



Corrosion Modeling Software and Corrosion Prediction Software

## H2SO4-Compass®: H2SO4 Corrosion Modeling and Prediction

*High-Value Software Solutions to Costly Corrosion*

Version 9.20

☆ Performance ☆ Functionality ☆ Usability



Anytime

Anywhere

Any Device

Any OS

No USB dongles

No installation

No Browser Plug-ins

Why WebCorr | Performance Guarantee | Unparalleled Functionality | Unmatched Usability | Any Device Any OS | Free Training

## Overview of H2SO4-Compass

Figures below demonstrate the operation of H2SO4-Compass. With H2SO4-Compass, corrosion prediction and materials selection for H2SO4 service are as easy as 1-2-3.

- (1) Select the material from the dropdown list,
- (2) Enter temperature, concentration, and velocity
- (3) Review the prediction results

H2SO4-Compass predicts the specific gravity, the freezing point, and the boiling point of the H2SO4 acid, the acid concentration in vapor phase, the corrosion rate of the selected alloy at the specified temperature and concentration, and the remaining life of the component. In addition to that, H2SO4-Compass also plots the isocorrosion diagram for the selected alloy so as to give users a complete picture of the corrosion behavior of the selected alloy across the entire ranges of the H2SO4 acid concentration and the service temperature.

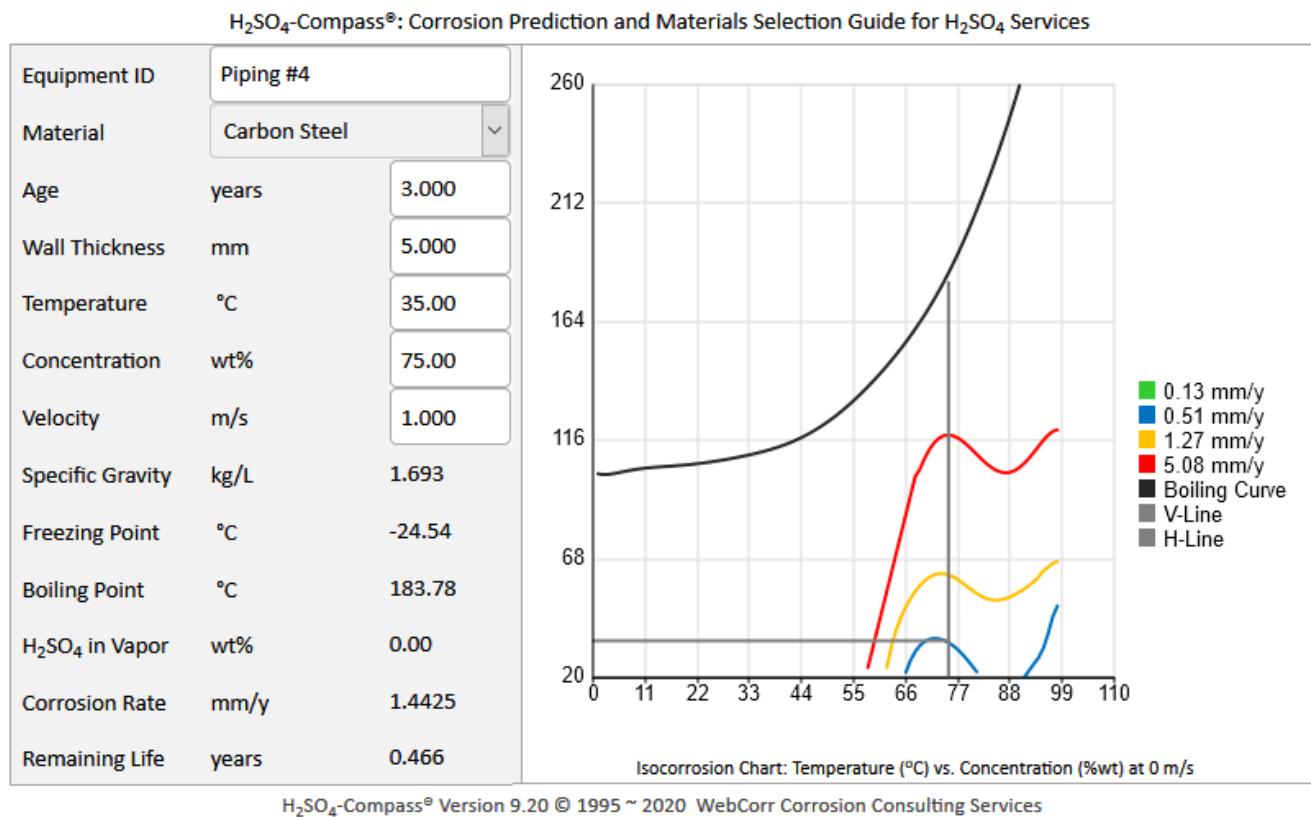
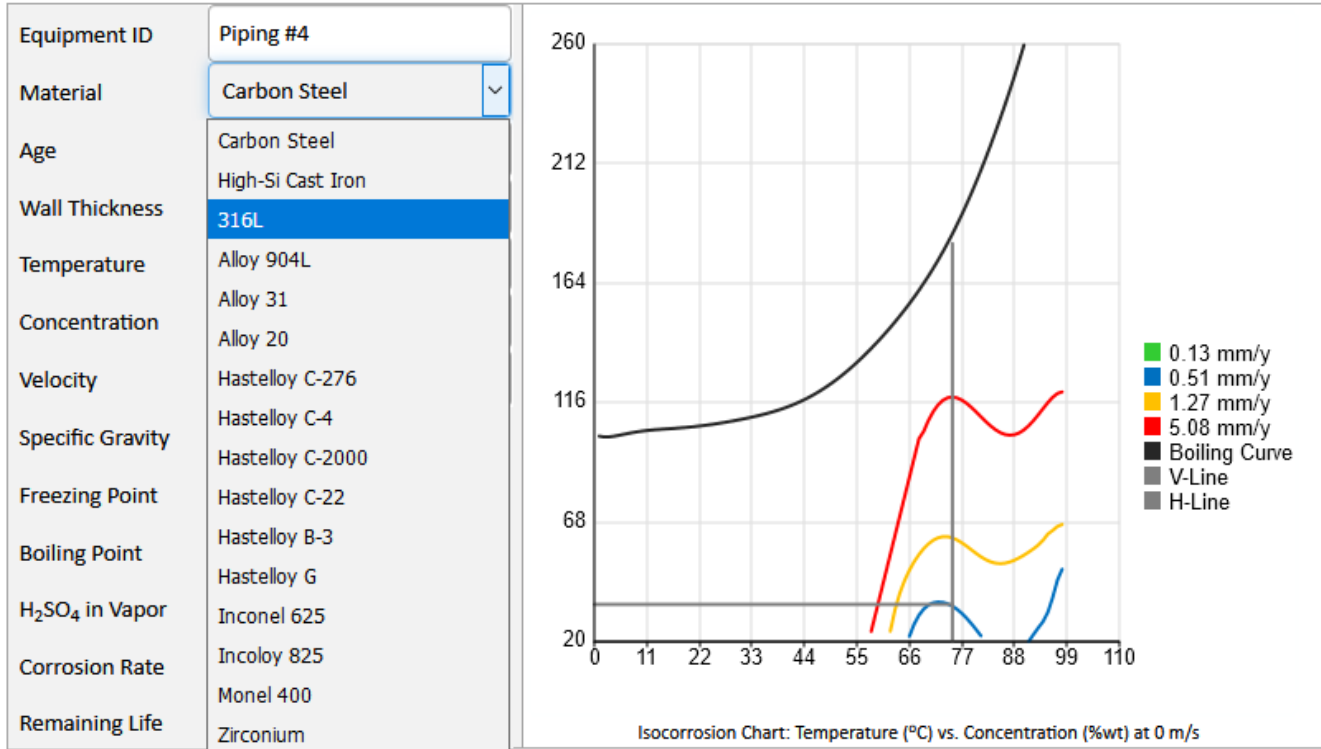


Figure 1 H2SO4-Compass Corrosion Prediction and Materials Selection Guide for H2SO4 Services

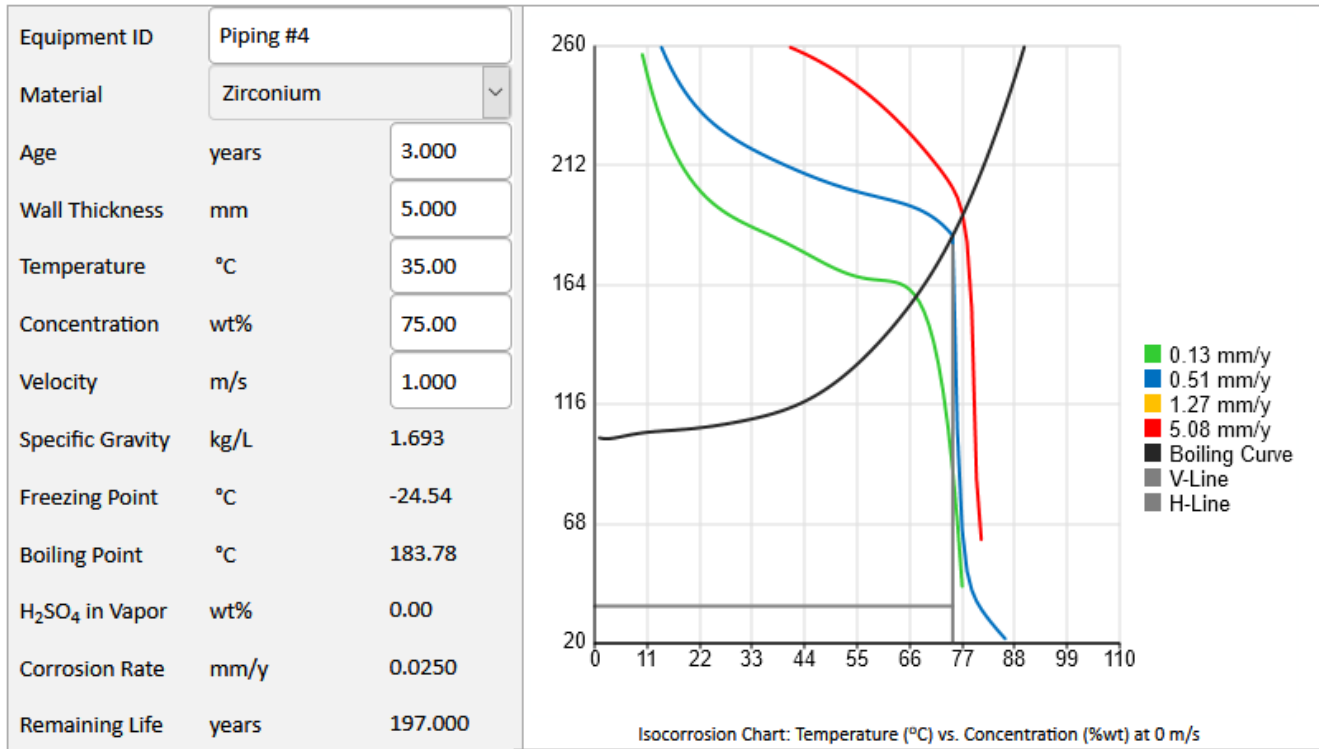


H<sub>2</sub>SO<sub>4</sub>-Compass® Version 9.20 © 1995 ~ 2020 WebCorr Corrosion Consulting Services

Figure 2 H<sub>2</sub>SO<sub>4</sub>-Compass H<sub>2</sub>SO<sub>4</sub> Corrosion Prediction and Materials Selection Guide for H<sub>2</sub>SO<sub>4</sub> Services

Under the prevailing conditions in Figure 1 above, carbon steel corrodes at 1.4425 mm/y, making it not a suitable material for the specified operating conditions. Figure 3 shows the performance of Zirconium under the same condition, with a significantly reduced corrosion rate of 0.025 mm/y.

H<sub>2</sub>SO<sub>4</sub>-Compass®: Corrosion Prediction and Materials Selection Guide for H<sub>2</sub>SO<sub>4</sub> Services



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Figure 3 H<sub>2</sub>SO<sub>4</sub>-Compass H<sub>2</sub>SO<sub>4</sub> Corrosion Prediction and Materials Selection Guide for H<sub>2</sub>SO<sub>4</sub> Services

The following materials for H<sub>2</sub>SO<sub>4</sub> service are included in the database of H<sub>2</sub>SO<sub>4</sub>-Compass:

Carbon Steel

High Silicon Cast Iron (HSCI)

Type 316L stainless steel

Alloy 904L

Alloy 31

Alloy 20

Hastelloy C-276

Hastelloy C-4

Hastelloy C-2000

Hastelloy C-22

Hastelloy B-3

Hastelloy G

Inconel 625

Incoloy 825

Monel 400

Zirconium

If you cannot find the material of your interest in the list above, do let us know through the Contact Us link and we will conduct the necessary research and tests to generate the required data for inclusion in the software, free of charge for licensed users of H2SO4-Compass.

The powerful applications of H2SO4-Compass are truly unlimited in engineering design, remaining life prediction, and materials selection for H2SO4 services.

[Click here](#) to contact us for licensing details and experience the power of H2SO4-Compass.

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*H2SO4-Compass, giving you the right directions in H2SO4 corrosion prediction and materials selection.*

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