CHLOR*RID INTERNATIONAL INC.
602-821-0039 FAX 602-821-0364 800-422-3217

CONSUMPTION RATES PER NOZZLE

Pressure washing

Total GPM Used	Area Washed /Hr	Chlor*Rid Ratio to Water	Chlor*Rid Required /Hr	Chlor*Rid Consumed /Sq. Ft	Spent Mixture /Hr
2	100 Sq. Ft	1:500	.24 Gal	.0024 Gal	120 Gal
2	150 Sq. Ft	1:500	.24 Gal	.0016 Gal	120 Gal
4	500 Sq. Ft	1:100	2.4 Gal	.0048 Gal	240 Gal
4	500 Sq. Ft	1.200	1.2 Gal	.0024 Gal	240 Gal
4	500 Sq. Ft	1:500	.48 Gal	.0009 Gal	240 Gal
4	1000 Sq. Ft	1:50	4.8 Gal	.0048 Gal	240 Gal
4	1000 Sq. Ft	1:100	2.4 Gal	.0024 Gal	240 Gal
4	1000 Sq. Ft	1:200	1.2 Gal	.0012 Gal	240 Gal
4	1000 Sq. Ft	1:500	.48 Gal	.0004 Gal	240 Gal
6	750 Sq. Ft	1:200	1.8 Gal	.0024 Gal	360 Gal
6	1000 Sq. Ft	1:200	1.8 Gal	.0018 Gal	360 Gal
10	500 Sq. Ft	1:500	1.2 Gal	.0024 Gal	600 Gal

Use this chart only as a guide.

Always test to determine the most efficient mixture required to perform to your needs.

Consumption rates for Chlor*Rid will depend on a number of factors.

For example;

1. Contamination levels
2. Surface texture
3. Production rates
4. Wash water quality
5. Degree of cleanliness required

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CONSUMPTION RATES PER NOZZLE

WET ABRASIVE BLASTING

Total GPM Used	Area Washed /Hr	Chlor*Rid Ratio to Water	Chlor*Rid Required /Hr	Chlor*Rid Consumed /Sq. Ft	Spent Mixture /Hr
1	100 Sq. Ft	1:250	.24 Gal	.0024 Gal	60 Gal
1	100 Sq. Ft	1:500	.12 Gal	.0012 Gal	60 Gal
1	150 Sq. Ft	1:500	.12 Gal	.0008 Gal	60 Gal
1.25	100 Sq. Ft	1.250	.30 Gal	.0030 Gal	75 Gal
1.25	100 Sq. Ft	1:500	.15 Gal	.0015 Gal	75 Gal
1.25	150 Sq. Ft	1:50	.15 Gal	.0010 Gal	75 Gal
1.50	100 Sq. Ft	1:250	.36 Gal	.0036 Gal	90 Gal
1.50	100 Sq. Ft	1:500	.18 Gal	.0018 Gal	90 Gal
1.50	150 Sq. Ft	1:500	.18 Gal	.0012 Gal	90 Gal
1.75	100 Sq. Ft	1:250	.42 Gal	.0042 Gal	105 Gal
1.75	100 Sq. Ft	1:500	.21 Gal	.0021 Gal	105 Gal
1.75	150 Sq. Ft	1:500	.21 Gal	.0014 Gal	105 Gal

Use this chart only as a guide.
Always test to determine the most efficient mixture required to perform to your needs.

Consumption rates for Chlor*Rid will depend on a number of factors.

For example;

1. Contamination levels
2. Surface texture
3. Production rates
4. Wash water quality
5. Degree of cleanliness required

After connecting all equipment but prior to mixing the Chlor*Rid and water, point the blast nozzle into a container that has graduated markings. Turn on the water valve for one minute, then read the volume in the container. Convert into gallons for chart usage.

EXCLUSIVE SALES AGENT FOR **CAROLINA Equipment & SUPPLY**

CHLOR*RID™ vs. Other Chloride Removal Methods

Question: **Why use CHLOR*RID™ liquid soluble salt remover?**
Answer: **ECONOMICS! Quite simply, it is more effective and costs less not just less, much less!**

There is to-date no industry standard established for allowable chloride concentration levels over prepared steel or concrete surfaces. However, the US Navy, setting precedence, has determined that failures associated with osmotic blistering and other soluble ferrous and ferric salt, ionic reactions, will occur when concentrations exceed 7.0 µg/cm^2 . Therefore, the US Navy allows <5.0 µg/cm^2 on general exposures, and <3.0 µg/cm^2 on immersion or splash-zone exposures (including chemical voids and tanks).

Many high-performance coatings manufacturers, especially marine, have recently adopted and are recommending this same standard. The following graphic example illustrates and compares the costs associated with soluble salt (chloride) removal processes required to get to below these levels.

1. Example:

A recent KTA-Tator analysis took 3 blasted test panels after 144 hours exposure to salt-fog and applied 3 effective salt removing techniques to compare cost and effectiveness. It is easy to equate these to real world project costs, by presenting each panel as a structure (see section III).

All panels were sandblasted then cleaned as follows (copy of KTA-Tator test attached):

Panel A: Control panel, after initial abrasive sandblasting to 2 mil profile, shows initial chloride concentration at 9.6 µg/cm^2.

Panel B: Water blasted (city water) panel, after same initial abrasive blast cleaning shows 6.4 µg/cm^2 of concentration.

Panel C: Water blasted (city water, with 1% CHLOR*RID™), after same initial abrasive blast cleaning, shows only 2.8 µg/cm^2 chloride concentration.

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II. Cost Comparison Chart:

Panel (Structure)A Control Panel - dry blasted, (no CHLOR*RID™)		Panel (Structure)B Water-cleaned, 3000 psi (no CHLOR*RID™)		Panel (Structure)C Water-cleaned, 3,000 psi with 1% CHLOR*RID™	
Wash Cycle Number		Wash Cycle Number		Wash Cycle Number	
1=9.6µg/cm^2 -20%	LEC= $1.00/Ft^2	1=6.4 µg/cm^2 -20%	LEC= $1.00/Ft^2		
2=7.7µg/cm^2 -20%	LEC= $1.00/Ft^2				
3=6.2µg/cm^2 -20%	LEC= $1.00/Ft^2				
4=5.0µg/cm^2 -20%	LEC= $1.00/Ft^2	2=5.1 µg/cm^2 -20%	LEC= $1.00/Ft^2		
5=4.0 µg/cm^2 -20%	LEC= $1.00/Ft^2	3=4.1 µg/cm^2 -20%	LEC= $1.00/Ft^2		
6=3.2 µg/cm^2 -20%	LEC= $1.00/Ft^2	4=3.3 µg/cm^2 -20%	LEC= $1.00/Ft^2		
7=2.6 µg/cm^2	LEC= $1.00/Ft^2	5=2.6 µg/cm^2 -20%	LEC= $1.00/Ft^2	1=2.8 µg/cm^2 95- 98%	LEC$1.00/Ft^2 plus CHLOR*RID @<$0.26/ Ft^2
Total Cost= $1.26/ Ft^2	$4.00/ Ft^2 (A.E.)		$2.00/ Ft^2 (A.E.)		
	$7.00/ Ft^2 (W/D)		$4.00/ Ft^2 (W/D)		(A.E.
& W/D) Average =	$5.50 Ft^2		$3.00/ Ft^2		

Panels (structures) A&B are above the US Navy allowable limits. Panel C is acceptable. The cost of Panel (structure) C included the cost per square foot of CHLOR*RID™ (1% of total water volume) plus labor and equipment costs for one wash cycle.

Panel A takes 7 washes to qualify for immersion or splash exposure and 4 washes to qualify for general exposure. The cost, without CHLOR*RID™, includes the labor and equipment costs per square foot.

Notes:

- A.E ' = Atmospheric exposure
- W/D = Wet/dry exposure
- LEC = Labor and equipment costs based on pressure wash at 3,000+ psi, removing up to 20% of surface salts.

Notes continued:

- CHLOR*RID™ cost, based on end-user cost, averages range from \$0.10-0.26/ Ft^2, dependent on contamination level. Average consumption over severely contaminated surfaces is 600-800/ Ft^2/gallon, with possible coverage up to 1200 $Ft^{2/}$gal.

III. **Structural Equation (Cost/ Ft^2):**

Structure A: **\$5.50/ Ft^2**
General exposure areas of structure = \$1.00 x 4 wash cycles = \$4.00
Immersion/splash areas of structure =\$1.00 x 7 wash cycles = \$7.00
Average of both area's representative wash cycles = 5.5 x \$1.00 = \$5.50/ Ft^2

Structure B: **\$3.00/ Ft^2**
General exposure areas of structure = \$l.00 x 2 wash cycles = \$2.00
Immersion/splash areas of structure = \$1.00 x 4 wash cycles = \$4.00
Average of both area's representative wash cycles = 3 x \$3.00=\$3.00/ Ft^2

Structure C: **\$1.26/ Ft^2**
General exposure areas of structure = \$1.00 x 1 wash cycles = \$1.00
Immersion/splash areas of structure = \$1.00 x 1 wash cycles = \$ 1. 00
Average of both area's representative wash cycles = l x \$1.00=\$1.00/Ft^2

Cost/ Ft^2 CHLOR*RID™ liquid soluble salt remover = \$0.26/ Ft^2
Total cost of pressure wash **plus** CHLOR*RID™ = \$1.26/ Ft^2

Summary: There are few available removal methods for chlorides and other soluble salts over previously prepared surfaces. CHLOR*RID™ is demonstrated to be the most cost effective method, removing 95-98% in a single wash, whereas typical methods, such as high-pressure washing, will only remove up to 20% of surface contaminants in a single wash. **This equates to substantial time and cost savings, making use of** CHLOR*RID™ **the most economical method available.** Equally important, CHLOR*RID™ is easy to use, environmentally friendly and biodegradable. The removal of contaminants is very effective at reducing flash-rust.

Please call your local distributor or representative, or call International HydroBlast, worldwide sales agent and domestic distributor for CHLOR* RID™ International, Inc., at 206-859-2882 or fax at 206-859-3505, as well as CHLOR*RID™ International, Inc., at 602-821-0039, and 602-821-0364 fax.

DOSMATIC

The Advantage Model A30-2.5% Mobile 8 gallon tank

- Water-driven liquid proportioner. No electricity needed.
- Slim profile design for hard to reach areas
- Easy to use and maintain
- Precise injection at all flow rates
- Chemical resistant
- Easy external ratio adjustment
- Includes water filter
- Rugged 12 gauge steel cart construction
- Heavy-duty industrial wheels for easy movement
- Extra durable powdered paint finish
- Complete with all components
- Ready to run

Specifications US Metric

- Operating pressure
- Maximum 100 psi 6.9 bar
- Minimum 5.0 psi 0.34 bar

Hydrostatic test

- Maximum temp 100°F 38°C

Flow rates

- Maximum 30 gpm 6.8 m3/hr
- Minimum .25 gpm .9 l/m

Ratios

- Maximum 2.5% (39:1) 2.5% (39:1)
- Minimum 0.2% (500:1) 0.2% (500:1)

Suction hose

- A30-2.5% 3/8" id 9.5 mm
- Accuracy , fee variations ± .05% ± .05%

Wetted-end material

- Plastics: Polypropylene & Polyethylene
- Elastomers: Specially modified viton to run

Dimensions

- Width 18"
- Height 45 ¼ "
- Wheels 10" dia x 3"
- Container 8 gallon
- Shipping WT 51 lbs
- Connections (2) ¾" hoses