

Chemical Rust Preventives are most generally either water based products or oil/solvent based products (which can also be termed water displacing rust preventives). Assuming that the correct product is being used, listed below are the likely causes and solutions of rust conditions involving both types of products.

TROUBLE SHOOTING CHECKLIST:

CONDITION	LIKELY CAUSE	CORRECTIVE ACTION	
Water Based Rust Preventives <ul style="list-style-type: none"> • Rusty parts 	Parts rusty prior to rust preventive application	Address factors in up-stream operations (condition of machining fluid/coolant, part condition when received)	
	Low rust preventive concentration	Check concentration and adjust as necessary	
	Contaminated rust preventive bath (e.g. hard water build-up, soils, etc.)	Inspect for possible wash stage carryover, verify that filtration system is working (e.g. removing metals). Dump and recharge rust preventive bath as necessary.	
	Parts not dry (flash rust)	Insure hot air blow-off is operating and rust preventive solution is at proper temperature.	
	Poor part coverage	Clean and/or adjust spray nozzles to improve spray pattern	
	Low pump pressure	Insure pump(s) are on and pressure is adequate	
	Improper handling of parts	Handling cannot disturb rust preventive film, avoid handling without use of gloves	
	Improper or insufficient packaging of parts	Review packaging methods. Stacking and sealing may create "humidity cabinet". Use of VCI paper may be advised.	
	<ul style="list-style-type: none"> • Excessive Foaming 	Rust preventive concentration too high	Check concentrations (titrate) and dilute as necessary
		Contaminated rust preventive bath (e.g. soils, hard water salts, etc.)	Dump, clean and recharge bath with fresh solution
		Pump pressure is too high	Adjust pump pressure
		Temperature in bath is too high	Check temperature settings and adjust to proper range

CONDITION	LIKELY CAUSE	CORRECTIVE ACTION
Oil/Solvent Based Rust Preventives <ul style="list-style-type: none"> Rusty parts 	Parts rusty prior to rust preventive application	Address factors in up-stream operations (condition of machining fluid/coolant, part condition when received)
	Water contamination	Test for water content, drain tank and recharge
	Low rust preventive additives	Most applicable to solvent based rust preventives due to evaporation of solvent, remove sample and test for solids content