

### 1. The structure features

SKW series bit is of non-sealed roller bearing structure, it is the ideal and economical tool for high RPM and geothermal drilling applications. Its main characteristics include:

- a. For bit size of 12-1/4" and larger, bearing structure of roller-ball-roller-thrust is utilized.
- b. For bit smaller than 12-1/4", bearing structure of roller-ball-pin slide-thrust is used and it is suitable for high RPM.
- c. No bearing seal, drilling fluid can enter the bearing cavity directly to cool the bearing, and it is suitable for geothermal drilling.



### Available sizes and types of SKW series roller cone bits

Bit size		Bit Type	API Regular Pin (in)	Recommended make-up torque for bit shank(KN.m)
Inch (in)	Metric (mm)			
8 1/2	215.9	SKW111, SKW121, SKW131, SKW211	4 1/2	16.3~21.7
8 5/8	219.1	SKW111, SKW121, SKW131, SKW211		
8 3/4	222.2	SKW111, SKW121, SKW131, SKW211		
9 1/2	241.3	SKW111, SKW121, SKW131, SKW211	6 5/8	37.9~43.3
9 5/8	244.5	SKW111, SKW121, SKW131, SKW211		
11 5/8	295.3	SKW111, SKW121, SKW131, SKW211		
12 1/4	311.1	SKW111, SKW121, SKW131, SKW211	7 5/8	46.1~54.2
14 3/4	374.6	SKW111, SKW121, SKW131, SKW211, SKW241		
15 1/2	381.0	SKW111, SKW121, SKW131, SKW211, SKW241		
16	406.4	SKW111, SKW121, SKW131, SKW211, SKW241		
17 1/2	444.5	SKW111, SKW121, SKW131, SKW211, SKW241		
20	508	SKW111, SKW121, SKW131, SKW211, SKW241		
22	558.8	SKW111, SKW121, SKW131, SKW211, SKW241		
24	609.6	SKW111, SKW121, SKW131, SKW211, SKW241		
26	660.4	SKW111, SKW121, SKW131, SKW211, SKW241		

**Note:** Bit sizes and types that are not shown in above table can be customized.

## Recommended operating parameters of SKW series roller cone bits

Bit Type	Normal WOB KN/mm (bit dia.)	RPM (r/min.)	Main features of the cutting structure	Applicable formation
SKW111	0.20-0.70	200-80	Hardfaced cone gage and teeth surface, improved tooth shape and buildup welding material, high tooth exposure	Very soft with low compressive strength and high drillability, such as soft shale, clay and salt bed, etc.
SKW121	0.20-0.70	200-80	Hardfaced cone gage and teeth surface, improved tooth shape and buildup welding material, high tooth exposure	Very soft with low compressive strength and high drillability, such as soft shale, clay and salt bed, etc.
SKW131	0.20-0.70	200-80	Hardfaced cone gage and teeth surface, improved tooth shape and buildup welding material	Soft to medium soft or soft with harder stringers, such as hard gypsolyte, soft limestone and sandstone, etc
SKW211	0.25-0.80	200-80	Hardfaced cone gage and teeth surface, improved tooth shape and buildup welding material	Medium hard with hard stringers such as hard shale, sandstone and limestone, etc.
SKW241	0.25-0.80	200-80	Hardfaced cone gage and teeth surface, improved tooth shape and buildup welding material	Medium hard with hard stringers such as hard shale, sandstone and limestone, etc.

**Note:** Upper limits of the recommended WOB and RPM in above table should not be used simultaneously.