SIZE	DWG NO:	SH:	REV:
B	3110387	1	NC

4 ASSY, CELL CONTROLLER, 10 DEVICE

5 ASSY, ELECT, ROBOT/CTI CABLE

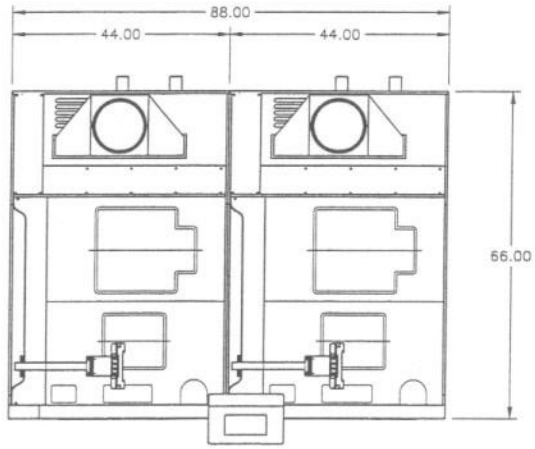
6 ASSY, ELECT, PLC-1/CTI-1 CABLE INT

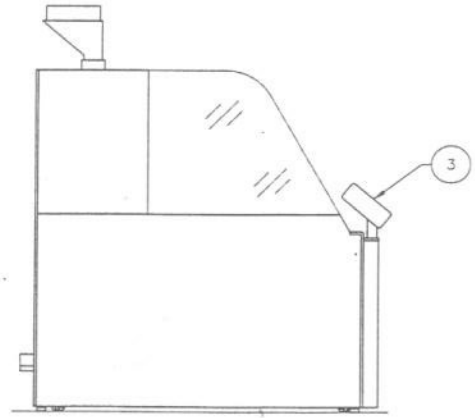
7 LAYOUT, FACILITY, LUCENT, 3061

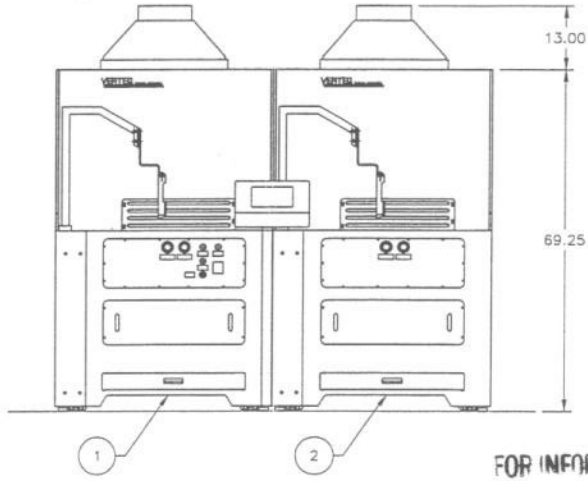
8 PLATE, ELEC SPECIFICATION

9 SOFTWARE, AUTO 1

10 SOFTWARE, PLC CODE







PIRANHA QDR (3061/1)

PIRANHA QDR/MEG (3061/2)

FOR INFORMATION ONLY

DEC 0 3 1997

APPVD _____ DATE _____

REVISIONS

NOTES

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES ON:

.XX DECIMALS ± .03 X° ± 1°

.XXX DECIMALS ± .010 X/X ± 1/32

FINISH 32

SIGNATURES		DATE
DRAWN:	T CANFORA	8/5/97
ENGR:	J ROZGA	8/5/97
CHECKED:	J SCHULZKE	8/5/97
APPROVED:	G WARNER	8/5/97

VERTEQ SYSTEMS AUTOMATION CORVALLIS, OR

TOP ASSEMBLY SAWS, LUCENT DUAL, PIRANHA, 3061

SIZE	FSCM:	DWG NO:	
B	-	3110387	
		SCALE: 1 : 24	SH: 1 OF 1

1.3 Typical Wet System Components

The following drawings are examples of the location of components in a typical wet system. Figures 1–3 shows the exterior and interior parts, respectively, on a front/end view. Figures 1–4 and 1-5 show the exterior and interior parts on a rear/end view.

No single system contains all of the identified parts. Also, parts on your wet system may be in different locations than those shown on the drawings.

These figures are duplicated on a foldout at the end of this manual for easy reference.

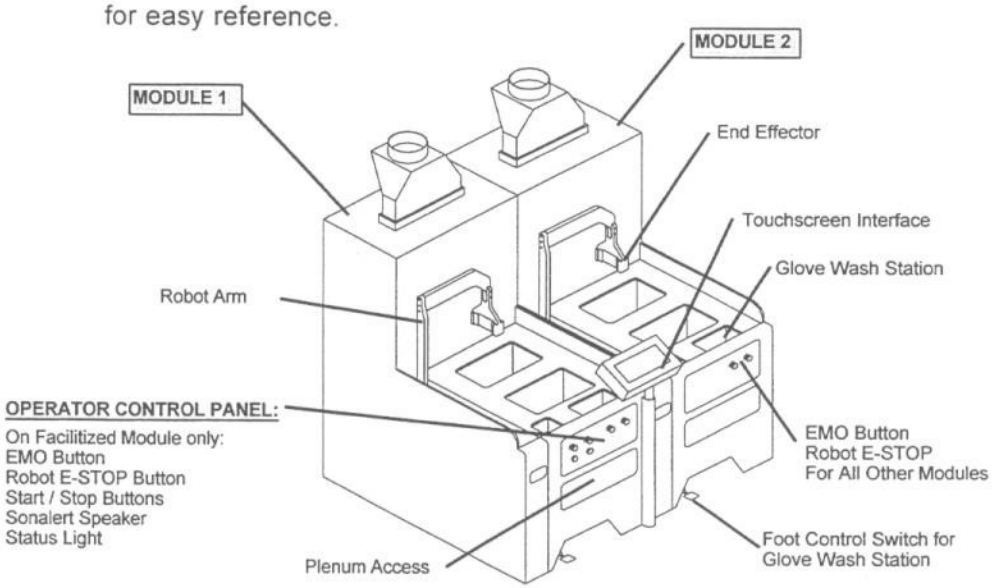
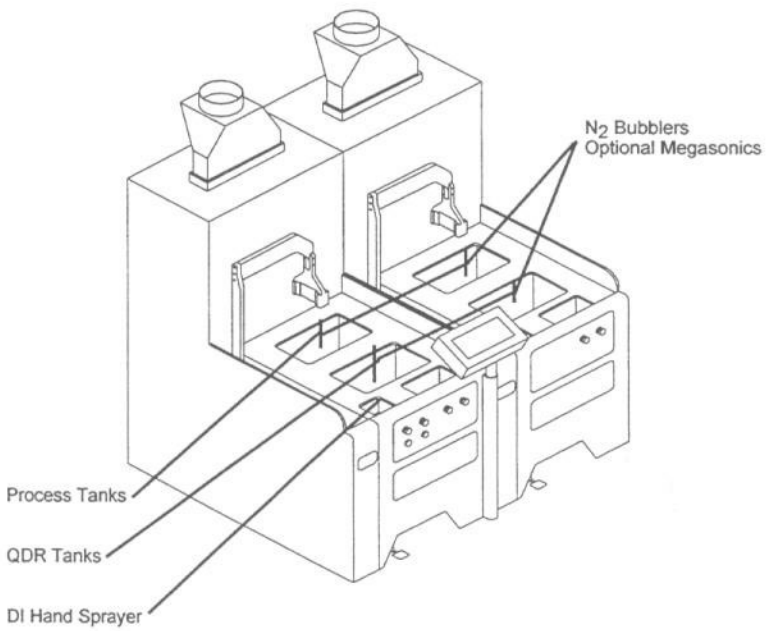


Figure 1-3. *Front views showing exterior (top) and interior (bottom) components.*



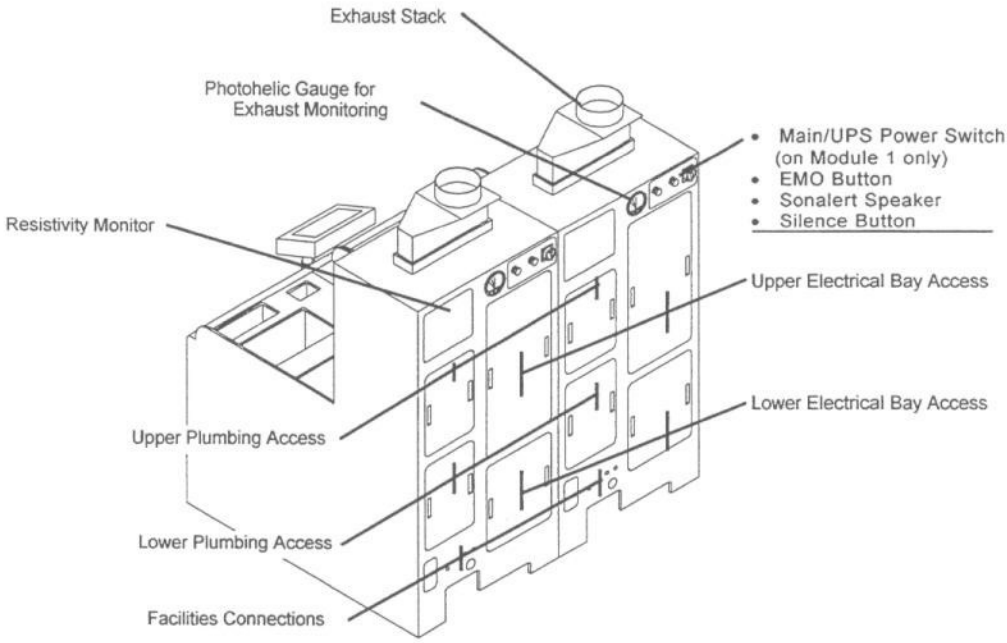


***Figure 1-4**. Rear view showing exterior components.*

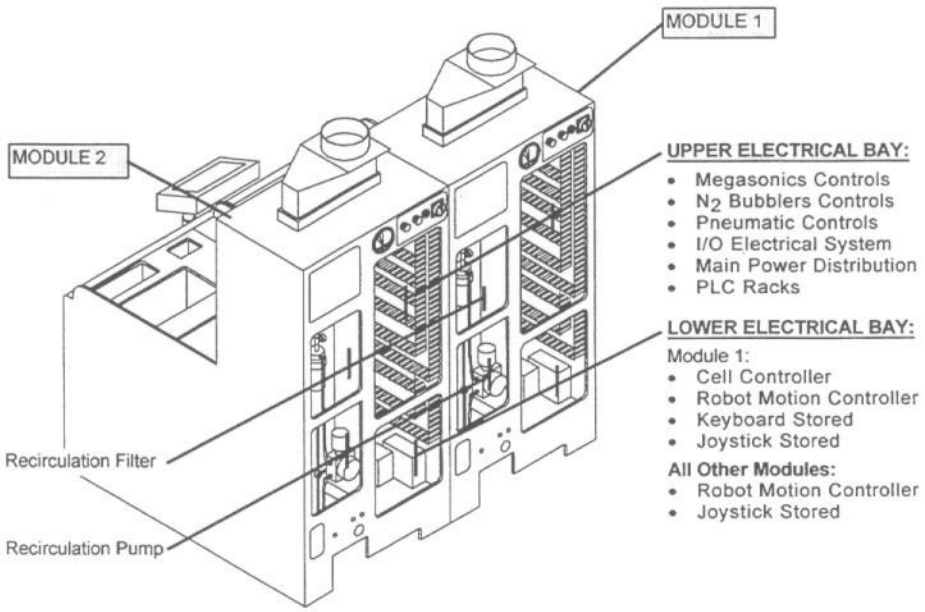


***Figure 1-5**. Rear view showing interior components.*

1.4 Typical Process Area Components

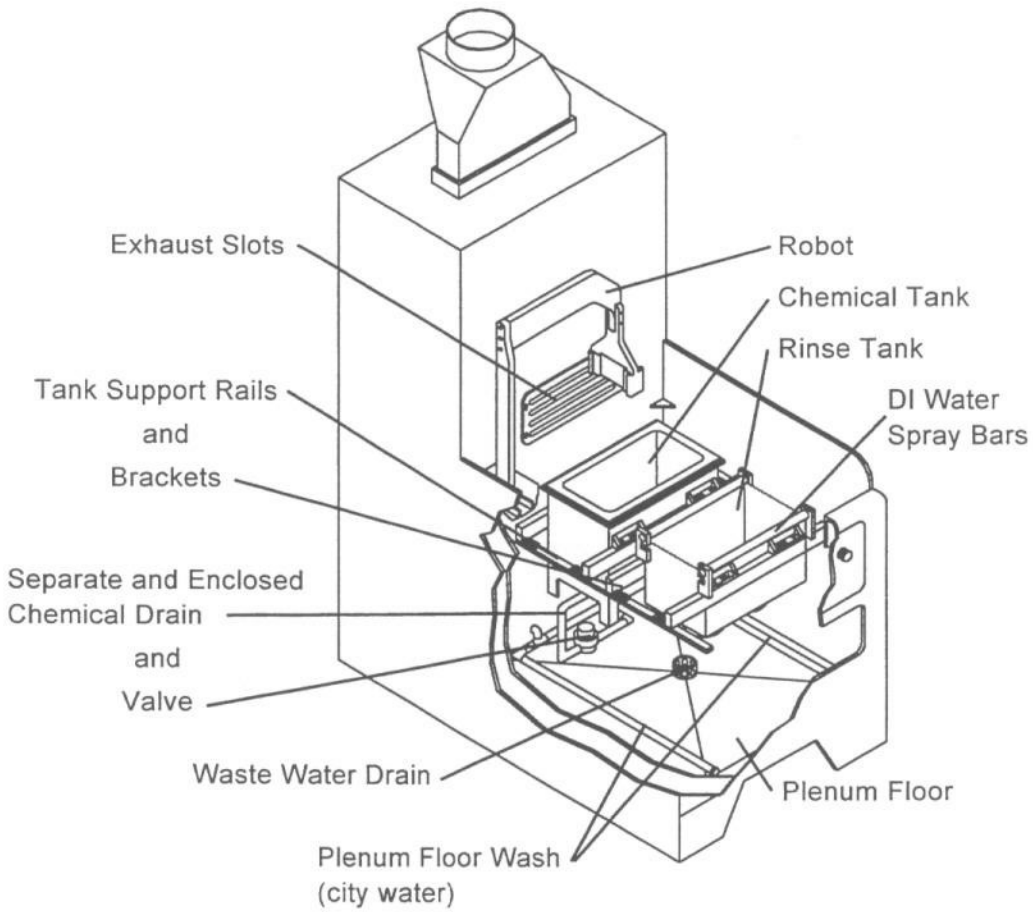


***Figure 1-6**. Internal view of a typical process area for semi-automated wet system modules.*

3 SPECIFICATIONS

This section includes the following topics related to the specific hardware of your wet system that is not typical to all other wet systems:

- Module configuration
- Facilities requirements
- Process control ranges
- Reliability figures
- Control software (start up)
- Cassette type and H-Bar orientation
- Robot E-STOP function
- Air Supply / Exhaust Options and Photohelic settings
- Tank Configuration Values

3.1 Overview

Sections 1 and 2, and 4 through to the end of this manual address in detail all typical issues related to all VERTEQ semiautomatic wet systems. You are referred to this section, from the other sections, if the typical information does not address your wet system.

3.2 Module Configuration

This wet system has two modules (Figure 3-1), each with independent drains, plumbing and facility connections. This wet system's hardware configuration (Table 3-1) includes two Piranha (SPM) chemical tanks. Also there is one heated QDR tank, and one heated QDR with Megasonic.

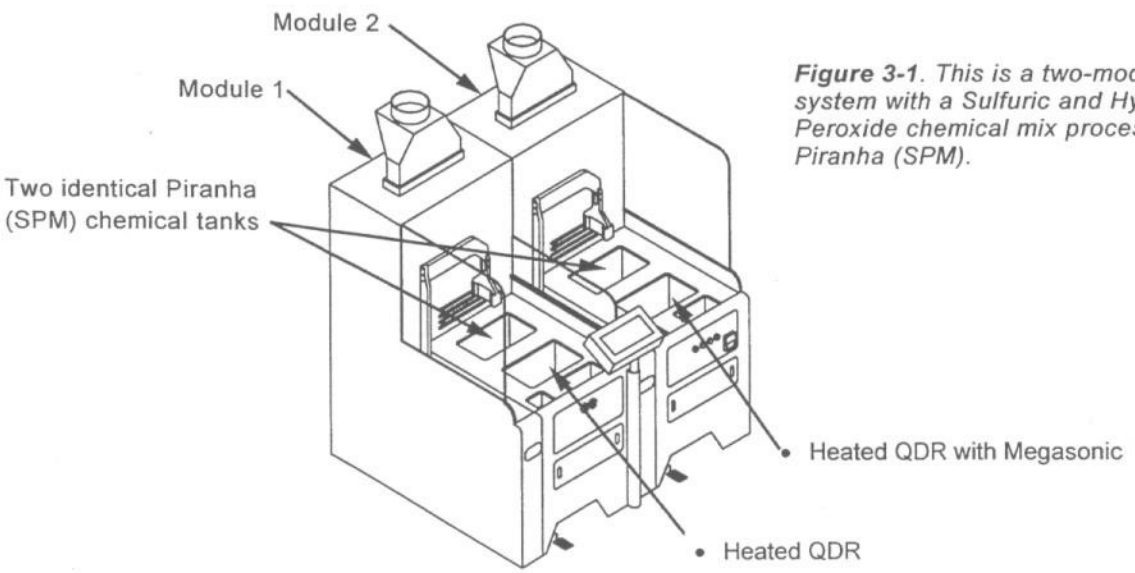


***Figure 3-1**. This is a two-module wet system with a Sulfuric and Hydrogen Peroxide chemical mix process – Piranha (SPM).*

3.2.1 Wet System Definition

Feature	Spec.
Input Cassette Size and P/N	8-inch EMPAK X3150-1400
	and 6-inch XP201-0100
Host Interface	No
Mini-Environment	No
Fire Detect / Suppress	No / No
DI Spray Gun	Front and Rear
Decktop / Lip Exhaust	Decktop
Headcase Purge	Yes
Drains (Thread / Fuse)	Thread
Plenum Spray	No
Glove Wash Station	Yes
EMO on Exhaust Loss	Yes
Photohelic Range	0-1.0"
Drain Exit (Bottom / Rear)	Bottom
Bulkhead / Ballroom	Ballroom
WTU	N/A
N_2 Connection (Swage / VCR)	Swage

3.2.2 Module Definition

Feature	Module–1	Module–2
Module Name	Piranha 1	Piranha 2
Module Construction	CP7	CP7
Module Width	44-inches	44-inches
Robot Chase (Exhaust / Vented	N/A	N/A
Exhaust Exit	Top 8-inches	Top 8-inches
DI Reclaim (Yes / No)	Yes	Yes

3.2.3 Process Definition

Each chemical tank may have one or more optional features or deviations from the standard design for that specific process. Table 3–1 identifies the configuration of these chemical tanks. For a definition of the *Features*, refer to the Technical Reference.

Table 3-1. Hardware configuration of the wet system's chemical tanks.

Features	Module 1	Module 2
PROCESS NAME	SPM–1	SPM–2
Tank Number	1	3
Process Ratio (Chem 1 : Chem 2)	5 : 1	5 : 1
CHEM 1 (Name)	Sulfuric Acid (H_2SO_4)	Sulfuric Acid (H_2SO_4)
Concentration	Premix	Premix
Fill Type	Manual	Manual
Bulk Call Signal	N/A	N/A
Auto-Replenish	No	No
POU Filter	No	No
Spiking	No	No
Staging	No	No
Temp	Ambient	Ambient
CHEM 2	Hydrogen Peroxide (H_2O_2)	Hydrogen Peroxide (H_2O_2)
Concentration	Premix	Premix
Fill Type	Manual	Manual
Bulk Call Signal	N/A	N/A
Auto-Replenish	Yes	Yes
POU Filter	No	No
Spiking	Yes	Yes
Staging	Yes	Yes
Temp	Ambient	Ambient
PROCESS TEMPERATURE	130°C	130°C
Bath Temp Control	Blanket	Blanket
TANK MATERIAL	Quartz	Quartz
Manufacturer	Imtec	Imtec
VSA P/N	3405413	3405413
Megasonic Unit	No	No
Lid	Yes	Yes
Reflux Collar	No	No
Programmable DI Flush	Yes	Yes
Agitation	No	No
PROCESS TIME RANGE	10 minutes	10 minutes
BATH LIFE	TBD	TBD
Recirculation	Yes	Yes
Filtration	Yes	Yes
DEDICATED CHEMICAL DRAIN	Yes	Yes
Aspiration (Ratio / exit Temp)	10 : 1 / 60°C	10 : 1 / 60°C
Cool Down Box	No	No
Cool Down Specs	N/A	N/A
Fill Receptacle (Yes/No – Chem)	Yes – H_2O_2	Yes – H_2O_2

3.2.4 Rinse Tanks

Each rinse tank may have one or more optional features or deviations from the standard design for that specific process. Table 3–2 identifies the configuration of these rinse tanks. For a definition of the *Features*, refer to the Technical Reference.

***Table 3-2**. Hardware configuration of the wet system's QDR tanks.*

Features	Module 1	Module 2
PROCESS NAME	QDR-1	QDR-2
Tank Number	2	4
Process Temp	70°C	70°C
Hot DI Water	Facility	Facility
Temperature Monitoring	No	No
TANK MATERIAL	PVDF	PVDF
Manufacturer	VERTEQ	VERTEQ
VSA P/N	3405412	3405411
QDR/OFR/EE	H/QDR	H/M/QDR
Megasonic	No	Yes
Lid	No	No
Rinse to Resistivity	Yes	Yes
HIGH/LOW FLOW PLUMBING	Yes	Yes
Filtration	No	No
Spiking	No	No