

# Jobber Length

## HSS HEAVY-DUTY NAS 907B Type 190, Type 190-AN Titanium Nitride Coated 135° Split Point

- Heavy-duty construction for drilling in tougher materials
- Manufactured from premium high-speed steel
- 135° split point is self-centering for reduce thrust and easier penetration
- Manufactured to **NAS 907B** aerospace specification



**Type 190**

Black oxide surface finish increases wear resistance and adds lubricity to improve chip flow.



**Type 190-AN**

Titanium nitride (TiN) coating adds lubricity and hardness, enhancing chip flow, finish hole quality and drill life.

### FRACTIONAL

Type 190 Black Oxide Part Number	Type 190-AN Titanium Nitride Part Number	Diameter Inches	Overall Length Inches	Flute Length Inches	Type 190 Black Oxide Qty. per/Pack	Type 190-AN Titanium Nitride Qty. per/Pack
04490	97890	1/16	1-7/8	7/8	12	6
04500	97880	5/64	2	1	12	6
04510	97870	3/32	2-1/4	1-1/4	12	6
04520	97860	7/64	2-5/8	1-1/2	12	6
04530	97850	1/8	2-3/4	1-5/8	12	6
04540	97840	9/64	2-7/8	1-3/4	12	6
04550	97830	5/32	3-1/8	2	12	6
04560	97820	11/64	3-1/4	2-1/8	12	6
04570	97810	3/16	3-1/2	2-5/16	12	6
04580	97800	13/64	3-5/8	2-7/16	12	6
04590	97790	7/32	3-3/4	2-1/2	12	6
04600	97780	15/64	3-7/8	2-5/8	12	6
04610	97770	1/4	4	2-3/4	12	6
04620	97760	17/64	4-1/8	2-7/8	12	6
04630	97750	9/32	4-1/4	2-15/16	12	6
04640	97740	19/64	4-3/8	3-1/16	6	3
04650	97730	5/16	4-1/2	3-3/16	6	3
04660	97720	21/64	4-5/8	3-5/16	6	3
04670	97710	11/32	4-3/4	3-7/16	6	3
04680	97700	23/64	4-7/8	3-1/2	6	3
04690	97690	3/8	5	3-5/8	6	3
04700	97680	25/64	5-1/8	3-3/4	6	3
04710	97670	13/32	5-1/4	3-7/8	6	3
04720	97660	27/64	5-3/8	3-15/16	6	3
04730	97650	7/16	5-1/2	4-1/16	6	3
04740	97640	29/64	5-5/8	4-3/16	6	3
04750	97630	15/32	5-3/4	4-5/16	6	3
04760	97620	31/64	5-7/8	4-3/8	6	3
04770	97610	1/2	6	4-1/2	6	3

### LETTER

Type 190 Black Oxide Part Number	Type 190-AN Titanium Nitride Part Number	Letter Sizes	Overall Length Inches	Flute Length Inches	Type 190 Black Oxide Qty. per/pack	Type 190-AN Titanium Nitride Qty. per/pack
05300	95710	A	3-7/8	2-5/8	12	6
05310	95700	B	4	2-3/4	12	6
05320	95690	C	4	2-3/4	12	6
05330	95680	D	4	2-3/4	12	6
05340	95670	E	4	2-3/4	12	6
05350	95660	F	4-1/8	2-7/8	12	6
05360	95650	G	4-1/8	2-7/8	12	6
05370	95640	H	4-1/8	2-7/8	12	6
05380	95630	I	4-1/8	2-7/8	12	6
05390	95620	J	4-1/8	2-7/8	12	6
05400	95610	K	4-1/4	2-15/16	12	6
05410	95600	L	4-1/4	2-15/16	12	6
05420	95590	M	4-3/8	3-1/16	6	3
05430	95580	N	4-3/8	3-1/16	6	3
05440	95570	O	4-1/2	3-3/16	6	3
05450	95560	P	4-5/8	3-5/16	6	3
05460	95550	Q	4-3/4	3-7/16	6	3
05470	95540	R	4-3/4	3-7/16	6	3
05480	95530	S	4-7/8	3-1/2	6	3

Letter sizes continued on page 11.

TiN

HSS Twist Drills - Heavy Duty HSS NAS 907B



### Type 190

Black oxide surface finish increases wear resistance and adds lubricity to improve chip flow.



### Type 190-AN

Titanium nitride (TiN) coating adds lubricity and hardness, enhancing chip flow, finish hole quality and drill life.

## HSS HEAVY-DUTY NAS 907B

### Type 190, Type 190-AN Titanium Nitride Coated

#### 135° Split Point

- Heavy-duty construction for drilling in tougher materials
  - Manufactured from premium high-speed steel
- 135° split point is self-centering for reducing thrust and easier penetration
  - Manufactured to NAS 907B aerospace specification

### LETTER

Type 190 Black Oxide Part Number	Type 190-AN TiN Coated Part Number	Letter Sizes	Overall Length Inches	Flute Length Inches	Type 190 Black Oxide Qty. per/pack	Type 190-AN Titanium Nitride Qty. per/pack
05490	95520	T	4-7/8	3-1/2	6	3
05500	95510	U	5	3-5/8	6	3
05510	95500	V	5	3-5/8	6	3
05520	95490	W	5-1/8	3-3/4	6	3
05530	95480	X	5-1/8	3-3/4	6	3
05540	95470	Y	5-1/4	3-7/8	6	3
05550	95460	Z	5-1/4	3-7/8	6	3

### WIRE

Type 190 Black Oxide Part Number	Type 190-AN TiN Coated Part Number	Letter Sizes	Overall Length Inches	Flute Length Inches	Type 190 Black Oxide Qty. per/pack	Type 190-AN TiN Coated Qty. per/pack
04780	98520	1	3-7/8	2-5/8	12	6
04790	98510	2	3-7/8	2-5/8	12	6
04800	98500	3	3-3/4	2-1/2	12	6
04810	98490	4	3-3/4	2-1/2	12	6
04820	98480	5	3-3/4	2-1/2	12	6
04830	98470	6	3-3/4	2-1/2	12	6
04840	98460	7	3-5/8	2-7/16	12	6
04850	98450	8	3-5/8	2-7/16	12	6
04860	98440	9	3-5/8	2-7/16	12	6
04870	98430	10	3-5/8	2-7/16	12	6
04880	98420	11	3-1/2	2-5/16	12	6
04890	98410	12	3-1/2	2-5/16	12	6
04900	98400	13	3-1/2	2-5/16	12	6
04910	98390	14	3-3/8	2-3/16	12	6
04920	98380	15	3-3/8	2-3/16	12	6
04930	98370	16	3-3/8	2-3/16	12	6
04940	98360	17	3-3/8	2-3/16	12	6
04950	98350	18	3-1/4	2-1/8	12	6
04960	98340	19	3-1/4	2-1/8	12	6
04970	98330	20	3-1/4	2-1/8	12	6
04980	98320	21	3-1/4	2-1/8	12	6
04990	98310	22	3-1/8	2	12	6
05000	98300	23	3-1/8	2	12	6
05010	98290	24	3-1/8	2	12	6
05020	98280	25	3	1-7/8	12	6
05030	98270	26	3	1-7/8	12	6
05040	98260	27	3	1-7/8	12	6
05050	98250	28	2-7/8	1-3/4	12	6
05060	98240	29	2-7/8	1-3/4	12	6
05070	98230	30	2-3/4	1-5/8	12	6
05080	98220	31	2-3/4	1-5/8	12	6
05090	98210	32	2-3/4	1-5/8	12	6
05100	98200	33	2-5/8	1-1/2	12	6
05110	98190	34	2-5/8	1-1/2	12	6
05120	98180	35	2-5/8	1-1/2	12	6
05130	98170	36	2-1/2	1-7/16	12	6
05140	98160	37	2-1/2	1-7/16	12	6
05150	98150	38	2-1/2	1-7/16	12	6
05160	98140	39	2-3/8	1-3/8	12	6
05170	98130	40	2-3/8	1-3/8	12	6
05180	98120	41	2-3/8	1-3/8	12	6
05190	98110	42	2-1/4	1-1/4	12	6
05200	98100	43	2-1/4	1-1/4	12	6
05210	98090	44	2-1/8	1-1/8	12	6
05220	98080	45	2-1/8	1-1/8	12	6
05230	98070	46	2-1/8	1-1/8	12	6
05240	98060	47	2	1	12	6
05250	98050	48	2	1	12	6
05260	98040	49	2	1	12	6
05270	98030	50	2	1	12	6
05280	98020	51	2	1	12	6
05290	98010	52	1-7/8	7/8	12	6