



- Coil/Bundle Weight Options











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Grade – C	ommon Steel Grades / Nomer	nclature	
<u>SAE/AISI Number</u> 10XX 11XX 12XX	<u>Classification</u> Carbon Steels Carbon Steels-Resulfurized Carbon Steels-Resulfurized and Penhosphorized		
12XX 15XX 13XX 2XXX 2XXX	Carbon Steels-Kestilurized and Rephosphorized Carbon Steels-Manganese over 1% Manganese Alloy Steels Nickel Alloy Steels	AIS Steel Desig	I / SAE nation System
40XX 41/44XX 46/48XX	Molybdenum Alloy Steels Molybdenum Chromium Alloy Steels Molybdenum Nickel Alloy Steels	Type of material selected	Amount of carbon present in the steel
5XXX 6XXX 43/47/86/87XX ⁶ 92XX	Chromium Alloy Steels Chromium Vanadium Alloy Steels Nickel Chromium Molybdenum Alloy Steels Silicon Alloy Steels		





























Charter Steel Quality Levels AQ = Aircraft **Applications:** BQ = Bearing Critical Fasteners and other Cold Headed Components SRQ = Spring Round - Auto, Construction, Heavy RHQ = Recessed Head -Truck. etc. HRQ = Restrictive High Carbon HQ = High Carbon **Important Characteristics:** WRQ = Weld Rod Soft, ductile, formable material CFQ = Cold Finishing High surface quality IQ = Industrial Good coating FMQ = Free Machining WWQ = Wool Wire **Typical Grades:** SEC = Secondary Various (1008 through 4340) 21 21







Charter Steel Quality Levels



- WWQ = Wool Wire
- SEC = Secondary

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Charter will warranty the raw material costs (minus scrap) of any defects found to exceed this depth limit The warranty depth limits are not guaranteed defect depth limits Charter does not guarantee defect

Charter Item Description Breakdown PK*1022*M*SK*FG*RHQ*15/64*RNDCOIL*SAFS*MPHOSPOLY*0.188*2200 Product **Hot Rolled** Kill State **Nominal Coil** Practice (Start) Size Coating (Charter Weight internal use) (when applicable) 7/32" to 1-9/16" Grade Grain Size As Cold Drawn Size (when applicable) Processing Grade Path Quality **RNDCOIL** Modifier (when applicable) or RNDBAR 26

free steel



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Processing Pa	ith									
Describes the processing	Process	ANSAIP SASAIP ANRAIP	ANSAFS SASAFS ANRAFS	SAIP RAIP	DFSAR DFAR	SAFS RAFS	HRSA HRAN	DIRECT DRAWN (DD)	CLEAN & Coat (HRCC)	
path of the material	Process 1 Process 2	Clean/Coat Anneal	Clean/Coat Anneal	Clean/Coat Draw	Clean/Coat Anneal	Clean/Coat Draw	Clean/Coat Anneal	Clean/Coat Draw	Clean/Coat Ship	Ī
 X-Flow, CS developed process path to 	Process 3 Process 4	QC Check Clean/Coat	QC Check Clean/Coat	Anneal QC Check	QC Check Clean /Coat	Anneal QC Check	QC Check Clean/Coat Or Reband	QC Check Ship		
maximize formability, not listed on table	Process 5 Process	Draw Anneal	Draw Anneal	Clean/Coat Draw	Draw OC Check	Clean/Coat Or Reband Ship	Ship			
• SA+SAFSXF	6 Process 7	QC Check	QC Check	QC Check	Ship					
SA+SAIPXF	Process 8 Process	Clean/Coat	Clean/Coat Or Reband	Ship						
	9 Process 10	QC Check	Sub							
	Process 11	Ship								





























