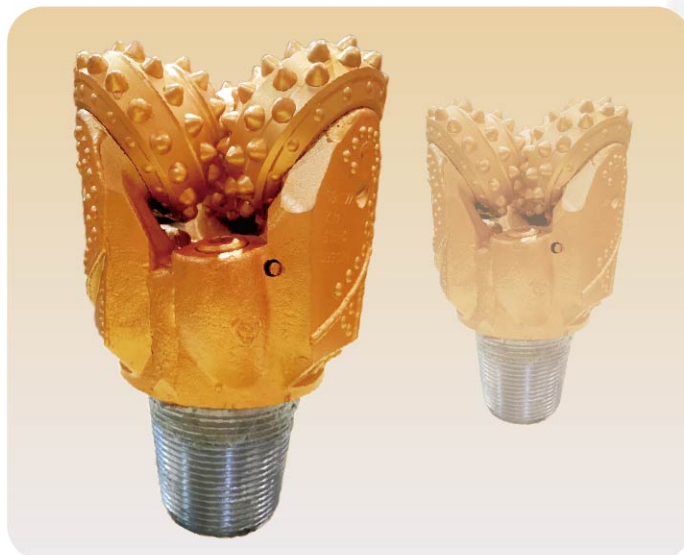
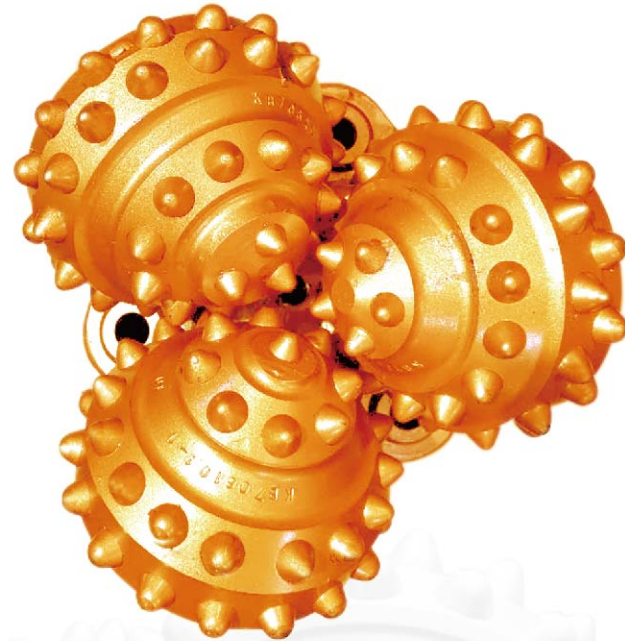
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical and conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 200 mm
Product Weight: 75 lbs/34 kg

OPERATING SUGGESTIONS

Weight on Bit: 23,630–47,250 lbs/10.7–21.4 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



8 1/2 SGA635

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

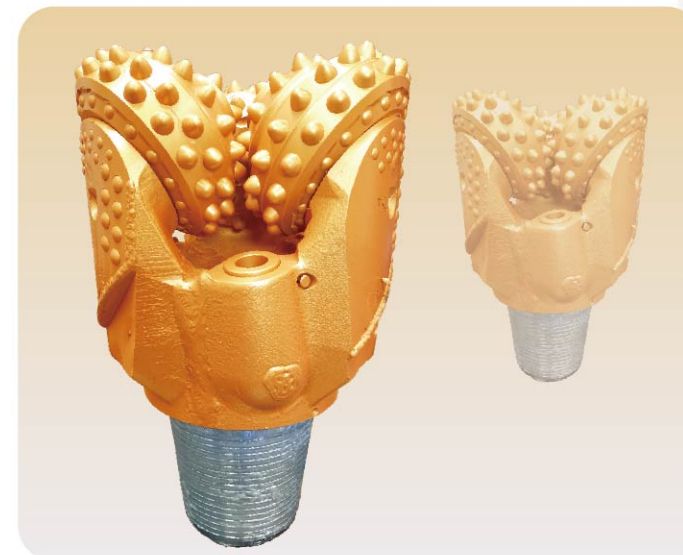
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 216 mm
Product Weight: 84 lbs/38 kg

OPERATING SUGGESTIONS

Weight on Bit: 25,500–51,000 lbs/11.6–23.1 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 SGV415FS

CUTTING STRUCTURE

Wedge on gage, conical on inner rows, with auxiliary carbide protection.

Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.

Compressive strength: 4,000–7,000 psi/27–48 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

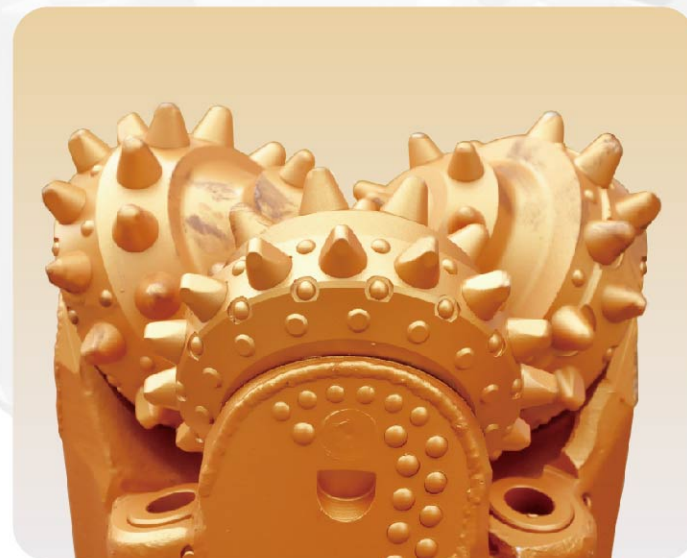
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 Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Conical
 Gage Rows: Wedge
 Auxiliary Carbide: Spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 4 1/2" API REG
 Metric Bit Diameter: 229 mm
 Product Weight: 110 lbs/50 kg

OPERATING SUGGESTIONS

Weight on Bit: 13.5T / 29,762 lbs MAX
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



F feature



9 SGV435FS

CUTTING STRUCTURE

Wedge on gage, conical on inner rows, with auxiliary carbide protection.

Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.

Compressive strength: 6,000–9,000 psi/41–62 MPa

SHIRTTAIL PROTECTION

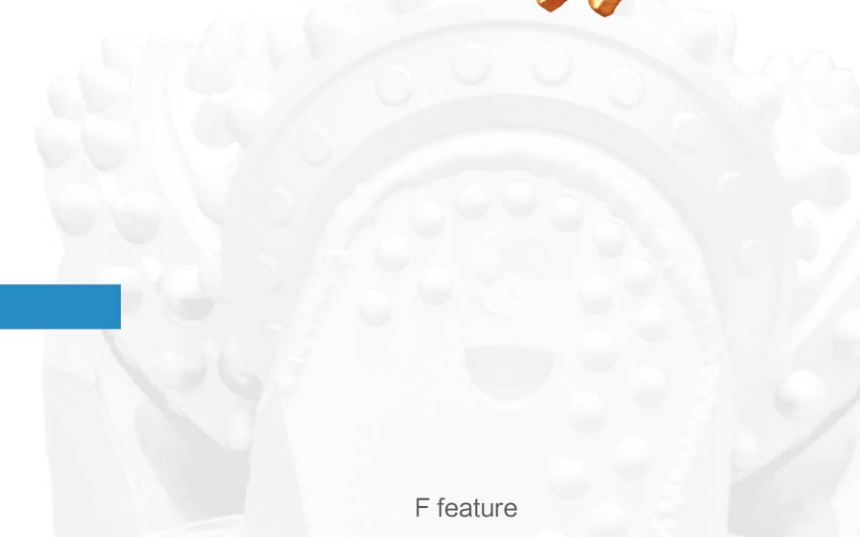
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 435
 Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Conical
 Gage Rows: Wedge
 Auxiliary Carbide: Spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 4 1/2" API REG
 Metric Bit Diameter: 229 mm
 Product Weight: 110 lbs/50 kg

OPERATING SUGGESTIONS

Weight on Bit: 13.5T / 29,762 lbs MAX
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



F feature



9 SGV525

CUTTING STRUCTURE

Off chisel on gage, conical on inner rows.

Designed for medium soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.

Compressive strength: 12,000–18,000 psi/82–124 MPa

SHIRTTAIL PROTECTION

Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 525

Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing

Circulation Type: Jet Air

Cutting Structure:

Inner and Nose Rows: Conical

Gage Rows: Off chisel

Gage Bevel Protection: Ovoid

Pin Connection: 4 1/2" API REG

Metric Bit Diameter: 229 mm

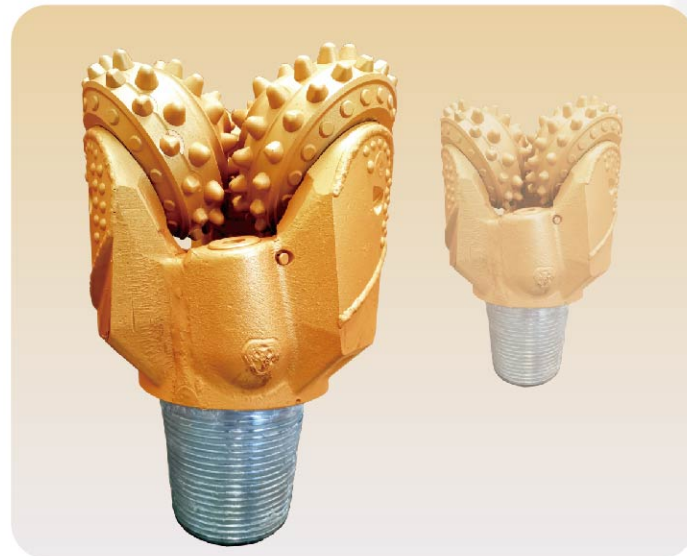
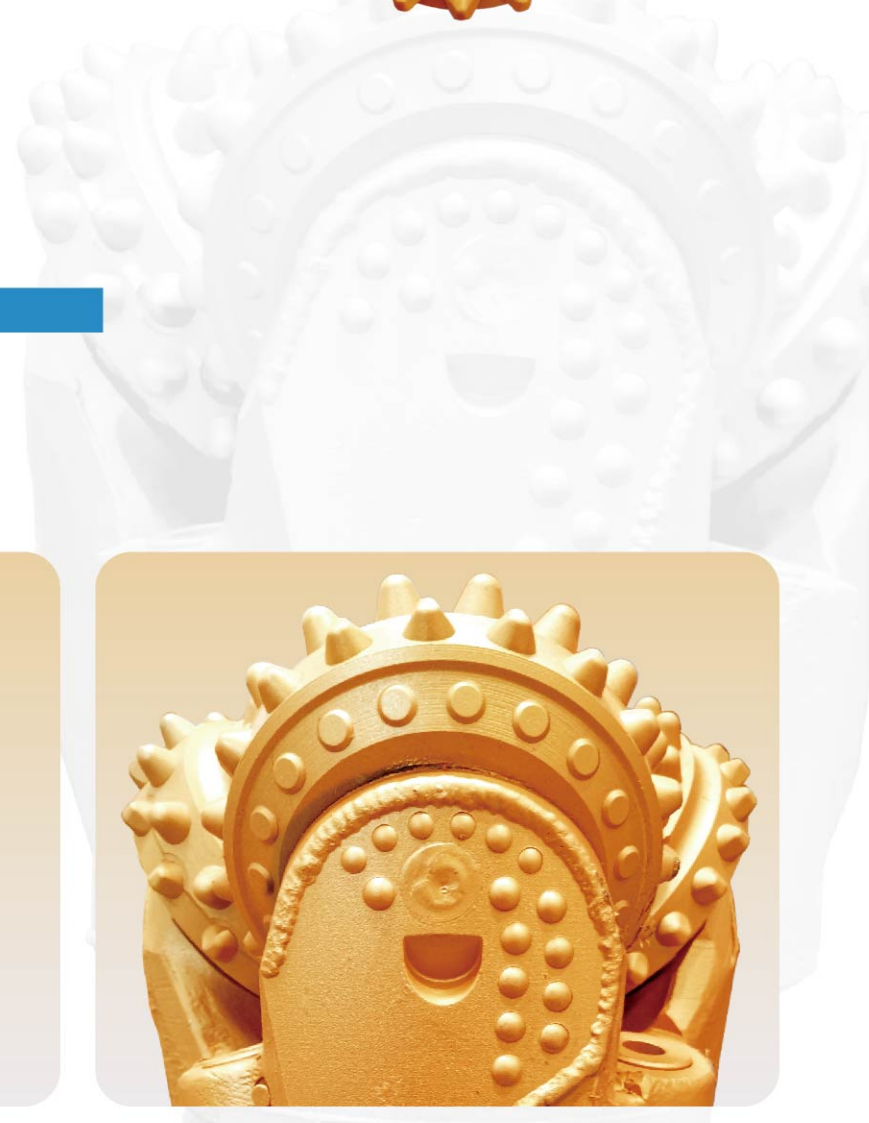
Product Weight: 110 lbs/50 kg

OPERATING SUGGESTIONS

Weight on Bit: 12,000–42,000 lbs/ 5.4–19 T

Rotational Speed: 80–110 rpm

Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 SGV545RF

CUTTING STRUCTURE

Conical on gage and inner rows.

Designed for soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.

Compressive strength: 18,000–27,000 psi/124–186 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 545

Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing

Circulation Type: Jet Air

Cutting Structure:

Inner and Nose Rows: Conical

Gage Rows: Conical

Gage Bevel Protection: Ovoid

Auxiliary Carbide: Spherical

Pin Connection: 4 1/2" API REG

Metric Bit Diameter: 229 mm

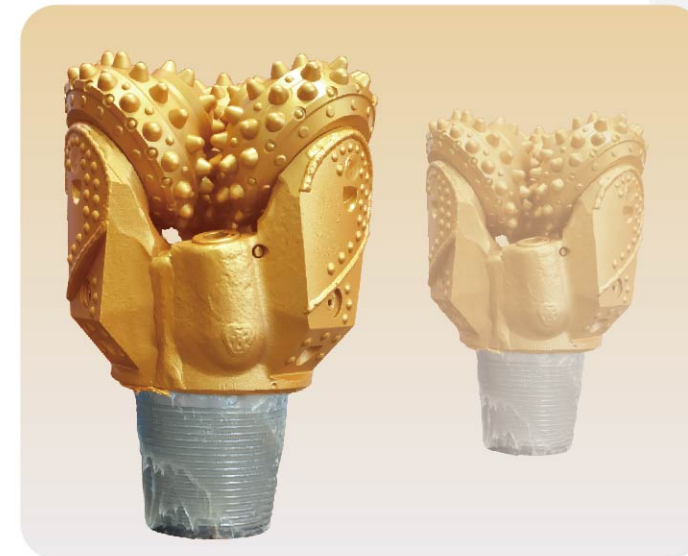
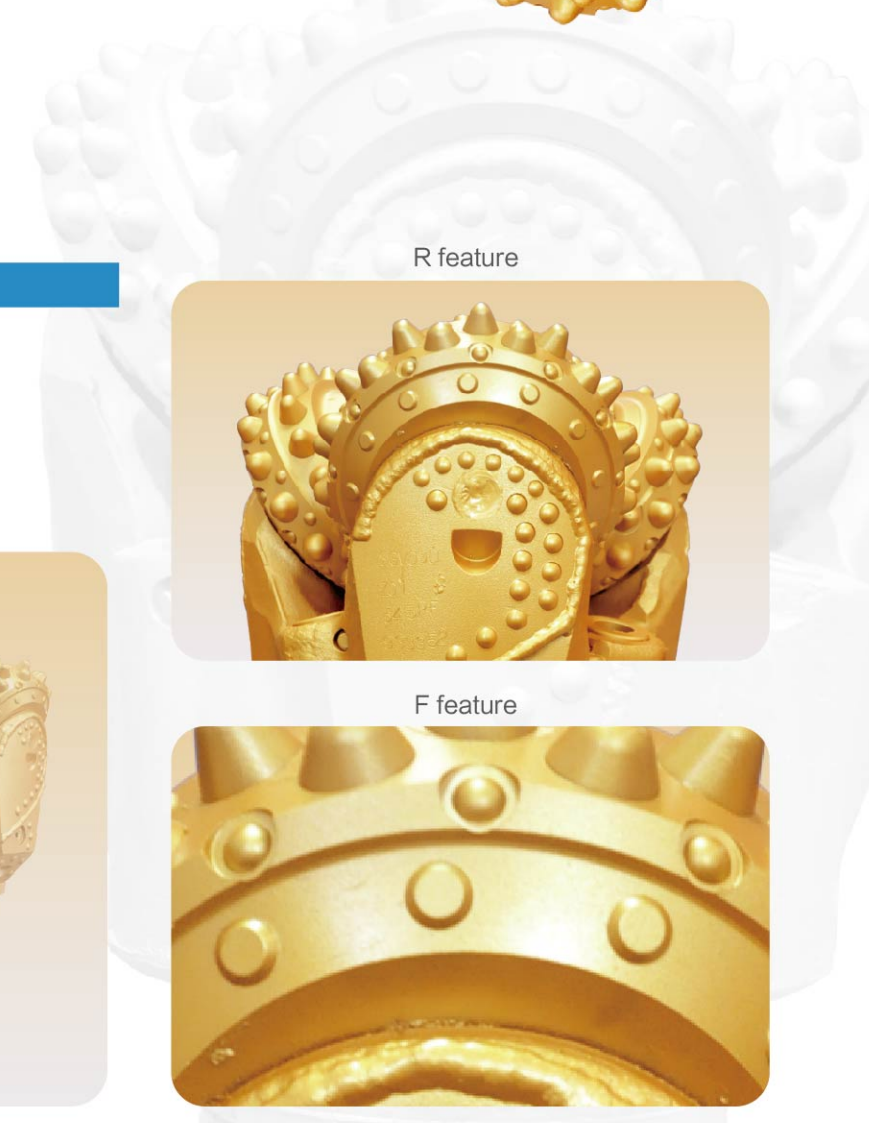
Product Weight: 110 lbs/50 kg

OPERATING SUGGESTIONS

Weight on Bit: 13.5T / 29,762 lbs MAX

Rotational Speed: 80–110 rpm

Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



F feature

9 SGV635RF

CUTTING STRUCTURE

Conical on gage, spherical and conical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

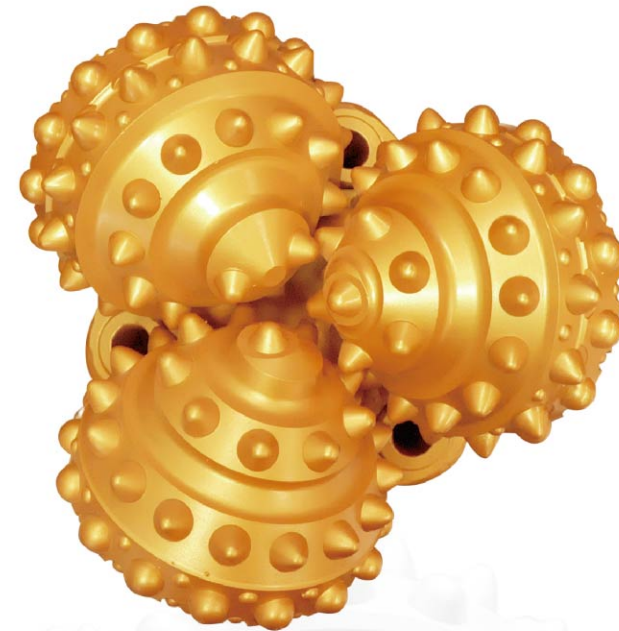
Hard metal and wear resistant carbide on shirttail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Spherical and conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Auxiliary Carbide: Spherical
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 229 mm
Product Weight: 110 lbs/50 kg

OPERATING SUGGESTIONS

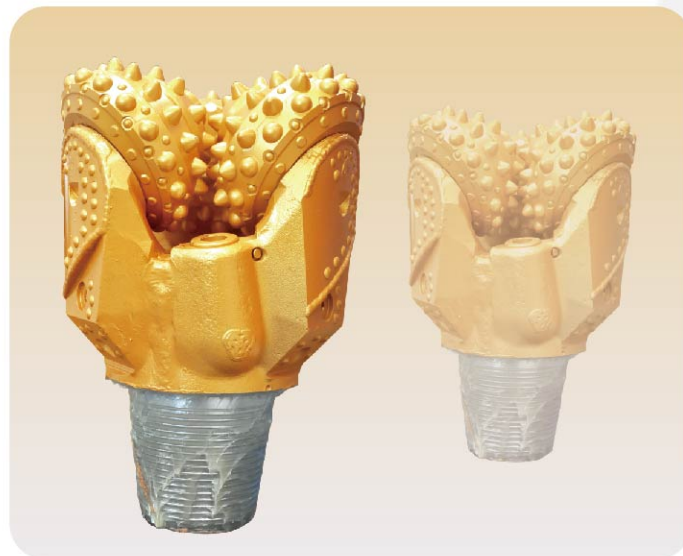
Weight on Bit: 13.5T / 29,762 lbs MAX
Rotational Speed: 60–100rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



F feature



9 SGV735RF

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows, with auxiliary carbide protection.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 43,000–52,000 psi/296–358 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirttail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 735
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 4 1/2" API REG
Metric Bit Diameter: 229 mm
Product Weight: 110 lbs/50 kg

OPERATING SUGGESTIONS

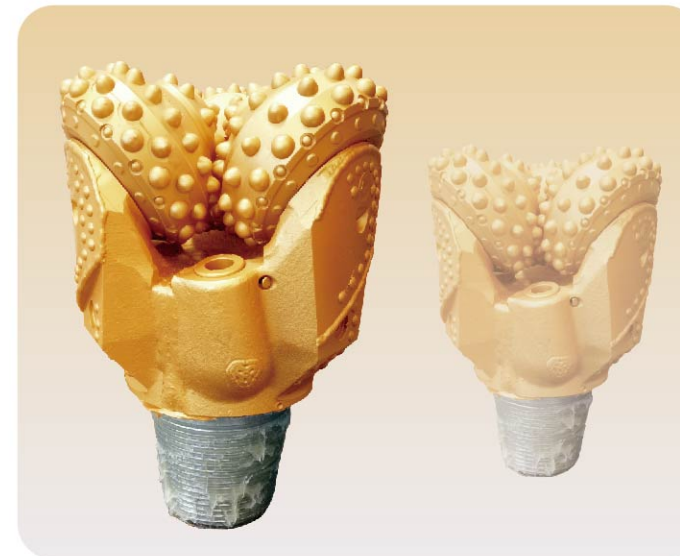
Weight on Bit: 13.5T / 29,762 lbs MAX
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



F feature



9 7/8 SGV435

CUTTING STRUCTURE

Chisel on gage, double spherical on inner rows
 Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.
 Compressive strength: 6,000–9,000 psi/41–62 MPa

SHIRTTAIL PROTECTION

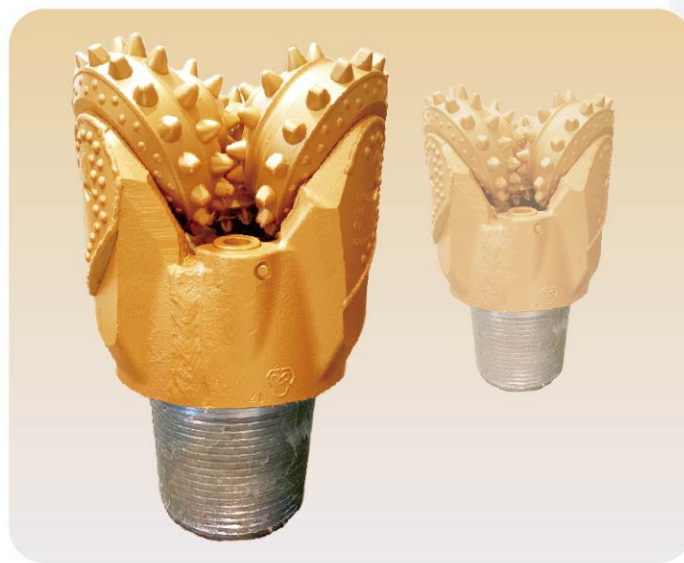
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 435
 Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Double spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 251 mm
 Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 9,875–39,500 lbs/ 4.5–17.9 T
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGV435R

CUTTING STRUCTURE

Chisel on gage, double spherical on inner rows
 Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.
 Compressive strength: 6,000–9,000 psi/41–62 MPa

SHIRTTAIL PROTECTION

Hard welding and wear resistant carbide protection on shirrtail lip and lug, anti-reversal insert protection.

PRODUCT SPECIFICATION

IADC Code: 435
 Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Double spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 251 mm
 Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 9,875–39,500 lbs/ 4.5–17.9 T
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGV435RF

CUTTING STRUCTURE

Off-chisel on gage, conical on inner rows, with auxiliary carbide protection.

Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.

Compressive strength: 6,000–9,000 psi/41–62 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 435
 Bearing Type: Roller-Ball-Roller-Thrust Button/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Conical
 Gage Rows: Off-chisel
 Auxiliary Carbide: Spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 251 mm
 Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 20.0T / 44,093 lbs MAX
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



F feature



9 7/8 SG532

CUTTING STRUCTURE

Wedge crested chisel on gage, conical and spherical on inner rows.

Designed for soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.

Compressive strength: 15,000–23,000 psi/103–158 MPa

SHIRTTAIL PROTECTION

Hard welding and wear resistant carbide protection on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 532
 Bearing Type: Roller-Ball-Roller-Thrust Button/Open air Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Conical and spherical
 Gage Rows: Wedge crested chisel
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 251 mm
 Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 19,750–49,380 lbs/9–22.4 T
 Rotational Speed: 80–110 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGV535RF

CUTTING STRUCTURE

Off-chisel on gage, conical on inner rows, with auxiliary carbide protection.

Designed for soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.

Compressive strength: 15,000–23,000 psi/103–158 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 535

Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing

Circulation Type: Jet Air

Cutting Structure:

Inner and Nose Rows: Conical

Gage Rows: Off–chisel

Auxiliary Carbide: Spherical

Gage Bevel Protection: Ovoid

Pin Connection: 6 5/8" API REG

Metric Bit Diameter: 251 mm

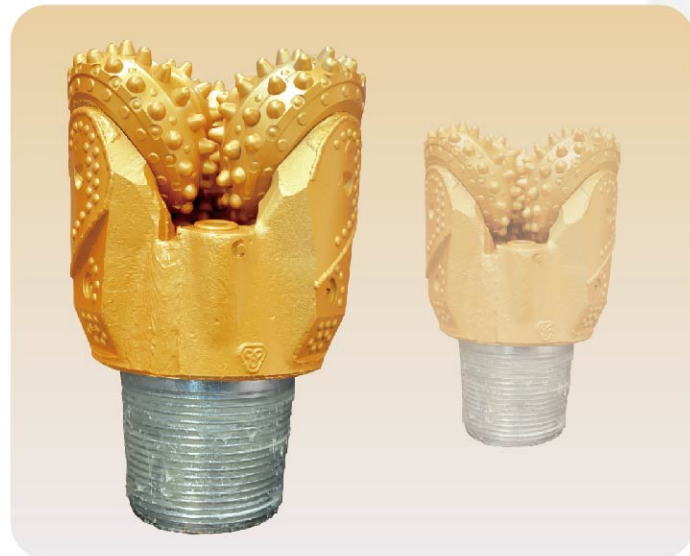
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 20.0T / 44,093 lbs MAX

Rotational Speed: 80–110 rpm

Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



F feature



9 7/8 SGV615RF

CUTTING STRUCTURE

Conical & spherical on gage, conical on inner rows, with auxiliary carbide protection.

Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.

Compressive strength: 23,000–30,000 psi/158–206 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 615

Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing

Circulation Type: Jet Air

Cutting Structure:

Inner and Nose Rows: Conical

Gage Rows: Conical & spherical

Auxiliary Carbide: Spherical

Gage Bevel Protection: Ovoid

Pin Connection: 6 5/8" API REG

Metric Bit Diameter: 251 mm

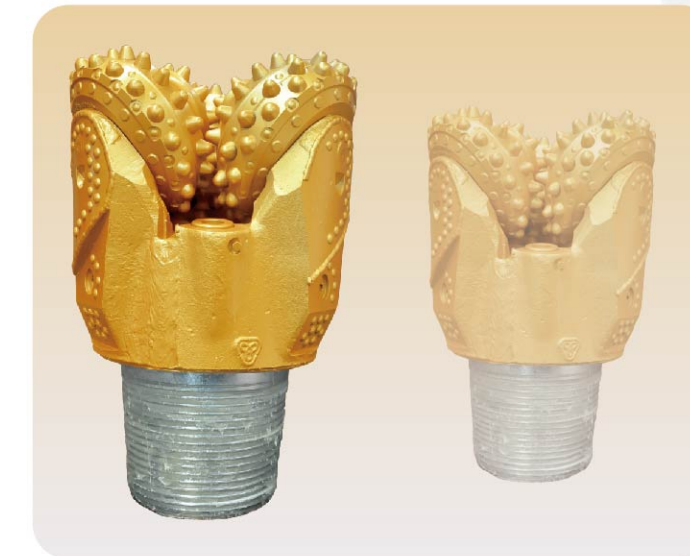
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 20.0T / 44,093 lbs MAX

Rotational Speed: 60–100 rpm

Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



F feature



9 7/8 SG632GF

CUTTING STRUCTURE

Conical on gage, double spherical and conical on inner rows, with auxiliary carbide protection.

Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.

Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

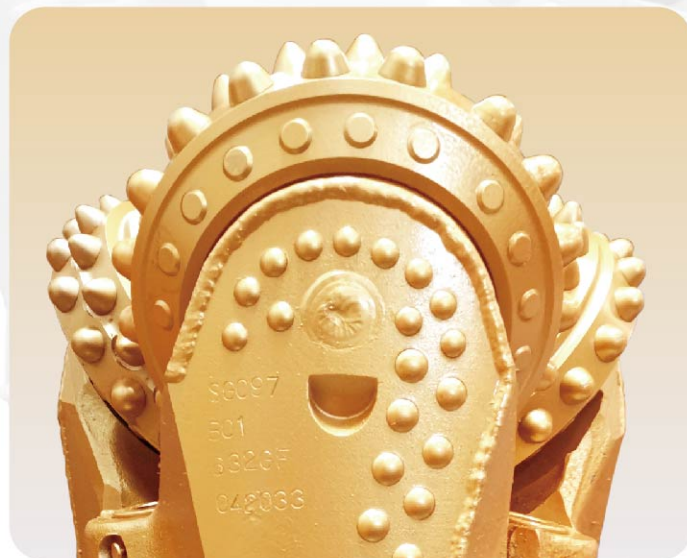
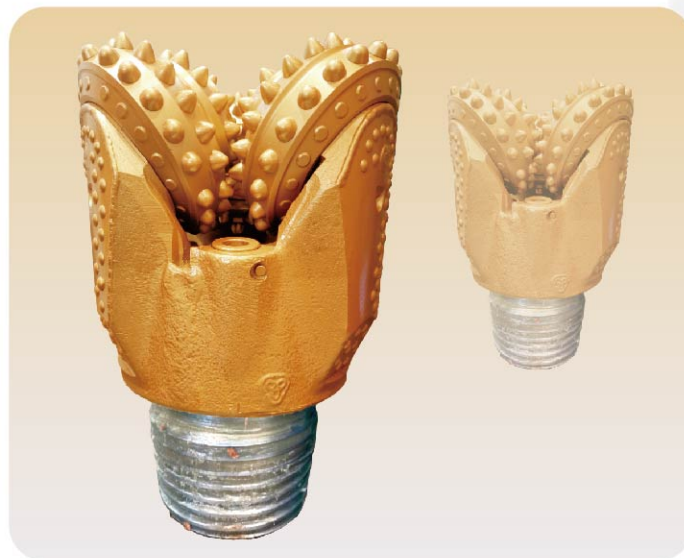
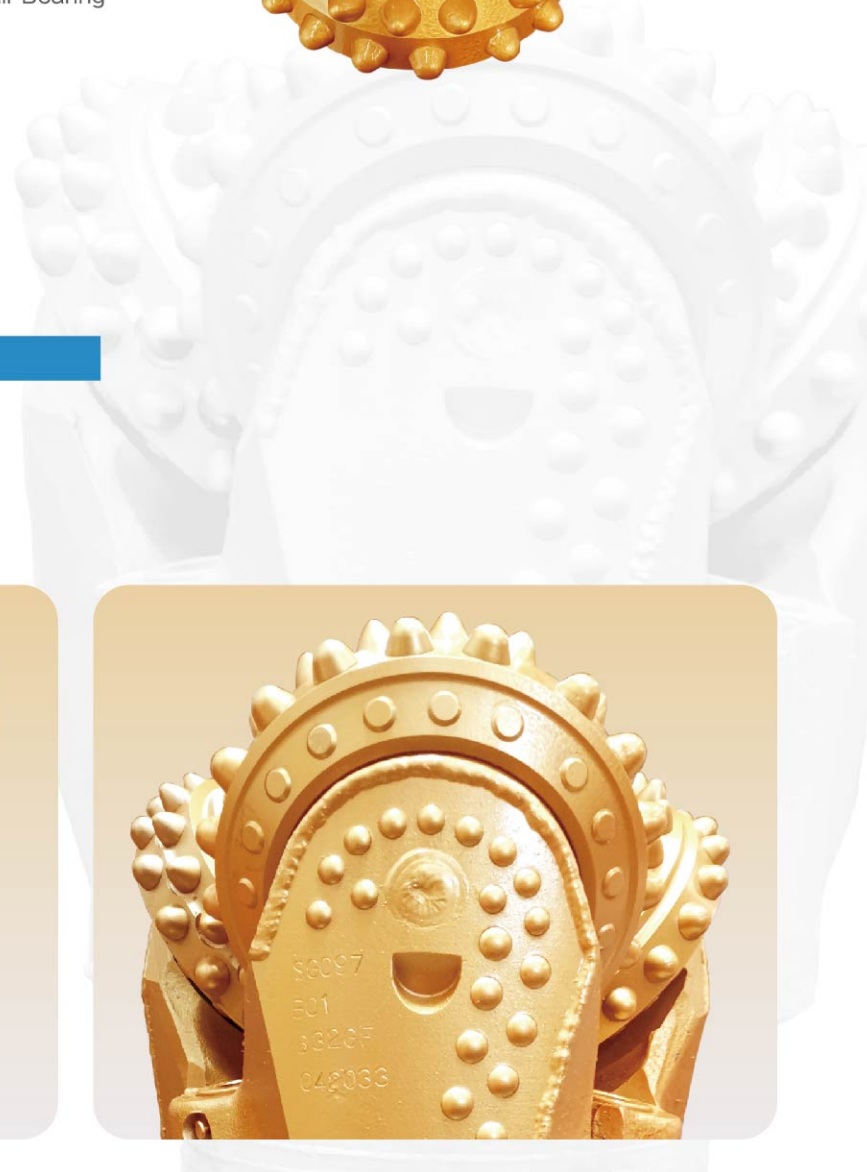
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 632
 Bearing Type: Roller–Ball–Roller–Thrust Button/Open air Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Double spherical and conical
 Gage Rows: Conical
 Auxiliary Carbide: Spherical
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 251 mm
 Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 29,630–59,250 lbs/13.4–26.9 T
 Rotational Speed: 60–100 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SG712

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows

Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.

Compressive strength: 37,000–44,000 psi/255–303 MPa

SHIRTTAIL PROTECTION

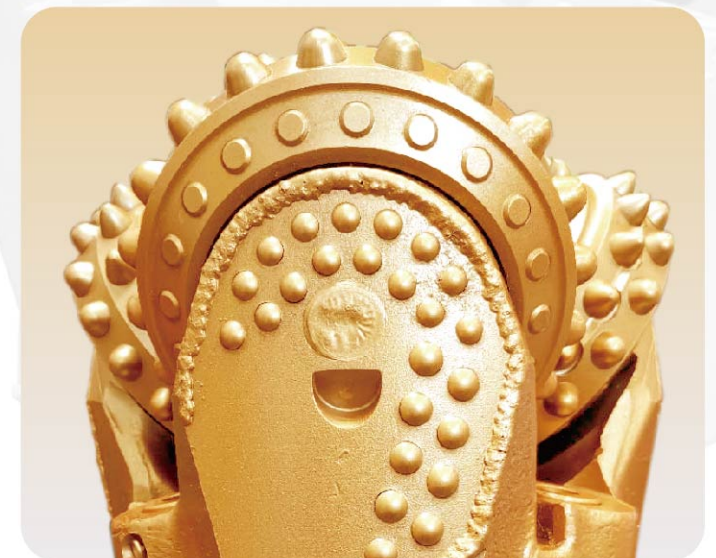
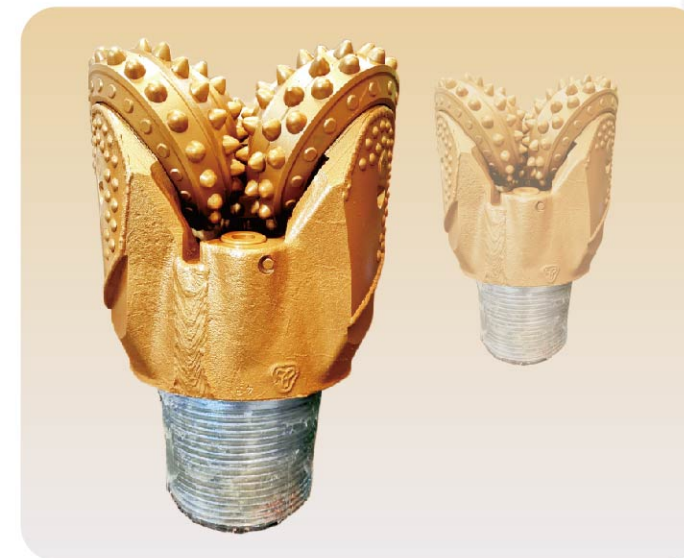
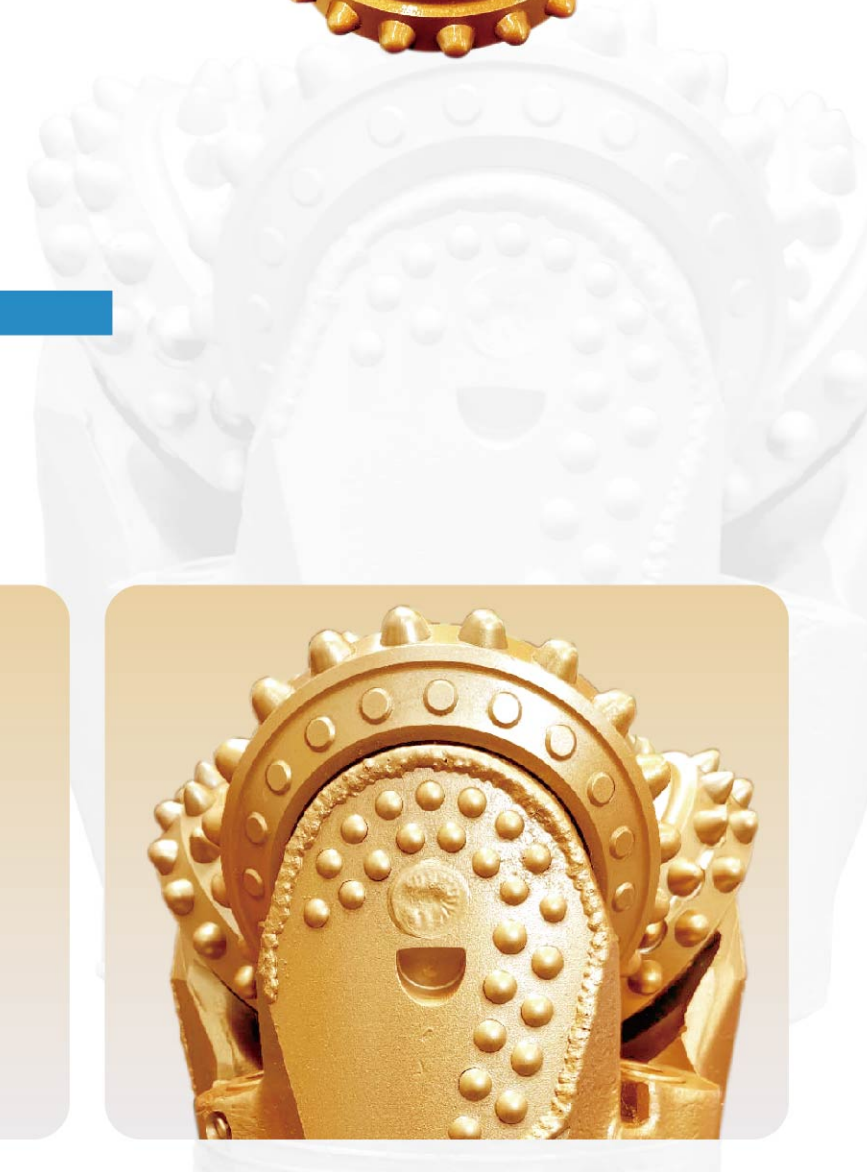
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 712
 Bearing Type: Roller–Ball–Roller–Thrust Button/Open air Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner and Nose Rows: Double spherical
 Gage Rows: Conical
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 251 mm
 Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 39,500–69,130 lbs/17.9–31.4 T
 Rotational Speed: 90–60rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGV715

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandy shale, dolomite, chert.
Compressive strength: 37,000–44,000 psi/255–303 MPa

SHIRTTAIL PROTECTION

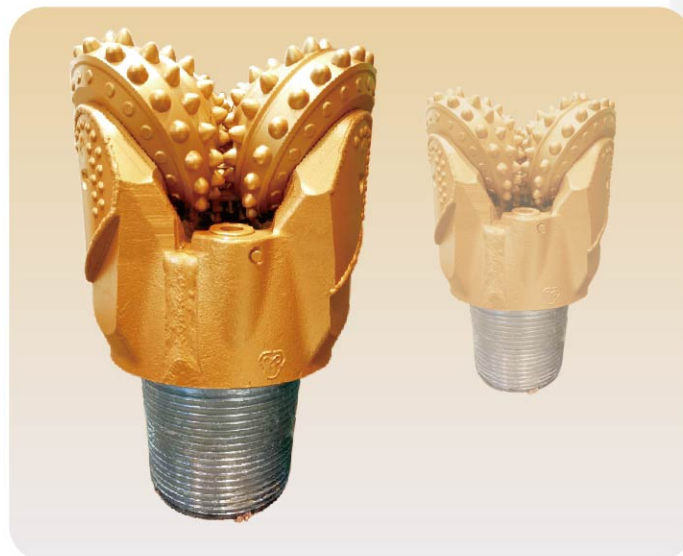
Hard welding and wear resistant carbide protection on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 715
Bearing Type: Roller–Ball–Roller–Thrust/Composite Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 39,500–59,250 lbs/17.9–26.9 T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGV725

CUTTING STRUCTURE

Conical on gage and inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 40,000–48,000 psi/275–331 MPa

SHIRTTAIL PROTECTION

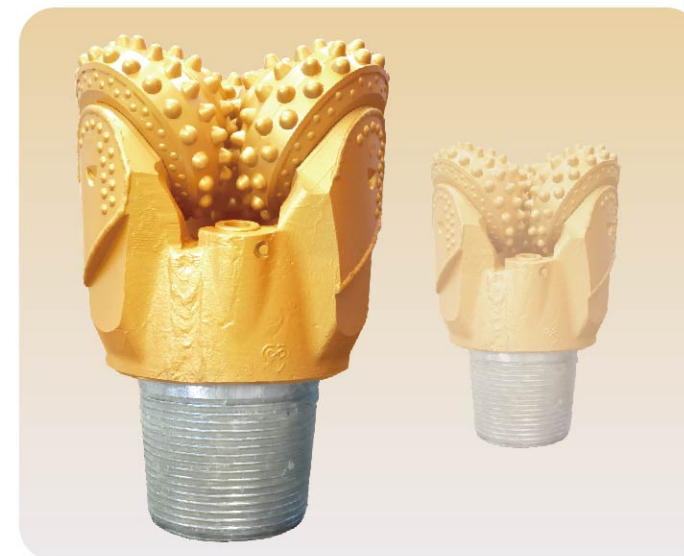
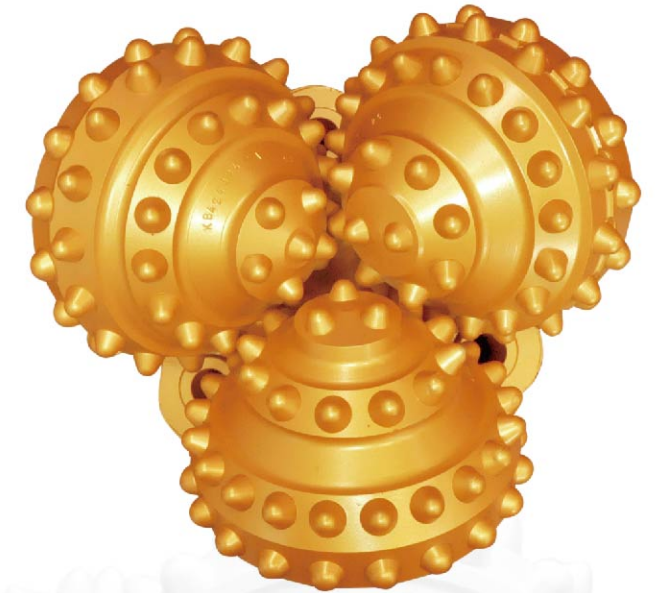
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 725
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 20.0T / 44,093 lbs MAX
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGV725G

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandy shale, dolomite, chert.
Compressive strength: 40,000–48,000 psi/276–331 MPa

SHIRTTAIL PROTECTION

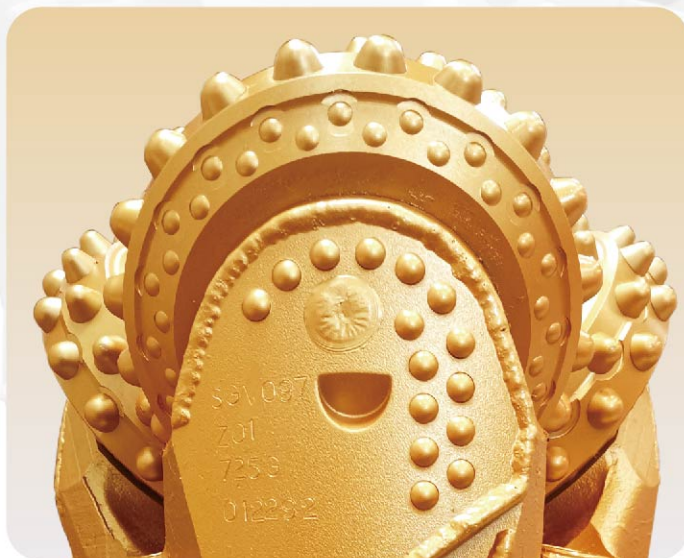
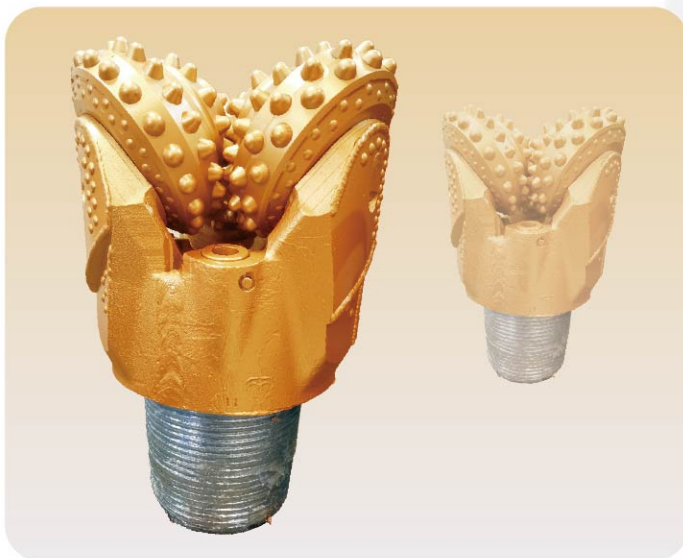
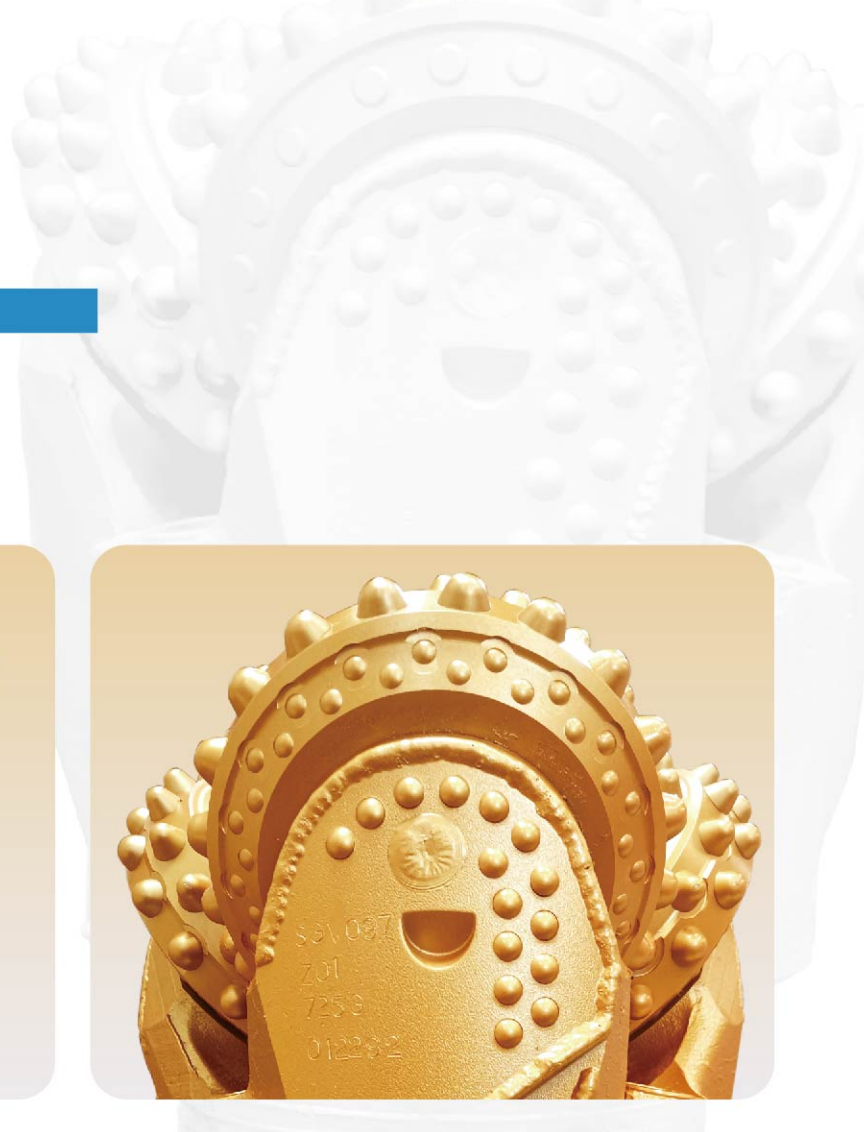
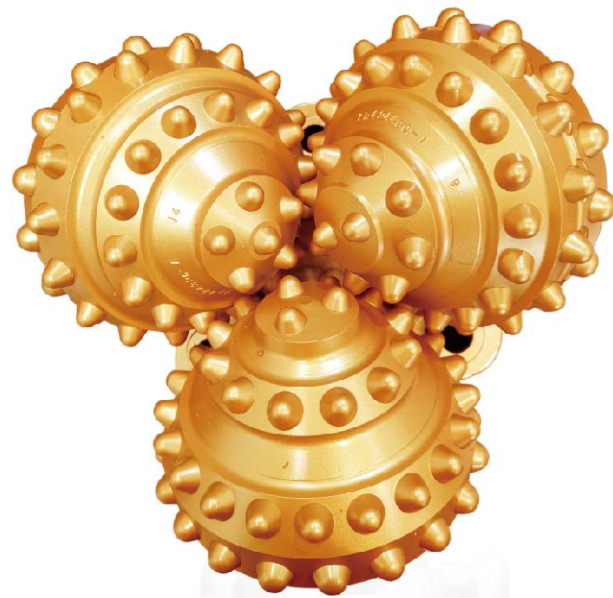
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 725
Bearing Type: Roller–Ball–Roller–Thrust/Composite Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 39,500–59,250 lbs/17.9–26.9 T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGA515RS

CUTTING STRUCTURE

Chisel on gage, conical on inner rows.
Designed for medium soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.
Compressive strength: 12,000–18,000 psi/82–124 MPa

SHIRTTAIL PROTECTION

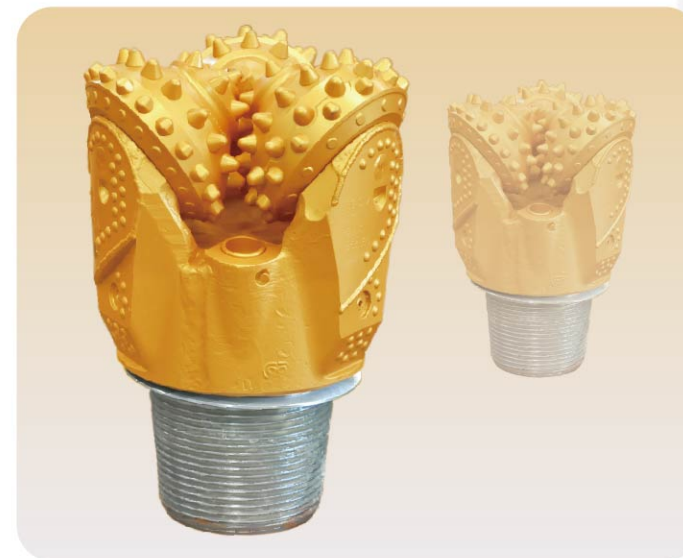
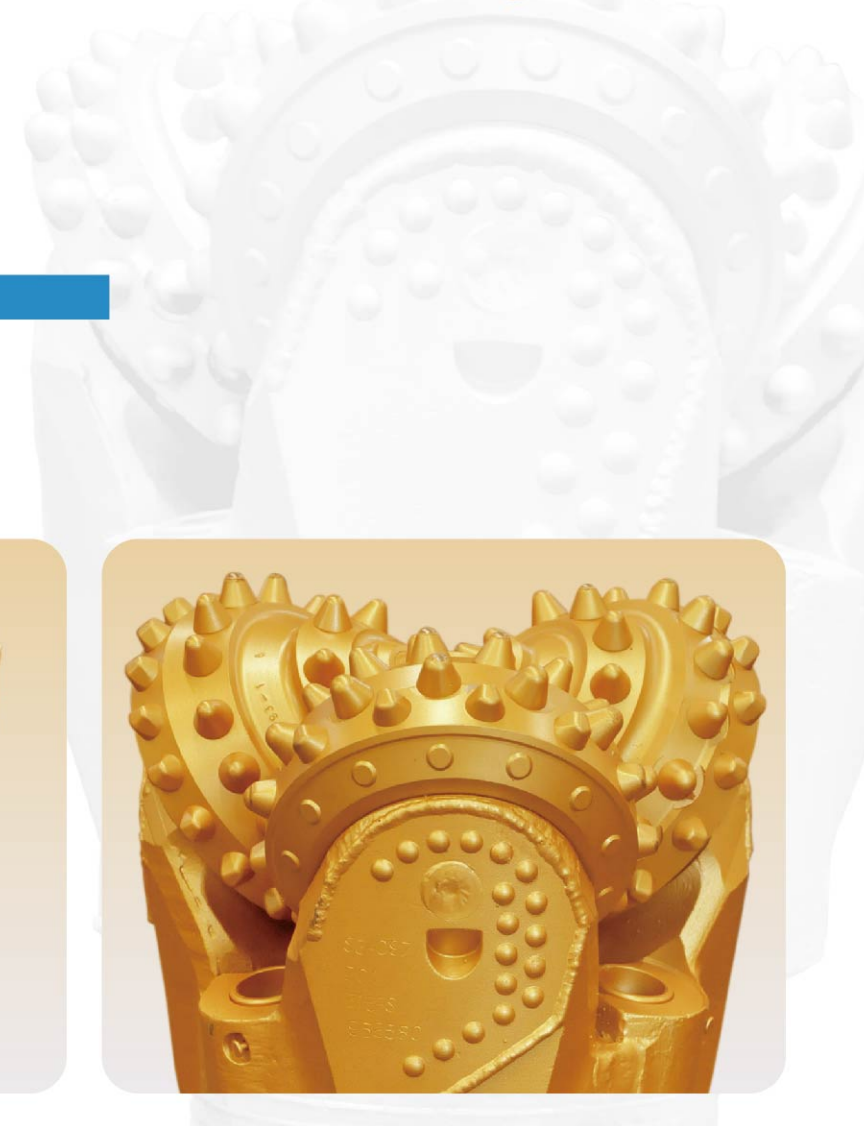
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 515
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Conical
Gage Rows: Chisel
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 13,500–45,000 lbs/6.1–22.4 T
Rotational Speed: 80–110 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGA635

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, dolomite, chert.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

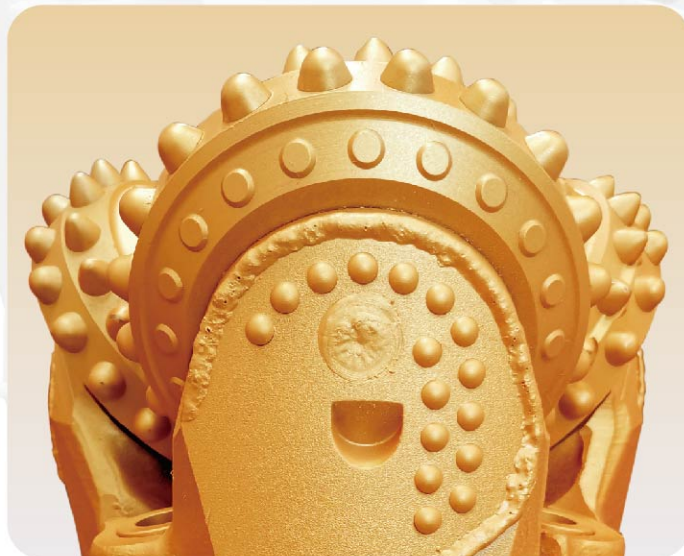
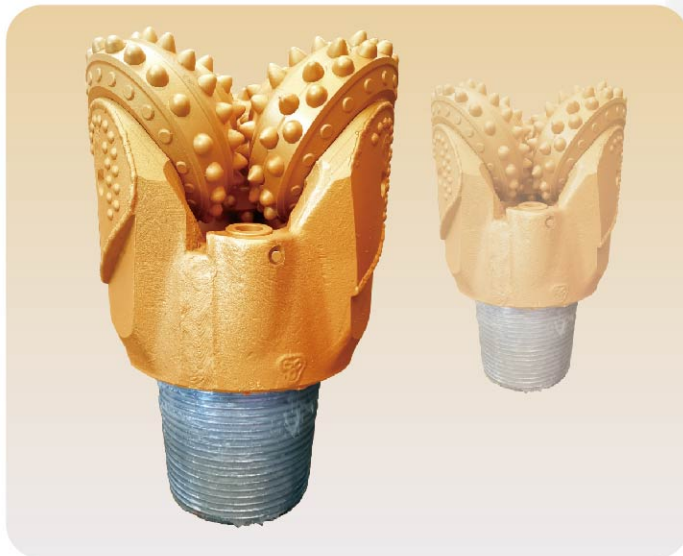
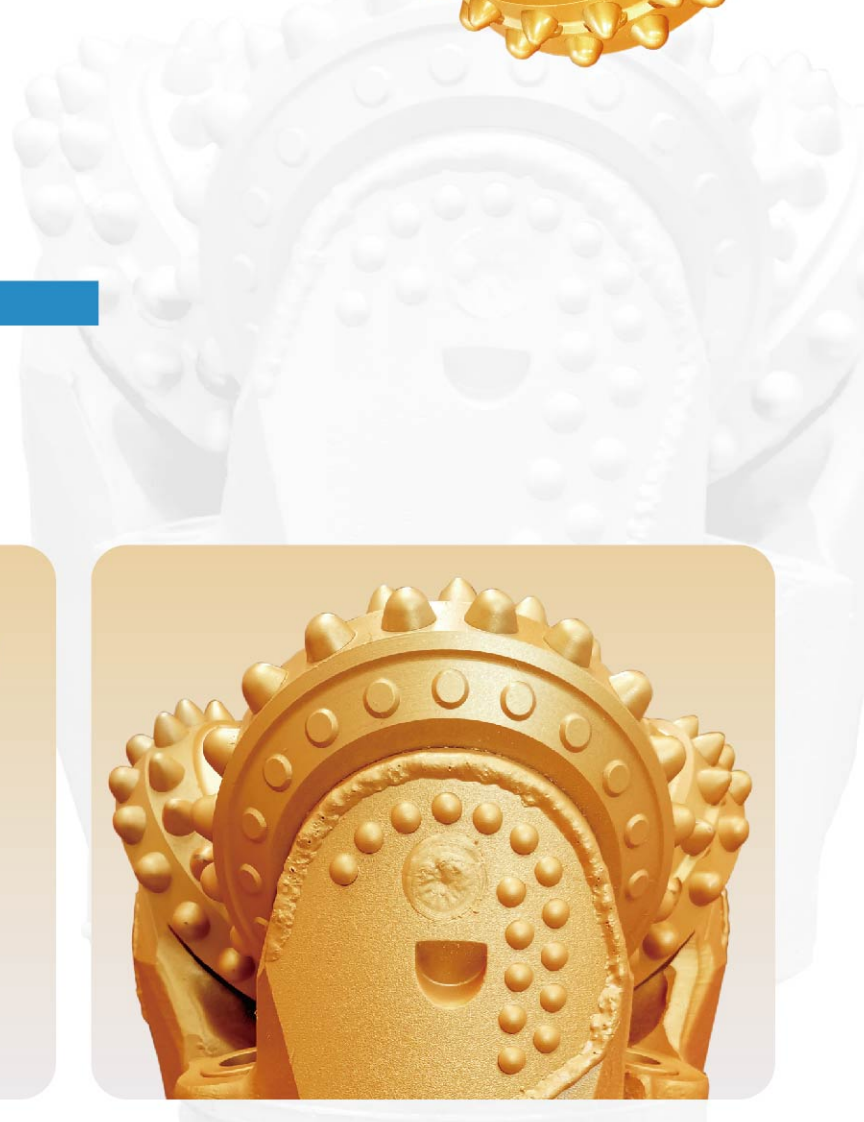
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 29,625–59,250 lbs/13.4–26.9 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGA635RF

CUTTING STRUCTURE

Conical on gage, double spherical and conical on inner rows, with auxiliary carbide protection.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

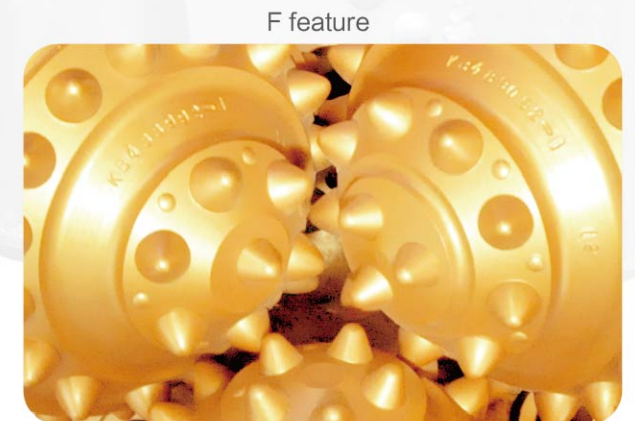
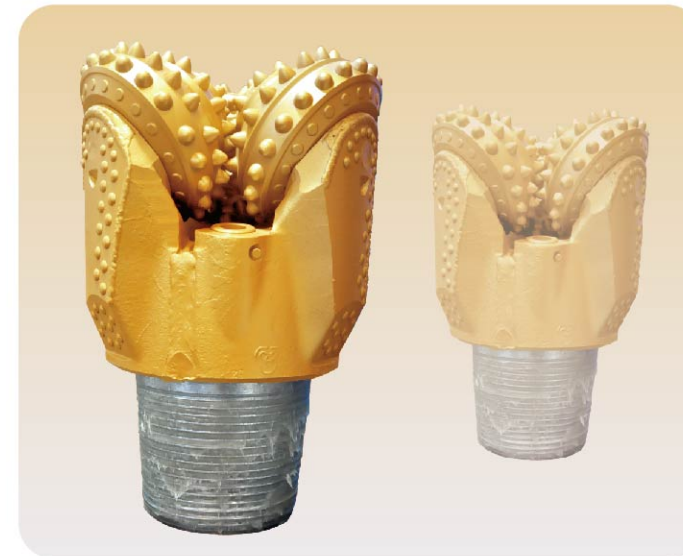
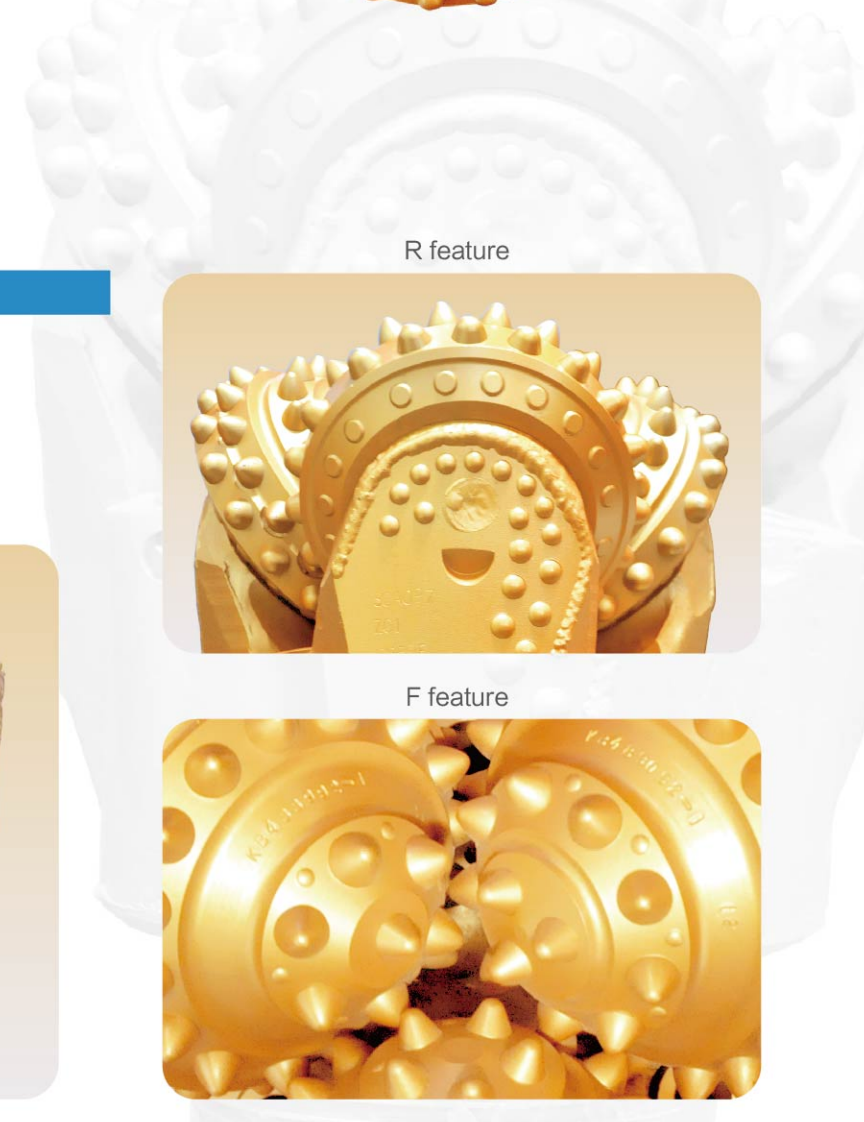
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical and conical
Gage Rows: Conical
Auxiliary Carbide: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 20.0T / 44,093 lbs MAX
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGA715

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandy shale, dolomite, chert.
Compressive strength: 37,000–44,000 psi/255–303 MPa

SHIRTTAIL PROTECTION

Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 715
Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/65 kg

OPERATING SUGGESTIONS

Weight on Bit: 39,500–59,250 lbs/17.9–26.9 T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



9 7/8 SGA745R

CUTTING STRUCTURE

Spherical on gage, double spherical and conical on inner rows, with auxiliary carbide protection.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 43,000–52,000 psi/296–358 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical and conical
Gage Rows: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 251 mm
Product Weight: 143 lbs/ 65 kg

OPERATING SUGGESTIONS

Weight on Bit: 20.0T / 44,093 lbs MAX
Rotational Speed: 90–60rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



10 5/8 SGV415RS

CUTTING STRUCTURE

Chisel on gage, spoon on inner rows.

Designed for extremely soft formation with low compressive strength and high drillability, such as shale, soft limestone, soft sandstone, gravelly clay, soft dolomite, salt rock, coal seam.

Compressive strength: 4,000–7,000 psi/27–48 MPa

SHIRTTAIL PROTECTION

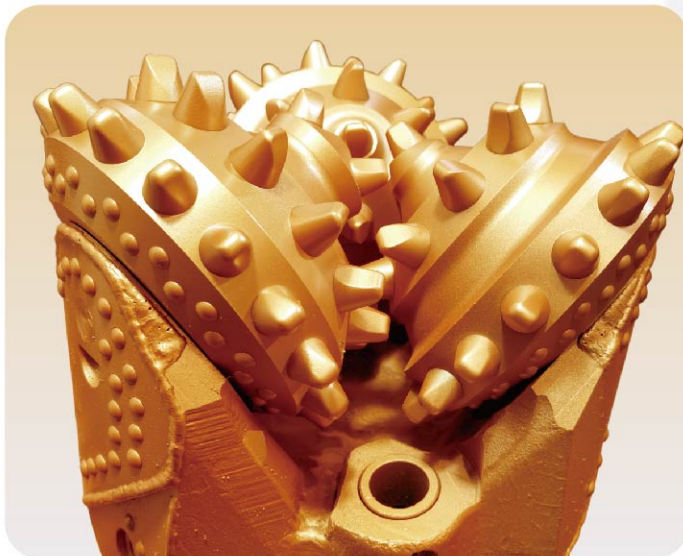
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 415
 Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner Rows: Spoon
 Gage Rows: Chisel
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 270 mm
 Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 10,625–21,250 lbs/4.8–9.6 T
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGV425RS

CUTTING STRUCTURE

Chisel on gage, conical on inner rows.

Designed for soft formation with low compressive strength and high drillability, such as shale, soft limestone, soft sandstone, gravelly clay, soft dolomite, salt rock, coal seam.

Compressive strength: 5,000–8,000 psi/34–55 MPa

SHIRTTAIL PROTECTION

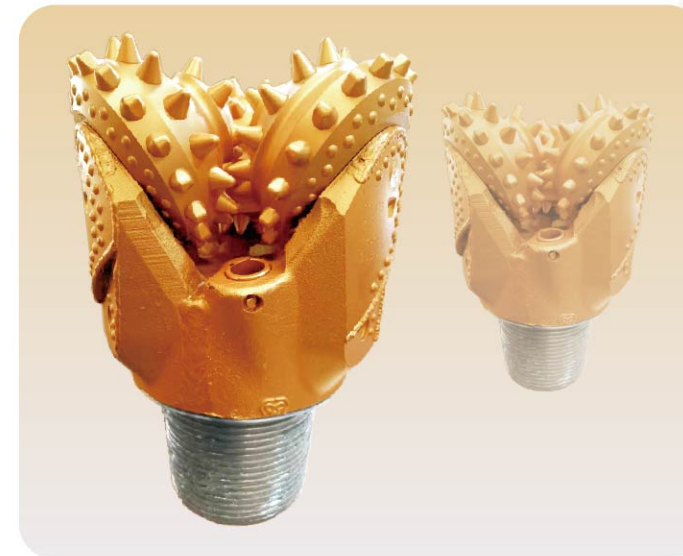
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 425
 Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner Rows: Conical
 Gage Rows: Chisel
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 270 mm
 Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 10,625–21,250 lbs/4.8–9.6 T
 Rotational Speed: 90–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGV515RS

CUTTING STRUCTURE

Chisel on gage, conical on inner rows.

Designed for medium soft formation with low compressive strength, such as shale, soft limestone, conglomerate, interbedded dolomite, coal seam.

Compressive strength: 12,000–18,000 psi/83–124 MPa

SHIRTTAIL PROTECTION

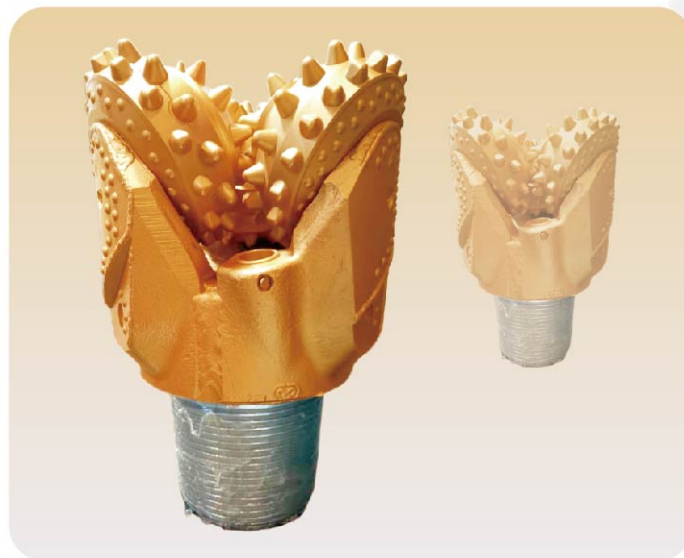
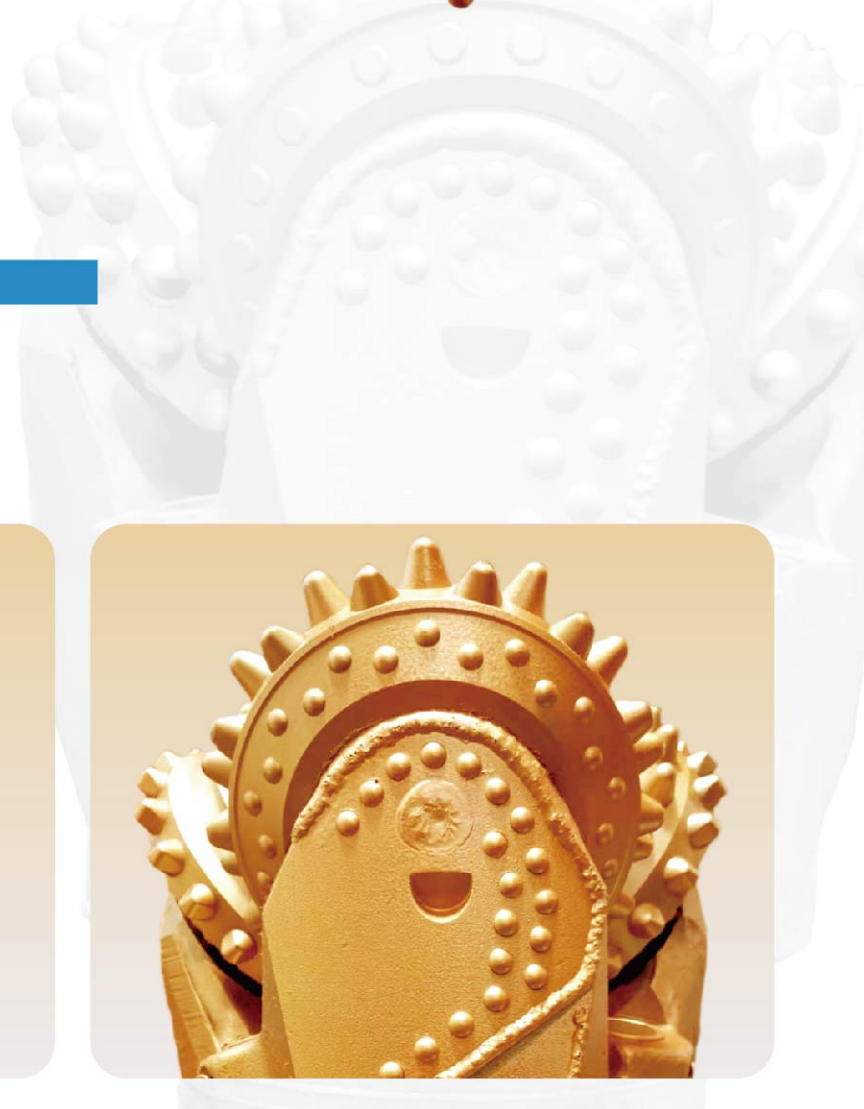
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 515
 Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner Rows: Conical
 Gage Rows: Chisel
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 270 mm
 Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 14,525–48,420 lbs/6.6–22 T
 Rotational Speed: 80–120 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGV635GF

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows, with auxiliary carbide protection.

Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, dolomite, chert.

Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

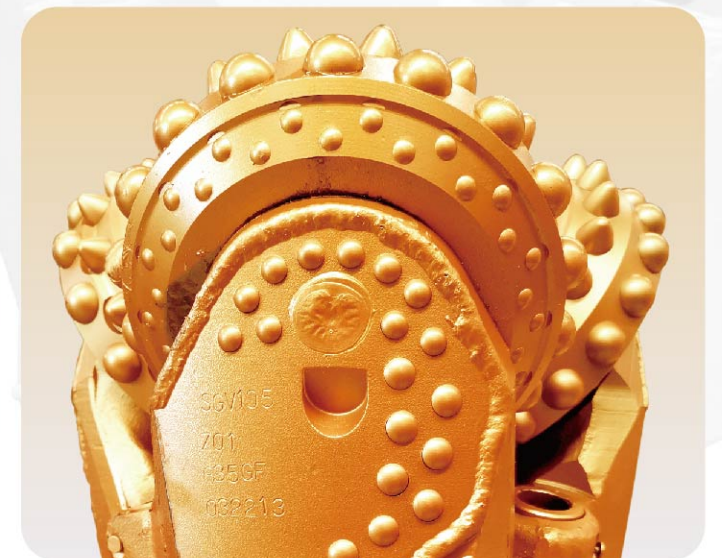
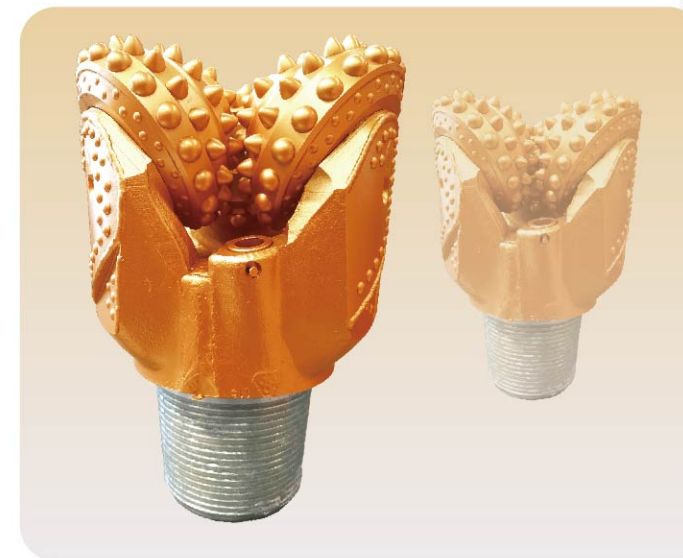
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
 Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
 Circulation Type: Jet Air
 Cutting Structure:
 Inner Rows: Double spherical
 Gage Rows: Spherical
 Auxiliary Carbide: Ovoid
 Gage Bevel Protection: Ovoid
 Pin Connection: 6 5/8" API REG
 Metric Bit Diameter: 270 mm
 Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 31,875–63,750 lbs/14.5–28.9 T
 Rotational Speed: 60–100 rpm
 Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGV645R

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, dolomite, chert.
Compressive strength: 32,000–42,000 psi/221–290 MPa

SHIRTTAIL PROTECTION

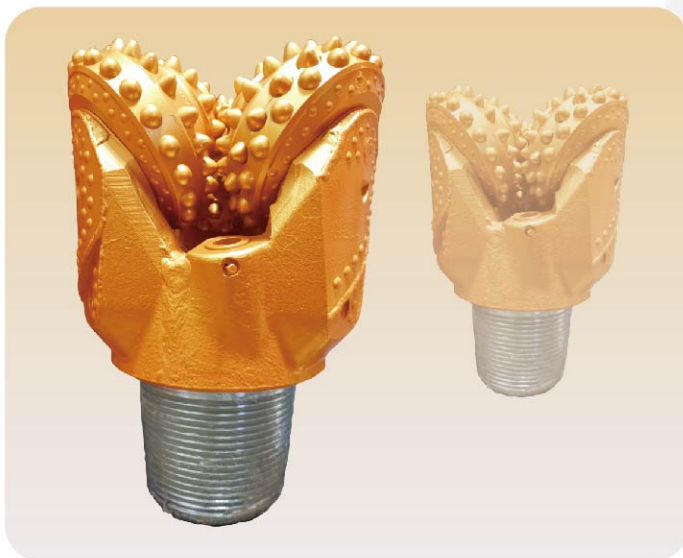
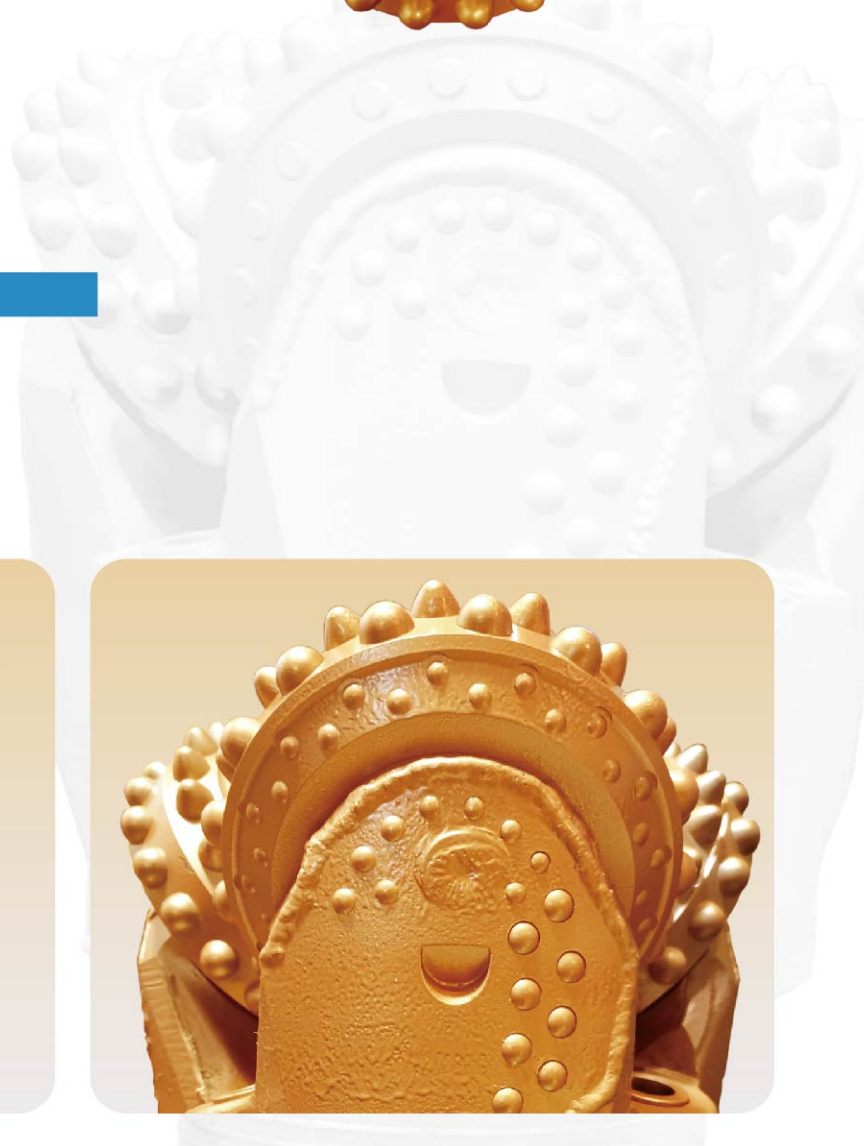
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 645
Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 270 mm
Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 31,875–63,750 lbs/14.5–28.9 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGA425RS

CUTTING STRUCTURE

Conical on gage and inner rows
Designed for very soft formations with low compressive strength and high friability such as shale, soft limestone, sandstone, gravel clay, soft dolomite, coal ore.
Compressive strength: 5,000–8,000 psi/34–55 MPa

SHIRTTAIL PROTECTION

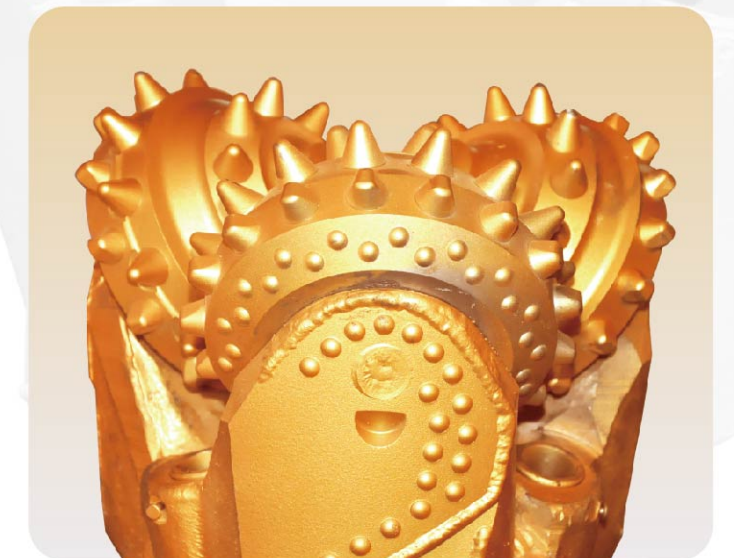
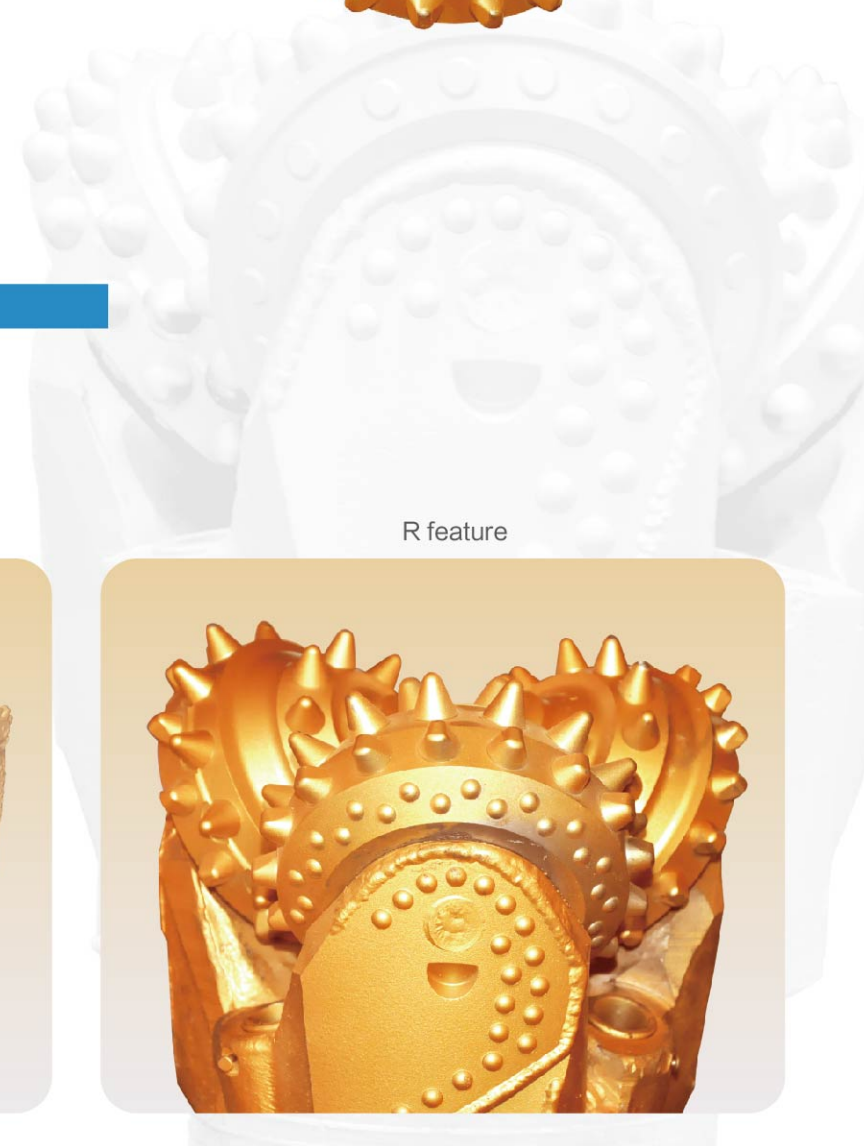
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Conical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 270 mm
Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 21.2T / 46,738 lbs MAX
Rotational Speed: 90–120 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature

10 5/8 SGA515RS

CUTTING STRUCTURE

Wedge on gage, conical on inner rows.

Designed for soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.

Compressive strength: 9,000–15,000 psi/62–103 MPa

SHIRTTAIL PROTECTION

Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 515

Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing

Circulation Type: Jet Air

Cutting Structure:

Inner and Nose Rows: Conical

Gage Rows: Wedge

Gage Bevel Protection: Ovoid

Pin Connection: 6 5/8" API REG

Metric Bit Diameter: 270 mm

Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

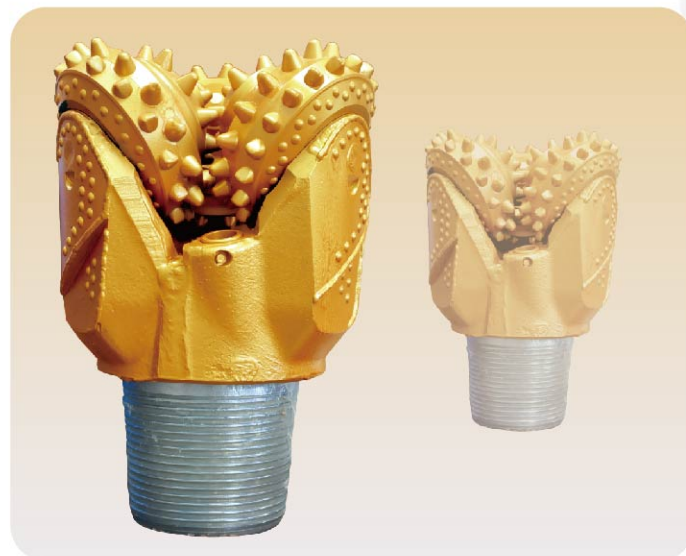
Weight on Bit: 21.2T / 46,738 lbs MAX

Rotational Speed: 80–110 rpm

Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



10 5/8 SGA535G

CUTTING STRUCTURE

Conical on gage and inner rows.

Designed for soft formation with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal seam.

Compressive strength: 15,000–23,000 psi/103–159 MPa

SHIRTTAIL PROTECTION

Hard welding and wear resistant carbide protection on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 535

Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing

Circulation Type: Jet Air

Cutting Structure:

Inner Rows: Conical

Gage Rows: Off–set chisel

Gage Bevel Protection: Ovoid

Pin Connection: 6 5/8" API REG

Metric Bit Diameter: 270 mm

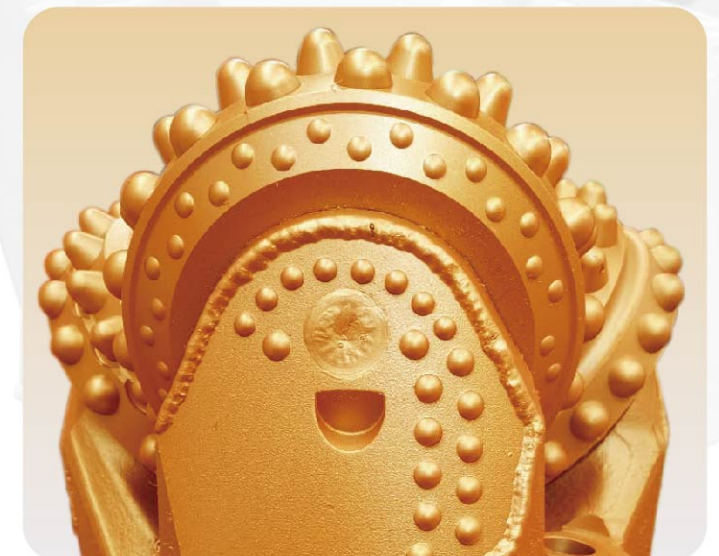
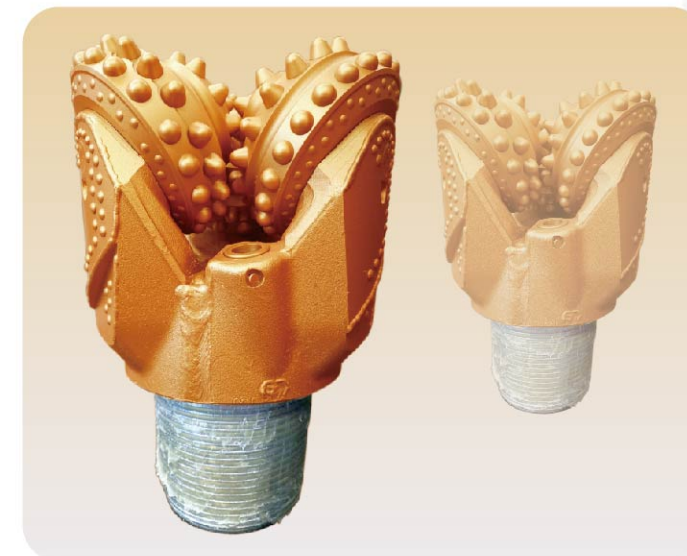
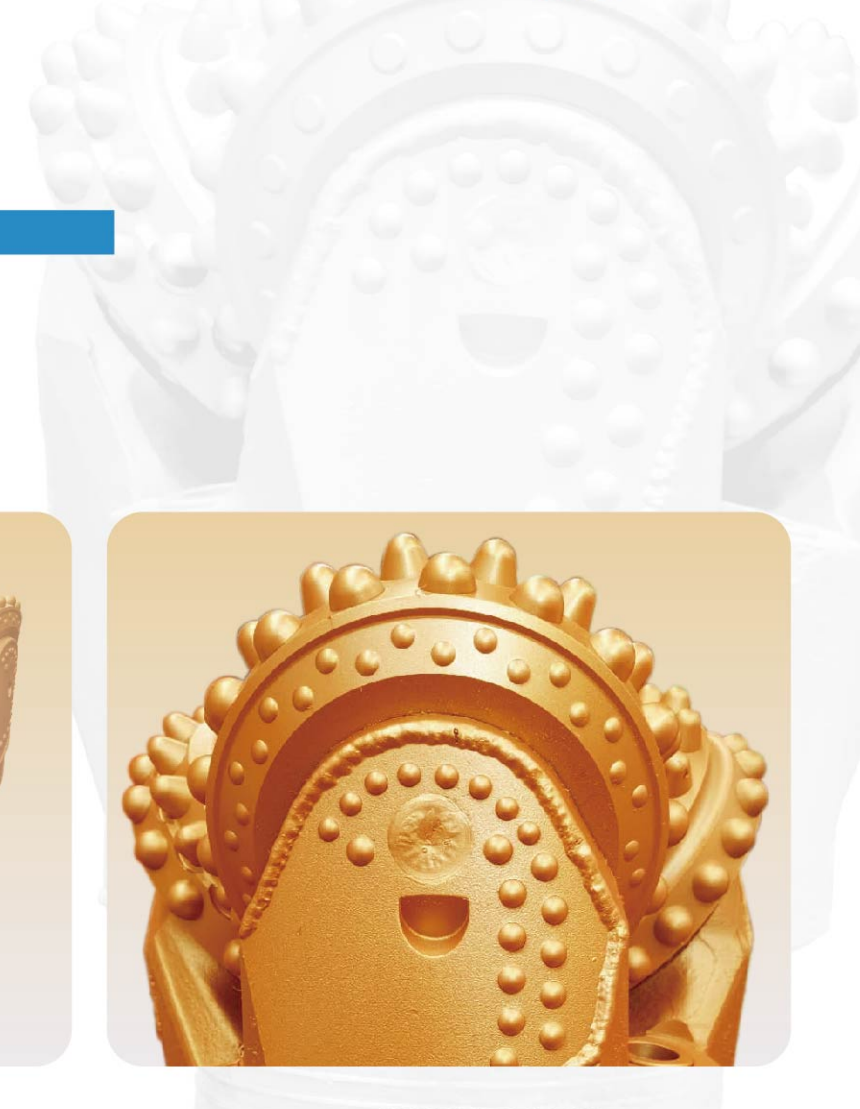
Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 21,250–53,125 lbs/9.6–24.1 T

Rotational Speed: 80–110 rpm

Air Back Pressure: 29–58 lbs/0.2–0.4 MPa



10 5/8 SGA615R

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard formations, such as: hard shale, limestone, sandstone, dolomite, coal seam.
Compressive strength: 23,000–30,000 psi/159–207 MPa

SHIRTTAIL PROTECTION

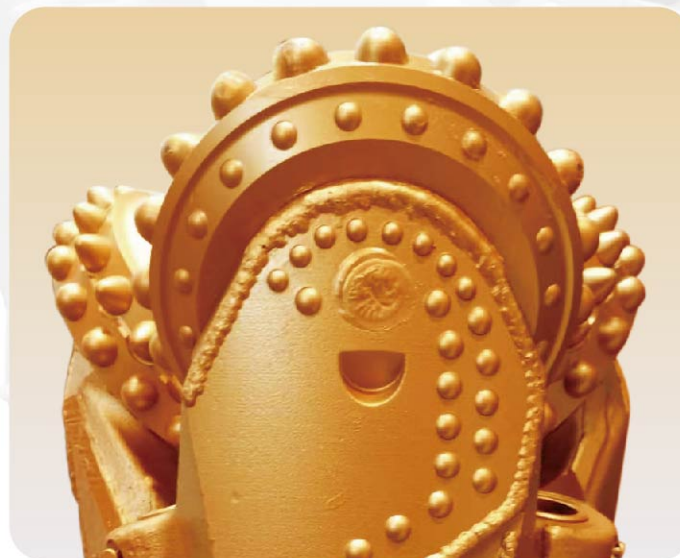
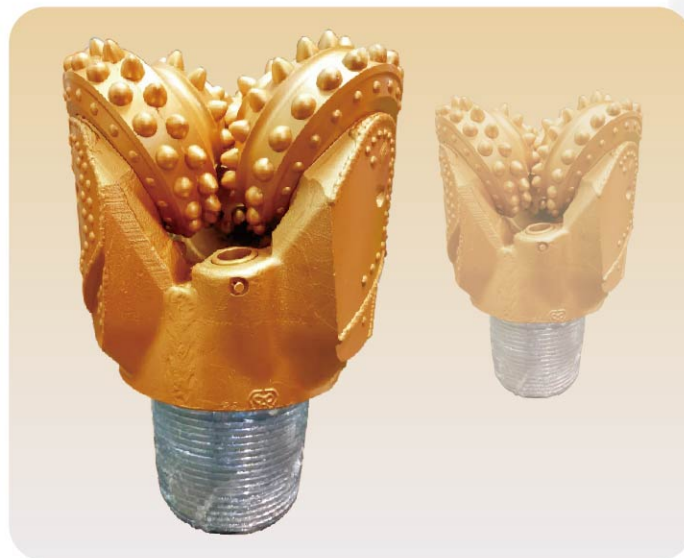
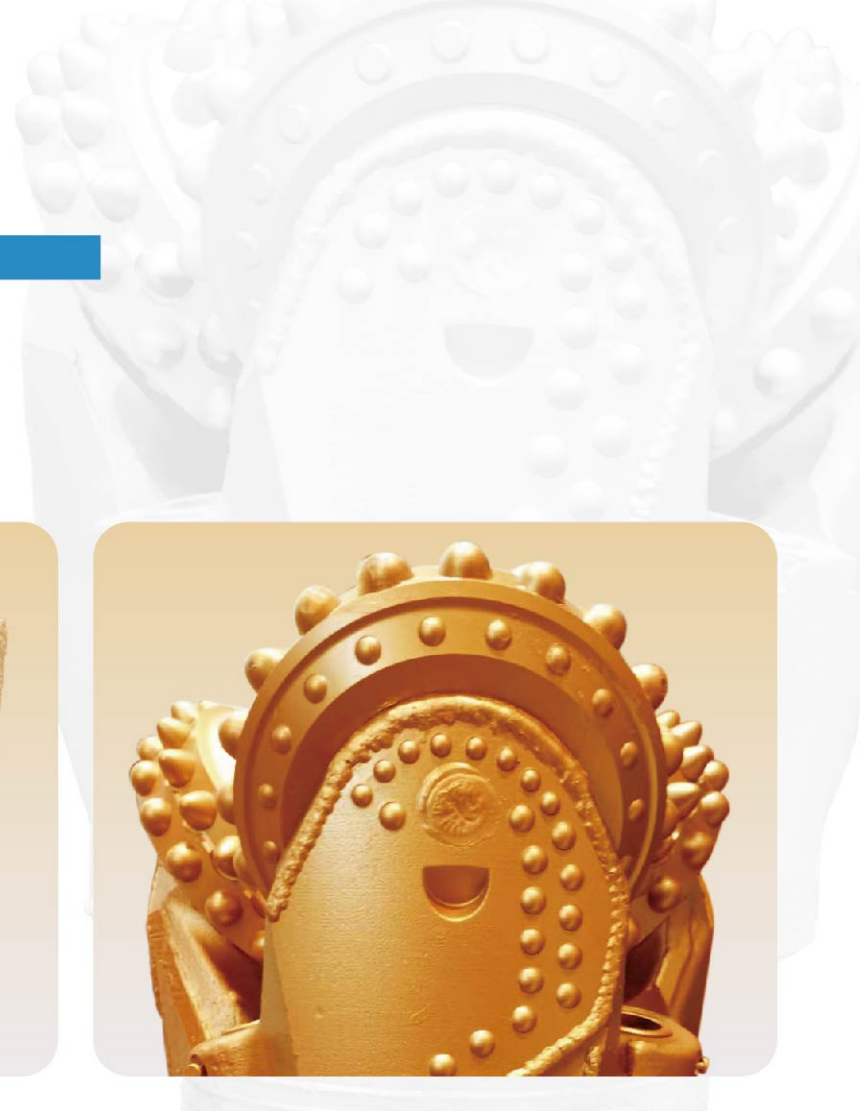
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 615
Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 270 mm
Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 31,875–53,125 lbs/14.5–24.1 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGA615RF

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows, with auxiliary carbide protection.
Designed for high compressive strength, medium hard formations, such as: hard shale, limestone, sandstone, dolomite, coal seam.
Compressive strength: 23,000–30,000 psi/159–207 MPa

SHIRTTAIL PROTECTION

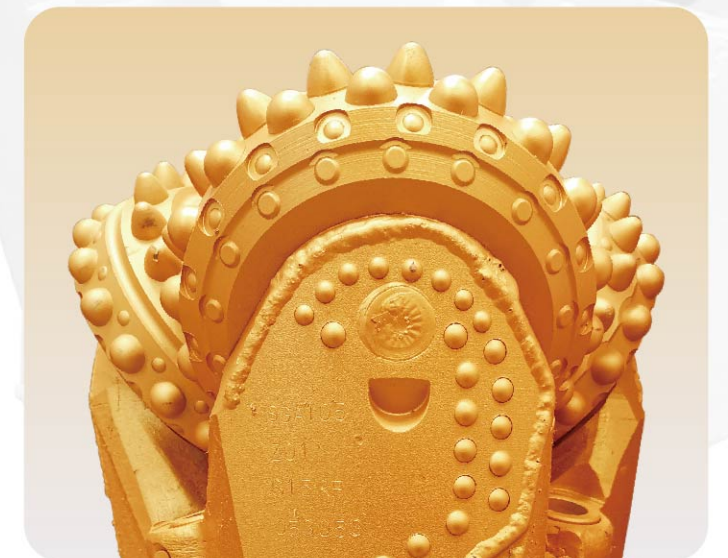
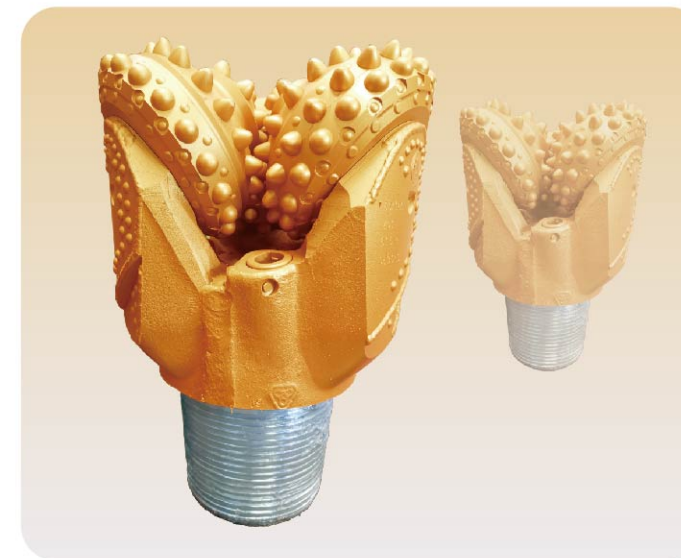
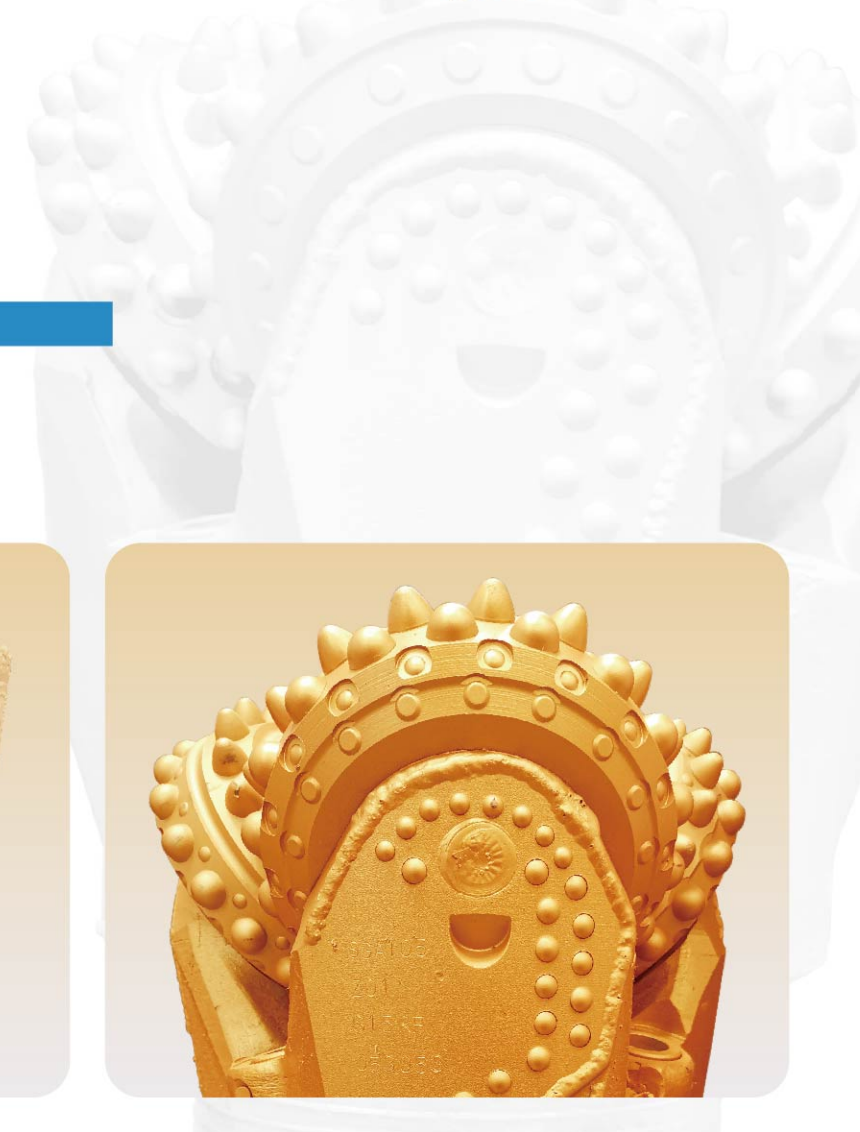
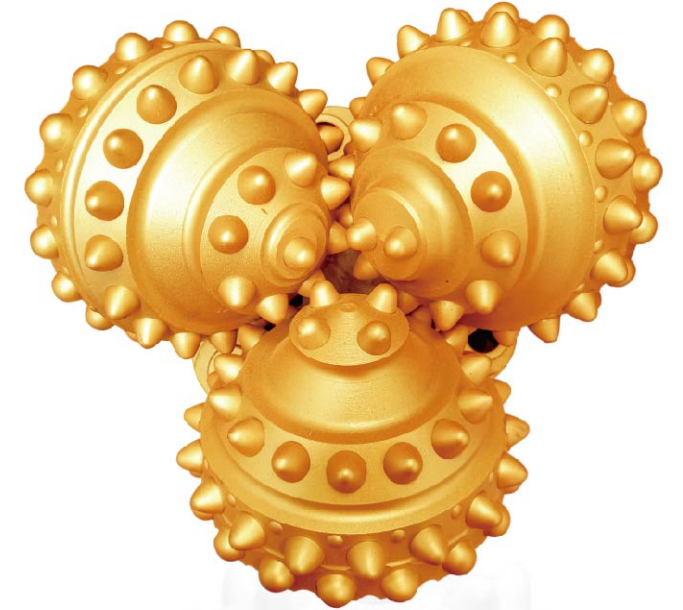
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 615
Bearing Type: Roller–Ball–Roller–Thrust/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner Rows: Double spherical
Gage Rows: Conical
Auxiliary Carbide:
Gage Bevel Protection: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 270 mm
Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on Bit: 31,875–53,125 lbs/14.5–24.1 T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



10 5/8 SGA715R

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 37,000–44,000 psi/255–303 MPa

SHIRTTAIL PROTECTION

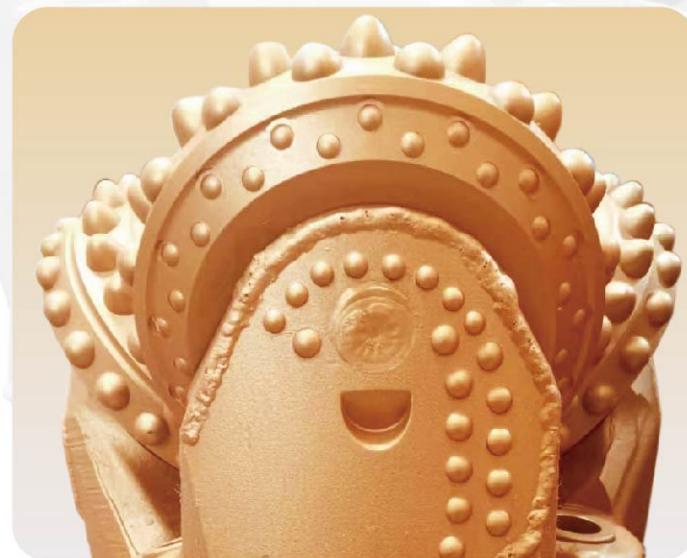
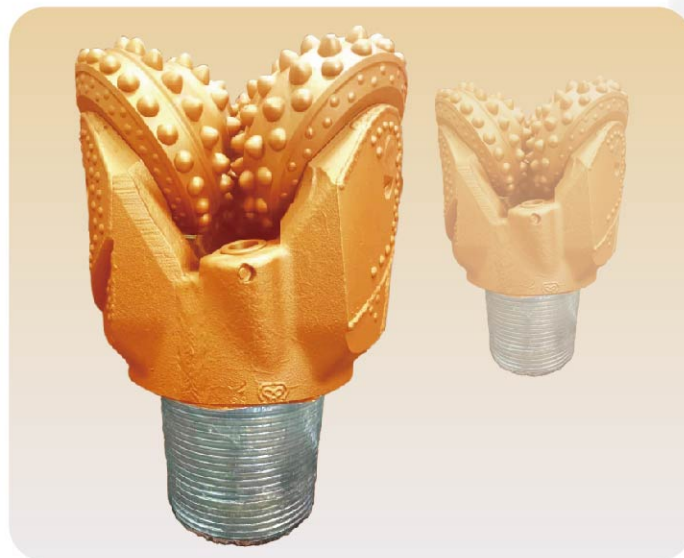
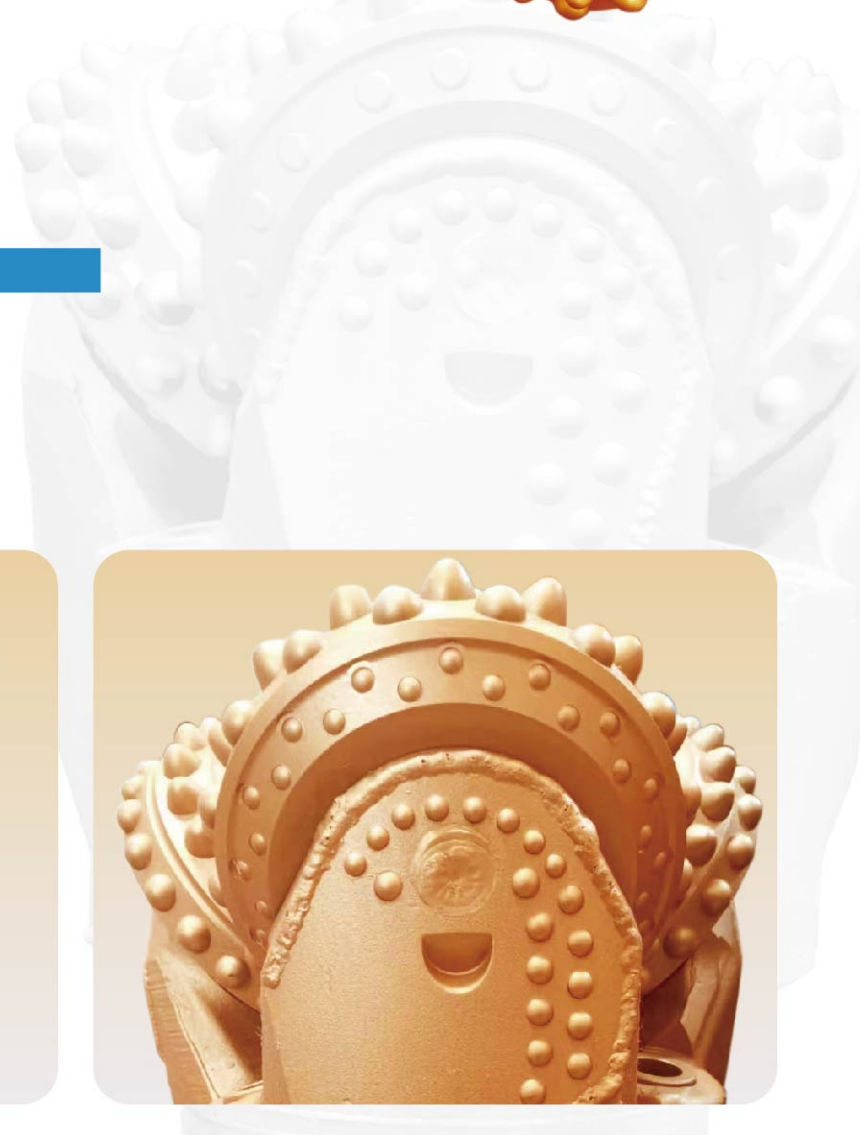
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 715
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 270 mm
Product Weight: 162 lbs/74 kg

OPERATING SUGGESTIONS

Weight on bit: 42500–63750lb/19.3–28.9T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



11 SGV645

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 32,000–42,000 psi/220–289 MPa

SHIRTTAIL PROTECTION

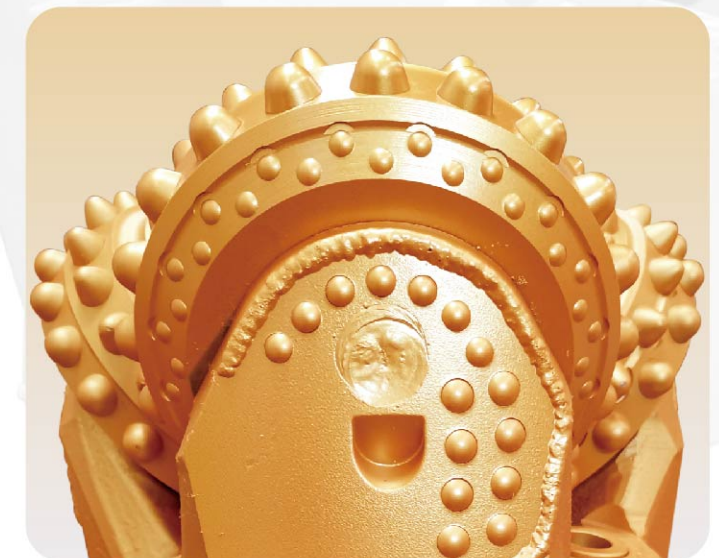
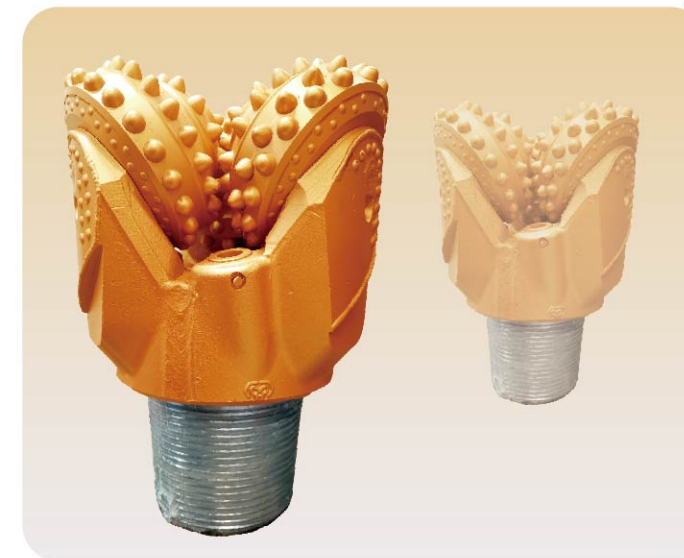
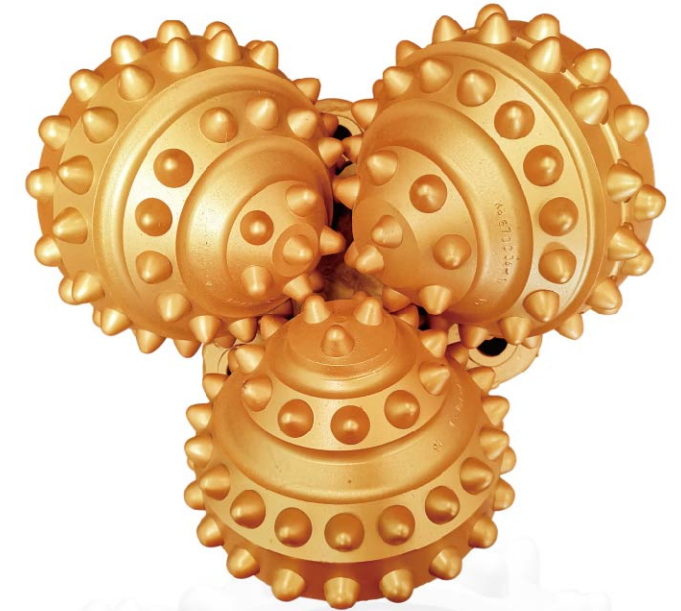
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 645
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Conical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 279mm
Product Weight: 167 lbs/76 kg

OPERATING SUGGESTIONS

Weight on Bit: 33,000–66,000lb/15–30T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



11 SGA745G

CUTTING STRUCTURE

Conical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 46,000–56,000 psi/317–386 MPa

SHIRTTAIL PROTECTION

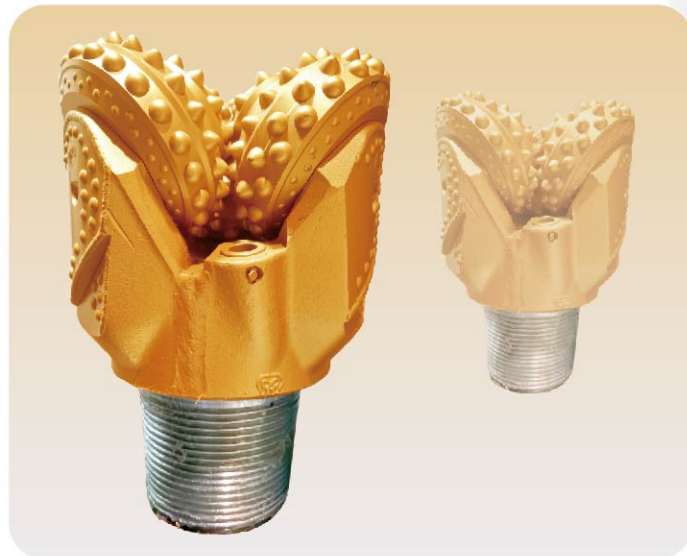
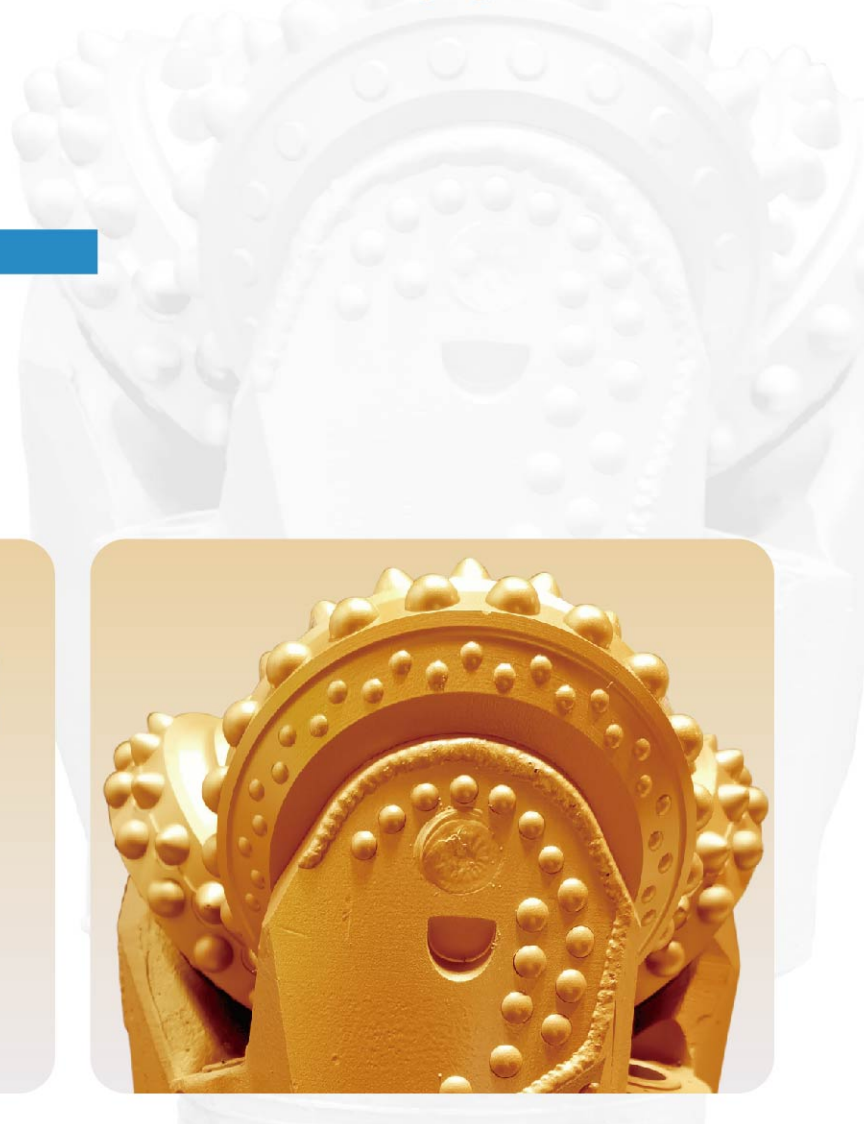
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 745
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 279mm
Product Weight: 167 lbs/76 kg

OPERATING SUGGESTIONS

Weight on Bit: 44,000–77,000lb/20–35T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA545R

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for soft formations with low compressive strength, such as shale, soft limestone, interbedded dolomite, coal ore.
Compressive strength: 18,000–27,000 psi/124–186 MPa

SHIRTTAIL PROTECTION

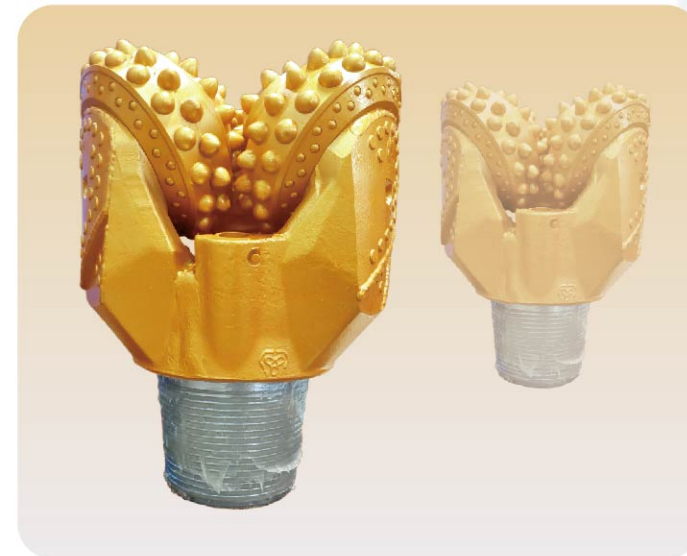
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 545
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 24,500–61,250lb/11.1–27.8T
Rotational Speed: 80–110 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA625GS

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

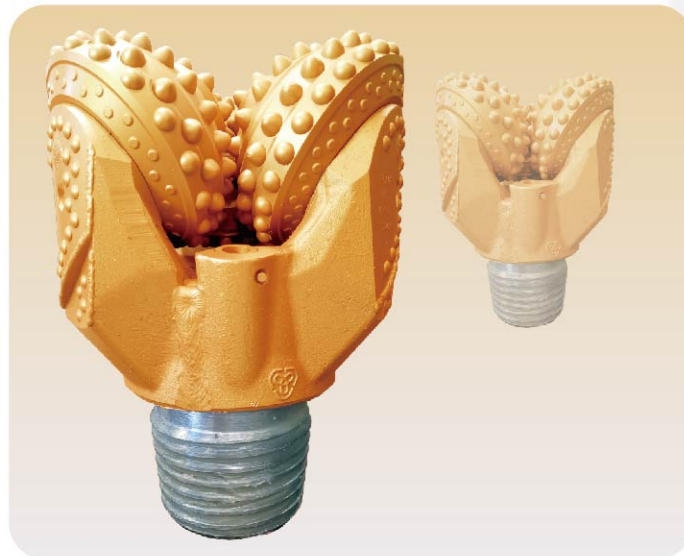
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 625
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Flat
Pin Connection: 6 BECO
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 33,000–66,000lb/15–30T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA635R

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

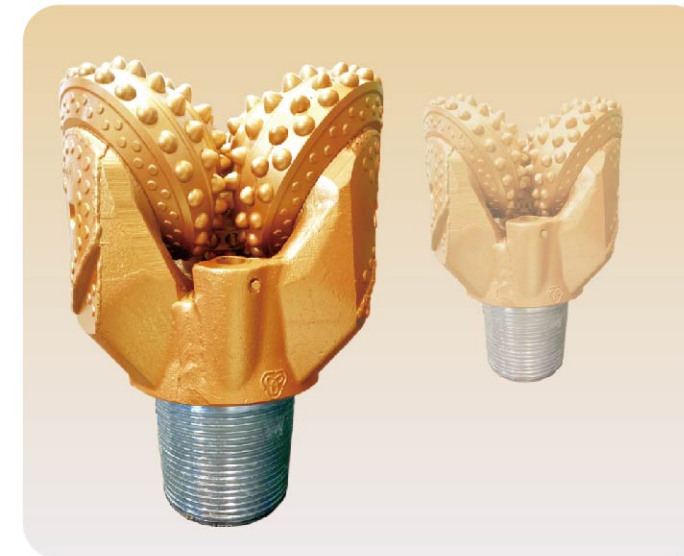
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 36,750–73,500lb/16.7–33.3T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA645G

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

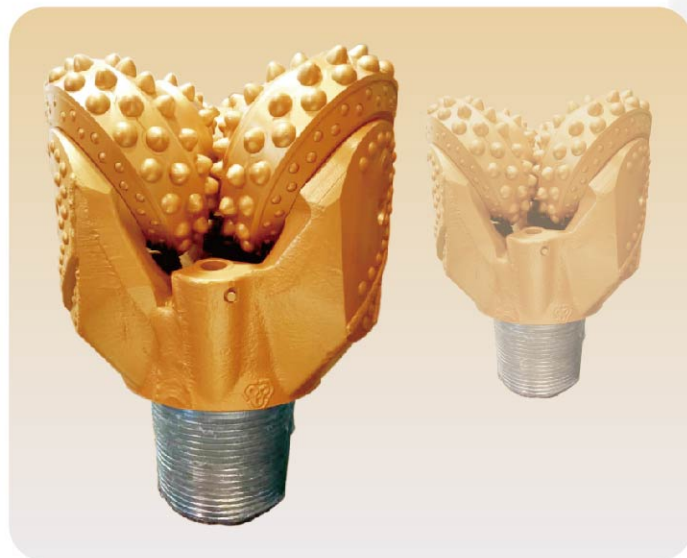
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 645
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 36,750–73,500lb/16.7–33.3T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA715G

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 37,000–44,000 psi/255–303 MPa

SHIRTTAIL PROTECTION

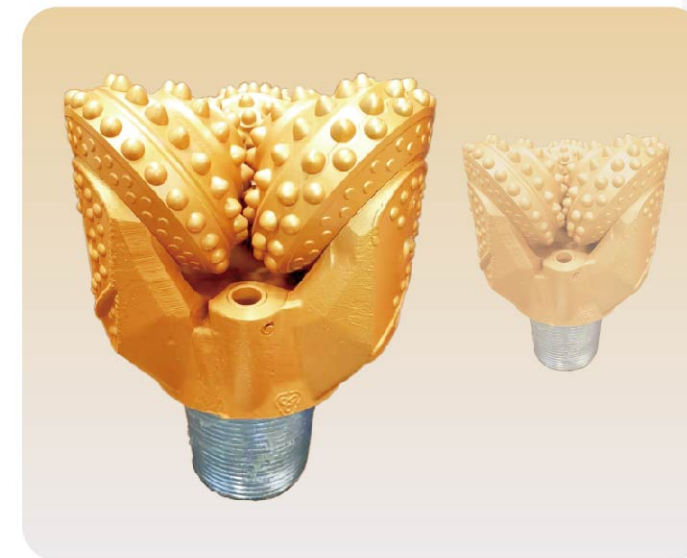
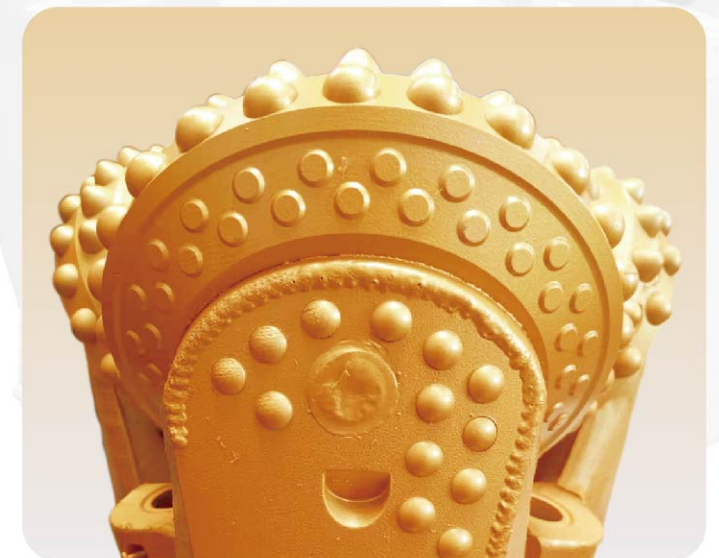
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 715
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 49,000–73,500lb/22.2–33.3T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA715R

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 37,000–44,000 psi/255–303 MPa

SHIRTTAIL PROTECTION

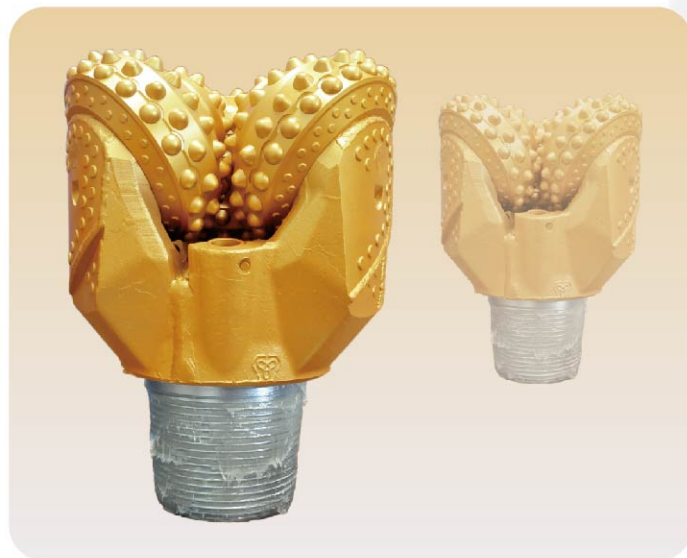
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 715
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 49,000–73,500lb/22.2–33.3T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA725GF

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows, with auxiliary carbide protection.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 40,000–48,000 psi/275–331 MPa

SHIRTTAIL PROTECTION

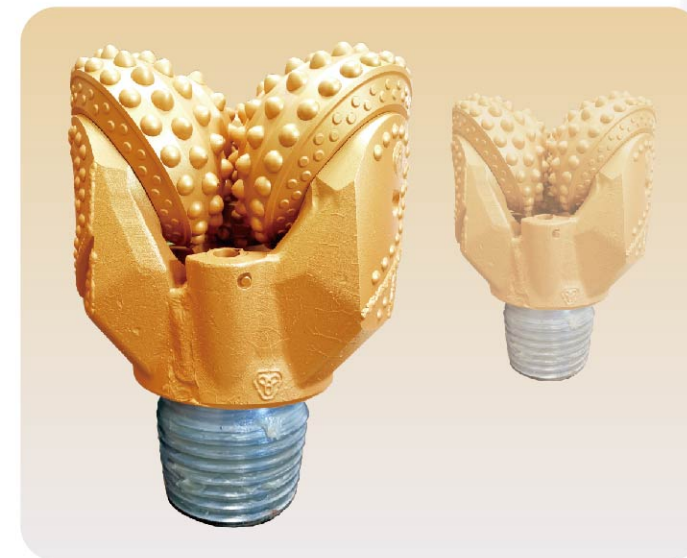
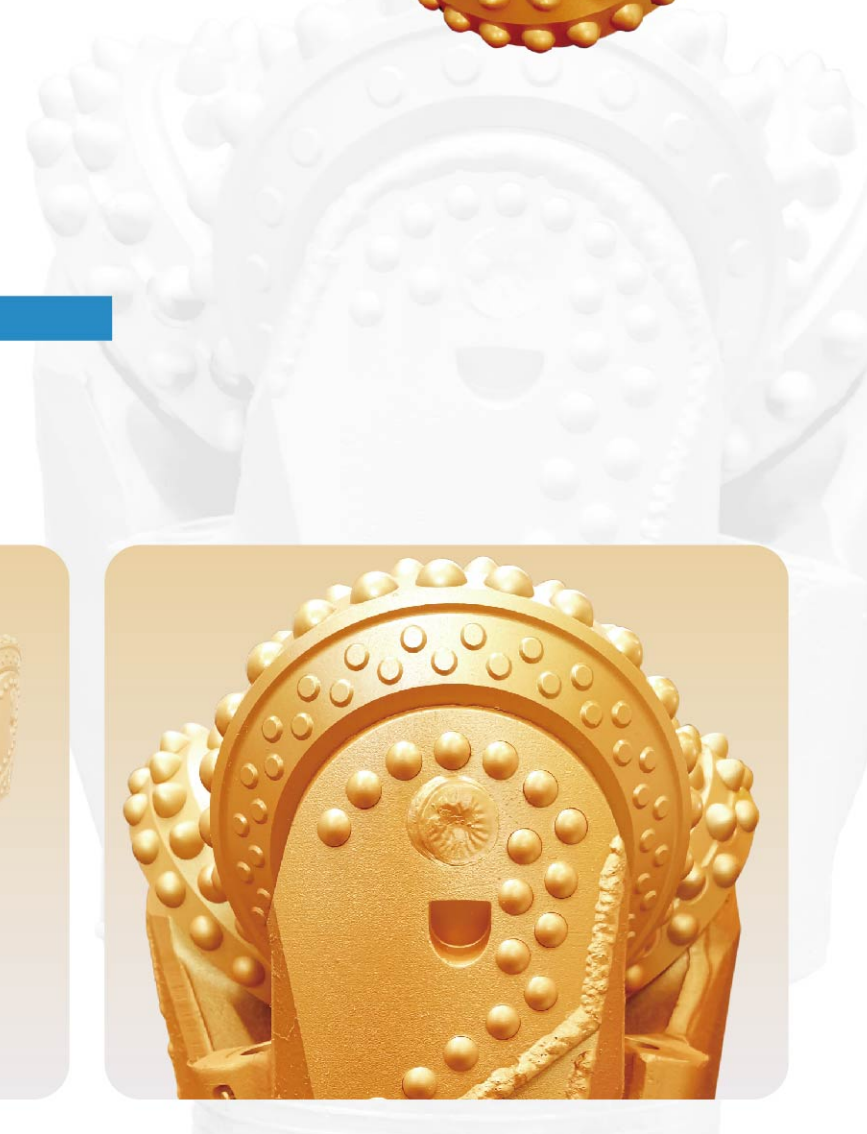
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 725
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Gage Bevel Protection: Flat
Pin Connection: 6 BECO
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 49,000–73,500lb/22.2–33.3T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA735R

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 43,000–52,000 psi/296–358 MPa

SHIRTTAIL PROTECTION

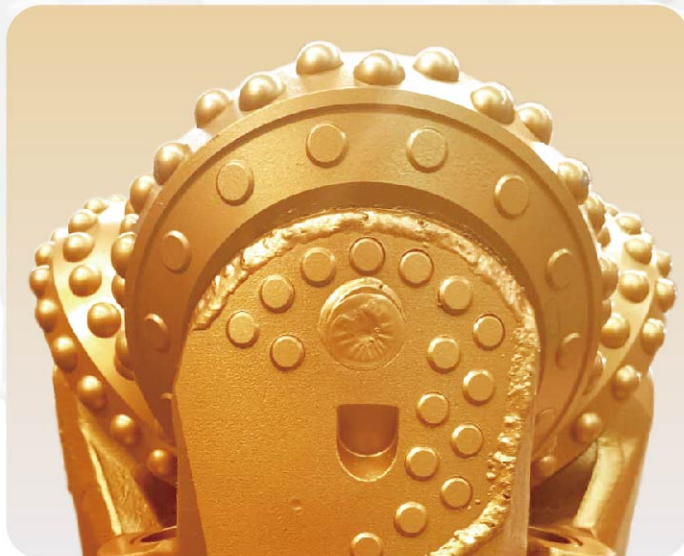
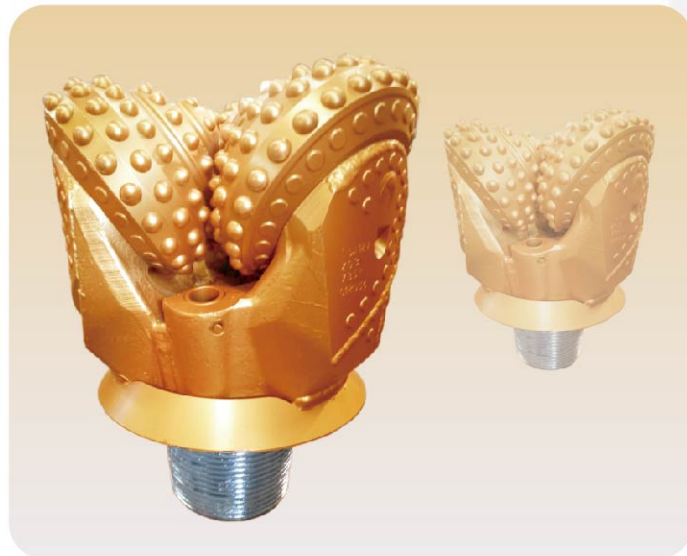
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 735
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Flat
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 49,000–85,750lb/22.2–38.9T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA745R

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 46,000–56,000 psi/317–386 MPa

SHIRTTAIL PROTECTION

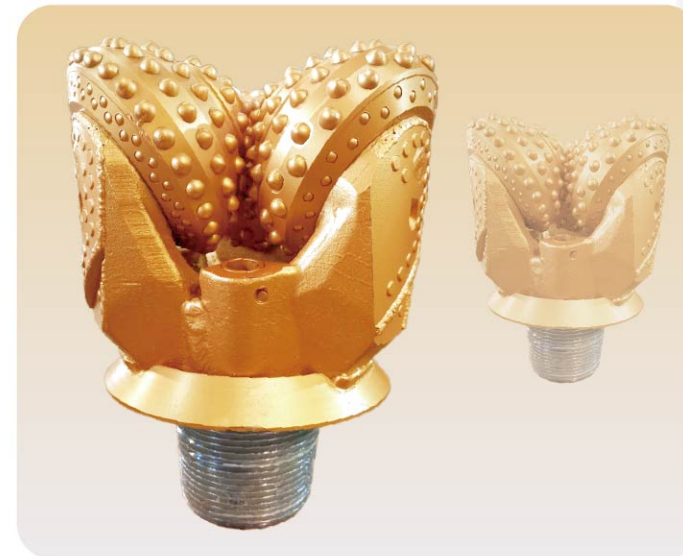
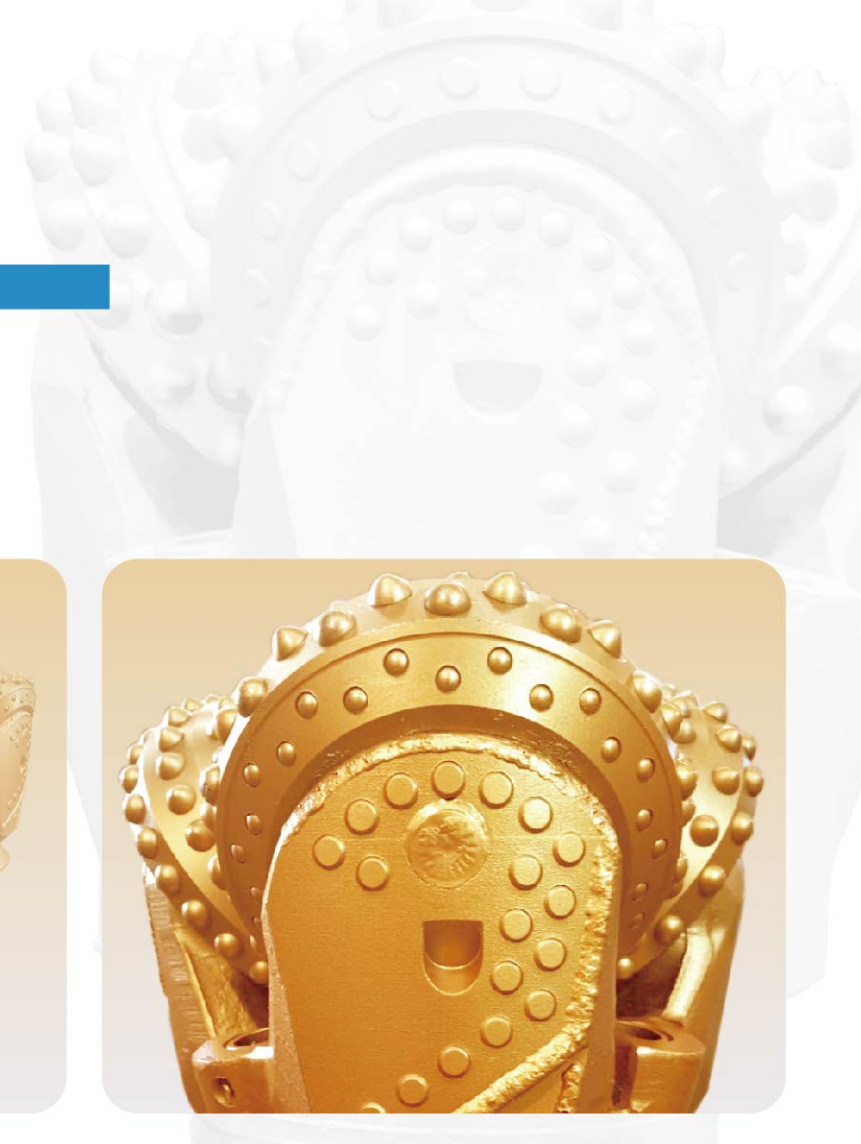
Hard welding and wear resistant carbide protection on shirrtail lip and lug

PRODUCT SPECIFICATION

IADC Code: 745
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 49,000–85,750lb/22.2–38.9T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGA835R

CUTTING STRUCTURE

Spherical on gage and inner rows.
Designed for high compressive strength, hard and abrasive formations, such as magnetite quartzite, quartzite, granite.
Compressive strength: 55,000–66,000 psi/379–455 MPa

SHIRTTAIL PROTECTION

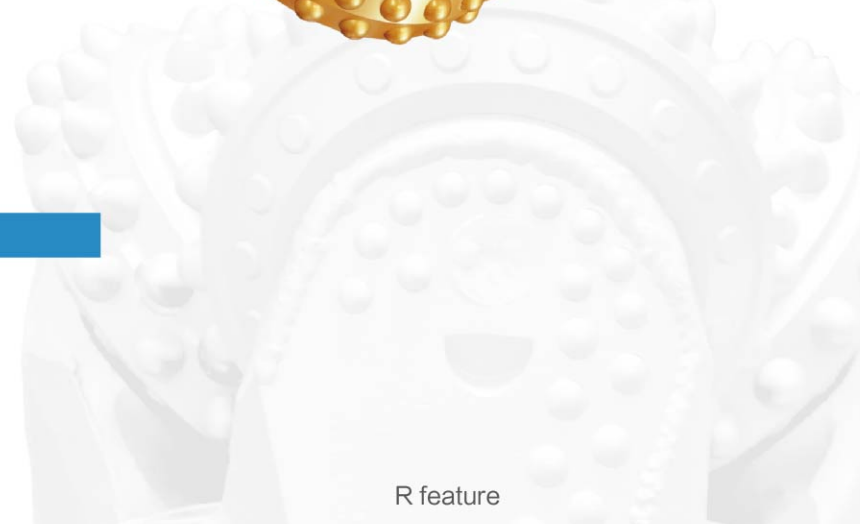
Hard metal and wear resistant carbide on shirrtail lip and lug.

PRODUCT SPECIFICATION

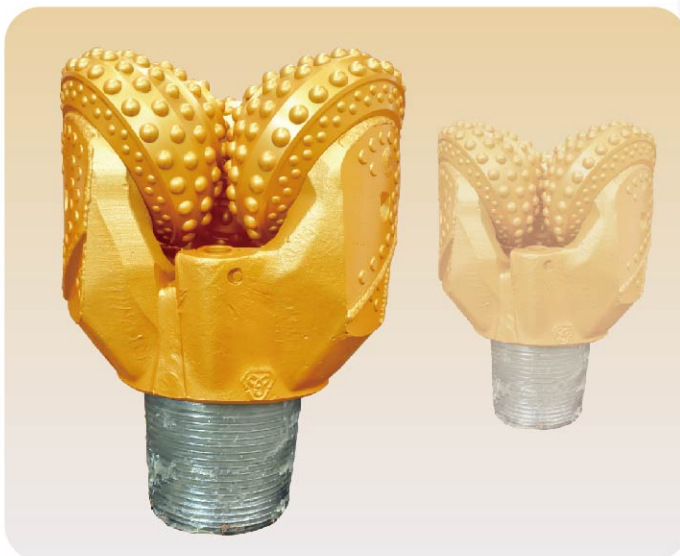
IADC Code: 835
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Spherical
Gage Rows: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311 mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 27.3T / 60,186 lbs MAX
Rotational Speed: 50–80 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



R feature



12 1/4 SGV745G

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 46,000–56,000 psi/317–386 MPa

SHIRTTAIL PROTECTION

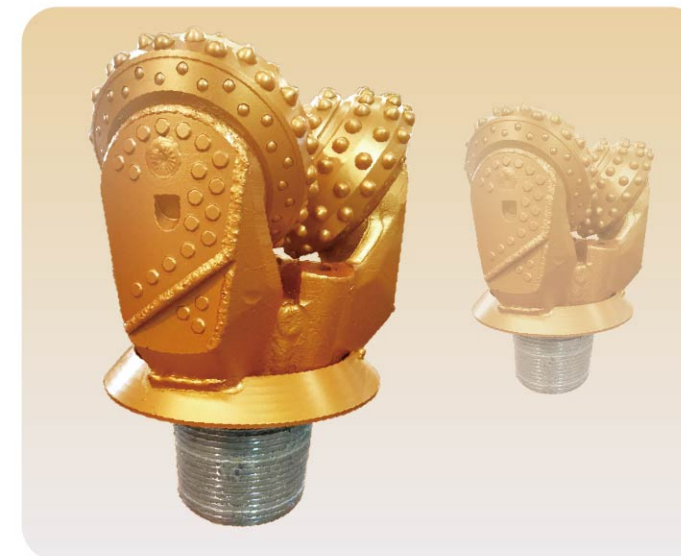
Hard welding and wear resistant carbide protection on shirrtail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 745
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311 mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 49,000–85,750lb/22.2–38.9T
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



12 1/4 SGV745

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, hard and abrasive formations, such as granite, limestone, sandstone, dolomite.
Compressive strength: 46,000–56,000 psi/317–386 MPa

SHIRTTAIL PROTECTION

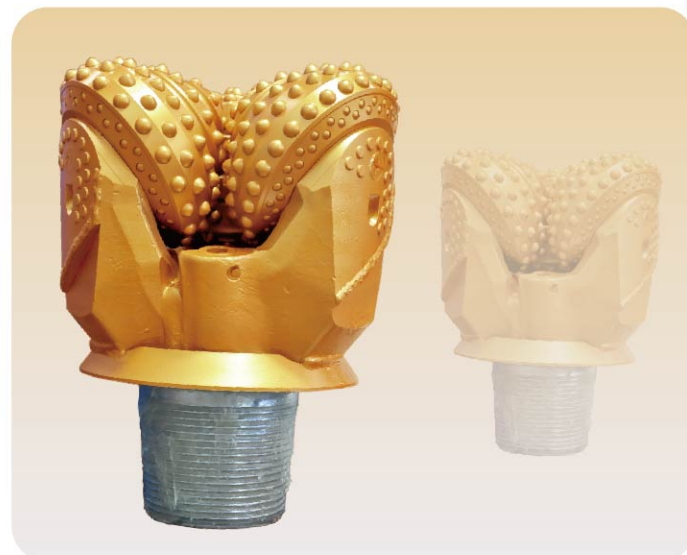
Hard metal and wear resistant carbide on shirttail lip and lug.

PRODUCT SPECIFICATION

IADC Code: 745
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Gage Bevel Protection: Ovoid
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 311 mm
Product Weight: 215 lbs/98 kg

OPERATING SUGGESTIONS

Weight on Bit: 27.3T / 60,186 lbs MAX
Rotational Speed: 60–90 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa



13 3/4 SGA635RF

CUTTING STRUCTURE

Spherical on gage, double spherical on inner rows.
Designed for high compressive strength, medium hard and abrasive formations, such as limestone, sandstone, interbedded dolomite.
Compressive strength: 29,000–38,000 psi/200–262 MPa

SHIRTTAIL PROTECTION

Hard welding and wear resistant carbide protection on shirttail lip and lug

PRODUCT SPECIFICATION

IADC Code: 635
Bearing Type: Roller–Ball–Roller–Thrust Button/Sealed Bearing
Circulation Type: Jet Air
Cutting Structure:
Inner and Nose Rows: Double spherical
Gage Rows: Spherical
Auxiliary Carbide: Spherical
Pin Connection: 6 5/8" API REG
Metric Bit Diameter: 349mm
Product Weight: 270 lbs/123 kg

OPERATING SUGGESTIONS

Weight on Bit: 41,250–82,500lb/18.7–37.4T
Rotational Speed: 60–100 rpm
Air Back Pressure: 29–58 psi/0.2–0.4 MPa

