DEMX ARCHITECTURE

Addendum No. 4

Project: University of Arkansas Animal Facility (CLAF)
700 Research Center Blvd.
Fayetteville, AR 72701

Architect: DEMX architecture
104 N East Ave.
Fayetteville, AR 72701

All bidders shall take note of the following revisions and/or additions to the plans and/or specifications for the above referenced project and adjust their bids accordingly. These revisions and/or corrections are hereby made part of said documents as if included therein.

1. SPECIFICATIONS:
    a. None

2. DRAWINGS:
    a. None

3. RFI LOG:
    a. See responses below.

4. SUBSTITUTION REQUESTS
    a. None

RFI No.	Date Received	Question	Answer
46	2/6/2020	On page P 1.0 Piping Material Schedule it lists acid resistant piping yet none is specified in the drawings. Please clarify what, if any, areas require acid resistant pipe on this project.	Acid Resistant piping is not used and will be removed from the piping schedule.
48	2/6/2020	Will we need to figure removal of subgrade/dirt beneath the existing concrete slab and base? If so how much?	No
52	2/6/2020	Do you have access to an overall floor plan? I need to identify 2 room locations for panel feeds from existing panels. - Room 4815 - Room that has panel PD in it.	See overall plans attached below. Panel PD is in Room 4607A
53	2/7/2020	1.Does duct serving rack washer need to be welded stainless steel? 1a. If so, does stainless stop at PEV-3 outlet or continue all the way to EF-1 1b. If so, does welded stainless need to extend to EF-1 Inlet?	Yes, duct serving rack washer exhaust shall be welded stainless steel Stainless shall continue beyond PEV-3 all the way to EF-1 plenum connection EF-1 inlet does not need to be stainless steel
54	2/7/2020	Do all the Walls get Epoxy?	Yes, all gypsum board surfaces receive epoxy paint unless noted otherwise on the finish schedule.

Substitution Request Log

Sub. No.	Date Received	Question	Answer
5	2/4/2020	Steelco AC 7500-EZ cage and rack washer	Approved
6	2/6/2020	Esco Technologies, Inc Dual Access Change Station – VDA-5A9	Approved

End of Addendum No. 4
Date of Addendum No. 4: February 9, 2020.

FLOOR PLAN

SCALE: 1/16" = 1'-0"

NOTE:

FOR FLR PLAN THAT IS READABLE & PRINTABLE ON 8.5X11IN SHT OF PAPER, CLICK ON THE PDF BOOKMARK & CLICK ON F0101-SMPLN5.PDF

REVISIONS

NO.	DATE

F0101-6

FLR PLN

T.R.H.CAD UNKNOW

SHEET #: SP1

PLANNING & DESIGN APPROVAL

PROJECT MANAGEMENT APPROVAL

DEPARTMENTAL APPROVAL

SPACE MASTER DWG'S -- FLR PLAN

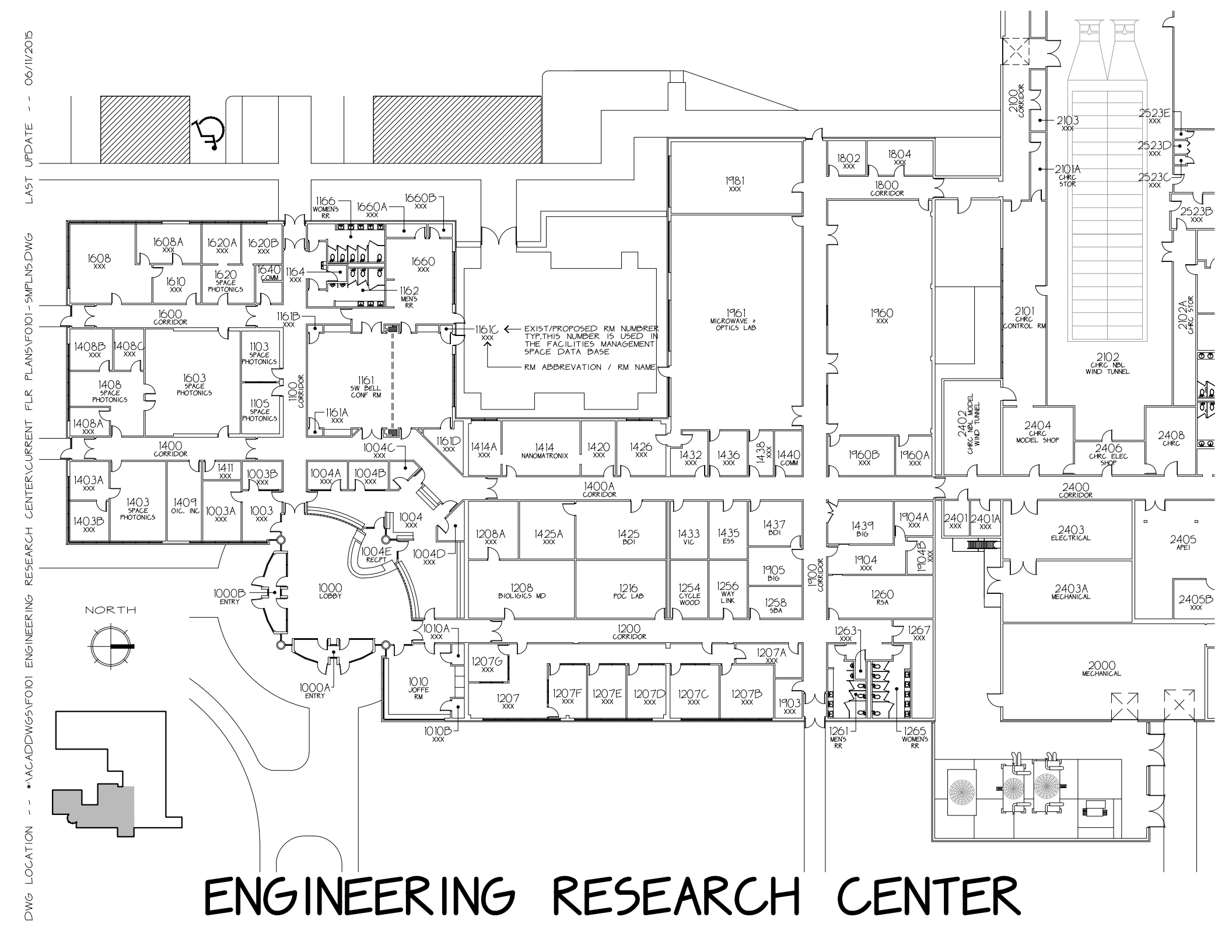
ENGINEERING RESEARCH CENTER

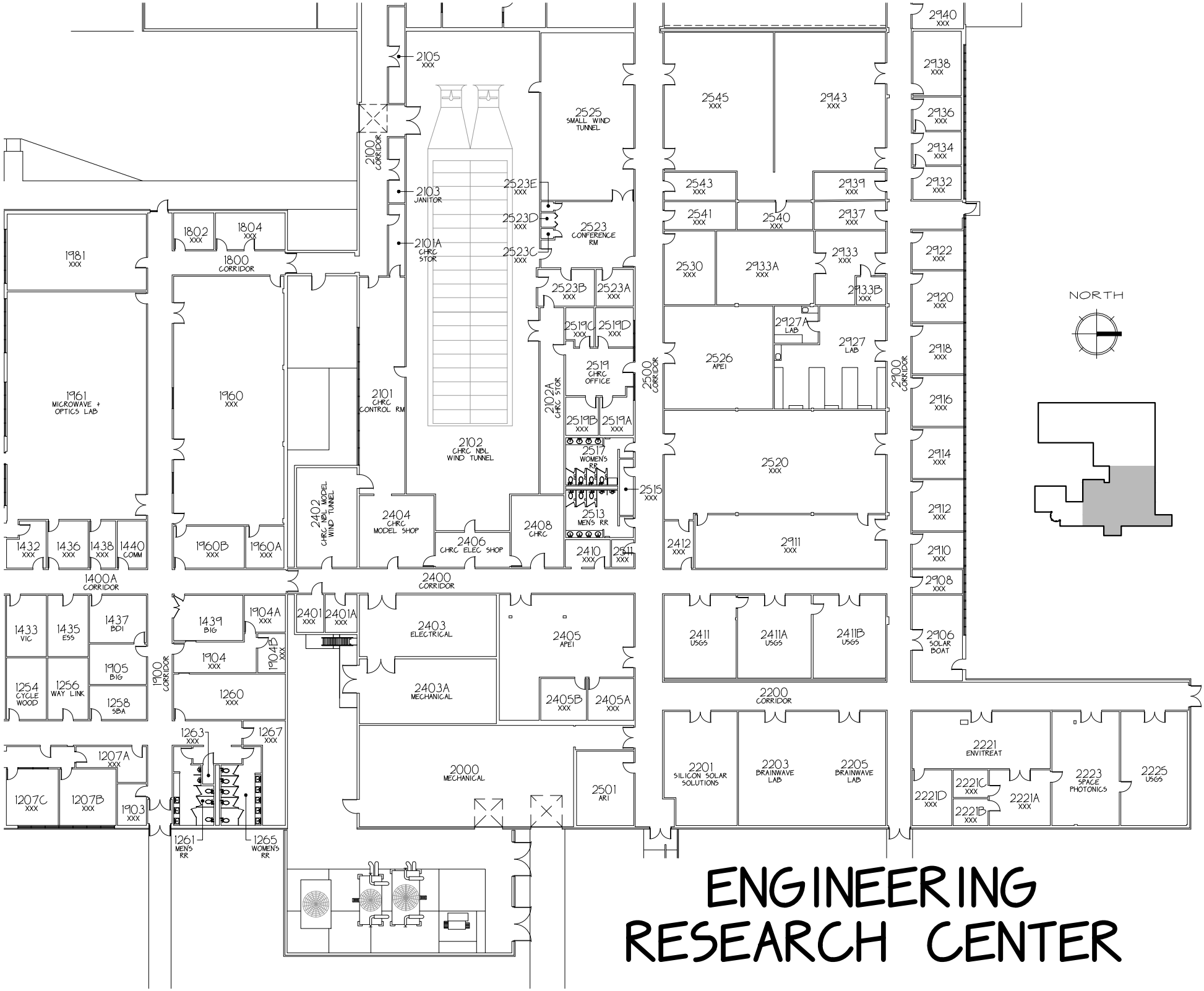
UNIVERSITY OF ARKANSAS
FACILITIES MANAGEMENT
PLANNING & DESIGN

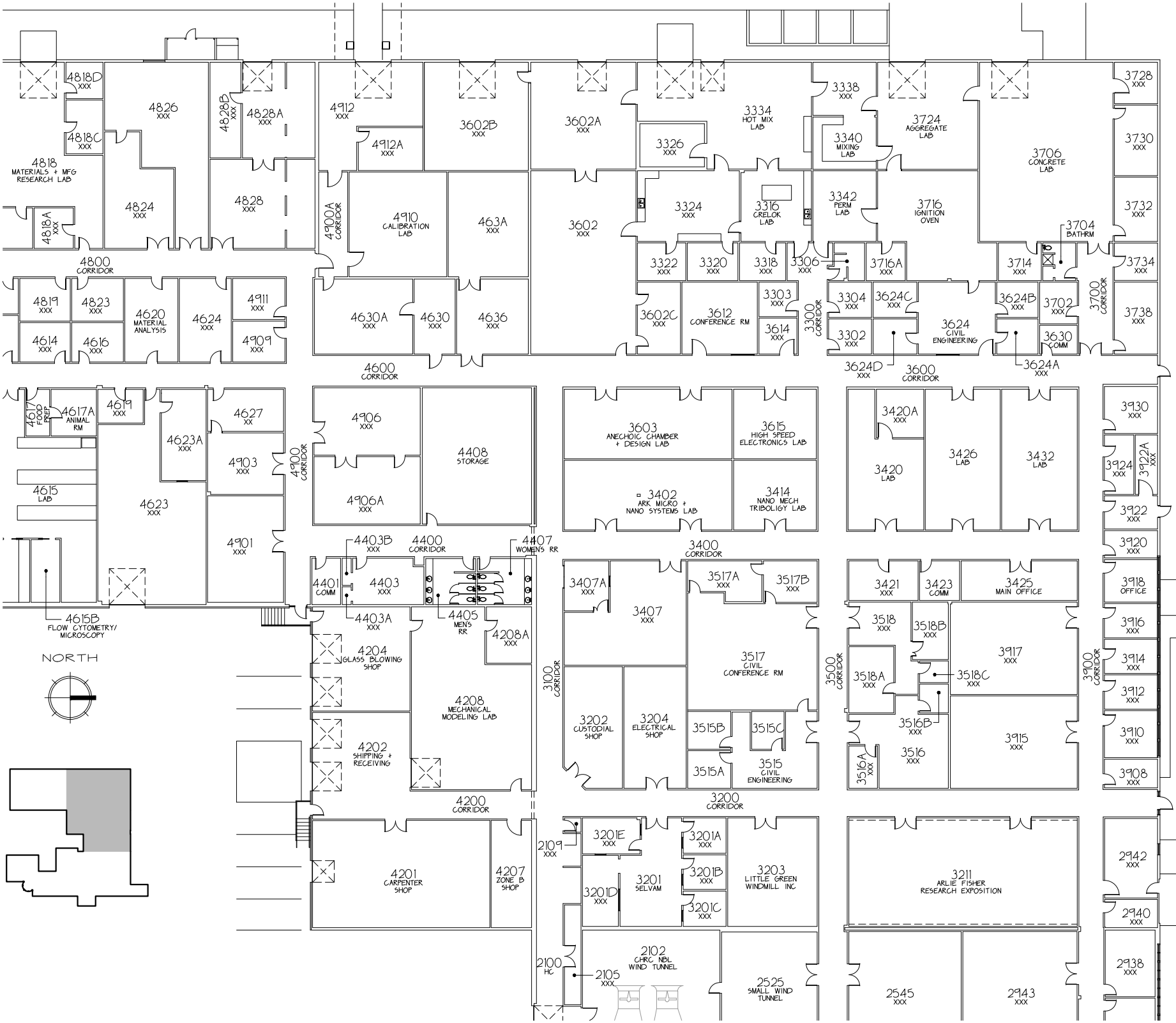
SP1

LAST UPDATE: 11/15/2017 -- T.R.H

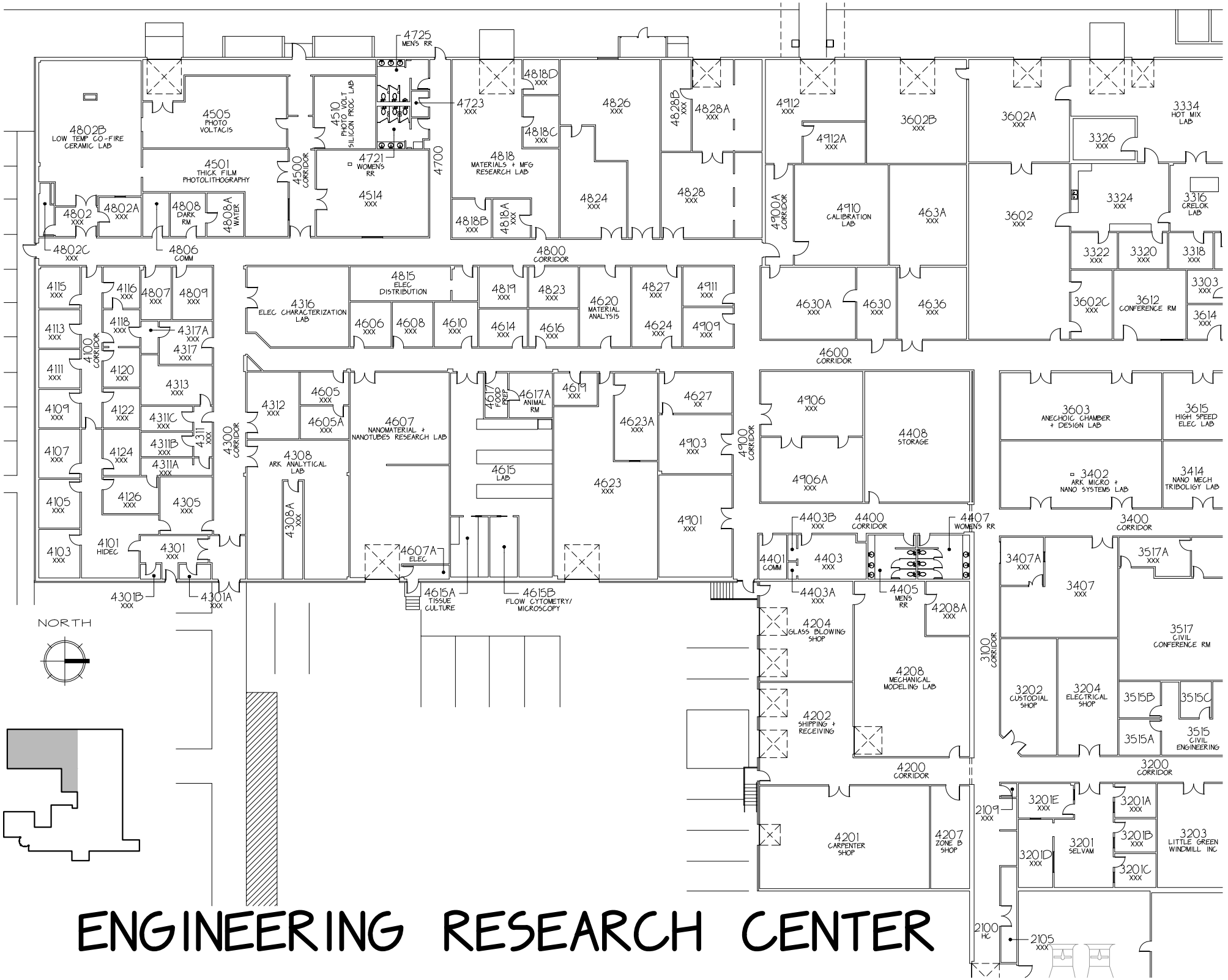
*:\ACADDWGS\F00I ENGINEERING RESEARCH CENTER\SPACE DWGS\SPF0101-FII FIRST FLR 1DWG


DWG LOCATION -- *:\ACADDWGS\F0101 ENGINEERING RESEARCH CENTER\CURRENT FLR PLANS\F0101-SMPLNS.DWG LAST UPDATE -- 06/11/2015
ENGINEERING RESEARCH CENTER
NORTH
1608 XXX
1608A XXX
1620A XXX
1620B XXX
1610 XXX
1620 SPACE PHOTONICS
1640 COMM
1600 CORRIDOR
1408B XXX
1408C XXX
1408 SPACE PHOTONICS
1408A XXX
1603 SPACE PHOTONICS
1103 SPACE PHOTONICS
1105 SPACE PHOTONICS
1400 CORRIDOR
1403A XXX
1403B XXX
1403 SPACE PHOTONICS
1409 OIC, INC
1411 XXX
1003A XXX
1003B XXX
1003 XXX
1000B ENTRY
1000 LOBBY
1000A ENTRY
1166 WOMEN'S RR
1660A XXX
1660B XXX
1660 XXX
1164 XXX
1162 MEN'S RR
1161B XXX
1161C XXX
EXIST/PROPOSED RM NUMBRER TYP,THIS NUMBER IS USED IN THE FACILITIES MANAGEMENT SPACE DATA BASE
RM ABBREVATION / RM NAME
1100 CORRIDOR
1161 SW BELL CONF RM
1161A XXX
1004C XXX
1004A XXX
1004B XXX
1004 XXX
1004E RECPT
1004D XXX
1010A XXX
1010 JOFFE RM
1010B XXX
1200 CORRIDOR
1207G XXX
1207 XXX
1207F XXX
1207E XXX
1207D XXX
1207C XXX
1207B XXX
1207A XXX
1903 XXX
1981 XXX
1961 MICROWAVE + OPTICS LAB
1161D XXX
1414A XXX
1414 NANOMATRONIX
1420 XXX
1426 XXX
1432 XXX
1436 XXX
1438 XXX
1440 COMM
1400A CORRIDOR
1208A XXX
1425A XXX
1425 BDI
1433 VIC
1435 ESS
1437 BDI
1208 BIOLIGICS MD
1216 POC LAB
1254 CYCLE WOOD
1256 WAY LINK
1258 SBA
1905 BIG
1900 CORRIDOR
1802 XXX
1804 XXX
1800 CORRIDOR
1960 XXX
1960B XXX
1960A XXX
1439 BIG
1904A XXX
1904 XXX
1904B XXX
1260 RSA
1263 XXX
1267 XXX
1261 MEN'S RR
1265 WOMEN'S RR
2100 CORRIDOR
2103 XXX
2101A CHRC STOR
2101 CHRC CONTROL RM
2102 CHRC NBL WIND TUNNEL
2102A CHRC STOR
2523E XXX
2523D XXX
2523C XXX
2523B XXX
2402 CHRC NBL MODEL WIND TUNNEL
2404 CHRC MODEL SHOP
2406 CHRC ELEC SHOP
2408 CHRC
2400 CORRIDOR
2401 XXX
2401A XXX
2403 ELECTRICAL
2405 APEI
2403A MECHANICAL
2405B XXX
2000 MECHANICAL


DWG LOCATION -- *\ACADDWGS\F0101 ENGINEERING RESEARCH CENTER\CURRENT FLR PLANS\F0101-SMPLNS.DWG
LAST UPDATE -- 11/15/2017
1981 XXX
1961 MICROWAVE + OPTICS LAB
1802 XXX
1804 XXX
1800 CORRIDOR
1960 XXX
1960B XXX
1960A XXX
1432 XXX
1436 XXX
1438 XXX
1440 COMM
1400A CORRIDOR
2105 XXX
2100 CORRIDOR
2103 JANITOR
2101A CHRC STOR
2101 CHRC CONTROL RM
2102 CHRC NBL WIND TUNNEL
2402 CHRC NBL MODEL WIND TUNNEL
2404 CHRC MODEL SHOP
2406 CHRC ELEC SHOP
2408 CHRC
2400 CORRIDOR
2525 SMALL WIND TUNNEL
2523E XXX
2523D XXX
2523C XXX
2523 CONFERENCE RM
2523B XXX
2523A XXX
2519C XXX
2519D XXX
2519 CHRC OFFICE
2519B XXX
2519A XXX
2102A CHRC STOR
2517 WOMEN'S RR
2515 XXX
2513 MEN'S RR
2410 XXX
2511 XXX
2500 CORRIDOR
2545 XXX
2943 XXX
2543 XXX
2541 XXX
2540 XXX
2530 XXX
2933A XXX
2526 APEI
2520 XXX
2412 XXX
2911 XXX
2940 XXX
2938 XXX
2936 XXX
2934 XXX
2932 XXX
2939 XXX
2937 XXX
2933 XXX
2933B XXX
2927A LAB
2927 LAB
2900 CORRIDOR
2922 XXX
2920 XXX
2918 XXX
2916 XXX
2914 XXX
2912 XXX
2910 XXX
2908 XXX
2906 SOLAR BOAT
NORTH
1433 VIC
1435 ESS
1437 BDI
1254 CYCLE WOOD
1256 WAY LINK
1258 SBA
1905 BIG
1900 CORRIDOR
1439 BIG
1904A XXX
1904 XXX
1904B XXX
1260 XXX
2401 XXX
2401A XXX
2403 ELECTRICAL
2403A MECHANICAL
2405 APEI
2405B XXX
2405A XXX
2411 USGS
2411A USGS
2411B USGS
2200 CORRIDOR
1263 XXX
1267 XXX
1207A XXX
1207C XXX
1207B XXX
1903 XXX
1261 MEN'S RR
1265 WOMEN'S RR
2000 MECHANICAL
2501 ARI
2201 SILICON SOLAR SOLUTIONS
2203 BRAINWAVE LAB
2205 BRAINWAVE LAB
2221 ENVITREAT
2221C XXX
2221D XXX
2221B XXX
2221A XXX
2223 SPACE PHOTONICS
2225 USGS
ENGINEERING RESEARCH CENTER



DWG LOCATION - - *\ACADDWGS\F0101 ENGINEERING RESEARCH CENTER\CURRENT FLR PLANS\F0101-SMPLNS.DWG LAST UPDATE - - 11/15/2017


DWG LOCATION - - *\ACADDWGS\F0101 ENGINEERING RESEARCH CENTER\CURRENT FLR PLANS\F0101-SMPLNS.DWG LAST UPDATE - - 11/15/2017
4802B LOW TEMP CO-FIRE CERAMIC LAB
4505 PHOTO VOLTACIS
4510 PHOTO-VOLT SILICON PROC LAB
4725 MENS RR
4723 XXX
4721 WOMENS RR
4501 THICK FILM PHOTOLITHOGRAPHY
4500 CORRIDOR
4514 XXX
4700
4818 MATERIALS + MFG RESEARCH LAB
4818D XXX
4818C XXX
4818B XXX
4818A XXX
4826 XXX
4824 XXX
4828B XXX
4828A XXX
4828 XXX
4912 XXX
4912A XXX
3602B XXX
3602A XXX
3334 HOT MIX LAB
3326 XXX
3324 XXX
3316 CRELOK LAB
4802 XXX
4802A XXX
4808 DARK RM
4808A WATER
4802C XXX
4806 COMM
4900A CORRIDOR
4910 CALIBRATION LAB
463A XXX
3602 XXX
4800 CORRIDOR
3322 XXX
3320 XXX
3318 XXX
4115 XXX
4116 XXX
4807 XXX
4809 XXX
4815 ELEC DISTRIBUTION
4819 XXX
4823 XXX
4620 MATERIAL ANALYSIS
4827 XXX
4911 XXX
4316 ELEC CHARACTERIZATION LAB
4606 XXX
4608 XXX
4610 XXX
4614 XXX
4616 XXX
4624 XXX
4909 XXX
4630A XXX
4630 XXX
4636 XXX
3602C XXX
3612 CONFERENCE RM
3303 XXX
3614 XXX
4600 CORRIDOR
4113 XXX
4118 XXX
4317A XXX
4317 XXX
4100 CORRIDOR
4111 XXX
4120 XXX
4313 XXX
4109 XXX
4122 XXX
4311C XXX
4107 XXX
4124 XXX
4311B XXX
4311 XXX
4311A XXX
4105 XXX
4126 XXX
4305 XXX
4103 XXX
4101 HIDEC
4301 XXX
4301B XXX
4301A XXX
4312 XXX
4605 XXX
4605A XXX
4300 CORRIDOR
4308 ARK ANALYTICAL LAB
4308A XXX
4607 NANOMATERIAL + NANOTUBES RESEARCH LAB
4607A ELEC
4617 FOOD PREP
4617A ANIMAL RM
4619 XXX
4615 LAB
4615A TISSUE CULTURE
4615B FLOW CYTOMETRY/ MICROSCOPY
4623A XXX
4623 XXX
4627 XX
4903 XXX
4901 XXX
4906 XXX
4906A XXX
4900 CORRIDOR
4408 STORAGE
3603 ANECHOIC CHAMBER + DESIGN LAB
3615 HIGH SPEED ELEC LAB
3402 ARK MICRO + NANO SYSTEMS LAB
3414 NANO MECH TRIBOLIGY LAB
4403B XXX
4400 CORRIDOR
4407 WOMENS RR
3400 CORRIDOR
4401 COMM
4403 XXX
3407A XXX
3517A XXX
4403A XXX
4405 MENS RR
4208A XXX
3407 XXX
4204 GLASS BLOWING SHOP
3517 CIVIL CONFERENCE RM
3100 CORRIDOR
4208 MECHANICAL MODELING LAB
3202 CUSTODIAL SHOP
3204 ELECTRICAL SHOP
3515B
3515C
3515A
3515 CIVIL ENGINEERING
4202 SHIPPING + RECEIVING
4200 CORRIDOR
3200 CORRIDOR
3201E XXX
3201A XXX
2109 XXX
3201B XXX
3203 LITTLE GREEN WINDMILL INC
4201 CARPENTER SHOP
4207 ZONE B SHOP
3201D XXX
3201 SELVAM
3201C XXX
2100 HC
2105 XXX
NORTH
ENGINEERING RESEARCH CENTER

AC 7500-EZ (Easy)

Cage and Rack Washer specifically designed for medium and large facilities

General description

The AC 7500 series cage and rack washer is a heavy duty, large capacity, hydro-spray, steam or electric heated washer specifically designed to support the throughput of medium and large size facilities.

The compact size and frontal access for servicing allow it to be installed in premises of reduced dimensions.

The AC 7500-EZ (Easy) is standard equipped with a single process hydraulic circuit for recirculated wash and rinse phases and two dosage units. Optional side heated water tanks and separation of wash and rinse circuites are available.

Multiple oscillating spray arms guarantee a complete and continuous coverage of the load and the chamber providing excellent wash results in a short cycle time.

The AC 7500 cage and rack washer features swing doors, operator multi-language touch screen HMI with auto diagnostic checking that constantly monitors and displays status.

The AC 7500 airtight chamber allows the machine to be used as a decontamination chamber for:

- Hydrogen Peroxide
- Chlorine Dioxide
- Chemical fogging
- Thermal disinfection with clean steam

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Standard features

Usable dimension

Door: 1170mmx2150mm (46”x84.6”)
Chamber depth: 2300mm (90”)
Pit depth: 150mm (5.9”)
Customized chamber is available upon request.

External body

Made of 304 stainless steel

Swing door

- Stainless steel AISI 316L washing chamber side, stainless steel AISI 304 external side with inspection windows or full HST glass door
- Fully insulated to reduce heat loss and noise.
- Interlocked doors (double door pass through version).
- The AC 7500 access doors are equipped with integral inflatable gaskets in order to grant the tightness of the chamber in SPF barrier facilities as well as during the decontamination and sanitization cycles.
- Operator safety is guaranteed by two safety cables.

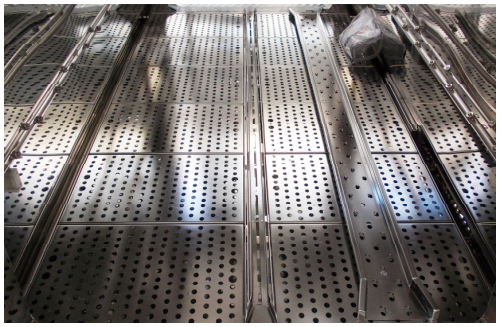
Washing chamber

- The chamber is made entirely of mirrored finished Ra<30µin (Ra<0.8µm) stainless steel AISI 316L.
- Designed and constructed with smooth edges and corners thus removing areas where dirt can accumulate and allow bacterial growth.

Chamber floor

The loading floor is made of AISI 316 stainless steel and composed by sections that can be easily lifted to reach the bottom of the washing chamber for cleaning. It is equipped with adjustable rail guides to match the client cart and racks castor lay out.

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

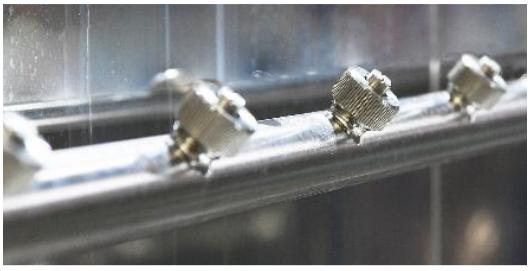


Washing system

Separated washing and rinsing circuits with full stainless-steel spray nozzles to grant full washing chamber/load coverage.

- Washing and rinsing spray nozzles are installed on multiple horizontally mounted oscillating pipes on the two sides of the wash chamber.

  Spray nozzles: **AC 7500/2**: - 52 on each side (104 total wash nozzles).
- Easily disassembled spraying nozzles for cleaning and maintenance.
- Water saving cycle by recirculation of water in the wash phase
- High water pressure for outstanding washing results
- 5.5 kW (7.5HP) process pump to set up the proper pressure for each wash phase, 1100 l/min (290 gal.US/min) flow



Insulation

High performance melamine insulation guards against heat loss and reduces noise level.

Process Temperature control

Double PT1000 temperature probe in the chamber.

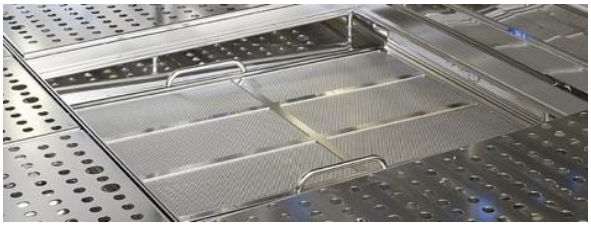
Washing pump pressure check switch

Process control of the wash cycle to ensure result repeatability. The pressure switch is used to monitor the wash pump performances.

Filter system

The AC 7500 is equipped with a multi filtration system made up of 3 different levels; the first two filter stages in the sump and the final one (inline self-cleaning filter) within the water recirculation circuit.

- Filtration system to capture residue during the re-circulation of the wash water and protect recirculation pump from debris with pre- filter and flush self-cleaning filter.
- Filters can be easily removed for cleaning



Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Chamber Light

Internal chamber lights.

Inlet air valve

During the exhaust phase of vapors left in the chamber (both from wash or decontamination cycles), the controller opens the inlet air valve to pull air (through a filter) from the room.

Exhaust air fan

Integrated onboard air exhaust fan to remove hot humid air or decontamination vapors from the chamber.

Self-Start feature

Allow to pre- heat the water in the side tanks at a set time and day.

Electric heating version

As an alternative to the steam heating system the AC 7500 can be equipped with electric heating elements

Chemical dosing

The AC 7500 is standard equipped with two chemical dosage units to dispense chemical products.

- Two peristaltic pumps provide precise addition of liquid chemical agents.
- Flow meters for accurate volumetric dosing.
- Chemical product level check with minimum level warning/alarm.

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Controllers /Touch Screens

- Operator multi-language touch screens (one for each side of the cabinet), Industrial PLC, safety devices are provided as a standard with the AC 7500 cage and rack washer. PLC microprocessor with auto diagnosis function for real time monitoring of the machine installed devices: water level sensors, pressure transducers, temperature probes.
- The panel is equipped with a USB and Ethernet connection for the back-up and restore of the software. The controller comes with a ready to be used connection for the remote service feature and the capability to duplicate the HMI screen on a tablet.

HMI - User interface

- Touch screen control panel color (loading side)
- Touch screen control panel, LCD display (unloading side)
- Complete indication of machine functioning: cycle phase, time, temperature, chemical dosing, water quantity, drying
- Multi password protected security levels
- Possibility of up to 65 storable programs
  - 10 standard preprogrammed, including rodent, bottle, rack and IVC racks.
  - 50 additional for customer setting
  - 5 service programs
- Audible and visual alarms provide quality control for each wash cycle
- Tele-service ready
- E-meter for utilities consumptions
- Tablet connectivity ready

Programming and cycle operation

The user creates unique programs to meet their specified needs. Listed are various phases that can be programmed and repeated into a variety of combinations.

- **Pre-Wash** - User is able to define the length and temperature of the pre-wash phase.
- **Wash** - User is able to define the length of the wash phase, detergent dosing and dosing temperature, temperature of the water, up to 93°C (200°F).
- **Neutralization** - User is able to select the length of the neutralization, the presence and the amount of neutralizer, temperature of the rinse, up to 93°C (200°F).
- **Final Rinse** - User can define the length of the final rinse, temperature of the water, up to 93°C (200°F), presence and amount of rinse aid.

Safety features

Locking Door

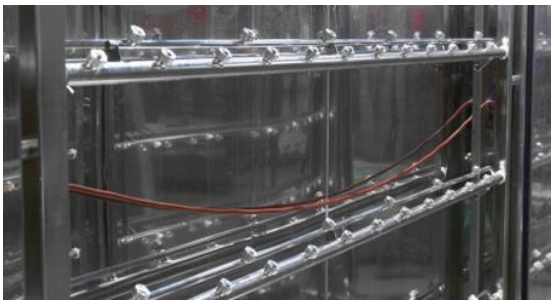
- Prevents interference with wash cycle once the machine is in operation
- Interlocked doors (pass through version)

Main power on/off switch

- Can be used to shut off the power to the control system
- Emergency push buttons on each side of the washer

Double internal safety cable

Safety cable with on each side of the chamber



Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Optional features

Steam heated with electrically heated back up.
In the event that steam supply fails.

Second door
Second door with interlock function - for SPF pass-through application

Chamber customization to fit existing pit

Chamber frame for existing deep pits
Used to adapt an existing pit deeper than the requested 150mm/4".

Double long chamber - with 11KW (15HP) wash pump

Double wide chamber - with 11KW (15HP) wash pump

Upgrade for aquatic tank cycle

The washer is configured with a special hydraulic circuit and 3 peristaltic liquid chemical dosing pumps to perform a dedicated washing and sanitization cycle composed by the following phases:

- Recirculated main wash with the addition of alkaline and peroxide based detergents
- Recirculated neutralization wash (the liquid neutralizer chemical also acts as a rinse aid)
- Recirculated pre-rinse
- Recirculated final rinse at 85°C/185°F

Upgrade for NHP rack

- Wider door and chamber
- 11KW (15HP) wash pump
- Additional vertical oscillating arms
- Side tank to pre-heat water
- Thicker chamber floor
- Pit depth: 250mm (9,84")

Air differential seal
Provides a means of isolating load from the unload ends of the washer. An isolation flange is welded to the full circumference of the washer. Penetrations through the flange for electrical and piping components are secured with vapor proof fittings.

Flange for modular walls
Two or three sides L shaped flanges to connect the separation wall to the washer frame

Tilting floor
Tilting floor to facilitate the dripping of water from the load. Available for both standard or double chamber.

Exhaust damper valve
Interception valve between the chamber and the building exhaust duct

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Water discharge cooling down system by injection of cold water on the drain line

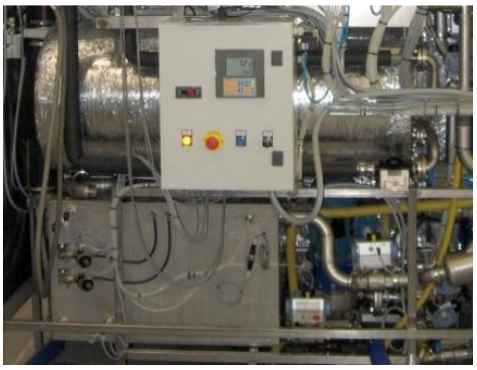
Hot water coming from the unit is mixed with cold water from the building

Water discharge cooling down in a drain tank with control of the water temperature

Fully integrated water treatment system to cool down the effluent water temperature below a set value (typical set point <60°C/140°F).

Water discharge cooling down system and PH neutralization

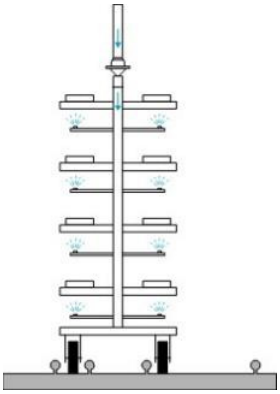
Fully integrated water treatment system to cool down the effluent water temperature below a set value (typical set point <60°C/140°F), and to adjust the effluent water PH value within a set range (typical values 6<PH<).



Connection to bottle cart (semi-automatic)

Connection to bottle cart (automatic)

Patented manifold system for trolley docking with spray arms available. The controller by means of a quick lock coupling, automatically connects the trolley to the wash and rinse circuit. The right solution to wash bottles in the AC 7500



Steam condenser for non-vented application

Steam condenser installed at the top of the chamber to condensate the vapors existing the chamber during the wash cycle.

Steam condenser with heat recovery system

Steam condenser installed at the top of the chamber to condensate the vapors existing the chamber during the wash cycle and pre-heat the building incoming water used to fill the rinse tank

Flushing for rack auto watering piping

This option allows to hook up the racks water manifold to the machine fresh flushing hot filtered water in order to flush the manifold and dispensing valves.

Non recirculated rinse

Hydraulic piping and dedicated rinse pump to perform a non- recirculated final rinse.

Wash and Rinse circuits separation

Hydraulic piping to separate wash and rinse circuit.

Side tank to pre-heat the water

AISI 316L stainless steel side tank to reduce the cycle time.

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)

Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com

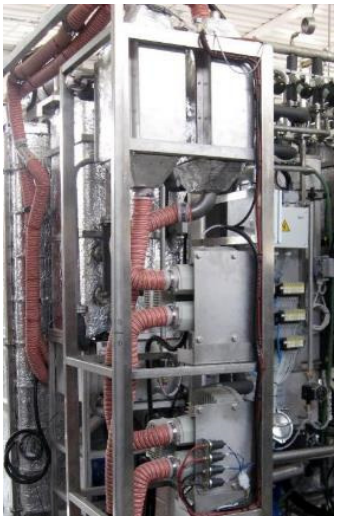
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Heat Exchanger for cooling drain water and pre-heating load water

For energy saving purposes, a heat exchange tank can be fitted on the machine roof or on the side of the chamber. The hot water collected from the sump, before being drained, is processed throughout the exchanger. Then the heat is partially released to the cold water used to supply the rinse tank and to decrease the effluent water temperature. The main aim is to increase the inlet water temperature alternatively recovering the loss of heat via the hot water drain process.

Electrical drying system with blowers

Loads are exposed to a hot air flow system to assist in the drying of exposed surfaces. The hot air is provided by electric to air heating elements. The chamber temperature is raised up to 110 °C (230°F).



Steam drying system with blowers

Loads are exposed to a hot air flow system to assist in the drying of the exposed surfaces. The hot air is provided by steam to air heating elements and blower arrangement capable of achieving a chamber temperature of up to 110 °C (230°F).

Additional dosing unit for rinse aid or disinfectant

Dedicated dosing units can be added to inject a rinse aid (anti spotting agent), a disinfectant or a neutralizer within the rinse circuit before the nozzles.

The main purpose of a rinse aid pump is to reduce the amount of water laying on the cage surface after the rinse process.

The main purpose of a disinfectant pump is to add a chemical disinfection action (typically for the first 5" of the rinse phase) to the cleaning process.

The main purpose of the neutralizer pump is to add a neutralization step (typically after an alkaline phase) to the cleaning process

Remote dosage unit kit

The remote dosage unit kit can be positioned from the machine at a maximum vertical distance of 5m or horizontal of 15m. (Straight line assumed). Customized options on request.

Conductivity meter for wash tank

To measure the conductivity of the wash solution in the side tank.

Decontamination with Steelco H_2O_2 onboard generator.

The Steelco AC7500 can be used to decontaminate heat-sensitive load using hydrogen peroxide.

The vapor-Phase Hydrogen Peroxide (VPHP) generator is integrated in the technical area of the washer.

This option includes:

- Connections from and to the VPHP generator
- Software and wiring interlink feature between the AC 7500 and the generator
- Preset decontamination cycle
- Exhaust duct connection for the H_2O_2 removal at the end of the cycle
- Interception valves (damper for the exhaust lines in order to seal the chamber during the gassing phase).
- Sensors to control all the valves status connected to the chamber.
- Internal chamber IP 67 plug.

Decontamination with external generator

Due to its air tight construction the AC 7500 can be used as a decontamination chamber. This option allows the AC 7500 to be connected to a hydrogen peroxide vapor generator in order to run a decontamination cycle.

This option includes:

- Clamp connection to the in/out generator hoses,
- Software and wiring interlink feature between the AC 7500 and the generator

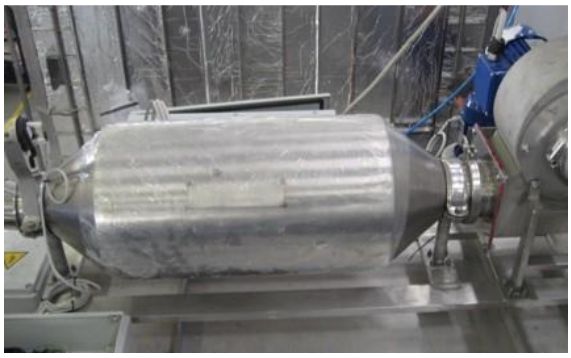
Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

- A dedicated decontamination cycle
- Exhaust duct connection for the vapors removal at the end of the cycle
- Interception valves (damper for the exhaust lines in order to seal the chamber during the gassing phase),
- Sensors to control all the valves status connected to the chamber.
- Internal chamber IP 67 plug.

As an alternative to the H_2O_2 vapor generator the AC 7500 can be connected to a chlorine dioxide generator.

Catalyzer filter for H_2O_2 with fast aeration.

The catalyst filter is designed to catalyze the H_2O_2 gas to break it down into safe substances. The catalyzer filter allows a fast aeration of the chamber avoiding the need of a dedicated and airtight ductwork.



Chemical fogging

Due to its air tight construction the AC 7500 can be used as a chemical fogging chamber to decontaminate not autoclavable loads by spraying of a chemical surface-disinfectant.

Sensor for chamber leakage detection (used at the beginning of the cycle to check tightness of the chamber)

The chamber is pressurized to a set value. The pressure value is kept under control for a specific time to assess the chamber tightness before starting a decontamination cycle.

Sensor for checking the vapor concentration into the chamber (door opening is not allowed if H_2O_2 concentration is still high into the chamber)

A concentration H_2O_2 sensor check the ppm inside the chamber during the aeration phase allows the doors to open only when the detected ppm is below a set value. The sensor is connected to the chamber by an interception valve.

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)

Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com

Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Connection for direct pure steam injection

Connection to pure (or filtered) steam line to saturate the chamber with clean steam through a dedicated pipeline provides thermal disinfection at the end of the wash cycle, according to the British Standard 2745 (HTM 2030). The temperature inside the chamber is increased to 90°C/ 195°F and held for a set time. This option will also enhance the dryness of the cages and carts. A kit steam filtration (3 levels) can be added when clean steam is not available in the facility.

On board thermal printer

The on board thermal printer for data registration can be located either on the dirty or the clean side.

Volt free contact

Internal plug

Internal chamber IP 67 plug.

Multicolor lighting of the washing chamber

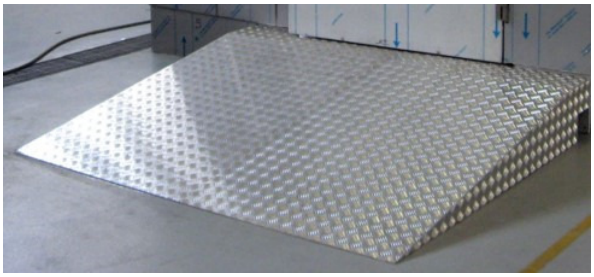
Internal chamber colored LED light/lights. The color of the illumination varies according to the phase of the process cycle. Number of lights depending on the size of the chamber.

SteelcoData View

Cycle traceability software provided with 1 USB dongle for the connection of up to 15 Steelco devices to one pc. This option requires the PLC.

Loading / Unloading ramps

Ramps to load and unload the rack into the chamber for AC 7500 installation without pit.



Lifting Platform

Lifting platform for floor level trolley loading on AC 7500 machines installed without pit.

Air compressor

Racks and carts

A large variety of loading trolleys for cages and bottles is available.

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832

Construction

The machine has been designed to be disassembled into sections for entry into existing building

Validation support documentation and services

Installation Qualification and Operational Qualification (IQ/OQ) testing can be executed at customer site.

Steelco S.p.a. - VIA BALEGANTE, 27 – 31039 RIESE PIO X (TV)
Tel. 0039 0423 7561 Fax 0039 0423 755528 www.steelcospa.com e-mail: steelco@steelcospa.com
Capitale sociale Euro 3.000.000,00 i.v. C.F., P.IVA e Numero Registro Imprese di Treviso: 04311220265 REA TV 339832