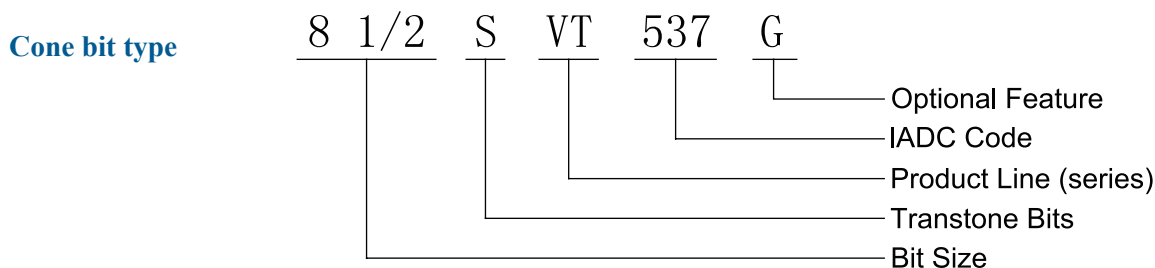


Drilling Tools

Bits

1. Transtone Cone Bits



Product line	Specification
S	Elastomer sealed journal bearing bit
	Elastomer sealed roller bearing bit
	Non-sealed roller bearing bit
SJ	Metal sealed journal bearing bit
SV	Six-point position stabilization motor bit
SG	Sealed improved roller bearing bit
SK	Air cooling roller bearing bit
SL	Pilot hole-opener cone bit
SD	Single cone bit

Optional Feature	Specification
C	Center nozzle
E	Extended nozzle
G (第一个)	Gauge/body protection
G (第二个)	Diamond gauge protection
K	widened crest insert
L	Lug pad
W	Strengthened cutting structure
X	chisel insert
Y	Conical insert

For example:

8 1/2SVT537G

8 1/2: Bit diameter is 8 1/2 inches (215.9mm)

S: Transtone Bits V: Six-point position stabilization T: Gauge trimmer

537: Insert bit for drilling in soft to medium formation with low compressive strength

G: Gauge/body protection

Bit Bearing and Character

Bit Series	SV	SJ	S	SG	SK	SD	SL
Journal Bearing	●	●	●			●	●
Roller Bearing			●				
Improved Roller Bearing				●			
Air Cooling Roller Bearing					●		
Metal Seal							
Elastomer Seal	●	●					
Non-Seal			●	●		●	●
Gauge Trimmer			●		●		
修边保径齿	●	●	●	●			●

1.1 SV Series Six-Point Position Stabilization Motor Bit

It is applicable for downhole motor and high speed rotary application, and is the ideal tool for drilling directional and horizontal wells.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
8 1/2	215.9	SVT437G SVT447G SVT517G SVT527G SVT537G SVT547G SVT617G
9 1/2	241.3	SVT437G SVT447G SVT517G SVT527G SVT537G SVT547G SVT617G
12 1/4	311.1	SVT437G SVT447G SVT517G SVT527G SVT537G SVT547G SVT617G



1.2 SJ Series Metal Sealed Bearing Bit

It is applicable for downhole motor and high speed rotary application.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
7 7/8	200.0	SJ517G SJ527G SJ547GY SJ617GY SJ627G SJ637GY
8 1/2	215.9	SJT117GW SJT127GW SJT437GK SJT447GK SJT517G SJT527G SJT537G SJT547G SJT617GY SJT627G SJT637GY
9 1/2	241.3	SJT117GW SJT127GW SJT437G SJT517G SJT527G SJT537G SJT547G SJT617GY SJT627G
12 1/4	311.1	SJT517G SJT527G SJT537G SJT547G SJT617GY SJT627G SJT637GY
17 1/2	444.5	SJT117GW SJT127GW SJT517G SJT527G SJT537G SJT547G SJT617GY SJT627G SJT637GY



1.3 S Series Elastomer Sealed Journal Bearing Bit

It can absorb high WOB in the conventional drilling. It is for various formations drilling by matching different teeth shape, teeth density and cutting exposure structure.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
3 1/2	88.9	S527C
4 5/8	117.5	S126 S517

4 3/4	120.7	S116C
5 7/8	149.2	S216 S537 S547 S637
6	152.4	S117W S216 S246 S517 S547
6 1/4	158.8	S127W S247 S517 S527 S547 S637
6 1/2	165.1	S127W S217 S517 S537
6 3/4	171.5	S116GW S447 S537
7 1/2	190.5	S127W S217 S517 ST517 S527 ST527 S617
7 7/8	200.0	S117GW S437G S517G S527G S537G S547G S547GY S627G S617GY S637GY
8 3/8	212.7	S217 S527 S547
8 1/2	215.9	ST117W ST127W S137W S217 S247 ST437GK ST447GK ST517GK ST527GK ST537G ST547G S617G S627G S637G
8 3/4	222.3	S116GW S437GK ST517G S537G S627G
9 1/2	241.3	ST117CW ST127GW ST417G ST437G ST517G ST527G ST537G
9 5/8	244.5	ST437G ST517G S527G
9 7/8	250.8	S117GW ST417GK ST437G ST517G S527G
10	254.0	S126W
10 5/8	269.9	ST127GW S217G ST437G ST517G ST547G
11	279.4	S117GW S517G S537G
11 5/8	295.3	S117GW S127GW S137GW S217G ST417G ST517G ST537G ST547G
12	304.8	S126W S216 ST517 ST537 ST547 S617
12 1/4	311.2	ST117W S127W S137 ST417GK ST437G ST517G ST527G ST537G ST547G ST617GY S627G S637G
12 3/8	314.0	ST117W S127W S137 ST417GK ST437G ST517G ST527G ST537G ST547G ST617GY S627G S637G
12 15/32	316.5	ST117W S127W S137 ST417GK ST437G ST517G ST527G ST537G ST547G ST617GY S627G S637G
13 1/8	333.4	S437 S517 S527 S537 S547
13 5/8	346.1	S437 S515 S517
13 3/4	349.3	S437 S517
14 3/4	374.7	S117W S127W S137 S517 S527
15 1/2	393.7	S127GW S217G S517G S527G S537G S547G
16	406.4	ST117GW ST127GW S127G ST517G ST527G ST537G ST547G
17 1/2	444.5	ST117GW S127W S137 ST437G ST517G ST527G ST537G ST547G
18	457.2	ST547G
18 1/2	469.9	S547G



button bit



steel tooth bit

1.4 S Series Elastomer Sealed Roller Bearing Bit

It is for various formation drilling. It can realize high rotating speed under low to medium WOB application.

Available sizes, types and recommended operating parameters of bits

尺寸		Bit type
Inch (in)	Metric (mm)	
5 7/8	149.2	S214
7 1/2	190.5	S124C S134C S244C
7 7/8	200.0	S124 S124 S134
8 3/8	212.7	S215
8 1/2	215.9	S124W S134
9 1/2	241.3	S124G
9 5/8	244.5	S114G S124G S134G
9 7/8	250.8	S115GW
10 5/8	269.9	S115GW S125GW S215G
11	279.4	S115GW
11 5/8	295.3	S115GW S125GW S215G
12	304.8	S124W
12 1/4	311.2	ST115GW ST125GW S135 S214 S244 S324
13 5/8	346.1	ST115GW S124W
13 3/4	349.3	ST115W ST125W ST135W
14 3/4	374.6	S115W S125W S135W
15	381.0	S124G S244G
15 1/2	381.0	S115GW S125GW S135GW S215G
16	392.0	S535G S545G
17 1/2	444.5	S115GW S125GW S135G S215G
19 1/4	489.0	S115CGW S225CG
20	508.0	S125CGW S215CGW S515CG ST515CG S525CG ST525CG ST545CG
22	558.8	S125C
24	609.0	S125C
26	660.4	S124C S134C S525CG
36	914.4	S124CW



button bit



steel tooth bit

1.5 S Series Non-Seal Roller Bearing Roller Bit

It is applied in the shallow well, water well and geothermal well.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
4 1/4	107.9	S131C S321C
4 5/8	117.5	S241C
4 3/4	120.6	S241C
5 5/8	142.9	S121 S241 S321
6	152.4	S211
6 1/4	158.7	S121 S241 S321
6 3/4	171.4	S121 S241 S321
7 1/2	190.5	S121
7 7/8	200.0	S121 S131 S241 S321
9 7/8	250.8	S121 S211 S241 S321
12 1/4	311.1	S211

1.6 SG Series Improved Sealed Roller Bearing Bit

It is for various formation drilling. It can realize high rotating speed under low to medium WOB application.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
16	406.4	SGT115GW
17 1/2	444.5	SGT115GW SG125G SG135G SGT435G SGT515G SGT525G SGT535G SGT545G SGT615G SGT625G SGT635G
20	508.0	SG125CGW SG215CGW



1.7 SK Series Air Cooling Roller Bearing Bit

It is applied for mining operation.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
9 7/8	250.8	SK512G SK542G SK612G SK732G



1.8 SD Series Single Cone Bit

It is suitable for sidetracking, deep well drilling and old well repairing.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
4 1/8	104.8	SD527 SD547 SD617
4 1/2	114.3	SD527 SD547 SD617
4 5/8	117.5	SD527 SD547 SD617
4 7/8	123.8	SD527 SD547 SD617
5 1/2	139.7	SD527 SD547 SD617
6	152.4	SD527 SD547 SD617
6 1/2	165.1	SD527 SD547 SD617
7 1/2	190.5	SD527 SD547 SD617
7 7/8	200.0	SD527 SD547 SD617
8 1/2	215.9	SD527 SD547 SD617



1.9 SL Series Pilot Hole-opener Cone Bit

It is applied in the big size casing well section, mining and infrastructure building drilling.

Available sizes, types and recommended operating parameters of bits

Bit size		Bit type
Inch (in)	Metric (mm)	
28	711.2	SL117GW SL127GW SL517G SL537G
30	762.0	SL117GW SL127GW SL517G SL537G
32	812.8	SL117GW SL127GW SL517G SL537G
36	914.4	SL117GW SL127GW SL517G SL537G



1.10 Optional Features

Diamond Compacts (GG)

For high abrasive formation, the diamond compact inserts can enhance the gauge protection.

Six-Point Position Stabilization Structure (SV)

The shirttail is designed with specific integrated structure, which allows the fully contact between legs and borehole, greatly reducing vibration and keeping good borehole quality.

Flat Insert (K)

The flat insert is 15% thicker than standard insert. It can cut more rocks as per penetrating so as to increase the ROP.

Shirrtail Protection (G)

More tungsten carbides are inserted in the shirrtail to reduce the wear in the abrasive formation. It can protect gauge and increase stability.

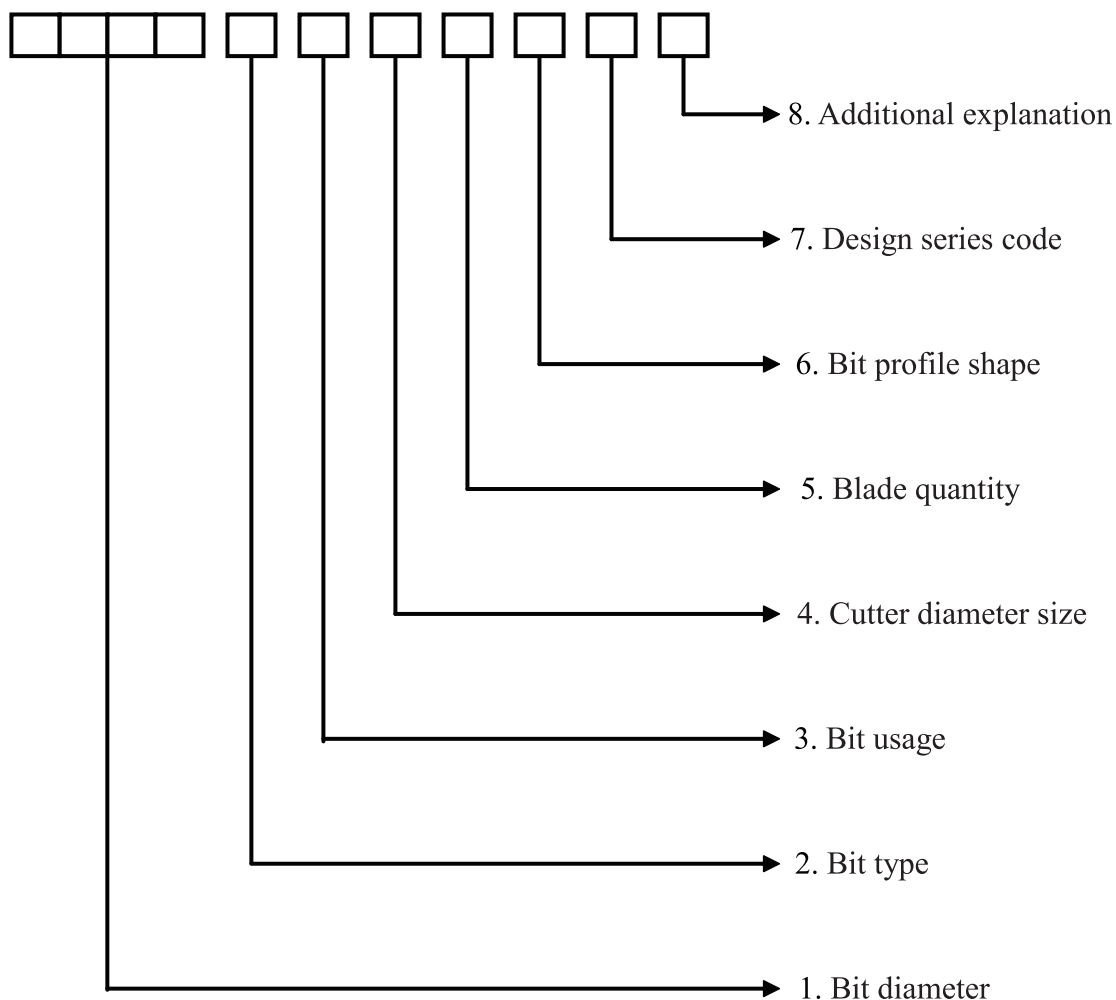
Extended Nozzle (E)

The extended nozzle can provide better hydraulic control to the bit and increase the ROP in the soft formation.

2. Diamond Bits

Support 3" to 17 1/2" matrix bits and 17" casing drilling shoe. The products are suitable for extra-soft to middle hard formation's normal drilling, side racking directional drilling and core drilling. It can supply PDC bit, TSP bit, side tracking and deflective bit, bi-center reamer bit, core bit and impregnated PDC bit. Meanwhile, it can also design and manufacture different types of drilling bits according to the special working requirements of customers.

The currently rule of bit code



The first field is expressed by digit for indicating the diameter of the bit (unit: inch or mm). The foregoing digit indicates the outside diameter (For the Bi-centre bit It indicates draft diameter). The following digit indicates the indoor diameter (it just is used in coring bit, other type bits cancel the item).

For example: 8 1/2" x 101.6, it indicates that the bit outside diameter is 8 1/2" and the bit indoor diameter is 101.6mm.

1).The second field is expressed by an English letter for indicating the bit type (classify with material of crown-body and cutter type)

Letter	Bit Species
M	Matrix-body PDC bit.
S	Steel-body PDC bit
N	Matrix-body Nature Diamond bit.
C	Cylindrical Thermal Stable Polycrystalline Diamond bit
T	Triangle Thermal Stable Polycrystalline Diamond bit
I	Mono-crystal Impregnated bit

2).The third field is express by an English letter for indicating the bit usage. It is adopted just for the PDC bit.

Letter	Bit Usage
D	The drilling bit
C	The coring bit
B	The Bi-centre bit

3).The fourth field is expressed by a digit for indicating cutter diameter size.

Letter	PDC cutter diameter size
0	Less than 10mm
1	10mm
2	22mm
3	13mm
6	16mm
9	19mm

4). The fifth field is expressed by a digit for indicating blade number.

4: 4 blades 5: 5 blades 6: 6 blades -----

0: 10blades 1: 11blades 2: 12blades or more than 12 blades

5). The sixth field is expressed by a digit for indicating the profile sharp of the bit. The bigger figure indicates the longer profile.

6).The seventh field is expressed by an Arabic numeral or Roman numerals for indicating design series code.

7).The eighth field is additional explanation.

2.1 Diamond Drilling Bits

Table 1 of technical parameter

Bit Type	IADC	O.D.		API Pin Join
		inch	mm	
17 1/2 " MD9541	M223	17 1/2	444.5	7 5/8 REG
17 1/2 " MD9531	M223			
12 1/4 " MD9551	M223	12 1/4 " MD9551	311.15	6 5/8 REG
12 1/4 " MD9552	M223			
12 1/4 " MD9541	M223			
12 1/4 " MD9542	M223			
12 1/4 " MD9531	M223			
12 1/4 " MD9451	M223			
12 1/4 " MD6731	M223			
12 1/4 " MD6732	M223			
12 1/4 " MD6651	M323			
12 1/4 " MD6631	M323			
12 1/4 " MD3731	M433			
12 1/4 " MD3641	M433			
12 1/4 " MD2531	M233			
12KM226	M223			
12KM236	M323			
122FM236	M333			
122FM226	M223			
11MD9531	M223			
9 7/8 " MD9535	M223			
9 5/8 " MD9551	M223			
9 5/8 " MD9535	M223			
9 1/2 " MD9535	M223	9 1/2	241.3	
9 1/2 " MD9536	M223			
9 1/2 " MD9431	M223			
9 1/2 " MD6641	M223			
9 1/2 " MD6632	M433			
9 1/2 " MD3741	M333			
9 1/2 " MD3641	M433			
9 1/2 " MD3642	M433			
9 1/2 " MD3643	M433			
9 1/2 " MD3632	M223			
9 1/2 " MD3633	M223			
94KM236	M323			
94KM225	M223			

Table 2of technical parameter

Bit Type	IADC	O.D.		API Pin Join
		inch	mm	
9 " MD9431、90KM226、225MD9451	M223	9	228.6	4 1/2 REG
8 3/4 " MD9541	M223	8 3/4	222.25	
8 3/4 " MD9531	M223			
8 3/4 " MD9535	M223			
8 3/4 " MD9521	M222			
8 3/4 " MD9522	M222			
8 3/4 " MD9523	M222			
8 3/4 " MD9525	M222			
8 3/4 " MD9431	M223			
8 1/2 " MD9631	M123			
8 1/2 " MD9611	M123			
8 1/2 " MD9551	M222			
8 1/2 " MD9531	M223			
8 1/2 " MD9532	M223			
8 1/2 " MD9533	M223			
8 1/2 " MD9535	M223			
8 1/2 " MD9537	M223			
8 1/2 " MD9539	M223			
8 1/2 " MD9522	M222			
8 1/2 " MD9525	M222			
8 1/2 " MD9528	M222			
8 1/2 " MD9431	M223			
8 1/2 " MD9432	M123			
8 1/2 " MD9433	M123			
8 1/2 " MD6651	M323			
8 1/2 " MD6511	M123			
8 1/2 " MD6521	M223			
8 1/2 " MD6531	M223			
8 1/2 " MD3641	M333			
8 1/2 " MD3643	M333			
8 1/2 " MD3644	M333			
8 1/2 " MD3522	M232			
8 1/2 " MD3523	M232			
8 1/2 " MD1831	M323			
84KM236	M323			
84KM245	M323			
84KM226	M223			
84KM242	M223			
84KM243-II	M223			
77FM235	M332	7 7/8	200	

Table 3 of technical parameter

Bit Type	IADC	O.D.		API Pin Join
		inch	mm	
65FM236	M333	6 5/8	168.275	3 1/2 REG
6 1/8 " MD3522	M232	6 1/8	155.575	
6 1/8 " MD3541	M233			
60FM236	M333	6	152.4	
57FM253	M333	5 7/8	149.225	
5 7/8 " MD3651	M333	5 7/8	149.225	2 7/8 REG
4 3/4 " MD3541	M133	4 3/4	120.65	
4 1/8 " MD3551	M233	4 1/8	104.775	
9 5/8 " MX9431	M223	9 5/8	244.475	6 5/8 REG
94KX225	M223	9 1/2	241.3	
9 " MX9431	M223	9	228.6	4 1/2 REG
8 1/2 " MX9535	M223	8 1/2	215.9	
8 1/2 " MX9537	M223			
8 1/2 " MX9526	M223			
8 1/2 " MX3641	M333			
84KX225	M223			
84KX226	M223			
84KX226L	M223			
84KX243-II	M223			

Table 4 of technical parameter

Series	Bit Type	Bit size		API Pin Join	Pilot Diameter, mm	Drilling Diameter, mm
		inch	mm			
FB Series Bl-Center Bit	45FB3551	4 5/8	117.6	2 7/8 REG	92	130
	60FB4667	6	152.4	3 1/2 REG	120.65	174.6
	84FB7094	8 1/2	215.9	4 1/2 REG	177.8	241.3
JB Series Bl-Center Bit	45JB3551	4 5/8	117.6	2 7/8 REG	92	130
	60JB4667	6	152.4	3 1/2 REG	120.65	174.6

Table 5 of technical parameter

Series	Bit Type	Bit size		API Pin Join	Construction Styles
		inch	mm		
JM Series Bit	57JM418	5 7/8	149.225	3 1/2 REG	Triangular polycrystalline cutters Long cone crown profile
	60JM418	6	152.4	3 1/2 REG	
	120JM418		120	2 7/8 REG	

2.2 Coring Bits

Table1 of technical parameter

Series	Bit Type	Bit O.D		Bit I.D		Coring tool
		inch	mm	inch	mm	
FQ Series Coring Bit	8441FQ202	8 1/2	215.9	4 1/8	105	Chuan8—3
	8440FQ203	8 1/2	215.9	4	101.6	250P
	8440FQ206	8 1/2	215.9	4	101.6	250P
	8441FQ216	8 1/2	215.9	4 1/8	105	Chuan8—3
	5725FQ206	5 7/8	149.225	2 5/8	66.7	Small250P
RQ Series Coring Bit	8441RQ301	8 1/2	215.9	4 1/8	105	Chuan8—3
	8441RQ302	8 1/2	215.9	4 1/8	105	Chuan8—3
	8440RQ303	8 1/2	215.9	4	101.6	250P
	8440RQ306	8 1/2	215.9	4	101.6	250P
	8440RQ316	8 1/2	215.9	4	101.6	250P
	6025RQ306	6	152.4	2 5/8	66.7	Small250P
	6025RQ316	6	152.4	2 5/8	66.7	Small250P
	6026RQ306	6	152.4	2 3/4	66.7	Chuan6—3
	6026RQ316	6	152.4	2 3/4	66.7	Chuan6—3
	5725RQ316	5 7/8	149.225	2 5/8	66.7	Small250P
JQ Series Coring Bit	8441JQ402	8 1/2	215.9	4 1/8	105	Chuan8—3
	8441JQ416	8 1/2	215.9	4 1/8	105	Chuan8—3
	8440JQ403	8 1/2	215.9	4	101.6	250P
	8440JQ406	8 1/2	215.9	4	101.6	250P
	8440JQ407	8 1/2	215.9	4	101.6	250P
	6025JQ406	6	152.4	2 5/8	66.7	Small250P
	6025JQ407	6	152.4	2 5/8	66.7	Small250P
	6026JQ401	6	152.4	2 3/4	69.8	Chuan6—3
	5725JQ416	5 7/8	149.225	2 5/8	66.7	Small250P
DQ Series Coring Bit	8441DQ502	8 1/2	215.9	4 1/8	105	Chuan8—3
	8440DQ506	8 1/2	215.9	4	101.6	250P
	8440DQ526	8 1/2	215.9	4	101.6	250P
	X8440DQ516	8 1/2	215.9	4	101.6	250P
	6025DQ501	6	152.4	2 5/8	66.7	Small250P Small250p
	6026DQ501	6	152.4	2 3/4	69.8	Chuan6—3 Chuan6—3

Table 2 of technical parameter

Series	Bit Type	Bit O.D		Bit I.D		Coring tool
		inch	mm	inch	mm	
TQ Series Coring Bit	8441TQ601	8 1/2	215.9	4 1/8	105	Chuan8—3 Chuan8—3
	8441TQ602	8 1/2	215.9	4 1/8	105	Chuan8—3 Chuan8—3
	X8440TQ316	8 1/2	215.9	4	101.6	250P
	X8440TQ326	8 1/2	215.9	4	101.6	250P
	X8440TQ316G	8 1/2	215.9	4	101.6	250P
	5425TQ306	5 1/2	139.7	2 5/8	66.7	Small250P
	5425TQ316	5 1/2	139.7	2 5/8	66.7	Small250P
	5425TQ326	5 1/2	139.7	2 5/8	66.7	Small250P

