



Corrosion Modeling Software and Corrosion Prediction Software Series

H2O-Compass®: Modeling and Prediction of Water Corrosivity and Scaling Tendency

Highly Effective Software Solutions to Costly Corrosion/Scaling in Water Systems

Version 9.22

★ Performance ★ Functionality ★ Usability



Anytime Anywhere Any Device Any OS

No USB dongles No installation No Browser Plug-ins

Contact Us for Licensing Details

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

Overview of H2O-Compass:

A Software Tool for Modeling and Prediction of Water Corrosivity and Scaling Tendency

Scaling and corrosion problems are frequently encountered in pipelines and process equipment handling various sources of waters such as surface water, groundwater, drinking water, cooling water, and wastewater. H2O-Compass is a software tool that models the effect of water chemistry on the water aggressiveness (water corrosivity) and the scaling tendency. Facility owners, operators, engineers, consultants, maintenance and inspection personnel can quickly assess and quantify the impact of the water chemistry on the water corrosivity and the scaling

tendency. H2O-Compass predicts the following water quality indicators in accordance with ISO/TR4340 and best industry practice:



1. the Langelier Saturation Index (LSI),
2. the Ryznar Stability Index (RSI),
3. the Puckorius Scaling Index (PSI),
4. the Aggressive Index (AI),
5. the Larson-Skold Corrosive Index (LSK),
6. the calcium carbonate precipitation potential (CCPP),
7. Dissolved Inorganic Carbon (DIC), and
8. Dissolved oxygen at saturation

Under the water chemistry shown in Figure 1 below, H2O-Compass predicts that:

1. the water is considered to be hard water;
2. the water is undersaturated with CaCO₃;
3. there will be heavy corrosion caused by the specified water chemistry;
4. there is no scaling tendency.

H2O-Compass ® 9.22 Modeling and Prediction of Water Corrosivity and Scaling Tendency				
Water Sample ID		Groundwater from site B in xyz County		
Water Chemistry			Water Corrosivity and Scaling Tendency	
Water pH	pH	6.70	Langelier Saturation Index (LSI)	-0.86
Water Temperature	°C	20.00	Ryznar Stability Index (RSI)	8.41
Conductivity	µS/cm	1,027	Puckorius Scaling Index (PSI)	7.84
Dissolved O ₂	ppm	6.500	Aggressive Index (AI)	10.99
Calcium [Ca ²⁺]	mg/L	78	Larson-Skold Index (LSK)	3.02
Chloride [Cl ⁻]	mg/L	167	CaCO ₃ Precipitation Potential (CCPP)	-55.90
Sulphate [SO ₄ ²⁻]	mg/L	93	Dissolved Inorganic Carbon (DIC), mg/L as C	38
Total Alkalinity as CaCO ₃	mg/L	110	Dissolved O ₂ at Saturation, ppm	9.33
Total Hardness as CaCO ₃	mg/L	177	Hard water; Undersaturated with CaCO ₃	
Total Dissolved Solids (TDS)	mg/L	657	Heavy corrosion; No scaling tendency	

Figure 1 Overview of H2O-Compass.

Using H2O-Compass is as easy as 1-2-3:

(1) Enter the water chemistry;

(2) Review the prediction results.

(3) Change the water chemistry (such as pH and temperature) and assess the impact on the water quality.

WebCorr can also customize H2O-Compass software for your company.

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H2O-Compass, giving you the right directions in managing corrosion in cooling water systems.

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