

DERUSTING & DESCALING CAPABILITY

Each gallon of Scale Gone will solubilize $\frac{3}{4}$ pound of the thin black magnetite rust layer found below the heavier visible red or ferric oxide exterior film on rusted steel. Red rust is a higher oxidation state and occurs at the rust-air interface on steel and adheres to the magnetite layer.

Magnetite is a lower oxidation state and occurs on rusted steel as a thin film adhering directly to the metal. When the lower magnetite film is removed the red rust has nothing to adhere to and is also removed. Since Scale gone penetrates the rust layers and preferentially improves its rust removal capacity.

For scale removal, Scale Gone rapidly solubilizes and removes calcium, manganese and other alkaline earth metal oxide and carbonate scums that occur in boilers and heat exchangers.

One gallon of Scale Gone 35 is partially neutralized by 3.4 pounds of hard water scum on a dry (calcium carbonate) basis but still retains chelating and scum softening action to assist in removal of many more pounds of softened scum by brushing after partial neutralization. Many scale components are carbonate salts and give off carbon dioxide gas when neutralized. Good venting of this gas is required during descaling operations of closed boilers and heat exchangers where large amounts of hard water carbonate salts are present.