

PRODUCTION CAPACITY ANALYSIS FORM

Customer: ABC Finishing Company
 Project Name or Location: Grand Rapids, MI
 Existing Number of Hoists: 3.0
 Hoist Type: 1000# Overhead Hoist
 Loads Per Hour: 6.0
 Cycle Time: 600 seconds
 Load Size: 8" DOT x 48" Deep x 120" Long
 Rinse Tank Size: 20" DOT x 60" Deep x 132" Long
 Maximum Surface Area per Load: 150 square feet
 Rectifier Size: 24 Volt 3000 Amps

Project No: STERC Article
 Rev Date: 4/9/2018

Operation hours
 Days/year: 250
 Hours/shift: 6.8 85% Efficient
 Shifts/day: 2

NUMBER OF HOISTS

	Number	Time (sec.)	Total Time (sec.)
Lifts	23	10	230
Lowere	23	10	230
Line Length (ft.)	185		
Factor	5		555
FPM	100		
Total Up Drain Dwells	3	12	36
Total Rinse Dwell Time between 5-60 seconds	4	45	180
Total			1,231 sec.
Cycle time			600.0 sec.
Calculated Hoists Reqd.			2.1

PROCESS CAPACITY

Process	Process Time (Minutes)	Fill Time (Seconds)	Total Time (Seconds)	Cycle Time (Seconds)	Bays Reqd.	Bays Reqd. Rounded Up	Number of Tanks on the Existing Line
Load	2	60.0	180	600.0	0.3	1	1
Queue	30	60.0	1,860	600.0	3.1	4	4
Alkaline Clean	6	60.0	420	600.0	0.7	1	1
Etch	3	60.0	240	600.0	0.4	1	1
Desmut	3	60.0	240	600.0	0.4	1	1
Anodize Type II	40	60.0	2,460	600.0	4.1	5	6
Black Dye	12	60.0	780	600.0	1.3	2	1
Dye Seal	12	60.0	780	600.0	1.3	2	2
Hot Water Seal	12	60.0	780	600.0	1.3	2	1
Hot Water Rinse	4	60.0	300	600.0	0.5	1	1
Unload	2	60.0	180	600.0	0.3	1	1

ANODIZE TIME CALCULATION

Type II	
THICKNESS - ENTER ONE VALUE	0.50 MILS
CURRENT DENSITY - ENTER ONE VALUE	10.00 A/SQ.FT.
CALCULATED TIME IN MINUTES =	36.00
CONSERVATIVE TIME IN MINUTES =	40.00