

SPARK IDENTIFICATION CHART

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Material	Spark Illustration
Stainless Steel	
Tungsten-Chromium Die Steel	
Stellite	
Cemented Tungsten Carbide	
Nickel	
Copper, Brass, Aluminum	

Material	Spark Illustration
Wrought Iron	
Carbon Tool Steel	
Gray Cast Iron	
White Cast Iron	
Annealed Malleable Iron	
High-Speed Steel	
Austenitic Manganese Steel	

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Material Type	Volume of Stream	Length of Stream in Inches	Color of Stream Close to Wheel	Color of Stream Near End of Stream	Quantity of Spurts	Nature of Spurts	Used For ...
Wrought Iron	Large	65	Straw	White	Very few	Forked	Shipbuilding, farm equipment and ornamental work
Carbon Tool Steel	Moderately large	55	White	White	Very many	Fine, repeating	Hammers, chisels, dies, drills, cutters, taps and wood-cutting tools
Gray Cast Iron	Small	25	Red	Straw	Many	Fine, repeating	Auto cylinder blocks and heads, crankcases, crankshafts, brake drums, camshafts, pipes, auto and locomotive castings
White Cast Iron	Very small	20	Red	Straw	Few	Fine, repeating	Rolls used for rolling steel
Annealed Malleable Iron	Moderate	30	Red	Straw	Many	Fine, repeating	Gears, universal joints, connecting rods, differential cases, steering gear housings, flanges, pipe fittings and valve parts
High-Speed Steel	Small	60	Red	Straw	Extremely few	Forked	Drill bits
Austenitic Manganese Steel	Moderately large	45	White	White	Many	Fine, repeating	Railroad switches, rock crushers, grinding mills
Stainless Steel	Moderate	50	Straw	White	Moderate	Forked	Cooking utensils and flareware, fasteners, chemical, health, sanitation and petrochemical equipment
Tungsten-Chromium Die Steel	Small	35	Red	Straw	Many	Fine, repeating	Engine valves, gun barrel liners and rifling, dies and punches for steel materials
Stellite	Very small	10	Orange	Orange	None		Cast pipe valves and pumps for chlorine resistance in chemical plants
Cemented Tungsten Carbide	Extremely small	2	Light orange	Light orange	None	None	Mining, rock drilling and metal cutting
Nickel	Very small	10	Orange	Orange	None	None	Plating
Copper, Brass, Aluminum	None	None	None	None	None	None	Piping, plumbing, ornamentation, cans